International Series on Consumer Science

Dominika Maison

The Psychology of Financial Consumer Behavior

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Dominika Maison

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Dominika Maison
Faculty of Psychology
University of Warsaw
Warsaw, Poland

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Preface

When talking to economists, one can often hear the differences in financial behaviours between people being explained by their material situation: people spend more money, buy more expensive products, and have bigger savings when they make more money. This seemingly simple relation is true when looking at it from a macro perspective and the observed statistical dependencies, but it is no longer true when approaching it from an individual perspective of a single person. It then often turns out that among any two people with similar earnings and a similar life situation, one person will have no qualms or issues with spending money, while the other will find it painful to spend even the smallest amount of money. Something that can explain these differences is that financial behaviours, apart from the level of finances held, depend on many social and psychological factors like, for instance, a person's general approach to life, their level of optimism, sense of control over their life, relation to money, level of materialism, and money spending style.

The aim of this book is to take a closer look at the nonfinancial and mainly psychological factors explaining and determining attitudes towards finance and financial behaviours. The results of numerous studies will be presented in this book, demonstrating that the ways in which people behave in the area of finance (e.g. having savings, debts, or possession of a bank account and use of a card) are dependent on their financial resources only to a certain extent (if they have surplus money or not – economic perspective). In many places throughout the book, there will be analyses showing that if, apart from demographic variables and income, psychological factors are taken into account when examining the drivers of various financial behaviours, the significance of demographics and income either ceases or clearly drops.

The first chapter of the book reviews research on unconscious and automatic consumer behaviours (from the perspective of behavioural economics and social cognition) and studies showing the significance of different psychological variables when explaining financial behaviours, which are both non-specific (not related to finance), like conscientiousness, neuroticism, and self-control, and specific (related to finances), like attitudes towards money, money spending style, and materialism. It also presents a seven-segment consumer typology in terms of people's financial attitudes and behaviours, which will serve as a reference point for various financial behaviours and attitudes identified further on in the book. Chapter 2 will be dedicated to finding the answer to the question of what makes people content with their finances: their objective financial situation or its perception and general approach to life? An important issue appearing in this chapter is the dependency between the material situation and satisfaction with life (sense of happiness), and answers will be provided to the common question of "can money buy happiness?" or is the opposite true – perhaps life satisfaction has wealth-inducing powers.

The next two chapters (Chaps. 3 and 4) will concern the things that people normally do with their money: how they spend it, where and how they keep it, and if they save or invest it? Curbing spending may be motivated by several factors, not just financial limitations (not having enough money), but also by psychological determinants, like some people having a smaller tendency to cut back on consumption while others having a greater propensity to spend money, regardless of their objective situation. A new concept of money spending styles is also introduced in this chapter, identifying four styles: Thrifty Spending, Belt Tightening, Happy Spending, and Spendthrift, which helps explain different financial behaviours. Chapter 5 is devoted to creating debt and paying off debt, which, contrary to popular belief and the frequent explanations provided by debtors themselves, is also more dependent on psychological factors than demographic and financial ones (income). Another segmentation is introduced in this chapter, this time of borrowers, showing five types of consumers in terms of the motives underpinning indebtedness and the approach to debt repayment: Forgetful, Indebted for Others, Carefree, Lost in Finances, and Avoiders.

The last chapter is a response to the dynamically changing banking situation around the world, where people entering the banking system have convenient and easy access to all the available solutions and facilities that it brings (e.g. cashless transactions, online banking, and mobile banking). There are huge differences in the level of banking between countries, where only a small percentage of residents actually have a bank account in some (e.g. Pakistan – 11%), while in others, the majority not only has an account but has also reached the highest level of banking of nearly fully cashless behaviour (e.g. Sweden). This chapter presents a hierarchical model of banking service use with seven levels of adoption to cashless transactions and introduces the Love for Cash concept reflecting physical money worship, which is one of the greatest (alongside the fear of technologies) barriers to banking and to advancing towards cashless financial behaviour.

This book is the outcome of decades of my research into financial issues, which has been both scientific (e.g. funded by the Polish National Science Centre (NCN), grant no. DEC-2013/11/B/HS6/01163) and commercial, commissioned by numerous financial institutions in Poland and around the world, alike. One example is the multi-annual project comprising dozens of studies on the level of banking usage of Poles that I carried out for the National Bank of Poland. The goal underlying this research was a large project aimed at changing the financial behaviour of Poles to more intensive cashless behaviour. The understanding of psychological (and often unconscious) factors underlying such behaviour that was gained through this research made it possible to conduct a highly successful social campaign. Also, a key source of inspiration and knowledge concerning financial behaviours in this book came from the financial marketing research conducted under my supervision for many local and global financial institutions, e.g. Citibank, ING, Aviva, Alliance, Credite Agricole, Nordea Bank, Wonga, and Mastercard, and for services companies, like Universal McCann, Hill & Knowlton, and PwC.

Warszawa, Poland Dominika Maison

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About the Author

Dominika Maison – professor at the University of Warsaw, dean of the Faculty of Psychology, and owner of the marketing research company Maison&Partners. She is co-creator of study direction “Economic psychology”. Her main scientific research is connected to unconscious consumer processes, economic psychology, consumer responsibility, and methodology of marketing research.

In addition to academic work at the Faculty of Psychology at the University of Warsaw, from the early 1990s, she is engaged in marketing research and successfully combining science with practice. Next to her academic work, she is involved in several activities related to business. In 2005, she founded a market research company *Maison&Partners* specialised in strategic and financial research. She is cooperating with financial institutions (e.g. banks, insurance companies) conducting marketing researches, helping with creating brand strategies, and introducing new products. She is an expert of the National Bank of Poland involved in building national strategy to promote “cashless behaviour”.

Dominika Maison is the author of numerous publications in journals and books (e.g. Qualitative Marketing Research. Understanding Consumer Behaviour). She gave nearly 100 conference presentations. She is regularly invited to radio and television as an expert on financial behaviours, consumer psychology, and marketing research.

In 2003–2008, she was the president of the Polish Society of Market and Opinion Researchers (PTBRiO); in 2009–2013, she was an ESOMAR representative for Poland – the largest international organisation dealing with opinion and marketing research (European Society for Opinion and Marketing Research). She is a member of the SCP (Society for Consumer Psychology), QRCA (Qualitative Research Consultants Association), ACR (Association for Consumer Research), and IAREP (International Association for Research in Economic Psychology).

Chapter 1
The Psychological Perspective in Financial Behaviour

1.1 Changes in Looking at the Human Being and Its Consequences for Understanding Financial Behaviour

Financial behaviours, for instance, whether somebody is saving, is in debt, or has insurance, have been long explained in economy, assuming a simple dependency between the level of income (or a more broadly understood material situation) and these behaviours. The assumption that was made was that the higher the income, the more savings or insurance held or lower the debt (Antonides, de Groot, & van Raaij, 2011; Brounen, Koedijk, & Pownall, 2016; Yoon, La Ferle, & Edwards, 2016). These studies revealed correlations, but they usually were not high and explained only a small percentage of the variance in the results obtained (Furnham, 1985; Lunt & Livingstone, 1991). This means that many other factors are responsible for financial behaviours than merely the finances that a person has at their disposal. In the search for other, nonfinancial explanations for these behaviours, researchers were first and foremost interested in socio-demographic factors like sex, age, level of education, or the social status of a person (Cronqvist & Siegel, 2015). The results of these studies, too, unfortunately show a relatively inconsistent picture of results and are not sufficient to explain financial behaviours.

The times when a person's economic behaviours were approached from the perspective of finance and demography are, thankfully, long gone (Kahneman, 2011; Simon, 1987; Thaler, 2016). We now know that many financial decisions are largely dependent on nonfinancial influences as well as situational factors and individual features of personality (Donnelly, Iyer, & Howell, 2012). Interest in the nonfinancial factors of economic behaviour has drawn economy closer to psychology and triggered a growing interest among scientists on the borderline of both these fields, behavioural economics and economic psychology, as well as in interdisciplinary research on these issues.

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1.1.1 From Full Rationality to Biased Decisions: Behavioural Economics

The popularity of the psychological perspective in economics started in the 1960s. American economist Herbert Simon, who studied the decision-making processes in light of psychological knowledge (particularly in the field of cognitive psychology and information processing), introduced the "bounded rationality" concept into economics, which stood in opposition to neoclassical economics theories. In 1978, Herbert Simon was awarded the Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel (referred to as the Nobel Prize in economics) for his research on the theory and process of decision-making within economic organisations (Simon, 1987). The popularity of the approach that introduced psychology into economics, and particularly of the term "behavioural economics", has grown immensely with the award of the next two Nobel Prizes in economics to Daniel Kahneman and Vernon Smith in 2002 and to Richard Thaler in 2017. The behavioural economics perspective researching the cognitive and emotional aspects of human functioning affecting economic decisions has revealed the human person with his/her thinking traps and decision-making biases. It made economists (and not only them) aware of the limitations of human cognitive abilities resulting from cognitive biases and heuristics, which characterise thinking and decision-making processes (Goldstein & Gigerenzer, 2002; Miller, Amit, & Posten, 2015; Smith, 2005). Most of all it revealed that a human person is not as rational as neoclassical economics assumed (Angner & Loewenstein, 2012; Thaler, 2015; Tversky & Kahneman, 1981).

Research in the field of behavioural economics has also revealed how significant an impact the situation and the context can have on the modification of human behaviours and choices (Gordon, 2011; Samson, 2017; Thaler & Sunstein, 2008). The context may, for instance, affect the perception of the same amount of money as either high or low (e.g. depending on if it was received or earned), the readiness to spend various amounts on the same product (e.g. depending on the place of purchase), and the perception of the attractiveness of a price discount of the same monetary value. The research by Tversky and Kahneman (1981), now considered among the classics, concerned the relative perception of the same discount amount relating to the initial price of the product. Depending on the experimental condition, the respondents were presented with a purchase situation of one of two products: a calculator or a jacket. The persons put in the situation of buying a calculator that cost $15 found out from the vendor that the same product is available in a different store 20 minutes away and at a promotional price of $10. In this case, 68% of respondents decided to make their way down to the store that was further away in order to save $5. In the second condition, which involved buying a jacket for $125, the respondent was told, just like in the first situation, that the same product is available in a store 20 minutes away and costs $120 there. This time, only 29% of the persons said that they would be ready to make their way down to get a cheaper jacket. In both cases, the product was $5 cheaper, but in the first case, the amount was 1/3 of the price, and in the second, it was 1/30 of the price. What differed in both these situations was the price context of the purchase, where the relative value of the discount affected the subjective perception of its value. Kahneman and Tversky (1979) explained these findings in light of the prospect theory formulated by them. According to this theory, people solve decision-making problems differently, depending on whether they are presented from the perspective or gains or losses. This is why the same amount may not be perceived in absolute terms and identically in every context. For example, the same amount is perceived differently depending on whether it is lost (e.g. lost or stolen) or gained (e.g. found on the street or earned in a lottery). The negative feelings accompanying a loss of the same amount are usually stronger and more painfully felt than the joy felt in the situation of a gain (Kahneman & Tversky, 1979).

In another experiment showing the dependency between the value of money and the situational context, the participants were confronted with a hypothetical situation in which they were meant to imagine that they are lying on a beach on a warm day, and the only thing they need to be truly content is their favourite chilled beer (Thaler, 1985). Their friend offers to bring them the beer but warns that it may be expensive, which is why they're asking how much that person is willing to pay for it. The study had two experimental conditions that differed only in terms of the place from which that friend was meant to get the beer (i.e. only their situational context differed). In one condition, this was a bar in a luxury hotel, and, in the other, a small grocery store. One might think that the maximum amount set by the respondent should be dependent on how much they want to drink this beer or the money they have at their disposal. It turned out, however, that what was significant was the place of purchase. Respondents were willing to pay on average $2.65 for the beer from a hotel and $1.50 for the same beer bought at a store. From the point of view of classic economics, the place of purchase (context) should not have a bearing on the acceptance of a price for the same product, but, as can be seen, in reality it does have a major impact. The paradox of such situations is that the consumer may deny him−/herself of some pleasure just because the purchase "is not worth it" in a given context. Surely, a holidaymaker who would be willing to pay $3 for a beer from a hotel, and only $1.50 for a beer from a grocery store, is losing out on enjoying his/her favourite beer if it costs $2.5 at the grocery store.

Another phenomenon observed by behavioural economists which may lead to not always rational decisions of spending a relevant amount or keeping oneself from spending it is the subjective transaction utility, in other words, the conviction that a given purchase decision is a good or a bad deal. Consumers sometimes purchase certain things just because it is a good deal. In practice, however, such a "good deal", despite being beneficial from an economic point of view, often is a bad decision from a subjective perspective, that is, the preferences and needs of the person making the purchase. Thaler (1999) gives a funny anecdote illustrating such a beneficial decision from an economic point of view but an unfavourable choice from the point of view of a given person. He describes his friend who wanted to buy a drape to throw over her sofa. In one store, she found a discounted drape in three different sizes, which originally cost $200, $250, and $350, respectively, and now each cost

$150 in the promotion. She bought the largest drape and was very happy with her "smart" buy (biggest discount). From an economic point of view, her choice really was the best as she had saved the largest amount of money. However, from the angle of subjective utility, she chose the worst option because the largest drape was far too big for her sofa and trailed along the floor.

The study by Hsee and colleagues illustrates this perfectly (Hsee, Yu, Zhang, & Zhang, 2003). The participants in the experiment had to select one of two comparable tasks (one was shorter and would take 6 min; the other was longer and would take 7 min), and they differed in the amount of compensation: they could get 60 points for 1 and 100 points for the other. They were also informed that these points are of no value apart from the fact that 60 points could be exchanged for a box of vanilla ice cream and 100 points for the same size pistachio ice cream. Most people opted for the task worth 100 points, even if they actually preferred vanilla ice cream. The participants focused on the nominal amount of points and chose the option that guaranteed the most points for them (seeming to be the "better deal"). What was paradoxical in this situation was that the point-focused consumers were actually ignoring the consumption experience, which led them to go for the less beneficial option from the point of view of their subjective utility (taste preferences).

These several examples of studies in the field of behavioural economics give a very good picture of the thinking traps that could influence the financial decisions taken. Understanding these mechanisms also helps to gain an insight into why a given person may choose a less favourable credit offer, a bank account with a worse interest rate, or an inappropriate financial product for them (just like in the ice cream coupon example). It also shows human behaviours (financial, too) in the broader context of the interactions between situational factors (context) and the functioning of the cognitive system (e.g. cognitive biases).

1.1.2 From Rational to Nonrational, from Controlled to Automatic Reactions: The Psychology of Social Cognition

The results of experiments conducted in the field of behavioural economics are consistent with what psychology has been demonstrating since the 1970s, namely, that human decisions and behaviours are often automatic and unconscious in nature. The evidence supplied by psychology in the area of *social cognition*, combining the psychology of emotions, social psychology, and cognitive processes, has allowed the assumptions on the rationality of many decisions, including consumer and financial ones, to be revised. One such hard-and-fast pieces of evidence for the existence of unconscious processes is the mere exposure effect (Zajonc, 1980), which reveals that a person is not always aware of why they feel good about certain things and why they like the things they like. Another piece of evidence from the field of psychology for the significance of unconsciousness in decision-making processes are the studies on unconscious information processing and, most of all, on suboptimal stimuli (Murphy & Zajonc, 1993). These studies revealed that the human mind may receive stimuli presented below the threshold of conscious perception (approx. 4 ms), which are not visible on the conscious level. What is important, however, is that stimuli, which are not consciously registered by the brain, may affect human feelings, choices, and behaviours (Berridge & Winkielman, 2003; Winkielman, Berridge, & Wilbarger, 2005). Peripheral stimuli, which differ from suboptimal stimuli in that they are exhibited above the threshold of consciousness, hence, they can potentially be noticed but are, nevertheless, not consciously seen by the person, have a similar influence on a person (Innes-Ker & Niedenthal, 2002; Niedenthal & Showers, 1991). The action of peripheral stimuli can be explained using the economics of the cognitive system. Whenever a person is surrounded by a great many stimuli, the cognitive system has to concentrate to sift through and select them and, consequently, process stimuli of greater significance on the conscious level, bypassing the less important ones.

More arguments for the existence of automatic and unconscious processes stem from the field of study on attitudes. For many years, the most dominant approach to attitudes in psychology and sociology was the tri-element theory (Ajzen & Fishbein, 1980; Allport, 1954), which assumed that attitudes are made up of closely interrelated components: cognitive (what a person thinks), emotional (what a person feels), and behavioural (how they behave). Moreover, it assumed that person is conscious of his/her attitudes. Aside from its popularity, this approach was strongly criticised, especially because of the weak correlations between the components of attitudes and the weak relationship between attitude and behaviour (Kraus, 1995). In consequence, researchers looked to find new attitude concepts that would provide a better explanation for the many doubts in this field. In the new approach to attitudes, attention was paid mainly to the unconsciousness of attitude sources (Murphy & Zajonc, 1993; Zajonc, 1980) and to their automatic (Bargh & Chartrand, 1999; Chartrand et al., 2008) and dual nature (Chaiken & Trope, 1999). The dualism of attitudes assumes that the same person can concomitantly have two different attitudes towards a specific object: one that is conscious and one that remains outside the scope of consciousness. Anthony Greenwald and Mahzarin Banaji (1995) introduced the concept of implicit attitudes to psychology (in differentiation from classic, explicit attitudes). Implicit attitudes were defined by them as “introspectively unidentified (or inaccurately identified) traces of past experience”, which can affect reactions and, importantly, even when these experiences are not remembered or accessible on the conscious level, which strongly implied its unconscious and automatic character (Greenwald & Banaji, 1995).

“Hard” evidence for the existence of unconscious processes has been provided from the field of neurobiology, which has shown that emotions may appear before a conscious cognitive reaction (LeDoux, 1996). The research of Joseph LeDoux (1996) has revealed that there are direct links in the brain between areas where stimuli representations appear and areas responsible for affective reactions (amygdala). As a result, the affective reaction to the stimuli may appear in a manner completely bypassing cognitive processing.

As can be seen in the above examples, the vision of a human person that was dominant in 1950s psychology, which first posited hypotheses and then empirically verified them (Peterson & Beach, 1967), approaching a human person by analogy to computers, now belongs to the past. In its place, increasingly more attention is being given to unconscious, automatic processes in decision-making. Some psychologists even claim that a person does not check the hypotheses formulated by them but merely confirms them through a selective perception of the relevant arguments, which are consistent with the posited hypothesis, and that the search for information is conditioned by the gathering of arguments confirming the aptness of unconsciously and automatically made decisions (Benson, 2016; Dijksterhuis & Aarts, 2010; Goldstein & Gigerenzer, 2002).

Knowledge of the unconscious processes stemming from psychology and behavioural economics alike has two important consequences for financial behaviours. Firstly, it is important in order to understand them – why people manifest certain types of financial behaviour and not others and why they often behave inconsistently (say one thing, but do something completely different). Secondly, it is significant in the context of applied research methods for studying financial behaviour. Not everything that respondents say within research about the reasons for their behaviours has to be their true motive. It may sometimes only be a declaration, or the respondent wants to give a certain impression to the researcher (self-presentation bias; Baumeister, 1987), but more often the respondent him/herself is actually unaware of the causes of their behaviour (Maison, 2018). This is why it is crucial in research aiming at understanding why humans behave in a given way in the context of finances to go beyond the declarations and harness various available research methodologies, including those that can glean the things which a person is not always conscious of (e.g. experiments or in-depth qualitative methods; Maison, 2018). This has to be borne in mind when conducting studies aimed at understanding (and not only observing) financial behaviours and getting behind their underlying motives.

The above examples from the fields of psychology and economics (in particular behavioural economics) undoubtedly reveal that many decisional processes are automatic and unconscious, which also applies to financial behaviours (Bucciol & Zarri, 2017; Dhaoui, 2015). Knowledge of the automatic and unconscious processes is of great importance for this book. Despite this not being a book about behavioural economics or consciousness, keeping these mechanisms in mind is imperative to understanding the psychological substrates of financial behaviour that are discussed herein. When considering the reasons for various financial behaviours further on in the book, it is worth remembering that not everything in people's financial behaviour is obvious or always consistent with the declarations of respondents and also not always how economists would like to see them (Table 1.1).

Table 1.1 Psychology-based nonfinancial factors influencing financial behaviours

Type	Field	Consequence for financial behaviours
Situational factors (context)	Behavioural economics	A person does not always behave rationally, and depending on external conditions (e.g. the way in which an offer was presented), the same person can behave in different ways
Individual factors – cognitive skills	Psychology/ behavioural economics	People differ in their cognitive abilities (e.g. memory, susceptibility to cognitive biases, analytical skills, and calculation skills)
Individual factors –psychological, non-specific (not connected to finances)	Psychology (personality traits)	Different people can behave in different ways in the same situations, depending on their dispositional traits (e.g. their level of neuroticism, sense of entitlement)
Individual factors – psychological, specific (not connected to finances)	Psychology (attitudes, beliefs)	People differ in their attitudes towards various financial phenomena (e.g. in relation to banks, saving, and investing), and the fact that a given attitude is positive or negative may modify the actions undertaken by them (e.g. materialism or the susceptibility for impulse buying)

1.2 Individual Differences in Financial Behaviour

As can be seen from the studies presented at the beginning of the chapter, both wages and socio-demographic variables do not suffice to explain the full variability of financial behaviours. What may be of help in understanding human financial behaviours and giving them a more complex picture are psychological individual characteristics, which determine the specific ways of perceiving the world. One consequence of such individual differences between people is the appearance in the same situations of various different reactions in persons characterised by specific individual traits. Economics definitely shows much less interest in individual differences, while behavioural economics completely bypasses them. Nevertheless, interest in psychological traits in the context of explaining economic behaviours has been growing for some time, and studies showing how different economic behaviours are conditioned by dispositional traits, mainly personality traits, are appearing more often (although still sparsely). The implications of individual psychological traits for economic outcomes are starting to spur growing interest mostly in the field of explaining such phenomena as saving, getting in debt, or investing (Caliendo, Fossen, & Kritikos, 2012; Heineck & Anger, 2010; Sekścińska, Maison, & Trzcińska, 2016; Sekścińska, Rudzińska-Wojciechowska, & Maison, 2018a, 2018b).

Individual traits which researchers deal with may be non-specific or specific in nature (see Fig. 1.1). The non-specific traits are ones that are not related to the studied area, which in this case is finance. They include various psychological traits, mainly personality traits or temperament (e.g. extraversion, neuroticism, susceptibility to risk taking, optimism), but they can also include characteristics associated with the functioning of the cognitive system (e.g. memory, logical thinking, and

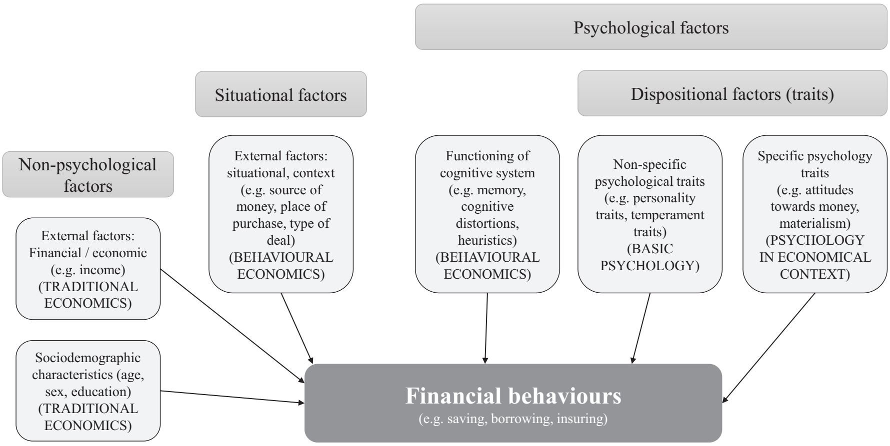

Fig. 1.1 Factors affecting financial behaviours

decision making style). Specific traits, on the other hand, are ones which, in this case, are linked to financial issues and may include attitudes towards money, banks, and insurance; they can also comprise individual dispositional traits like materialism or the susceptibility to making impulse purchases. The question that arises at this point concerns the impact that psychological traits have on financial behaviours compared to the classic financial (income) and socio-demographic variables that are taken into consideration. Moreover, to what extent do non-specific traits (e.g. personality) have a direct influence on financial behaviours, and to what extent is their impact mediated by specific individual characteristics, more directly related to finance? These are the two most important questions in this book.

1.2.1 Psychological Non-specific Traits: Big Five

Initially, researchers interested in individual determinants of economic behaviours were largely focused on the most classic five-factor theory of personality known as the "Big Five trait taxonomy" (from the Big Five Personality Model; Costa & McCrae, 1992a; McCrae & Costa, 1989). This model identifies five key personality dimensions (traits): conscientiousness, extraversion, agreeableness, neuroticism (vs. emotional stability), and openness to experience (Costa & McCrae, 1992b). This is a hierarchical model of personality, which means that each of the five main dimensions still has a lower hierarchy of traits, with each dimension containing six facets. Thus, agreeableness comprises, among others, modesty, straightforwardness, and altruism, while conscientiousness also includes dutifulness, self-discipline, and deliberation.

The underlying premise of this personality theory is that personality traits are internal dispositions to behave in a certain way. This means that persons with a large intensity of a given trait (obtaining a high score in the questionnaire) will behave differently from those with a low intensity of the given trait in terms of behaviours associated with it. For instance, a person with a high score in the agreeableness dimension will be understanding and helpful, while someone with a low score will be reluctant to cooperate and suspicious. Going a step further, personality traits are often an explanation of why people behave in a certain way. Hence, the popularity of personality trait measurement in the context of various areas of human is functioning. The Big Five model is successfully used in management theories where the relationships between personality traits and professional efficacy or with individual behaviours within organisations have been shown (Barrick & Mount, 1993; Consiglio, Alessandri, Borgogni, & Piccolo, 2013; Mount, Barrick, & Stewart, 1998). Another area is marketing, where the relationships between the dimensions of personality from the Big Five model and consumer behaviour have been investigated, like its links to brand perception, preferences, and choices (Mulyanegara, Tsarenko, & Anderson, 2009; Sirgy, 1985; Westfall, 1962). In one study, the relationships between the personality profile of the consumer and the preferred brand with a similar brand personality profile were examined (Mulyanegara et al., 2009). It turned out that consumers with a high intensity of the conscientiousness dimension preferred more "trusted" brands, whereas consumers with a high intensity of extraversion inclined more towards "sociable" brands, which shows a certain fit of the preferred brand personality to the personality profile of the consumer. However, this relationship was observed only for some of the Big Five traits. Looking at the results of other research using the Big Five personality model to foresee consumer behaviour, it turns out that these studies do not give conclusive results and the predictive power of consumer personality on brand preference is rather weak (Shank & Langmeyer, 1994). Other individual traits like values and even demography can better explain consumer behaviour, particularly brand selection, than the classic five-factor model of personality (Costa & McCrae, 1992a, 1992b; McCrae & Costa, 1989; John & Srivastava, 1999).

The Big Five concept is enjoying rising interest among researchers of financial behaviour and, at the same time, is probably the most frequently implemented model of personality in this field. The first area where explanations were sought for financial decisions taken in light of this theory was the behaviour of stock market investors. Studies conducted in many different countries revealed that different individual characteristics might explain the functioning of individual stock market investors along with their propensity for risk-taking. They included such traits as overconfidence and ambiguity aversion (Ahmad, Hassan, Mahmood, & Aslam, 2016). Financial and investment risk-taking propensity is also encouraged by creativity, which is a component of openness to experience (Erbas & Bas, 2015). The analysis of investor behaviour on international markets (Angellini & Cavapozzi, 2017) revealed that dispositional optimism and certain facets of Big Five personality traits have an effect on financial decisions. Optimism (also linked to emotional balance) is significantly and positively related to stock ownership and the share of wealth invested in stocks, particularly in persons with a tolerance for risk and low trust in others (component of agreeableness). Optimism also encourages risky financial behaviour, while risk avoidance (component of conscientiousness) – a low level of trust and no social interactions (component of extraversion) – discourages such behaviours.

The research of Brown and Taylor (2014) revealed that certain personality traits from the Big Five taxonomy are linked to the amount of unsecured debt and holdings of financial assets in a household. Extraversion and openness to experience are generally very strongly correlated with personal finances: extraversion with the levels of debt and openness with holding assets. Conscientiousness, however, is negatively correlated with the level of debt. Other studies revealed that the combination of agreeableness with cynical hostility and anxiety significantly contributes to risky financial behaviours (Bucciol & Zarri, 2017).

Also in the area of everyday financial management, the Big Five concept has contributed considerably to understanding what underlies good money management. The findings of various studies have revealed that conscientiousness is the most significant trait in this context. Persons with a higher level of conscientiousness are characterised by greater self-control and, consequently, are clearly much better at managing their finances. Such persons are more disciplined and responsible, which is reflected in their financial behaviours. They deliver on their financial commitments, have greater control over their expenses, and do not take risky decisions. Furthermore, they are more effective at saving (Brandstatter, 1996; Donnelly et al., 2012; Wärneryd, 1996; Webley & Nyhus, 2001) and have a smaller tendency to get in debt (Webley & Nyhus, 2001). In other words, conscientiousness is conducive to better management of finances. Neuroticism (i.e. emotional instability), however, foresees a propensity to incur debt (Webley & Nyhus, 2001) and to compulsive buying (Brougham, Jacobs-Lawson, Hershey, & Trujillo, 2011; Dittmar, 2005).

Unfortunately, not all research using the Big Five model reveals a coherent picture of the results. By way of example, in the study of Brown and Taylor (2014), there was no statistically significant dependency between the amount of debt and neuroticism, which is inconsistent with the results of other research pointing to emotional instability as a positive predictor of debt (e.g. Nyhus & Webley, 2001). Still other studies showed that neuroticism leads to less risky financial behaviours (Rustichini, DeYoung, Anderson, & Burks, 2016). Thus, whether neuroticism truly is linked to financial behaviours remains unclear, and, if it is, there is no telling if it supports more responsible financial decision-making or, on the contrary, irresponsible financial decision-making.

The Big Five model, despite its widespread use, is still criticised, mainly for its cultural instability, and the very number of dimensions is questioned. Now, some personality researchers are suggesting increasing the number of dimensions to six (HEXACO Model; Ashton, De Vries, & Lee, 2017; Ashton & Lee, 2007; Ashton, Lee, & Vries, 2014). The most important difference between HEXACO and the Big Five model is in the existence of an additional dimension, namely, the honesty-humility dimension. This factor reflects the individual differences in sincerity, entitlement, a sense of justice, and greed. Others, however, want to reduce the number of dimensions to two higher-order factors, referred to as alpha and beta

(Digman, 1990, 1997; Vecchione, Alessandri, Barbaranelli, & Caprara, 2011). The alpha trait reflects the socialisation process and the level at which a child develops in line with social standards. The beta trait, on the other hand, is linked to personal growth and enlargement of self.

Another problem linked to the Big Five model, particularly when dealing with such a specific area as financial behaviour, is the fact that it often turns out that the generic classification of personality traits, reducing it to five dimensions, is insufficient to explain such distinct behaviours as financial behaviours. What is more, certain traits of the Big Five model may be completely unrelated to financial behaviours (e.g. Angellini & Cavapozzi, 2017; Gherzi, Egan, Stewart, Haisley, & Ayton, 2014; Rustichini et al., 2016) or give an inconsistent picture of the results across different research (e.g. neuroticism – Kajonius & Carlander, 2017; Oehler & Wedlich, 2018). Yet another problem may also be the fact that a given factor as a whole may not be related to a specific financial behaviour but only to one or two facets of that factor. Extraversion, for instance, as a whole dimension may not be significant in explaining a given financial behaviour, but excitement-seeking may be significant, or a different dimension like agreeableness may not have a relationship to a certain behaviour but the compliance facet may. And this is what the research outcomes suggest. Conscientiousness, for example, showed no correlation with delayed payment acceptance, but intelligence, and its facet, did (Rustichini et al., 2016). In the Angellini and Cavapozzi (2017) study, agreeableness showed no correlation with trading in securities, but its facet, low level of trust, did. Erbas and Bas (2015) demonstrated that creativity, which constitutes the fact of openness to experience, had a positive correlation with financial risk-taking, although openness as a dimension of personality showed no such relationship. The relationship between neuroticism and financial behaviours is also debatable. In many studies, neuroticism as a complete factor did not correlate with financial behaviours, but its facets often did, and different facets correlated with different behaviours. In the study by Gambetti and Giusberti (2012), the facets of neuroticism correlated with the propensity to invest money in stock (anger) and not investing savings and holding interest-bearing accounts (anxiety), although neuroticism itself showed no correlation with them. The research findings of Bucciol and Zarri (2017) indicated that anxiety as a facet of neuroticism results in a smaller propensity to have a broadly diversified financial portfolio and investing on the stock exchange. Dhaoui, Bourois, and Boyacioglu (2013) demonstrated that pessimism, as a facet of neuroticism, correlated with stock trading volume, although neuroticism, on the whole, once again, did not. In another study, impulsiveness as a facet of neuroticism showed a correlation with compulsive buying and the generation of debt, whereas neuroticism as a complete dimension of personality failed to demonstrate such a relationship (Achtziger, Hubert, Kenning, Raab, & Reisch, 2015) (Table 1.2).

The personality traits identified in the Big Five model are not the only individual traits that are of interest to researchers in the context of financial behaviours. Psychological traits, for example, optimism (life satisfaction), values, self-control, time perspective, locus of control, or entitlement, are also important. The study of these traits in relation to financial behaviours may be less widespread, as those using

Table 1.2 Personality factors (individual, non-specific psychological traits) affecting financial behaviours (summary)

Trait	Type of influence	Source
Conscientiousness	More effective saving behaviour	Brandstatter (1996) and Wärneryd (1996)
	High savings, having insurance; good financial management	Ksendzova, Donnelly and Howell (2017)
	Low probability of indebtedness	Webley and Nyhus (2001)
	Lower probability of irrational financial behaviours – e.g. too high loans, overindebtedness	Rustichini et al. (2016)
	Negative relationship with credit card debt	Brown and Taylor (2014)
	Financial risk aversion, unwillingness to stock investment	Oehler and Wedlich (2018)
Emotional instability (neuroticism)	Higher tendency of indebtedness	Nyhus and Webley (2001)
	Compulsive buying	Brougham et al. (2011)
	Negative relationship with effective financial management	Ksendzova et al. (2017)
	Negative relationship with wealthiness level	Kajonius and Carlander (2017)
	Negative relationship with risky financial behaviour	Oehler and Wedlich (2018), Rustichini et al. (2016)
	Positive relationship with financial risk avoidance	Brown and Taylor (2014), Oehler et al. (2018)
Agreeableness	Negative relationship with stock holding and risky financial behaviour	Bucciol and Zarri (2017)
	Positive relationship with financial risk avoidance	Brown and Taylor (2014)
	Increase honest financial behaviours	Rustichini et al. (2016)
Extraversion	Positive relationship with risky financial behaviour	Oehler et al. (2018), Oehler and Wedlich (2018), Rustichini et al. (2016)
	Positive relationship with credit card debt	Brown and Taylor (2014)
Openness to experience	Positive relationship with financial risk avoidance	Brown and Taylor (2014)
Optimism	Higher tendency to overconfidence and risky financial behaviours	Dhaoui (2015)
	Higher tendency to buying than selling stocks	Kaplanski, Levy, Veld, and Veld-Merkoulova (2015)
	Positive relationship with height of unsecured debt	Brown and Taylor (2014)
	Positive relationship with trade in securities and risky financial behaviours	Angellini and Cavapozzi (2017)
	Increases trading volume	Dhaoui et al. (2013)
	Efficient/reasonable financial behaviour Less anxious about financial matters More confident about their financial situation	Strömbäck, Lind, Skagerlund, Västfjäll and Tinghög (2017)

(continued)

Table 1.2 (continued)

Trait	Type of influence	Source
Self-control	Negative relationship with indebtedness level and compulsive buying	Achtziger et al. (2015)
	Regular money saving Better prepared to unforeseen expenses More likely to have enough money for retirement	Strömbäck et al. (2017)
	More effective saving behaviours	Ameriks, Caplin, Laufer and Van Nieuwerburgh (2011)
	Higher socioeconomic status More likely to be homeowners, have retirement, savings	Moffitt et al. (2011)
	Less likely to suffer from credit withdrawals and unforeseen expenses on durables Better prevention of indebtedness	Gathergood (2012)
	Good planning and monitoring of finances, higher wealth accumulation	Biljanovska and Palligkinis (2016)
	More likely to save enough money for retirement	Choi, Laibson and Madrian (2011)
	More likely to save Better defined specific saving goals Higher probability of saving	Rha, Montalto and Hanna (2006)
	Better management of finances	Miotto and Parente (2015)

the most classic personality theories – the Big Five; nevertheless, they often provide a better explanation of financial behaviours. In addition, they also furnish further evidence that psychological factors are key in explaining the reasons for financial behaviours and, more importantly, showing that such decisions are determined not only by personality traits but also by other nonpersonality factors that are individual in nature (e.g. values). Below is an overview of certain individual psychological traits outside the Big Five taxonomy, which may have an impact on financial behaviours and which are important from the perspective of the matters discussed in this book and the research results presented therein.

1.2.2 Psychological Non-specific Traits: Individual Traits Outside of the Big Five

Optimism/Life Satisfaction

Optimism and life satisfaction are part of a broader mainstream called positive psychology, initiated by Seligman and Csikszentmihalyi in the year 2000 (Seligman &

Csikszentmihalyi, 2000). This mainstream focuses on understanding what makes a person's life worthwhile and what leads to happiness and a sense of fulfilment. Studies on happiness have allowed for the ascertainment that every person has their basic and fixed level of happiness, which is a base state. Whenever a person goes through very fortunate or unfortunate events (e.g. winning the lottery or the death of a loved one), they change this state only for some time, after which the level of happiness returns to its basic level (Brickman, Coates, & Janoff-Bulman, 1978). This clearly shows that our life satisfaction (chronic level) does not depend on life events but is conditioned by internal factors (Brickman & Campbell, 1971; Haidt, 2006). The studies conducted by Lyubomirsky and colleagues (Lyubomirsky, Sheldon, & Schkade, 2005) revealed that a sense of happiness is determined mainly by internal factors with neurobiological underpinnings (genes, temperament – 50%). In second place, intentional actions resulting from our will, in other words, what we consider to be important, what we dedicate our time to, and what gives us life force, are responsible for 40% of our sense of happiness. Contrary to the common belief, these studies clearly demonstrated that external circumstances (what we come across in life) are least responsible for our sense of happiness – only 10% (Diener, Suh, Lucas, & Smith, 1999; Lyubomirsky et al., 2005). Moreover, it also turned out that positive emotions and life satisfaction last much longer when they are evoked by one's own actions setting out the directions in our life, than by external circumstances like winning the lottery (Sheldon & Lyubomirsky, 2006).

Life satisfaction, well-being, and optimism affect many aspects of human life, including health status, lifespan, social relations, and professional success (Argyle, 1999; Diener & Bieswas-Diener, 2008; Maruta, Colligan, Malinchoc, & Offord, 2000; Peterson & Bossio, 2001). The strength of the impact of the psychological mindset not only on how we perceive the world but also what this world objectively becomes was shown by an experiment in which volunteers were infected with the flu virus and then the development of the illness and its symptoms were monitored under physician supervision. It turned out – which could have actually been expected – that persons who manifested the highest level of life satisfaction before the start of the study complained about the symptoms of their illness less often. But the result showing that persons who were more satisfied with their life also had objectively less symptoms of the illness was less obvious. In other words, happier people not only considered themselves more healthy, but they truly were healthier (Diener & Bieswas-Diener, 2008). Another study analysed the diaries of nuns living in the same cloister conditions in terms of their optimistic or pessimistic undertones (Danner, Snowdon, & Friesen, 2001). It turned out that nuns who in their diaries used many words that reflected positive emotions and life events lived on average 10 years longer than those who did not use such expressions.

Finance is also an area where optimism and life satisfaction do, without a doubt, have a bearing. However, this area is definitely much less penetrated than that relating to the relationships between optimism and health (Dosedlova, Klimusova, Buresova, & Vasina, 2015; Lipowski, Lipowska, Peplinska, & Jeżewska, 2014) or social relations (Smith et al., 2013; Vollmann et al., 2007). From the few studies that have been carried out to date, it has been found, however, that the dependency is similar as in research in the field of health or social relations – happiness is also conducive to better functioning within the realm of finance (Carton & Nowicki, 1994; De Neve & Oswald, 2012). The analyses performed revealed that life satisfaction was conducive to a growth in income and the causal relationship went in this, and not the opposite direction. In one of the first studies concerning the impact of life satisfaction on income changes, data from long-running panel surveys conducted in Russia were used to check the effect of happiness on change in income (Graham & Fitzpatrick, 2002). The analyses performed revealed that life satisfaction was conducive to a growth in income and the causal relationship went in this, and not the opposite direction (Carton & Nowicki, 1994; De Neve & Oswald, 2012). As for the happiness-finance realm, the question of the relationship between a sense of happiness and the objective financial situation and its perception probably raises the strongest discussions (Donnelly et al., 2012). Such a relationship does exists, but we are not going to discuss it any further at this point because Chap. 2 will be dedicated to this topic.

Another issue worth discussing in this context is financial optimism, which is an interesting combination of a general individual characteristic (optimism) and a specific characteristic (in the scope of finances). Studies have shown that it is directly related to various financial behaviours (Angellini & Cavapozzi, 2017; Brown & Taylor, 2014). Financial optimism was studied mainly in the context of risky financial behaviours (investing), and it was discovered that it increases the chances of trading in securities (Angellini & Cavapozzi, 2017) and gives greater self-confidence, which is conducive to risky financial behaviour (Dhaoui, 2013; Dhaoui, 2015; Dhaoui et al., 2013). A positive mind frame evoked by external factors may have a positive effect, just like internally conditioned financial optimism. This has been confirmed by research, which showed that a better mood translates into stock market optimism, which in turn increases risk tolerance (Kaustia & Rantapuska, 2016), and expectations of higher returns, as well as a greater propensity to buy than to sell shares (Kaplanski et al., 2015).

As can be seen from the presented research results, optimism, as a dispositional individual trait, or also a sense of happiness or life satisfaction, seem to be the traits that have a positive effect on the financial functioning of a person. However, the specific trait of financial optimism may sometimes lead to irresponsible and too risky behaviours in the world of finance.

Self-Control

Another trait that can be important in the context of finances and management is self-control, which is defined as "the ability to override or change one's inner responses, as well as to interrupt undesired behavioural tendencies (such as impulses) and refrain from acting on them" (Tangney, Baumeister, & Boone, 2004, p. 4). Self-control is a sign of the self-regulation of emotions and behaviours in order to better adapt to the surrounding world. Self-control is also treated as a kind of self-discipline, thanks to which a person is capable of overcoming habits, behaving in line with set goals, and not giving in to temptations. Tangney writes that a function of self-control is: "regulating the stream of thought (e.g., forcing oneself to concentrate), altering moods or emotions, restraining undesirable impulses, and achieving optimal performance (e.g., by making oneself persist)" (Tangney et al., 2004, p. 5). Looking from this perspective, self-control should have a positive impact on many aspects of our life. This is confirmed by research also showing the relationship between self-control and achievement and task performance (Wolfe & Johnson, 1995).

Self-control is linked to the phenomenon of being able to delay gratification that, according to research outcomes, is also an extremely important factor that has a bearing on the chances of success in various areas of life. The ability to delay gratification observed in 4-year-old children translated into better academic performance in adulthood (Mischel, Shoda, & Peake, 1988; Shoda, Mischel, & Peake, 1990; Tangney et al., 2004), and the control of impulsive behaviours (Baumeister, Heatherton, & Tice, 1994), and better quality interpersonal relationships and social functioning (Eisenberg et al., 1997). What is more, the studies revealed that children with a higher level of self-control were more popular with their peers (Maszk, Eisenberg, & Guthrie, 1999). Self-control has a negative relationship with aggression and antisocial behaviours, which means that persons with a lower self-control are more inclined to present such behaviours (Gottfredson & Hirschi, 1990; Murphy & Eisenberg, 1997).

Self-control is treated by psychologists as a psychological process (resource model of self-control) or also as a permanent individual disposition. The resource approach assumes that we have specified self-control resources which, in certain situations (e.g. stress or cognitive overload), may be depleted (Baumeister, Vohs, Tice, 2007). In the second approach, self-control, a permanent individual characteristic, is a good predictor of learning results, social adaptation, self-esteem, and optimism (Tangney et al., 2004). In general, strong self-control is conducive to better adaptation and is a particularly important human adaptation skill in the world. However, people do differ from each other in terms of the level of their self-control, where some find it easier and others more difficult, which is why this is an individual characteristic differentiating between people (Tangney et al., 2004). There are many ways of measuring self-control as a characteristic, examples of which include the Self-Control Behaviour Inventory (Fagen, Long, & Stevens, 1975), the Self-Control Questionnaire (Brandon, Oescher, & Loftin, 1990), the Self-Control Schedule (Rosenbaum, 1980), and the Self-Control Scale (Tangney et al., 2004).

Clearly, there are many approaches to self-control, different ways of measuring it, and various convictions concerning the areas in which this self-regulation ability is useful to a person. Self-control usually appears in the context of eating habits (obesity) and health-related behaviours (especially their absence). Self-control is mentioned much less frequently in the context of financial behaviours although there have appeared studies showing the relationship between this variable and financial behaviours, however, mainly in the area of saving (Romal & Kaplan, 1995), and saving for retirement (Laibson, Repetto, & Tobacman, 1998). It has also been shown that persons with a higher level of self-control have less debt (Gathergood, 2012; Strömbäck et al., 2017; Achtziger et al., 2015). Studies with children have also shown that 9- to 11-year-old children in whom self-control was activated had a greater propensity to save money than to spend if for immediate consumption (Trzcińska, Sekścińska, & Maison, 2018).

The Locus of Control

The theory of the locus of control refers to the subjective perception about the underlying causes of life events. The concept was developed by J. B. Rotter, who claims that during the course of their lives, people learn to believe that it is they or other factors independent of them that have control over the outcome of events (Rotter, 1966). The locus of control is assumed to be a relatively permanent characteristic of personality. Persons with an internal locus of control have the conviction that they are the ones who control their life and important life events. They believe that everything that happens to them in their life mainly rests on their own efforts and work. Their opposites are persons with an external locus of control who are convinced that their life is steered by factors that are independent of their conscious, purposeful, and intentional influence like, for instance, fate, destiny, sickness, happiness, etc. The first tool developed by the author of the concept to measure locus of control is a 13-item questionnaire presenting pairs of statements to respondents, one statement illustrating the internal, and the other, the external locus of control: (a) “What happens to me is my own doing”; (b) “Sometimes I feel that I don’t have enough control over the direction my life is taking”. The respondent has to point to the statement in a given pair that best describes them.

The significance of the locus of control was evidenced in studies on different aspects of a healthy lifestyle: regular exercise, a healthy diet, moderate alcohol consumption, and avoidance of cigarette smoking (Cobb-Clark, Kassenboehmer, & Schurer, 2014). However, significantly fewer studies have been carried out in the field of financial behaviours. In one of the few studies, it was shown that locus of control is also reflected in a better control of finances and a greater propensity to save in households (Cobb-Clark, Kassenboehmer, & Sinning, 2016; Cobb-Clark & Schurer, 2013). It can be expected, however, that this dimension has a much greater impact on financial behaviours than was demonstrated in studies to date. Most probably, if persons with an internal locus of control come up against financial problems, they will take action to change the situation. Persons with an external locus of control who believe that they have no control over what they encounter in life can be expected to have completely different financial behaviours. This is why it is reasonable to expect that such persons, upon running into financial problems, will not be able to get out of them because they simply don’t believe that they are capable of it. In addition, even if they are not happy with their material situation and complain about it, they will not take any action to change this state of affairs.

Time Perspective

The time perspective is a psychological construct that refers to the approach that a person has to time, and it emerges from the cognitive process for portioning human experience into the past, present, and future temporal frames (Zimbardo & Boyd, 1999). Hence, time is a dimension that organises an individual’s life situations, goals, expectations, and memory. One of the key concepts concerning the issue of time in psychology is the Time Perspective Theory by Zimbardo and Boyd (1999, 2008). The time perspective is, according to the authors, a relatively permanent individual characteristic that may, however, change with age and may, to a certain extent, be situationally modified (Sekścińska et al., 2018b; Zimbardo & Boyd, 1999; Zimbardo & Boyd, 2008). The authors of the concept identified five different time perspectives: (1) past-positive, (2) past-negative, (3) present-fatalistic, (4) present-hedonistic, and (5) future.

A person focused on their past may see it in positive or negative light, but, importantly, this perception is independent of their actual experiences. Hence, the past-positive or past-negative time perspective is a positive or negative approach to what was and is independent of the objectively good or bad events, which they actually experienced. Thus, this perspective does not specify what actually happened in the past; it is not a reflection of a person's actual life history but of their convictions and feelings about past events.

The present time perspective means focusing on the present moment, which also has two dimensions: hedonistic and fatalistic. Persons with a strong hedonistic present time perspective live in the present moment are impulsive and have a high level of energy. Such people are pleased by everything that is pleasurable, strive to maximise positive experiences, and avoid the unpleasant ones. They are centred on getting direct gratification, and another characteristic feature is that they avoid boring and routine situations requiring a lot of effort and endeavours. The present-fatalistic time perspective, however, is associated with the conviction that a person does not have the slightest influence on their future and that their fate is guided by destiny. Whenever negative experiences they come up against, these people take no actions whatsoever that could prevent or alter the "fatalistic course of events". They present an attitude of resignation and disbelief in that their behaviour could have any effect on what happens in the future. They are, to a certain extent, similar to persons with an external locus of control.

The future time perspective is characteristic of persons who plan their future – both the nearest (e.g. the next day) and the distant future; such persons set goals for themselves that they want to achieve and consider their next steps (strategy) in attaining them. They often give up immediate gratification (profit), waiting for a bigger reward in the future.

Much of the research conducted on time perspective has revealed differences in the regulatory functions that given temporal perspectives have. The significance of the time perspective for a person's functioning was studied in many different areas, and it was found, among others, that a relationship exists between subjective well-being (Zhang, Howell, & Bowerman, 2013), Internet and Facebook addiction (Przepiórka & Blachnio, 2016), academic achievement (de Voider & Lens, 1982), health-related behaviour (Crockett, Weinman, Hankins, & Marteau, 2009), consumer behaviour (Klicperová-Baker, Košťál, & Vinopal, 2015), and financial behaviour (Jacob-Lawson, Hershey, 2005; Albright & McDermott, 2015).

One of the few studies on the relationship between the time perspective and financial behaviours revealed a connection between the time perspective and the propensity for risk-taking when investing (Sekścińska et al., 2018a, 2018b). It seems that in the case of financial behaviours linked to making decisions about the future (e.g. insurance), or delayed gratification situations (e.g. saving), the time perspective dimension dominant in a given person may also affect the financial decisions that they make. For this reason, it can be presumed that persons with a strong past perspective, since they are more focused on what has passed than on the present situation or on what will happen in the future, will not be very interested in saving or investing. Hedonists, similarly, although for different reasons – they are most keen on spending their money on life's pleasures and entertainment, without going back to the past or looking to the future. These people have a much greater propensity for instant, smaller gratification than greater gratification that they would have to wait for. Unlike them, future-oriented persons, since they have a high ability to delay gratification, should be more effective at saving.

Values

Values are an interdisciplinary concept and are important not only for psychology but also for sociology, philosophy, and anthropology. Because of this, values are a very complex concept and defined in many different ways, also within psychology itself. One of the classic researchers in the study of values in psychology, Milton Rokeach (1973), defines them as a system of permanent convictions that a specific mode of behaviour is personally or socially preferred in relation to an alternative one. This definition points to two important aspects of values, firstly, that they are something that guides our actions, in other words, one could say, that they often fulfil the function of signposts; secondly, the source of values can be both in the individual and in society. Another important aspect in Rokeach's approach is the statement that values are a better way to describe a person than using personality trait theories (e.g. the Big Five), as they assume a greater possibility of changes in values (contrary to traits) during an individual's life course. Rokeach was looking for a relatively permanent catalogue of values that can guide a person in life and underpin the decisions taken by them (Rokeach & Ball-Rokeach, 1989). In the tool that he developed to diagnose the value system, which he called the Rokeach Value Survey, RVS, he took 36 values into account (Rokeach, 1973), comprising terminal values (e.g. freedom, health, and salvation), and instrumental values (e.g. logic, loyalty, and obedience).

These days, probably the most important theory of values in psychology is the circular model of values proposed by Shalom Schwartz (Schwartz, 1994), derived from the value concept of Rokeach but strongly modified, extended on the theoretical level, and improved in terms of the deployed measurements: the Schwartz Value Scale, SVS (Schwartz, 1992; Schwartz, 2012a), and the Portrait Value Questionnaire, PVQ (Cieciuch & Schwartz, 2012a; Schwartz, 2012b; Schwartz et al., 2012a). Schwartz defines values as cognitive representations of the goal, which is of motivational significance for the subject and is trans-situational in nature (Schwartz et al., 2012a). The basic dimensions (universal values) in this model include self-transcendence, conservation, self-enhancement, and openness to change. These universal values can be organised into four higher-order groups, for example, universalism, hedonism, power, and tradition. Each of these basic human values contains subsequent values, thus, for example, the power value contains three values: social status and prestige, control or dominance over people, and resources.

Of great importance to our deliberations is the motivational meaning of values. This means that values guide the selection and evaluation of behaviours and events and determine behaviours, which is why they can also explain them (Schwartz, 1996; 2006). Accepting this reasoning, two persons in the same situation may behave differently depending on the differences in their value systems. It is also worth highlighting that values can be conscious, but since they function as internalised standards, their role in everyday decision-making is often not conscious (Schwartz, 2006).

Finally, it is also worth mentioning one more approach to values, namely, the concept created by Geert Hofstede (Hofstede, 2001). This is an intercultural approach to values with four dimensions of cultural differentiation: power distance, uncertainty avoidance, individualism-collectivism, and masculinity-femininity. Power distance is the extent to which social inequalities and unequal distribution of power is accepted in a given society. Uncertainty avoidance is the level of threat that is felt by members of a given culture when faced with new situations and an unknown future. In countries with a strong need for uncertainty avoidance, there is a tendency to reduce it by implementing different rules, regulations, and laws. Individualism vs. collectivism explores the roles attributed to individual and to groups in a given society. In individualistic countries, the good of the individual is put before the good of the group, and in collectivist countries, it is the opposite. The last dimension – masculinity vs. femininity – is a differentiation between countries that value "masculine" traits highly (assertiveness, competitiveness, and success) and those that value "feminine" traits more (modesty, caring, and protectiveness). After years of research, another dimension was added to this model: short- and long-term orientation (Hofstede, 2001), meaning the tendency to focus on short- or long-term goals. Although Hofstede's concept concerned the division of countries (cultures) in terms of their predominant values, these dimensions can successfully be applied to the thinking of individuals, which can be differentiated in terms of the dimensions identified by Hofstede (e.g. individualism vs. collectivism). Despite the cultural dimension, this concept was important to discuss in light of my own research presented in this book, where the individualism vs. collectivism dimension serves to differentiate between persons and explain their behaviours, including financial behaviours (cf. segmentation study described in this Chapter 1.3).

Many studies have revealed the relationship between values and behaviour in different areas. Values, according to Hofstede, translate into the functioning of an organisation (Hofstede, 2001). Values in the approach of Schwartz are linked to behaviours and political preferences (Caprara, Schwartz, Vecchione, & Barbaranelli, 2008; Schwartz, 2012a; Schwartz, Caprara, & Vecchione, 2010), behaviour at work (Sagiv & Schwartz, 2004), and managerial behaviour (Smith, Peterson, & Schwartz, 2002). Values in classic models (Rokeach, Schartz, or Hofstede), contrary to models of personality (above all the Big Five concept), are practically omitted in the context of research in the field of finance. The issue of values does, however, sometimes appear in the discussions of various authors writing about finance. Canova, Rattazzi, and Webley (2005), for instance, in developing their hierarchical goal for the saving concept, speak of superordinate goals and the values of savings, such as security, self-esteem, and self-gratification. Also in the context of the financial behaviours of children (especially in terms of spending and thrift), reference is sometimes made to the transfer of standards and values from parents as the basis of these abilities (Mandrick, Fern & Bao, 2005). Despite the low interest in values in the context of financial behaviours to date, it can be assumed that values (at least some of them), as motivational factors underpinning actions, also affect financial behaviours. For instance, one can imagine that behaviours in the context of getting in debt, particularly responsibility for paying debt off, may be related to the values held by a given person (see Chap. 6).

The individual traits described above certainly do not exhaust all the psychological features that may be related to financial behaviours, but they do undoubtedly show that it is worth looking at many different psychological dimensions, not only the classical Big Five personality theory, when trying to understand and explain different financial behaviours of individuals.

Why is it so important to hone in on the individual characteristics determining financial behaviours? It turns out that once they have been taken into account in analyses, they often have more power to explain financial behaviours than income, which, as was shown earlier, is usually overestimated in expounding financial behaviours of individuals. It is also worth pointing out that next to non-specific psychological characteristics (like personality traits), it is also very useful to look at specific individual traits (directly connected to finances) in order to better understand people's economic behaviour. In many studies it was shown that non-specific traits often affected financial behaviours through the mediation of specific traits directly related to finances. The study of Achtziger and colleagues (Achtziger et al., 2015) on getting into debt revealed that the link between self-control (non-specific trait) and debts was mediated by an inclination to compulsive buying (specific trait). More importantly, household income was not related with either self-control or compulsive buying.

This shows that when attempting to explain human behaviour in the field of finance, one should not limit oneself to non-specific psychological characteristics, but the individual characteristics directly related to specific behaviours should also be taken into account, which may often give a better explanation of financial behaviours. The role of economic factors (e.g. the level of income) diminishes or ceases to be an issue when psychological characteristics are controlled (see Chap. 4.6, 5.8 and 6.3). These relationships remained unnoticed for a long time because individual psychological traits were not taken into account in most studies on financial behaviours. Studies only observing specific financial behaviours (e.g. level of savings, level of debts, financial investments) and the level of income revealed positive – although not always strong – relation between them (e.g. Furnham, 1985; Lunt & Livingstone, 1991; Traut-Mattausch & Jonas, 2011). However, when individual characteristics were taken into account in studies, it would often radically change the picture of such relationships – the link between a relevant behaviour and income would diminish or even completely disappear (Brown & Taylor, 2014).

1.2.3 *Psychological Specific Traits (connected to finances)*

Psychological traits that were taken into consideration in research on financial behaviours may be non-specific in nature (not directly related to finances) or specific (connected) (cf. Fig. 1.1). The specific (related to finance) psychological traits, understood as internally conditioned individual psychological traits differentiating between people, are arousing great interest among financial behaviour researchers. Among the interests of these researchers are psychological characteristics like impulsive buying tendency (Lai, 2010), dispositional greed (Krekels & Pandelaere, 2016), and probably the most extensively explored trait – materialism (Belk, 1984; Dittmar, Bond, Hurst, & Kasser, 2014; Kasser & Ryan, 1996; Richins & Dawson, 1992). The next important and equally intensively studied area are attitudes towards money (Furnham, 1984; Tang, 1992; Yamauchi & Templer, 1982), which why these two phenomena will be described more extensively below.

Attitudes Towards Money

Money for economists is simply a legal tender of a certain value. For behavioural economists, the value of money is relative and depends on many contextual factors (e.g. the site of purchase of the product) (cf. Chap. 3). For psychologists dealing with economic psychology, however, money also has a symbolic and instrumental value; it is the object of attitudes and emotions. Money can be a form of communicating different content (e.g. showing what is important in the life of a person) and a form of maintaining interpersonal relationships. To money is often attributed special powers to garner and maintain respect, build social position, and self-satisfaction (Hanley & Wilhelm, 1992).

Money, and in actual fact people's relation to money, has been the interest of economic psychology researchers for a long time (Furnham, 1984; Tang et al., 2006; Tang & Chen, 2008; Tang & Chiu, 2003; Yamauchi & Templer, 1982). Research on people's approach to money focuses on both the functional aspects like money management (Tang, 1995; Yamauchi & Templer, 1982) and the emotional and symbolic aspects concerning people's attitude to money (Chen, Tang, & Tang, 2014; Engelberg & Sjöberg, 2006; Gasiorowska, 2015; Roberts & Jones, 2001). A reflection of the huge interest in the topic is the vast amount of questionnaires aimed at diagnosing money attitudes. These tools differ in terms of the definition of people's relation to money and the areas that this relationship covers. For example, Yamauchi and Templer (1982) created the Money Attitude Scale (MAS), which encompassed five components. Furnham construed the Money Beliefs and Behaviour Scale (MAS, Furnham, 1984) consisting of six dimensions. Tang, on the other hand, presented the Money Ethics Scale (Tang, 1992) comprising six dimensions and the Love of Money Scale, LOMS (Tang & Kim, 1999; Tang, Kim, & Tang, 2002), which is a modification of the original scale. The authors of these scales point to different aspects of a person's relation to money, but several of them overlap throughout the approaches. The first is the relationship between money and power and prestige, in other words, treating money as a symbol of power, a measure of success, or a tool of exerting influence, which appears almost in every author (power/prestige, Yamauchi & Templer, 1982; power/spending, Furnham, 1984; and achievement, Tang, 1992). The second is concentration on money linked to negative emotions towards it or even associating it with evil, which appears under different names in all authors (anxiety, Yamauchi & Templer, 1982; obsession, Furnham, 1984; and evil, Tang, 1992). The mentioned dimensions show how strongly emotionally charged (mainly with negative emotions) money can be. They also reveal that it can be an exceptionally powerful and important tool for building a person's position in relations to others.

Studies on the behavioural correlates of attitudes towards money have demonstrated a relationship between attitudes towards money and income – persons with a high income are usually characterised by a more positive attitude towards money (Luna-Arocas & Tang, 2004; Tang, Furnham, & Davis, 2000). Conversely, obsessions relating to money and the perception of money as a tool to garner power were more typical of people on lower incomes (Furnham, 1984). The research of Liu and Tang (2011) showed that love of money (measured with LOMS) moderates the relationship between income and pay satisfaction. Persons with a higher income are more satisfied with their pay compared to persons with a low income but only when they have a high level of love of money. It was also revealed that love of money may be a predictor of unethical behaviour (Chen et al., 2014; Tang & Chiu, 2003, Tang & Liu, 2012). Moreover, a higher level of anxiety felt in the context of money and treating money as a criterion for comparisons is connected with a higher level of financial problems (Lim & Teo, 1997).

The presented results show that from the psychological point of view, money is not only a legal tender. A person's relationship to money may be very complex, multidimensional, and charged with many negative emotions. What is important is that attitudes towards money are linked to different financial behaviours like consumption (Lai, 2010), saving (Canova et al., 2005; Watson, 2003), investing (Lim & Teo, 1997), use of credit cards (Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000; Roberts & Jones, 2001), gambling (Chen et al., 2012), and satisfaction from the financial situation (Gasiorowska, 2015).

The force that money has in a person's life and its symbolic role can be seen in research on money activation. It was demonstrated in these studies that showing people money or stimuli related to it evokes completely different reactions than the exposure of neutral stimuli (e.g. objects of a similar size or shape as money) (Vohs, Mead, & Goode, 2006). The results showed that, for example, money activation results in less social behaviour (Gasiorowska, Zaleskiewicz, & Wygrab, 2012; Gasiorowska et al., 2016), a reluctance to spend time with others (Mogilner, 2010), more negative attitudes towards volunteering (Pfeffer & Devoe, 2009), a lower inclination to take the perspective of others (Caruso et al., 2009; van Laer et al. 2013), and an acceptance of social inequality (Caruso et al. 2013). The strength of concentration on money and the attribution of great significance to it are, as has been shown in studies, unfavourable phenomena to a person and their environment.

Materialism

One more, extremely important in the context of financial behaviours, phenomenon linked to people's approach to money is materialism. Materialism, understood as being overly interested in money and material goods, and attributing them too big a role in life, has long been the interest of philosophers and was usually criticised. Psychologists, however, started to show interest in this issue in the 1990s when Russel Belk (1984) attempted to operationalise the phenomenon from a psychological perspective and created a specific measurement tool. The psychological approach focused mainly on understanding where materialism comes from, creating measurement tools (scales), and diagnosing the areas of human functioning where materialism may exert an impact. To date, many studies on the phenomenon of materialism and the different ways of defining and measuring it have appeared (Dittmar et al., 2014; Kashdan & Breen, 2007; Richins & Dawson, 1992). Despite this, we are still very far from fully understanding materialism and its underlying mechanisms. This is due to its complex nature and the many different ways of approaching and understanding it. Belk (1984), in his concept of materialism, emphasised two important characteristics: the fact that material goods assume a central place in a person's life and that it is the greatest source of life satisfaction or dissatisfaction. He also assumed that materialism is linked to three personality traits: possessiveness, non-generosity, and envy.

Another highly important concept of materialism is that of Kasser and Ryan (1993, 1996), where the authors define materialism as a triad comprising money, fame, and image (Kasser & Ryan, 1996). Here, the authors put extrinsic goals (which include materialism) in opposition to intrinsic goals (e.g. self-acceptance or community). Out of all the definitions, this approach to materialism is the broadest and goes beyond possession itself.

The materialism concept that is immensely popular at the moment is that of Richins and Dawson (1992), who define it similarly to Belk as attributing importance to the possession and gathering of material goods but additionally emphasise its relationship with key life goals. The authors created their own measurement tool, which they called the material values scale (MVS) (Richins & Dawson, 1992), which is currently probably the most commonly used tool. The scale has three dimensions: (a) centrality, meaning that the acquisition and collection of goods are located in a central place in a person's life; (b) success, treating the goods possessed as a criterion of life success achievement; and (c) happiness, that is, the conviction that possession and gathering of goods lead to happiness and life satisfaction.

Materialism is linked to many areas of human functioning. Firstly, materialism is associated with various individual traits, for instance, materialists have a lower self-esteem (Richins & Dawson, 1992), a higher level of narcissism and neuroticism (Austin, Saklofske, Smith, & Tohver, 2014), a lower sense of happiness (Kasser & Ahuvia, 2002), and lower life satisfaction (Ryan & Dziurawiec, 2001). Secondly, materialism affects relationships with others – persons with a high level of materialism are less satisfied with their relationships than non-materialists (Richins & Dawson, 1992), and they also believe that their problems in marriage are caused by financial difficulties (Dean, Carroll, & Yang, 2007). Thirdly, materialism translates into a reduced sensitivity to the common good, for instance, caring less about the natural environment (Good, 2007).

A strong relationship has also been shown between materialism and financial behaviours, among others, with compulsive buying on the Internet (Dittmar, Long, & Bond, 2007). Persons high in materialism incur more debt and more frequently fund luxury goods than non-materialists (Watson, 2003) and are more inclined to status consumption (Goldsmith & Clark, 2012). Moreover, materialistic persons enjoy shopping more (Singh, 2016) and have more positive attitudes to advertising (Osmonbekov, Gregory, Brown, & Xie, 2009).

Materialism, in the opinion of some researchers, is a very complex phenomenon that is not always unequivocally bad. People can collect money for various reasons, for example, to buy non-material goods like experiences (travel) or self-development (education) (Srivastava, Locke, & Bartol, 2001). Such materialism can be referred to as functional (instrumental). Persons characterised by this kind of materialism treat goods as tools to achieve intangible goals, and the possession of money is not an end in itself but more of a means to an end. The opposite of this is materialism focused on acquiring goods and money, which becomes the basic life goal and source of life satisfaction. This type of materialism is categorically perceived as negative, and its negative influence on people's lives has been proven in many studies.

An interesting approach to materialism was presented by Górnik-Durose and Pilch (2016), who identified two types of materialism with different origins. The first is referred to as "mouse-type" materialism linked to neuroticism and difficulties in building satisfactory interpersonal relationships. Here, material goods fulfil a protective function and are a tool in building relationships. The second type of materialism, "peacock-type" materialism, comes from the narcissistic need to boast and seek attention and admiration. In this case, material goods serve building one's own social position. This type of materialism is also referred to as offensive because it is used to express oneself through material goods, hence, the need that arose in this group to buy expensive things and recognisable brands emphasising their position. Mouse-type materialism, however, is a defensive materialism, which is accompanied by the absence of the need to surround oneself with expensive possessions but more need to collecting money (although accompanied by a negative approach to money).

1.3 Financial Typology: From Banking Leaders to the Financially Withdrawn

The question of how people behave in the context of finance often appears in casual conversations, whether people are more spendthrift or more frugal, if they control their finances or have no command over them. It is very difficult to give an unequivocal answer to such questions, mainly because people differ from each other. Some are profligate; others aren't. Some can and even like saving, while others find it difficult. Some take out loans and have no problems in paying them back, while others find repaying debts difficult, and still others are afraid of any loans and credits like fire. People differ from each other, but it also cannot be said that every person is different. People comprise groups of persons similar to each other in certain respects but different in others. The aim of this chapter will be to show how people differ from each other in terms of their opinion and financial attitudes, emotions relating to finance (e.g. saving, investing, racking up debt, getting insurance, or saving for retirement) in light of the psychological traits explaining their behaviour. A typology of consumers (segmentation) will also be presented based on the differentiation between attitudes and financial behaviours and psychological variables.

The problem of much scientific research is that they are unidimensional, which often gives a very selective picture of reality. Experimental research that only takes several variables into account gives an especially narrow picture of reality. Experimental methodology does, without a doubt, have many advantages (e.g. good control over the study conditions and the possibility of making inferences about causality), but it is very difficult to capture the complexity of the studied phenomena using such a method. The segmentation approach, more often used in marketing practice, offers such a possibility. Segmentation analysis allows groups of people creating multidimensional, similar profiles to be singled out. Conducted surveys are usually the first step of segmentation research. Then, through cluster analysis, subgroups (segments) are extracted (van Raaij & Verhallen, 1994; Wedel & Kamakura, 2000; Weinstein, 1994). The aim of such a statistical procedure is creating a model where the identified groups (segments) have the highest level of internal consistency (similarity of objects within a group) while at the same time being the most differentiated between them (segment distinctness).

Segmentation is an extremely useful tool in marketing (Wedel & Kamakura, 2000; Weinstein, 1994) and is used to create strategies of marketing actions by providing well-defined target groups and fitting actions to them. Directing marketing actions and communication "to everyone" is often ineffective as people differ among themselves in terms of their needs, values, and motives underpinning their behaviours. Thanks to segmentation, we can identify groups (profiles) of persons in a given population and understand their multidimensional specificity. An in-depth understanding of the segments in terms of their psychological characteristics enables more effective marketing action planning by aptly aligning communication to the needs and values of the selected segment as the target group. The segmentation approach finds its application not only in commercial marketing but also social and public policy when the aim is to define target groups for social actions and suitable directions of actions (e.g. changes in adolescent alcohol drinking styles, Maison & Herrmann, 2013). Segmentation has only just begun to catch researchers' attention and is slowly growing in popularity in science (e.g. Hatheway, Kwan, & Zheng, 2017; Karolyi & Wu, 2018).

The segmentation presented in this chapter had both marketing and a scientific aim and is based on data derived from a tracking study of financial attitudes and behaviours (FinBehTrack, 2016) conducted for commercial purposes, the results of which were used by different financial institutions in Poland. Due to the introduction to the study of measurements that were psychological in nature, various different hypotheses concerning the individual causes for financial behaviours could be tested. This allowed the noneconomic motives of different financial behaviours to be diagnosed (e.g. why some people have savings, while others do not have any; why some have bank accounts, while others do not).

Research Method

FinBehTrack is a tracking study investigating financial attitudes and behaviour that has been conducted since 2008 (FinBehTrack, 2016). Mostly the results from the last wave of study conducted in 2016 will be presented in this book (FinBehTrack, 2016). The survey was conducted online (CAWI-computer-assisted web interview) in which 1048 respondents took part. The sample was drawn from the Ariadna Polish Internet Research Panel. It was a random-quota sample where quotas were based on the demographic structure of the Polish population with the following criteria: sex, age, education, and size of place of living. The final demographic structure of the sample is similar to the structure of the Polish population (Annex 1).

A questionnaire with a number of different variables concerning the following areas was used in the study: demographics, financial attitudes, and behaviours (e.g. towards saving, spending money, and insurance), non-specific psychological variables (e.g. life satisfaction and locus of control), and specific psychological variables (e.g. materialism, the Money Spending Style scale (see Chap. 3) and the Love for Cash scale – see Chap. 6) (Annex 2). Due to the basic marketing goal of the study (not scientific) and the limited room for psychological variables in the study, in most cases it was impossible to use standardised questionnaires measuring psychological phenomenon. For this reason, custom, abridged scales were used for most of the measurements of the psychological variables. These scales, despite being created for the requirements of this study, were validated and used in earlier waves of the study (FinBehTrack, 2016).

The conducted cluster analysis (K-means cluster method) is exploratory in nature (Aldenderfer & Blshfield, 1984; Jain, Murti, & Flynn, 1999). The objective is not to verify hypotheses but to provide the broadest possible description of reality: explorations of the groups that are identified in a population in terms of financial behaviours. Hence, the principle that was adopted in the study was to maximise the number of differentiating dimensions used in the segmentation analysis. Therefore, in the case of this study, all the variables described in Appendix 2 were used (questions that were purely marketing-related, like concerning the familiarity, use, and image of brands of banks, insurance companies, lending companies, and investment funds, were omitted).

Before the segmentation analysis, variable distribution and their potential impact on the persons in a given segment were controlled. Factor analyses with oblimin rotation were then used to verify the construction of the scales. Factors derived from these analyses (enabling the reduction and control of the collinearity of variables) were then used in the model and in the later description of the segments. The segmentation analysis was conducted using the K-means clustering technique

(Lloyd, 1982) with the Euclidean distance appropriate to the interval and ratio scales. Several segmentation models were obtained as a result of the analysis. Each group identified from the clustering was evaluated, which consisted of sequentially modifying selected parameters and evaluating their impact on the clustering result. Then, an assessment of the stability of the segments and their sensitivity to parameter changes as well as segment optimisation in terms of key parameter differentiation were carried out. Once the analytical process was finished, each of the identified segmentation models meeting the statistical criteria was evaluated in terms of their substantive value (content significance of the variables describing it), and it was on this basis that the final segmentation model was selected, which met the criterion of the greatest internal consistency of the segments and, at the same time, the greatest differentiation between them.

The segmentation described below was conducted among Poles and, undoubtedly, to a certain extent, reflected their specificity and specific approach to money and financial issues (conditioned, e.g. culturally and historically). On the other hand, however, it can also be approached universally because it shows certain psychological types that will most certainly be found in many other countries. After conducting an identical study in a different countries and running cluster analysis according to the same schemata, the sizes of the identified segments could, most probably, be different. For example, in counties with greater banking service use like those in Western Europe, it is probable that some segments could differ in size (perhaps there would be more Banking Leaders and less Financially Excluded). Nevertheless, the identified psychographic types would appear everywhere in a similar way. The same goes for probably the most classic segmentation, VALS (Values and Lifestyle Segmentation), where the same groups were identified regardless of the country in which it is implemented, although the size of the segments in the model differ between countries (Weinstein, 1994).

Based on the analysis, seven segments were extracted characterised by different psychological profiles, financial behaviours, and demographic characteristic: Banking Leaders, Cautious with Banking, Entering Life, Unfulfilled Indebted, Family-oriented Non-materialists, Entitled Materialists, and Financially Withdrawn (Fig. 1.2). Below each segment will be described.

Segment 1: Banking Leaders (12%)

Psychological profile. This is definitely the most optimistic group with the most positive attitude to life, satisfied with life in all its dimensions, from personal achievements, professional position, material situation, and family. They feel responsible for their own lives (internal locus of control) and have no sense of injustice, holding no grudges against anyone, even when faced with failure. Highly active – out of all the groups, they are most actively engaged in sports, taking full advantage of cultural offerings, having hobbies and interests, and travelling the most. Individualists, they value creativity but also harmony and balance with a reasonable dose of hedonism – they can live life to the fullest.

Finance. They have the best material situation out of all the groups, and this is how they perceive it, too. They approach money in a functional way; neither money

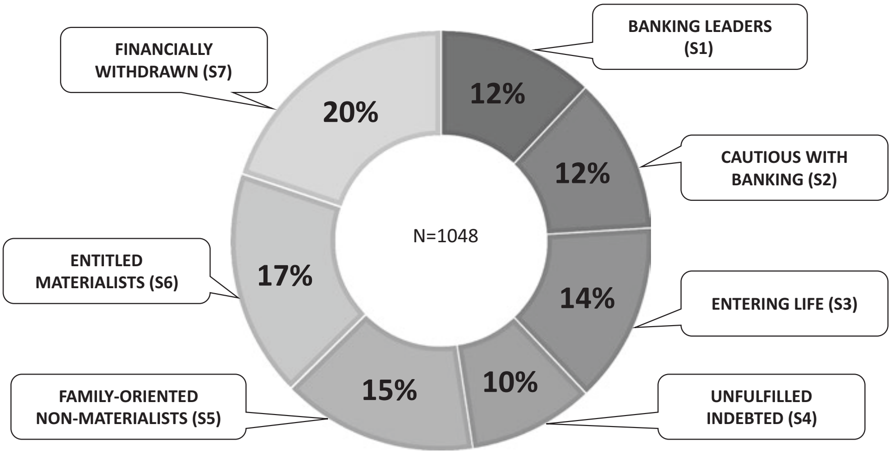

Fig. 1.2 Financial segmentation

nor goods are ends in themselves for them. Money, for them, is a tool for achieving different life goals. They are not spendthrifts, but they know how to enjoy spending money on various things that give them pleasure. They use everything that the world of finance has to offer them intensively and in an up-to-the-minute way. They have the best orientation in the financial services market out of all the groups and make most use of the diverse banking offer: having savings, investing, taking out credit (mortgage rather than consumer), getting insurance cover, and saving for their retirement. They also make intense use of cashless transactions: using payment cards, mobile payments, online banking, etc.

Demographics. This group has almost the same amount of women as men. It comprises people of different ages (average age close to the total in population), both 20-year-olds and persons 55 years of age and older (34% in this segment) (Fig. 1.3). Most of them have families, still raising children. This is the most metropolitan group – almost half of them live in a large or big city. They are the best educated, professionally active, and usually hold senior positions (as many as 15% of this segment is made up of management and directorial staff, and 36% consists of middle-level white-collar workers) (Fig. 1.4 and Table 1.3).

Segment 2: Cautious with Banking (12%)

Psychological profile. These people are satisfied with their lives although they do not feel fully accomplished. They have a large sense of responsibility for their own lives: they feel the agents of their own future and have no sense of injustice. They strive to harmony, valuing traditional values like social order, and being law-abiding. Work and family are values for them but not in a conservative manner. They are relatively similar to the first segment but are less active, less outgoing, and less up-to-the-minute when it comes to new technologies.

Finance. They are not after riches. They have savings and are not spendthrift, finding it much more difficult to spend money on life's pleasures than Banking

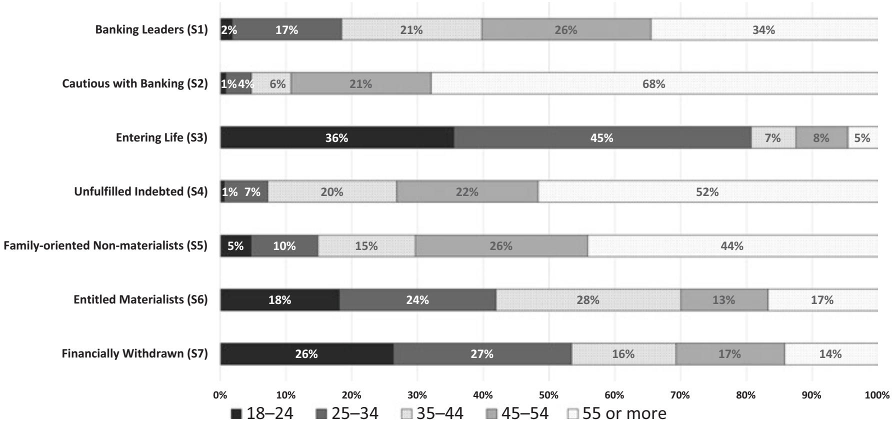

Fig. 1.3 Different age groups in each financial segment

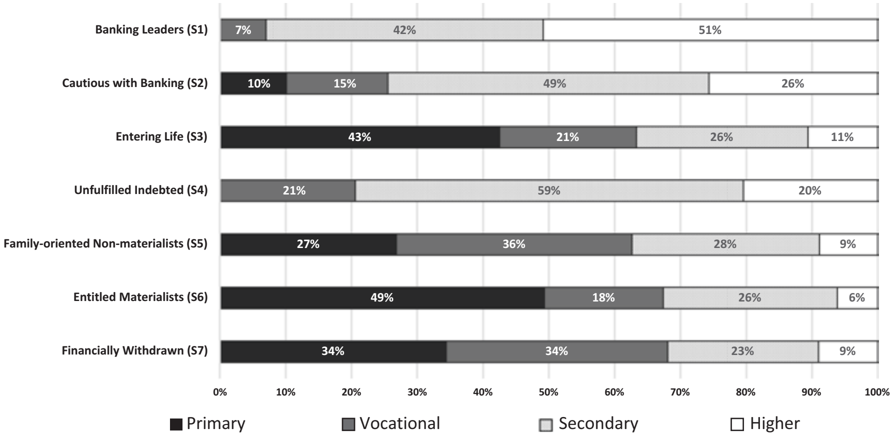

Fig. 1.4 Groups with different in each financial segment

Leaders. They make use of banks and banking services but mostly on a basic level (cf. Chap. 6): they have an account in a bank, use payment cards, and have insurance cover (Figs. 1.5 and 1.6). However, they usually have qualms about using the most innovative and advanced solutions like mobile banking or more advanced banking products (e.g. investment products).

Demographics. This is by far the oldest segment; almost 68% of the persons are aged 55 years and over (32% in population), although there are 30-year-olds in the group, too (Figs. 1.3 and 1.4). They are well educated (3/4 of them have secondary or higher education); many of them are white-collar workers (now or before they retired). Most of them live in medium or large cities. They have children, usually adults that have left home (“empty nests”).

Table 1.3 Demographic characteristics of segments

	Indicator	Total ($N = 1048$)	Banking Leaders ($N = 126$)	Cautious with Banking ($N = 126$)	Entering Life ($N = 146$)	Unfulfilled Indebted ($N = 101$)	Family-oriented Non-Materialists ($N = 158$)	Entitled Materialists ($N = 184$)	Financially Withdrawn ($N = 208$)
Female	%	53%	49%	52%	38%	70%	65%	48%	54%
Age	Mean (years)	43	47	56	29	52	50	38	36
Size of city	Mean (range 1–5)[a]	2.53	3.21	2.90	2.53	2.68	2.09	2.47	2.21
Education level	Mean (range 1–4)	2.41	3.44	2.90	2.05	3.00	2.19	1.89	2.07
In a relationship	%	65%	82%	85%	56%	69%	77%	51%	51%
Single	%	23%	10%	4%	43%	4%	2%	37%	42%
Having dependent children	%	40%	47%	28%	36%	40%	48%	46%	33%
Number of children	Mean	1.33	1.35	1.53	0.73	1.68	2.15	1.18	0.98
Permanent job	%	41%	71%	46%	47%	43%	34%	29%	32%
Blue-collar worker	%	32%	18%	38%	28%	29%	45%	34%	29%
Net income in household	Mean (PLN)	3038	4842	4055	3453	2855	2818	1939	2268

[a]higher value represents bigger city

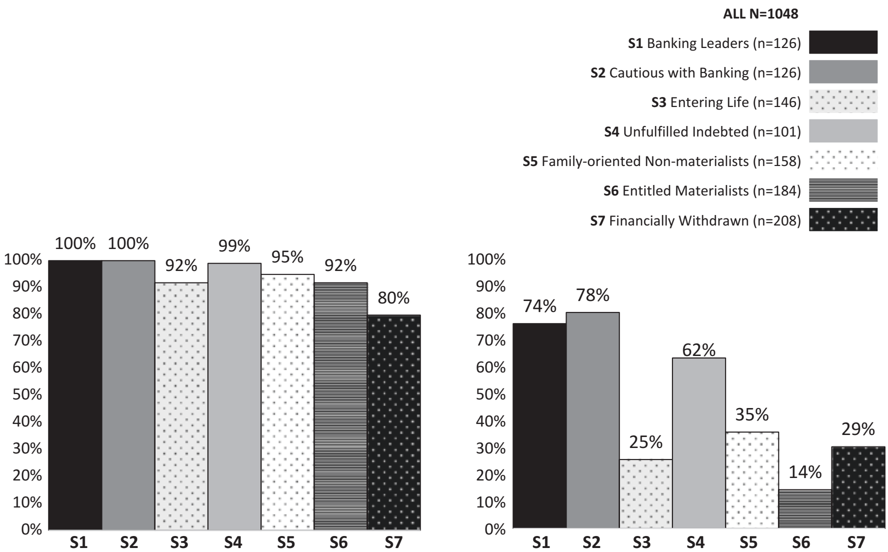

Fig. 1.5 Percentage of people in each segment with bank account and insurance (Q8_BP; left chart - bank account; right chart - insurance)

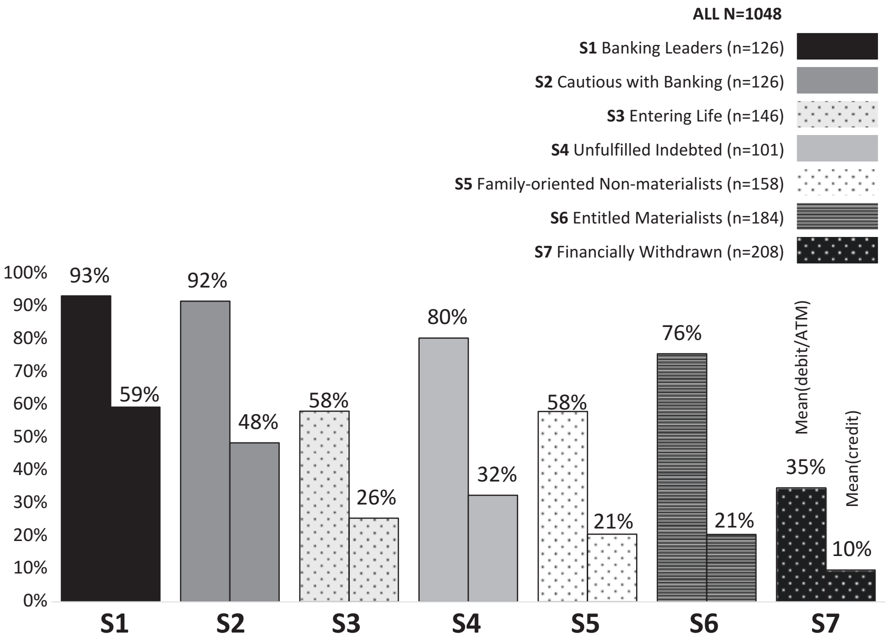

Fig. 1.6 Percentage of people with different financial products in each segment: (**a**) bank/paying card (left bar) and (**b**) credit card (right bar) (Q16_PC2)

Segment 3: Entering Life (14%)

Psychological profile. These are people who claim, on the one hand, that they are happy with their lives but, on the other, have a certain degree of entitlement, thinking they deserve more from life than they actually have. Although they say that their life depends on them alone, they are, to a certain extent, convinced that their life is the way it is largely because of factors that are beyond their control. There are many inconsistencies in their declarations about their own lives, which may be down to their large need for self-presentation and a certain degree of immaturity.

In life, what is important to them is having a good time, physical attractiveness, but also a sense of fulfilment understood as a high social position and money. They claim that they work mainly to make money. All of this shows that this is a group with a high level of materialism, which is consistent with their self-presentation need mentioned earlier (Fig. 1.7). They are active, sociable – meeting up with friends, doing sports, and going away on holiday. They also have quite conservative views both on the family (e.g. the division of roles between a woman and a man) and on society.

Finance. They have quite a good material situation, which they are satisfied with, and look with optimism to their financial future, convinced that things will only get better. They would like to achieve financial success in life, be rich, and have lots of expensive possessions that once again confirm their materialistic approach to life. What's more, their lack of money is, to a certain degree, the source of them feeling inferior, which is also characteristic of materialists. They like spending, have no issues with taking out loans, and cash credits to pay for more of their whims and material possessions.

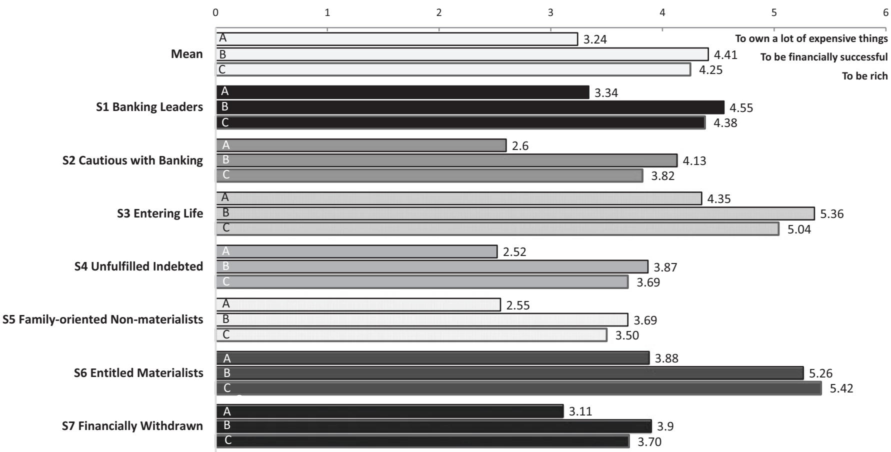

Fig. 1.7 Materialistic values across segments (qn. Q36_MAT2: "Please tell me how important each of the following goals is for you: (A) to own a lot of expensive things; (B) to be financially successful; (C) to be rich"

Demographics. These are persons who are just starting out in life. They are young: as many as 80% of the persons in this group are under 35 years of age (34% in the population) (Fig. 1.3). There are more men (62%) than women in this segment. They are not very well educated, but some of them are still studying (Fig. 1.4). There are definitely more singles and cohabiting couples in this group compared to others; most of them have not started their own families yet or are just starting to (small children). They are also "starting out" in their professional lives.

Segment 4: Unfulfilled Indebted (10%)
Psychological profile. This segment is characterised by an average life satisfaction (definitely smaller than the three earlier segments), particularly in the field of finance and future perspectives. They have quite a pronounced sense of injustice and a low sense of control of their own lives (external locus of control) – they do not feel responsible for their life situation and are rather focused on finding the reasons for this in external factors (Table 1.4). They claim that non-material values are more important to them than material ones. The people in this group are not very active or sociable; they are predominantly homemakers. They also do not use the Internet that much.

Finance. Their household incomes are somewhat below the average, and they also perceive their material situation negatively. Most persons in this segment have loan, cash credit, and mortgage repayment burdens. They have the biggest debts in terms of the number of indebted individuals but not in terms of the average credits (due to the predominance of cash over mortgage credits) (Fig. 1.8). They feel that they are always short of cash and, because of this, keep on having to "tighten their belts" (cf. Chap. 3). Most people in this group have a bank account and use payment cards (predominantly a basic level of banking service use – see Chap. 6).

Demographics. In terms of their demographics, this segment is the opposite of the previous one (see Figs. 1.3 and 1.4). Here, there are definitely more women (70%) and the elderly (50% aged 55 years and over). Interestingly, they are relatively well educated – 80% of the persons in this segment have secondary (59%) or higher education (21%), with the majority being lower-level white-collar workers. Most of them are married (56%), and other big group is "after relationships" (divorcees/widowers – 27%).

Segment 5: Family-Oriented Non-materialists (15%)
Psychological profile. What is specific to this segment is a very strong family orientation. The family is a genuine value to them – it's the most important thing to them, and most of their life decisions are subordinated to their family (Table 1.4). They like spending time with their family and loved ones. Work is also important to them but never more important than their family; they are responsible at work and fulfil their duties well. They value basic values (the family, the good of others), and power or social position is much less important to them; neither money nor material goods are of any special value to them (Fig. 1.7). They are satisfied with their lives, particularly in the interpersonal relationship aspect (family and friends – strong collectivist values). They have a large sense of responsibility for their own lives,

Table 1.4 Basic psychological characteristics of segments – examples of questions or statements with information about measured psychological constructs (in brackets)

	Indicator	Total (N = 1048)	Banking Leaders (N = 126)	Cautious with Banking (N = 126)	Entering Life (N = 146)	Unfulfilled Indebted (N = 101)	Family-oriented Non-materialists (N = 158)	Entitled Materialists (N = 184)	Financially Withdrawn (N = 208)
How much are you satisfied with your life? (Q1_LS1)	Mean (range 1–100)	63.84	72.55	75.73	81.22	63.23	71.41	36.89	57.56
I deserve a better life than what I have now *(sense of injustice)*	Mean (range 1–4)	2.82	2.71	2.50	2.92	3.04	2.33	3.35	2.80
My life depends only on me (Q4_AL1) (*internal locus of control*)	Mean (range 1–4)	2.84	2.90	3.00	3.26	2.65	3.13	2.26	2.77
The satisfaction I draw from my family is worth more to me than anything else in my life (Q6_AL3) *(importance of family)*	Mean (range 1–4)	3.22	3.23	3.50	3.35	3.37	3.53	2.85	2.99
It is more important for a woman to take good care of her home and family than to go on to higher levels of education and/or climb up to the career ladder (Q6_AL3) *(traditional family model)*	Affirmative responses	44%	31%	28%	58%	38%	34%	60%	50%
I get a lot of satisfaction out of my job (Q6_AL3) *(importance of work)*	affirmative responses	71%	78%	73%	93%	73%	85%	55%	51%
Money is my biggest motivator for work (Q6_AL3) *(working for money)*	Mean (range 1–4)	2.87	2.74	2.67	3.17	2.61	2.60	3.28	2.82
Average from all activities (Q7AL4) *(lifestyle)*	Mean (range 1–6)	3.25	3.63	3.23	4.03	2.80	3.04	2.96	3.11

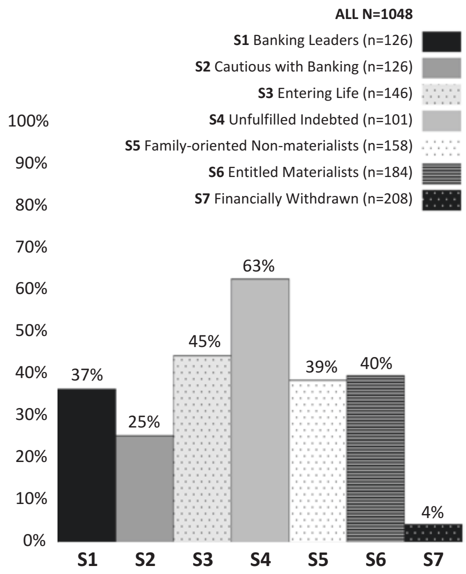

Fig. 1.8 Percentage of people in each segment with consumer credit and/or cash loan (Q8_BP B and D)

believing that their life is as it is because of their decisions. They also have no sense of being wronged – regardless of their objective life situation, they do not blame fate or others for it.

Finance. Although their household income is somewhat below average, they evaluate their material situation – both on the subjective and relative level (compared to others) – as being relatively good (Table 1.5). They are extreme non-materialists; money is not related to a sense of their self-worth, nor do they perceive other people's value through the prism of money or possessions. They don't pay much attention to what other people have and how they compare to them. They demonstrate average banking service use mainly on a basic level (Fig. 1.5), hardly using online banking services at all, and don't use paying cards or credit cards often (Fig. 1.6). They use cash quite often, but this probably is a question of habit or infrastructure (many living in rural areas), or they have payment cards but use them from time to time only.

Demographics. In this group, too, there are also more women (65%) than men. They are usually married persons (69%) and still raising children, although there are also old-age pensioners in the group (37%). The vast majority of them are over the age of 45 (71%), with average education. A relatively large proportion of this group lives in small towns and villages.

Table 1.5 Basic financial characteristics of segments

	Indicator	Total (N = 1048)	Banking Leaders (N = 126)	Cautious with Banking (N = 126)	Entering Life (N = 146)	Unfulfilled Indebted (N = 101)	Family-oriented Non-materialists (N = 158)	Entitled Materialists (N = 184)	Financially Withdrawn (N = 208)
Perceived material situation	Mean (range 1–7)	4.02	4.88	4.71	4.89	3.19	4.29	2.56	3.99
Financial optimism (expected material situation change in the following year)	Mean (range 1–5)	2.95	3.08	2.95	3.42	2.77	2.90	2.65	2.94
Number of owned banking product types	Mean (range 0–10)	2.65	4.47	3.20	2.88	3.02	2.51	2.30	1.28
Paying by card more often than by cash	%	35%	73%	73%	23%	44%	20%	33%	6%
Having a cash loan	%	33%	37%	25%	45%	63%	39%	40%	4%
Investing in a deposit	%	23%	66%	64%	16%	5%	10%	7%	10%
Owning an investment fund	%	7%	41%	2%	6%	1%	1%	3%	1%
Holding savings	%	46%	91%	93%	59%	12%	24%	19%	36%
Amount of savings[a]	Mean (PLN)	26,070	33,147	27,652	16,322	3352	2554	4608	5263
Owning insurance products	%	67%	91%	95%	57%	82%	70%	41%	55%

[a]includes only respondents who confirmed having savings and stated their amount

Segment 6: Entitled Materialists (17%)

Psychological profile. This segment comprises persons with a high life dissatisfaction in all aspects (by far the lowest out of all the segments) and persons that have a sense of entitlement and external locus of control. They don't feel responsible for their not-so-good life situation and feel that they have been wronged and strongly believe that they deserve better than what they have (Fig. 1.4). They cherish values associated with power, domination, and social position. Additionally (and also consistently with the earlier characteristic), they have a high level of materialism (Fig. 1.6). Non-material values are of little importance to them. Their love of money leads to immense frustration due to their lack of money, goods, and luxuries, leaving them dreaming of riches, which they unfortunately do not have. They love cash; they like having cash, looking at it, and touching it, too (cf. Chap. 6.2 – Love for Cash).

Finance. They are on low incomes and have the worst perception of their financial situation out of all the segments. They demonstrate average use of banking services, definitely more on the basic level – they have bank accounts but usually without payments cards. If they have a card, they don't usually use it for paying. They are clearly negatively inclined to getting insurance cover and largely think that this is a waste of money. They are in second place (after the Unfulfilled Indebted) in terms of the pervasiveness of debt – 40% have cash credits or loans (Table 1.5).

Demographics. This group contains people of all ages, both young and old. This is the least educated segment with half of them having primary education only and a mere 6% with higher education. This is a segment with the highest unemployment rate (31%). A relatively large portion of them are currently not married or in a relationship (50%), but, at the same time, almost half are supporting children.

Segment 7 – Financially Withdrawn (20%)

Psychological profile. This also is a group of people who are not very happy with their lives (definitely below average), but, contrary to the previous segment, they don't have a strong sense of injustice and don't "blame" external factors for their misfortunes (Table 1.4). They are passive, and even if they are dissatisfied with their lives, they don't do much to change this. They are not very set in their views and convictions: they don't strongly value any values or work, and the family also isn't of any special value to them and doesn't bring them much life satisfaction. They are not very involved in the modern world and don't own smartphones, make little use of the Internet, and have little to no interests or hobbies.

Finance. Although they objectively have a worse situation than average, they don't perceive it very negatively at all. Just like other aspects of life, they have a neutral relation to money; they don't dream of riches or of having lots of expensive possessions. They are "anti-finance" in almost every field and have the lowest level of banking service use, and this is the largest group that has no bank accounts (20%). They mainly use cash, rarely payment cards, and even if they do have them, they seldom pay with them (Table 1.5). They have the strongest level of "love for cash"– their enjoyment from being in physical contact with money is the highest out of all the groups, and this brings them great pleasure; they even like simply looking at money. In reality, they don't have any savings; they can't manage their budget and can be spendthrift. They also don't have any insurance cover, loans, or credits – all these things are simply "not for them".

Demographics. Looking at the behaviours in this group, it may come as a certain surprise that it comprises relatively young people, most (74%) being under the age of 45. They have quite a low level of education – a relatively large percentage of them have vocational training only. Most people (half) live in villages. Apart from segment 3, this segment has the largest number of singles. About 1/3 of them are still raising children. Half of them do not work for a living (not because of their age or studies as only 9% are currently in education). Out of those that work, most of them are blue-collar workers.

References

Achtziger, A., Hubert, M., Kenning, P., Raab, G., & Reisch, L. (2015). Debt out of control: The links between self-control, compulsive buying, and real debt. *Journal of Economic Psychology, 49*, 141–149.

Ahmad, M., Hassan, A., Mahmood, S., & Aslam, S. (2016). Impact of investor personality types with interaction effects of demographics on investment behavior: Evidence from Pakistan. *Journal of Commerce and Social Sciences, 10*(3), 638–658.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.

Albright, R., & McDermott, J. D. (2015). Time perspective and the practice of financial planning. *Journal of Financial Planning, 28*(1), 46–52.

Aldenderfer, M. S., & Blshfield, R. K. (1984). *Cluster analysis (quantitative applications in the social sciences)*. Beverly Hills CA: Sage.

Allport, G. W. (1954). *The nature of prejudice*. Vambrige, MA: Addison-Wesley.

Ameriks, J., Caplin, A., Laufer, S., & Van Nieuwerburgh, S. (2011). The joy of giving or assisted living? Using strategic surveys to separate bequest and precautionary motives. *The Journal of Finance, 66*(2), 519–561.

Angellini, V., & Cavapozzi, D. (2017). Dispositional optimism and stock investments. *Journal of Economic Psychology, 59*, 113–128.

Angner, E., & Loewenstein. (2012). Behavioral economics. In D. M. Gabbay, P. Thagard, & J. Woods (Eds.), *Handbook of the philosophy of science. Volume 13: Philosophy of economics* (pp. 641–689). Elsevier.

Antonides, G., de Groot, I. M., & van Raaij, W. F. (2011). Mental budgeting and the management of household finance. *Journal of Economic Psychology, 32*, 546–555.

Argyle, M. (1999). Causes and correlates of happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 353–373). New York, NY: Russell Sage Foundation.

Ashton, M. C., De Vries, R. E., & Lee, K. (2017). Trait variance and response style variance in the scales of the Personality Inventory for DSM-5 (PID-5). *Journal of Personality Assessment, 99*, 192–203.

Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality structure. *Personality and Social Psychology Review, 11*, 150–166.

Ashton, M. C., Lee, K., & de Vries, R. E. (2014). The HEXACO honesty-humility, agreeableness, and emotionality factors: A review of research and theory. *Personality and Social Psychology Review, 18*, 139–152.

Austin, E. J., Saklofske, D. H., Smith, M., & Tohver, G. (2014). Associations of the managing the emotions of others (MEOS) scale with personality, the Dark Triad and trait EI. *Personality and Individual Differences, 65*, 8–13.

Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist, 54*(7), 462–479. https://doi.org/10.1037/0003-066X.54.7.462

Barrick, M. R., & Mount, M. K. (1993). Autonomy as a moderator of the relationships between the Big Five personality dimensions and job performance. *Journal of Applied Psychology, 78*, 111–118.

Baumeister, R. F. (1987). How the self became a problem: A psychological review of historical research. *Journal of Personality and Social Psychology, 52*(1), 163.

Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation*. San Diego, CA: Academic Press, Inc.

Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2007). The Strength Model of Self-Control. *Current Directions in Psychological Science, 16*, 351–355.

Belk, R. W. (1984). Three scales to measure construct related to materialism: Reliability, validity, and relationships to measures of happiness. *Advances in Consumer Research, 11*, 291–297.

Benson, B. (2016). Cognitive bias cheat sheet. Better Humans. Retrieved from https://betterhumans.coach.me/cognitive-bias-cheat-sheet-55a472476b18

Berridge, K. C., & Winkielman, P. (2003). What is an unconscious emotion? The case for unconscious 'liking. *Cognition and Emotion, 17*(2), 181–211.

Biljanovska, N., & Palligkinis, S. (2016). Control thyself: Self-control failure and household wealth. *Journal of Banking & Finance, 92*, 280–294. https://doi.org/10.1016/j.jbankfin.2016.10.010

Brandon, J. E., Oescher, J., & Loftin, J. M. (1990). The self-control questionnaire: An assessment. *Health Values, 14*, 3–9.

Brandstatter, H. (1996). Saving, income, and emotional climate of households related to personality structure. Progress Report 38. VSB-CentER Savings Project, Tilburg University, The Netherlands.

Brickman, P., & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M. H. Appley (Ed.), *Adaptation-level theory* (pp. 287–305). New York, NY: Academic Press.

Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology, 36*(8), 917–927.

Brougham, R. R., Jacobs-Lawson, J. M., Hershey, D. A., & Trujillo, K. M. (2011). Who pays your debt? An important question for understanding compulsive buying among American college students. *International Journal of Consumer Studies, 35*(1), 79–85.

Brounen, D., Koedijk, K. G., Pownall, R. A. J. (2016) Household financial planning and aving behavior. *Journal of International Money and Finance, 69*, 95–107.

Brown, S., & Taylor, K. (2014). Household finances and the 'Big Five' personality traits. *Journal of Economic Psychology, 45*, 197–212.

Bucciol, A., & Zarri, L. (2017). Do personality traits influence investors' behaviors? *Journal of Behavioral and Experimental Economics, 68*, 1–12.

Caliendo, M., Fossen, F., & Kritikos, A. (2012). Trust, positive reciprocity, and negative reciprocity: Do these traits impact entrepreneurial dynamics. *Journal of Economic Psychology, 33*(2), 394–409.

Canova, L., Rattazzi, A. M. M., & Webley, P. (2005). The hierarchical structure of saving motives. *Journal of Economic Psychology, 26*(1), 21–34.

Caprara, G., Schwartz, S. H., Vecchione, M., & Barbaranelli, C. (2008). The personalization of politics: Lessons from the Italian case. *European Psychologist, 13*(3), 157–172.

Carton, J., & Nowicki, S. (1994). Antecedents of individual differences in locus of control of reinforcement-A critical review. *Genetic, Social, and General Psychology Monographs, 120*(1), 31–81.

Caruso, E.M., Mead, N.L., Balcetis, E. (2009). Political partisanship influences perception of biracial candidates' skin tone. Proceedings of the National Academy of Sciences of the United States of America, 106, 20168–20173.

Caruso E.M., Vohs K.D., Baxter B., Waytz A. (2013). Mere exposure to money increases endorsement of free-market systems and social inequality. *Journal of Experimental Psychology, 142*, 301–306.

Chaiken, S., & Trope, Y. (1999). *Dual-process theories in social cognition*. New York, NY: Guilford Press.

Chartrand, T. L., Huber, J., Shiv, B., & Tanner, R. J. (2008). Nonconscious goals and consumer choice. *Journal of Consumer Research, 35*(2), 189–201.

Chen, E. Z., Dowling, N. A., & Yap, K. (2012). An examination of gambling behaviour in relation to financial management behaviour, financial attitudes, and money attitudes. *International Journal of Mental Health Addiction, 10*, 231–242.

Chen, J., Tang, T. L. P., & Tang, N. (2014). Temptation, monetary intelligence (love of money), and environmental context on unethical intentions and cheating. *Journal of Business Ethics, 123*, 197–219. https://doi.org/10.1007/s10551-013-1783-2

Choi, J. J., Laibson, D., & Madrian, B. C. (2011). $100 bills on the sidewalk: Suboptimal investment in 401 (k) plans. *Review of Economics and Statistics, 93*(3), 748–763.

Cieciuch, J., & Schwartz, S. H. (2012). The number of distinct basic values and their structure assessed by PVQ-40. *Journal of Personality Assessment, 94*(3), 321–328.

Cobb-Clark, D. A., Kassenboehmer, S., & Schurer, S. (2014). Healthy habits: What explains the connection between diet, exercise, and locus of control. *Journal of Economic Behavior & Organization, 98*, 1–28.

Cobb-Clark, D. A., Kassenboehmer, S. C., & Sinning, M. G. (2016). Locus of control and savings. *Journal of Banking & Finance, 73*, 113–130.

Cobb-Clark, D. A., & Schurer, S. (2013). Two economists' musings on the stability of locus of control? *The Economic Journal, 123*(570), F358–F400.

Consiglio, C., Alessandri, G., Borgogni, L., & Piccolo, R. F. (2013). Framing work competencies through personality traits: The Big Five Competencies Grid. *European Journal of Psychological Assessment, 29*(3), 162–172.

Costa, P., & McCrae, R. (1992a). *Revised NEO Personality Inventory (NEO-PI-P). Interpretive report*. Lutz, FL: Psychological Assessment Resources.

Costa, P., & McCrae, R. (1992b). Four ways Five Factors are Basic. *Personality and Individual Differences, 13*(6), 653–665.

Crockett, R. A., Weinman, J., Hankins, M., & Marteau, T. (2009). Time orientation and health-related behavior: Measurement in general population samples. *Psychology & Health, 24*, 333–350.

Cronqvist, H., & Siegel, S. (2015). The origins of savings behavior. *Journal of Political Economy, 123*(1), 123–169.

Danner, D. D., Snowdon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: Findings from the nun study. *Journal of Personality and Social Psychology, 80*(5), 804–813.

De Neve, J. E., & Oswald, A. J. (2012). Estimating the influence of life satisfaction and positive affect on later income using sibling fixed effects. *Proceedings of the National Academy of Sciences of the United States of America, 109*(49), 19953–19958.

de Voider, M. L., & Lens, W. W. (1982). Academic achievement and future time perspective as a cognitive-motivational concept. *Journal of Personality and Social Psychology, 42*(3), 566–571.

Dean, L. R., Carroll, J. S., & Yang, C. (2007). Materialism, perceived financial problems, and marital satisfaction. *Family and Consumer Sciences Research Journal, 35*(3), 260–281. https://doi.org/10.1177/1077727x06296625

Dhaoui, A. (2013). Animal spirits and trading volume in international financial markets between 2002–2011. *Journal of Economic and Social Studies, 3*(1), 163–185.

Dhaoui, A. (2015). What does matter in economy today: When human psychology drives financial market. *Arab Economics and Business Journal, 10*, 39–47.

Dhaoui, A., Bourois, S., & Boyacioglu, M. A. (2013). The impact of investor psychology on stock markets: Evidence from France. *Journal of Academic Research in Economics, 5*(1), 35–61.

Diener, E., & Bieswas-Diener, R. (2008). *Happiness: Unlocking the mysteries of psychological wealth*. Malden, MA/Oxford/Carlton: Wiley-Blackwell.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276–302.

Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology, 41*, 417–440.

Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of Personality and Social Psychology, 73*, 1246.

Dijksterhuis, A., & Aarts, H. (2010). Goals, Attention, and (un)consciousness. *Annual Review of Psychology, 61*, 467–490.

Dittmar, H. (2005). Compulsive buying–a growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology, 96*(4), 467–491.

Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology, 107*(5), 879–924. https://doi.org/10.1037/a0037409

Dittmar, H., Long, K., & Bond, R. (2007). When a better self is only a button click away: Associations between materialistic values, emotional and identity-related buying motives, and compulsive buying tendency online. *Journal of Social and Clinical Psychology, 26*(3), 334–361. https://doi.org/10.1521/jscp.2007.26.3.334

Donnelly, G., Iyer, R., & Howell, R. T. (2012). The Big Five personality traits, material values, and financial well-being of self-described money managers. *Journal of Economic Psychology, 33*(6), 1129–1142.

Dosedlova, J., Klimusova, H., Buresova, I., & Vasina, L. (2015). Optimism and health-related behaviour in Czech University students and adults. *Procedia - Social and Behavioral Sciences, 171*. https://doi.org/10.1016/j.sbspro.2015.01.278

Eisenberg, N., Fabes, R. A., Shepard, S. A., Murphy, B. C., Guthrie, I. K., Jones, S., … Maszk, P. (1997). Contemporaneous and longitudinal prediction of children's social functioning from regulation and emotionality. *Child Development, 68*, 642–664.

Engelberg, E., & Sjöberg, L. (2006). Money attitudes and emotional intelligence. *Journal of Applied Social Psychology, 36*(8), 2027–2047.

Erbas, A. K., & Bas, S. (2015). The contribution of personality traits, motivation, academic risk-taking and metacognition to the creative ability in mathematics. *Creativity Research Journal, 27*(4), 299–307.

Fagen, S. A., Long, N. J., & Stevens, D. J. (1975). *Teaching children self-control: Preventing emotional and learning problems in the elementary school*. Columbus, OH: Charles E. Merrill.

FinBehTrack (2016). Unpublished research report about financial attitudes and behaviors of Polish people.

Furnham, A. (1984). Many sides of the coin: The psychology of money usage. *Personality and Individual Differences, 5*(5), 501–509.

Furnham, A. (1985). Why do people save? Attitudes to, and habits of saving money in Britain. *Journal of Applied Social Psychology, 15*(5), 354–373.

Gambetti, E., & Giusberti, F. (2012). The effect of anger and anxiety traits on investment decisions. *Journal of Economic Psychology, 33*, 1059–1069.

Gasiorowska, A. (2015). The impact of money attitudes on the relationship between income and financial satisfaction. *Polish Psychological Bulletin, 46*(2), 197–208. https://doi.org/10.1515/ppb2015-0026

Gasiorowska, A., Chaplin, L. N., Zaleskiewicz, T., Wygrab, S., & Vohs, K. D. (2016). Money cues increase agency and decrease prosociality among children: Early signs of market-mode behaviors. *Psychological Science, 27*(3), 331–344.

Gasiorowska, A., Zaleskiewicz, T., & Wygrab, S. (2012). Would you do something for me? The effects of money activation on social preferences and social behavior in young children. *Journal of Economic Psychology, 33*(3), 603–608.

Gathergood, J. (2012). Self-control, financial literacy and consumer over-indebtedness. *Journal of Economic Psychology, 33*(3), 590–602.

Gherzi, S., Egan, D., Stewart, N., Haisley, E., & Ayton, P. (2014). The meerkat effect: Personality and market returns affect investors' portfolio monitoring behaviour. *Journal of Economic Behavior & Organization, 107*, 512–526.

Goldsmith, R. E., & Clark, R. A. (2012). Materialism, status consumption, and consumer independence. *The Journal of Social Psychology, 152*(1), 43–60.

Goldstein, D. G., & Gigerenzer, G. (2002). Models of ecological rationality: The recognition heuristic. *Psychological Review, 109*(1), 75–90.

Good, J. (2007). Shop 'til we drop? television, materialism, and attitudes about the natural environment. *Mass Communication and Society, 10*(3), 365–383.

Gordon, R. (2011). Critical social marketing: Definition, application and domain. *Journal of Social Marketing, 1*(2), 82–99. https://doi.org/10.1108/20426761111141850

Górnik-Durose, M. E., & Pilch, I. (2016). The dual nature of materialism. How personality shapes materialistic value orientation. *Journal of Economic Psychology, 57*, 102–116.

Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.

Graham, C., & Fitzpatrick, M. (2002). Does happiness pay? An exploration based on panel data from Russia. *Center on Social and Economic Dynamics Working Paper, 24*, 1–47.

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological Review, 102*(1), 4–27.

Haidt, J. (2006). *The happiness hypothesis: Finding modern truth in ancient wisdom*. New York, NY: Basic Books.

Hanley, A., & Wilhelm, M. S. (1992). Compulsive buying: An exploration into self-esteem and money attitudes. *Journal of Economic Psychology, 13*, 5–18.

Hatheway, F., Kwan, A., & Zheng, H. (2017). An empirical analysis of market segmentation on U.S. equity markets. *Journal of Financial and Quantitative Analysis, 52*(06), 2399–2427.

Hayhoe, C. R., Leach, L. J., Turner, P. R., Bruin, M. J., & Lawrence, F. C. (2000). Differences in spending habits and credit use of college students. *Journal of Consumer Affairs, 34*(1), 113–133.

Heineck, G., & Anger, S. (2010). The returns to cognitive skills abilities and personality traits in Germany. *Labour Economics, 17*, 535–546.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Thousand Oaks, CA: Sage.

Hsee, C. K., Yu, F., Zhang, J., & Zhang, Y. (2003). Medium maximization. *Journal of Consumer Research, 30*, 1–14.

Innes-Ker, Å., & Niedenthal, P. M. (2002). Emotion concepts and emotional states in social judgment and categorization. *Journal of Personality and Social Psychology, 83*(4), 804–816.

Jacob-Lawson, J. M., & Hershey, D. A. (2005). Influence of Future Time Perspective, Financial Knowledge, and Financial Risk Tolerance on Retirement Saving Behaviors. *Financial Services Review, 14*, 331–344.

Jain, A. K., Murti, M. N., & Flynn, P. J. (1999). Data clustering: A review. *ACM Computing Surveys, 31*(3), 264–323.

John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In *Handbook of personality: Theory and research* (2nd ed.). New York, NY: Guilford.

Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica, XLVII*, 263–291.

Kajonius, P. J., & Carlander, A. (2017). Who gets ahead in life? Personality traits and childhood background in economic success. *Journal of Economic Psychology, 59*, 164–170.

Kaplanski, G., Levy, H., Veld, C., & Veld-Merkoulova, Y. (2015). Do happy people make optimistic investors? *Journal of Financial and Quantitative Analysis, 50*(1–2), 145–168.

Karolyi, A. G., & Wu, Y. (2018). A new partial-segmentation approach to modelling international stock returns. *Journal of Financial and Quantitative Analysis, 53*(02), 507–546.

Kashdan, T. B., & Breen, W. E. (2007). Materialism and Diminished Well? Being: Experiential Avoidance as a Mediating Mechanism. *Journal of Social and Clinical Psychology, 26*, 521–539.

Kasser, T., & Ahuvia, A. (2002). Materialistic values and well-being in business students. *European Journal of Social Psychology, 32*, 137–146.

Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology, 65*, 410–422.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin, 22*, 280–287.

Kaustia, M., & Rantapuska, E. (2016). Does mood affect trading behavior. *Journal of Financial Behavior, 29*, 1–26.

Klicperová-Baker, M., Košťál, J., & Vinopal, J. (2015). Time perspective in consumer behavior. In M. Stolarski, N. Fieulaine, & W. van Beek (Eds.), *Time perspective theory; review, research and application* (pp. 353–369). Cham, Switzerland: Springer.

Kraus, S. J. (1995). Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. *Personality and Social Psychology Bulletin, 21*(1), 58–75. https://doi.org/10.1177/0146167295211007

Krekels, G., & Pandelaere, M. (2016). The absolute more, the Merrier how dispositional greed influences individual thinking styles. In P. Moreau & S. Puntoni (Eds.), *NA - Advances in consumer research* (Vol. 44, pp. 518–519). Duluth, MN: Association for Consumer Research.

Ksendzova, M., Donnelly, G. E., & Howell, R. T. (2017). A brief money management scale and its associations with personality, financial health, and hypothetical debt repayment. *Journal of Financial Counseling and Planning, 28*(1), 62–75.

Lai, C. W. (2010). How financial attitudes and practices influence the impulsive buying behavior of college and university students. *Social Behavior and Personality, 38*(3), 373–380.

Laibson, D., Repetto, A., & Tobacman, J. (1998). Self-control and saving for retirement. *Brookings Papers on Economic Activity, 1*, 91–196.

LeDoux, J. E. (1996). *The emotional brain*. New York, NY: Simon & Schuster.

Lim, V. K. G., & Teo, T. S. H. (1997). Sex, money and financial hardship: An empirical study of attitudes towards money among undergraduates in Singapore. *Journal of Economic Psychology, 18*(4), 369–386.

Lipowski, M., Lipowska, M., Peplinska, A., & Jeżewska, M. (2014). Personality determinants of health behaviors od merchant navy officers. *International Maritime Health, 65*(3), 158–165.

Liu, B. C., & Tang, T. L. P. (2011). Does the love of money moderate the relationship between public service motivation and job satisfaction? The case of Chinese professionals in the public sector. *Public Administration Review, 71*(5), 718–727.

Lloyd, S. (1982). Least squares quantization in PCM. *IEEE Transactions on Information Theory, 28*(2), 129–137. https://doi.org/10.1109/TIT.1982.1056489

Luna-Arocas, R., & Tang, T. L. P. (2004). The love of money, satisfaction, and the Protestant Work Ethic: Money profiles among university professors in the USA and Spain. *Journal of Business Ethics, 50*, 329–354.

Lunt, P. K., & Livingstone, S. M. (1991). Psychological, social and economic determinants of saving: Comparing recurrent and total savings. *Journal of Economic Psychology, 12*(4), 621–641.

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology, 9*(2), 111–131.

Maison, D. (2018). *Qualitative marketing research. Understanding consumer behavior*. London, UK: Routledge.

Maison, D., & Herrmann J. (2013). How research can help build a successful CSR campaign. Paper presented at *ESOMAR CONGRESS.* Istanbul, Turkey.

Mandrick, C., Fern, E. F., & Bao, Y. (2005). Intergenerational influence: Roles of conformity to peers and communication effectiveness. *Psychology and Marketing, 22*, 813–832.

Maruta, T., Colligan, R. C., Malinchoc, M., & Offord, K. P. (2000). Optimism vs. pessimism: Survival rate among medicine patient over a 30-year period. *Mayo Clinic Proceedings, 75*, 140–143.

Maszk, P., Eisenberg, N. G., & Guthrie, I. K. (1999). Relations of children's social status to their emotionality and regulation: A short-term longitudinal study. *Merrill-Palmer Quarterly, 45*, 468–492.

McCrae, R. R., & Costa, P. T. (1989). The structure of interpersonal traits: Wiggins's circumplex and the five-factor model. *Journal of Personality and Social Psychology, 56*(4), 586.

Miller, J. E., Amit, E., & Posten, A.-C. (2015). Behavioral economics. In H. ten Have (Ed.), *Encyclopedia of global bioethics* (pp. 1–6). Cham, Switzerland: Springer. https://doi.org/10.1007/978-3-319-05544-2_37-1

Miotto, A. P. S., & Parente, J. (2015). Antecedents and consequences of household financial management in Brazilian lower-middle-class. *Revista de Administração de Empresas, 55*(1), 50–64.

Mischel, W., Shoda, Y., & Peake, P. K. (1988). The nature of adolescent competencies predicted by preschool delay of gratification. *Journal of Personality and Social Psychology, 54*, 687–696.

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., … Sears, M. R. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the Academy of Sciences, 108*(7), 2693–2698.

Mogilner. (2010). The pursuit of happiness: Time, money, and social connections. *Psychological Science, 21*(9), 1348–1354.

Mount, M. K., Barrick, M. R., & Stewart, G. L. (1998). Five-factor model of personality and performance in jobs involving interpersonal interactions. *Human Performance, 11*, 145–165.

Mulyanegara, R. C., Tsarenko, Y., & Anderson, A. (2009). The Big Five and brand personality: Investigating the impact of consumer personality on preferences towards particular brand personality. *Journal of Brand Management, 16*(4), 234–247.

Murphy, B. C., & Eisenberg, N. (1997). Young children's emotionality, regulation and social functioning and their responses when they are a target of a peer's anger. *Social Development, 6*, 18–36.

Murphy, S. T., & Zajonc, R. B. (1993). Affect, cognition, and awareness: Affective priming with optimal and suboptimal stimulus exposures. *Journal of Personality and Social Psychology, 64*(5), 723–739. https://doi.org/10.1037//0022-3514.64.5.723

Niedenthal, P. M., & Showers, C. (1991). The perception and processing of affective information and its influences on social judgment. In J. P. Forgas (Ed.), *International series in experimental social psychology. Emotion and social judgments* (pp. 125–143). Elmsford, NY: Pergamon Press.

Nyhus, E. K., & Webley, P. (2001). The role of personality in household saving and borrowing behavior. *Personality and Economic Behaviour, 15*(S1), S85–S103.

Oehler, A., & Wedlich, F. (2018). The relationship of extraversion and neuroticism with risk attitude, risk perception, and return expectations. *Journal of Neuroscience, Psychology, and Economics, 11*(2), 63–92. https://doi.org/10.1037/npe0000088

Oehler, A., Wendt, S., Wedlich, F., & Horn, M. (2018). Investors' Personality Influences Investment Decisions: Experimental Evidence on Extraversion and Neuroticism. *Journal of Behavioral Finance, 19*, 30–48.

Osmonbekov, T., Gregory, B., Brown, W. i., & Xie, F. (2009). How consumer expertise moderates the relationship between materialism and attitude toward advertising. *Journal of Targeting, Measurement and Analysis for Marketing, 17*(4), 321–327. https://doi.org/10.1057/jt.2009.23

Peterson, C., & Bossio, L. M. (2001). Optimism and physical well-being. In E. C. Chang (Ed.), *Optimism and pessimism. Implications for theory, research and practice. (s. 127–146).* Washington, D.C: American Psychological Association.

Peterson, C. R., & Beach, L. R. (1967). Man as an intuitive statistician. *Psychological Bulletin, 68*, 29–46. https://doi.org/10.1037/h0024722

Pfeffer, J., & Devoe, S. E. (2009). Economic evaluation: The effect of money and economics on attitudes about volunteering. *Journal of Economic Psychology, 30*(3), 500–508.. *Psychology ,73*, 1246–1256.

Przepiórka, A., & Blachnio, A. (2016). Time perspective in Internet and Facebook addiction. *Computers in Human Behavior, 60*, 13–18.

Rha, J.-Y., Montalto, C. P., & Hanna, S. D. (2006). The Effect of Self-Control Mechanisms on Household Saving Behavior. *Financial Counseling and Planning, 17*(2), 3–16.

Richins, M., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research, 19*, 303–316.

Roberts, J. A., & Jones, E. (2001). Money attitudes, credit card use, and compulsive buying among American college students. *Journal of Consumer Affairs, 35*(2), 213–240.

Rokeach, M. (1973). *The nature of human values*. New York, NY: The Free Press.

Rokeach, M., & Ball-Rokeach, S. (1989). Stability and change in American value priorities 1968–1981. *American Psychologist, 44*(5), 775–784.

Romal, J. B., & Kaplan, B. J. (1995). Difference in self-control among spenders and savers. *Psychology—A Quarterly Journal of Human Behavior, 32*, 8–17.

Rosenbaum, M. (1980). A schedule for assessing self-control behaviors: Preliminary findings. *Behavior Therapy, 11*, 109–121.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied, 80*(1), 1–28.

Rustichini, A., DeYoung, C., Anderson, J. E., & Burks, S. (2016). Toward the integration of personality theory and decision theory in explaining economic behavior: An experimental investigation. *Journal of Behavioral and Experimental Economics, 64*, 122–137.

Ryan, L., & Dziurawiec, S. (2001). Materialism and its relationship to life satisfaction. *Social Indicators Research, 55*, 185–197.

Sagiv, L., & Schwartz, S. H. (2004). Values, intelligence and client behavior in career counseling: A field study. *European Journal of Psychology of Education, 19*(3), 237–254.

Samson, A. (Ed.) (2017). *The Behavioral Economics Guide 2017* (with an introduction by Cass Sunstein). Retrieved from http://www.behavioraleconomics.com.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical Advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). London, UK: Academic Press.

Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of values? *Journal of Social Issues, 50*(4), 19–45.

Schwartz, S. H. (1996). Value priorities and behavior: Applying a theory of integrated value systems. In C. Seligman, J. M. Olson, & M. Zanna (Eds.), *The psychology of values (s. 1–24)*. Mahwah, NJ: Erlbaum Associates.

Schwartz, S. H. (2006). Basic human values: Theory measurement and applications. *Revue Française de Sociologie, 47*(4), 929–968.

Schwartz, S. H. (2012a). Basic personal values and political orientations. In J. Aldrich & K. M. McGraw (Eds.), *Improving public opinion surveys: Interdisciplinary innovation and the American national election studies* (pp. 63–82). Princeton, NJ: Princeton University Press.

Schwartz, S. H. (2012b). An overview of the Schwartz theory of basic values. *Psychology & Culture, 2*(1). https://doi.org/10.9707/2307-0919.1116

Schwartz, S. H., Caprara, G. V., & Vecchione, M. (2010). Basic personal values, core political values, and voting: A longitudinal study. *Political Psychology, 31*, 421–452.

Schwartz, S. H., Cieciuch, J., Vecchione, M., Davidov, E., Fischer, R., Beierlein, C., … Konty, M. (2012a). Refining the theory of basic individual values. *Journal of Personality and Social Psychology, 103*(4), 663–688.

Schwartz, S. H., Cieciuch, J., Vecchione, M., Davidov, E., Fischer, R., Beierlein, C., …Konty, M. (2012b). Refining the theory of basic individual values. *Journal of Personality and Social Psychology, 103*, 663–688.

Sekścińska, K., Maison, D. A., & Trzcińska, A. (2016). How people's motivational system and situational motivation influence their risky financial choices. *Frontiers in Psychology, 7*, 1360. https://doi.org/10.3389/fpsyg.2016.01360

Sekścińska, K., Rudzińska-Wojciechowska, J., & Maison, D. A. (2018a). Future and present hedonistic time perspectives and the propensity to take investment risks: The interplay between induced and chronic time perspectives. *Frontiers in Psychology, 9*(9), 920. https://doi.org/10.3389/fpsyg.2018.00920

Sekścińska, K., Rudzińska-Wojciechowska, J., & Maison, D. A. (2018b). Individual differences in time perspectives and risky financial choices. *Personality and Individual Differences, 120*, 118–126.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology. An introduction. *American Psychologist, 55*(1), 5–14.

Shank, M. D., & Langmeyer, L. (1994). Does personality influence brand image? *Journal of Psychology, 128*(2), 157.

Sheldon, K. M., & Lyubomirsky, S. (2006). Achieving sustainable gains in happiness: Change your actions, not your circumstances. *Journal of Happiness Studies, 7*(1), 55–86.

Shoda, Y., Mischel, W., & Peake, P. K. (1990). Predicting adolescent cognitive and self regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology, 26*, 978–986.

Simon, H. A. (1987). Making management decisions: The role of intuition and emotion. *The Academy of Management Executive (1987–1989), 1*(1), 57–64.

Singh, S. (2016). Brand engagement and materialism: Attitude towards shopping. *IUP Journal Of Brand Management, 13*(3), 7–22.

Sirgy, M. J. (1985). Using self-congruity and ideal congruity to predict purchase motivation. *Journal of Business Research, 13*(3), 195–206.

Smith, P. B., Peterson, M. F., & Schwartz, S. H.. with 49 co-authors. (2002). Cultural values, sources of guidance, and their relevance to managerial behavior: A 47-nation study. *Journal of Cross-Cultural Psychology, 33*(2), 188–208.

Smith, T. W., Ruiz, J. M., Cundiff, J. M., Baron, K. G., & Nealey-Moore, J. B. (2013). Optimism and Pessimism in Social Context: An Interpersonal Perspective on Resilience and Risk. *Journal of Research in Personality, 47*, 553–562.

Smith, V. L. (2005). Behavioral economics research and the foundations of economics. *The Journal of Socio-Economics, 34*(2), 135–150.

Srivastava, A., Locke, E. A., & Bartol, K. M. (2001). Money and subjective well-being: It's not the money, it's the motives. *Journal of Personality and Social Psychology, 80*, 959–971.

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being*? Journal of Behavioral and Experimental Finance, 14*, 30–38.

Tang, T. L. P. (1992). The meaning of money revisited. *Journal of Organizational Behavior, 13*, 197–202.

Tang, T. L. P. (1995). The development of a short money ethic scale: Attitudes toward money and pay satisfaction revisited. *Personality and Individual Differences, 19*, 809–816.

Tang, T. L.-P., & Chen, Y.-J. (2008). Intelligence vs. Wisdom: The love of money, machiavellianism, and unethical behavior across college major and gender. *Journal of Business Ethics, 82*(1), 1–26.

Tang, T. L. P., & Chiu, R. K. (2003). Income, money ethic, pay satisfaction, commitment, and unethical behavior: Is the love of money the root of evil for Hong Kong managers. *Journal of Business Ethics, 46*, 13–30.

Tang, T. L. P., & Liu, H. (2012). Love of Money and Unethical Behavior Intention: Does an Authentic Supervisor's Personal Integrity and Character (ASPIRE) Make a Difference? *Journal of Business Ethics, 107*, 295–312.

Tang, T. L. P., Furnham, A., & Davis, G. M. T. W. (2000). A cross cultural comparison of pay differentials as a function of rater‘s sex and Money Ethic endorsement: The Matthew effect revisited. *Personality and Individual Differences, 29*, 685–697.

Tang, T. L. P., & Kim, J. K. (1999). The Meaning of Money among mental health workers: The endorsement of Money Ethic as related to organizational citizenship behavior, job satisfaction, and commitment. *Public Personnel Management, 28*(1), 15–26.

Tang, T. L. P., Kim, J. K., & Tang, T. L. N. (2002). Endorsement of the money ethic, income, and life satisfaction: A comparison of full-time employees, part-time employees, and non-employed university students. *Journal of Managerial Psychology, 17*(6), 442–467.

Tang, T. L. P., Sutarso, T., Akande, A., Allen, M. W., Alzubaidi, A. S., Ansari, M. A., et al. (2006). The love of money and pay level satisfaction: Measurement and functional equivalence in 29 geopolitical entities around the world. *Management and Organization Review, 2*(3), 423–452.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality, 72*(2), 271–324.

Thaler, R. H. (1985). Mental accounting and consumer choice. *Marketing Science, 4*, 199–214.

Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making, 12*, 183–206.

Thaler, R. H. (2015). *Misbehaving: The making of behavioral economics*. New York, NY: W. W. Norton & Company.

Thaler, R. H. (2016). Behavioral economics: Past, present, and future. *American Economic Review, 106*(7), 1577–1600.

Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. New York, NY: Yale University Press.

Traut-Mattausch, E., & Jonas, E. (2011). Why do people save? *Zeitschrift für Psychologie, 219*, 246–252. https://doi.org/10.1027/2151-2604/a000079

Trzcińska, A., Sekścińska, K., & Maison, D. A. (2018). The role of self-control and regulatory foci in money-saving behaviors among children. *Current Psychology*, 1–11. https://doi.org/10.1007/s12144-018-9944-1

Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science, 211*, 453–458.

van Raaij, W. F., & Verhallen, T. M. M. (1994). Domain-specific market segmentation. *European Journal of Marketing, 28*(10), 49–66.

van Laer, T., de Ruyter, K., Visconti, L. M., & Wetzels, M. (2013). The Extended Transportation-Imagery Model: A Meta-Analysis of the Antecedents and Consequences of Consumers' Narrative Transportation. *Journal of Consumer Research, 40*, 797–817.

Vecchione, M., Alessandri, G., Barbaranelli, C., & Caprara, G. (2011). Higher-order factors of the Big Five and basic values: Empirical and theoretical relations. *British Journal of Psychology, 102*, 478–498.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2006). The psychological consequences of money. *Science, 314*, 1154–1156. https://doi.org/10.1126/science.1132491

Vollmann, M., Renner, B., & Weber, H. (2007). Optimism and social support: The providers' perspective. *The Journal of Positive Psychology, 2*, 205–2015.

Wärneryd, K. E. (1996). *Personality and saving VSB-CentER savings project progress report 39*. Center for Economic Research, Tilburg University.

Watson, J. J. (2003). The relationship of materialism to spending tendencies, saving, and debt. *Journal of Economic Psychology, 24*(6), 723–739. https://doi.org/10.1016/j.joep.2003.06.001

Webley, P., & Nyhus, E. K. (2001). Life-cycle and dispositional routes into problem debt. *British Journal of Psychology, 92*, 423–446.

Wedel, M., & Kamakura, W. A. (2000). *Market segmentation. Conceptual and methodological foundations*. Boston, MA: Kluwer.

Weinstein, A. (1994). *Using demographics, psychographics, and other Niche marketing techniques to predict and model customer behavior*. McGraw-Hill, Chicago: Irwin.

Westfall, R. (1962). Psychological factors in predicting product choice. *Journal of Marketing, 26*(2), 34–40.

Winkielman, P., Berridge, K. C., & Wilbarger, J. L. (2005). Unconscious affective reactions to masked happy versus angry faces influence consumption behavior and judgments of value. *Personality and Social Psychology Bulletin, 1*, 121–135.

Wolfe, R. N., & Johnson, S. D. (1995). Personality as a predictor of college performance. *Educational and Psychological Measurement, 55*, 177–185.

Yamauchi, K., & Templer, D. (1982). The development of a money attitudes scale. *Journal of Personality Assessment, 46*, 522–528.

Yoon, H. J., La Ferle, C., & Edwards, S. M. (2016). A normative approach to motivating savings behavior: The moderating effects of attention to social comparison information. *International Journal of Advertising, 35*(5), 799–822.

Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist, 35*(2), 151–175. https://doi.org/10.1037/0003-066X.35.2.151

Zhang, J. W., Howell, R. T., & Bowerman, T. (2013). Validating a brief measure of the Zimbardo time perspective inventory. *Time & Society, 22*, 391–409. https://doi.org/10.1177/0961463X12441174

Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology, 77*, 1271–1288.

Zimbardo, P. G., & Boyd, J. N. (2008). *The time paradox: The new psychology of time that will change your life*. New York, NY: Free Press.

Chapter 2
Richness: How Much Money Do We Have and How Do We Think About It?

Money is an integral part of life in the modern world. A person who has no money whatsoever would not be able to survive: they would have nowhere to live, nothing to eat, and nothing to wear, hence the ongoing drive in Western societies and in the capitalist culture to make more and more money, own more things, and intensify consumption. It is at this point that the question arises as to where the boundary is between what a person truly needs and what for them is superfluous and in excess? What level of income brings life satisfaction and dissatisfaction? What level of personal finance makes a person feel wealthy? It turns out that there are many reasons why it is not that easy to find an answer to these questions, mostly because the objective indicator of a person's material situation (income and possessions) does not always translate into satisfaction with their material situation, thus, into the subjective evaluation of their financial situation. The two segments described in Chap. 1 are a fine example of this: *Family-oriented Non-materialist* and *Unfulfilled Indebted*. Despite comparable incomes, these groups evaluate their material situation completely differently, where *Family-oriented Non-materialists* judged their standing to be much better than that of *Unfulfilled Indebted*.

2.1 Three Dimensions of Financial Situation: Objective (Income), Subjective (Perception), and Relative (Effect of Social Comparisons)

Initially, income in economics was considered the key indicator of the material situation. It was also assumed that satisfaction from one's financial situation is directly dependent on this indicator. However, further research furnished evidence that what a person earns (objective dimension) is often independent of how satisfied they are from what they earn (financial satisfaction – subjective dimension; Diener & Biswas-Diener, 2008). The discrepancy observed in research between the results of

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different studies attempting to determine the relationships between the indicators of the objective and subjective material situation may result not only from their highly complex nature but also from the fact that these phenomena are measured in different ways across studies. Income may be measured in many different ways, as an individual's personal income (Clark & Oswald, 1996), the cumulative household income (Hsieh, 2004; Joo & Grable, 2004), or the average household income per capita (Hsieh, 2004). Each of these measurements has its pros and cons. An individual's personal income, despite being most frequently measured, is not always a good indicator since it carries different meaning depending on whether it is a family's sole income or if there are more earners in the family. The cumulative household income has the disadvantage of depending on how many persons there are in a family and the ratio of earners to non-earners. The average household per capita income, unfortunately, does not solve this problem either because different expenses can be expected depending on whether it concerns a family with newborns and toddlers, a family with school-aged children, and still different when it is a childless family (Hsieh, 2004). When searching for the best indicator of the objective financial situation, researchers sometimes suggest taking into account what is left over once the basic needs have been met (Gatina, 2016; Campara, Vieira, & Potrich, 2017; Sirgy, 2018). This indicator, however, is not free of flaws either. The complication here is that people have different definitions of their basic needs in life. A specific amount of money may be sufficient to satisfy basic needs for some but be completely insufficient for others. For some, basic needs will cover food, clothing, and shelter, while for others, it may be a house with a swimming pool, luxury cars, regular exotic holidays abroad, and private education for their children. This clearly shows that the same goods or money can hold different meanings for different people. Thus, finding one the best indicator of the financial situation is not at all easy because each of the measures has its flaws.

The measurement of the subjective evaluation of the material situation is equally complex. Firstly, it can be measured as a general feeling (Clark & Oswald, 1996, qn. Q37_FS1, Appendix 2; cf. Fig. 2.1) or descriptively, where the person specifies what they can afford or lists their possessions (qn. Q41_FS5, Appendix 2). Apart from measuring how a person perceives their material situation, another important assessment used in research is the relative evaluation as to how a given person perceives their financial situation compared to a reference group (qn. Q38_FS2, Appendix 2). People are very often incapable of evaluating if their situation is fundamentally good or bad because they would need a reference point in order to do this. Only a comparison of one's own situation with that of the people in their surroundings gives them an indication of how they can assess their own life situation. Evidence that this is the case can be drawn from various different areas of life, not just from the world of finance. For instance, the loss of a job and remaining unemployed is linked to a smaller decrease in well-being in regions where unemployment is high ("my situation isn't that bad, it's just like other people's situation"), compared to areas with low unemployment ("everyone's situation is good, it's just mine that is bad") (Clark, 2001; Clark, Frijters, & Shields, 2008).

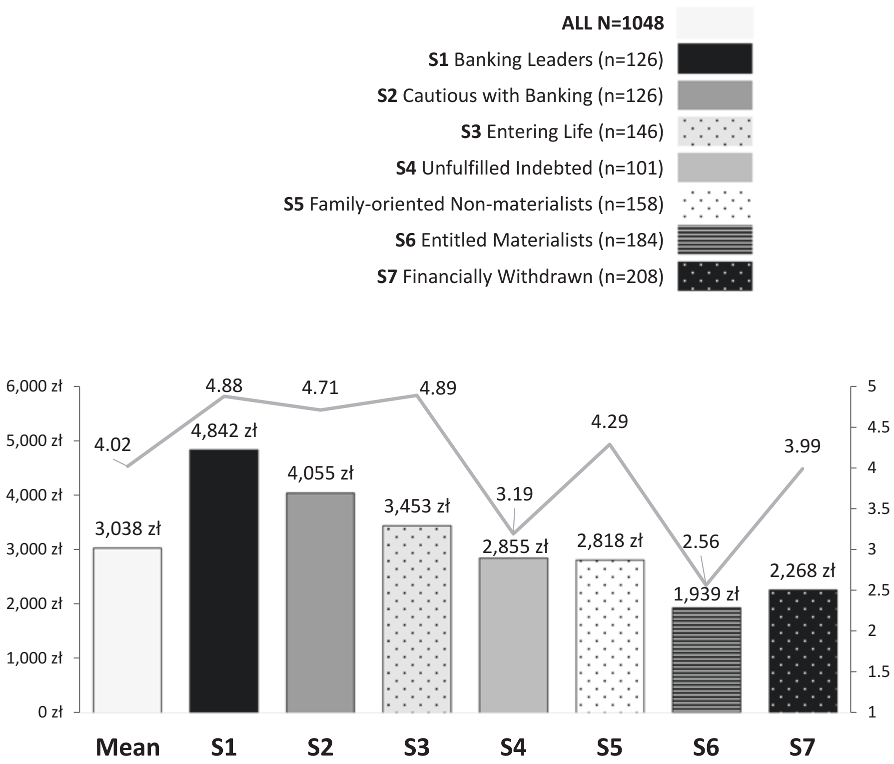

Fig. 2.1 Mean household income (in Polish curency – "zł") vs. perceived financial situation (qn. Q37_FS1: "How would you assess your material situation?"; scale from 1 to 7 – visualized as line)

Similarly, when wanting to define one's financial situation, people turn to comparisons with others who are similar to them, and, naturally, they feel greater satisfaction when it turns out as a result of their comparison that their income is higher than others. These comparisons can appear at various different levels, and different groups can become reference points for such comparisons. What's important, however, is that the outcomes of such comparisons can vary, and they may have different consequences on the level of satisfaction depending on the selected reference group. Neumark and Postlewaite (1998) demonstrated that a person's satisfaction with their income would be lower if other family or household members would earn more than they do, than when the people around them would earn less than they do. Other studies have shown that satisfaction with one's earnings depends on the salaries of colleagues in the same firm, organisation, or profession (Brown, Gardner, Oswald, & Qian, 2005).

A similar picture of results was found in the context of pay satisfaction, which, as it turns out, does not directly depend on the objective level of earnings but on the outcome of its comparison with the salaries of other employees with a similar level of education and carrying out similar tasks (Clark & Oswald, 1996; Alpizar, Carlsson, & Johansson-Stenman, 2005; Clark et al., 2008). Better paid blue-collar workers in the UK are more satisfied with their wages than white-collar workers earning the same amount; hence, every one of these groups has different reference groups, and their earnings fare differently when compared to their reference group (Runcinmann, 1966; Yitzhaki, 1982; Argyle, 2008; Tang, Luna-Arocas, & Sutarso, 2005). Ball and Chernova (2008) revealed in their research that the possession of a larger amount of money than other people in their milieu (relative indicator) has a greater impact on satisfaction than simply having a nominally greater amount of money. For this reason, the way to achieve greater satisfaction is not just through an objective increase in income but also a relative increase (compared to others in their surroundings). In other words, one can assume that raising every employee's salary would give rise to a lower level of satisfaction than adjusting individual salaries.

The phenomenon described above consisting of a relative evaluation of one's financial situation can be explained in light of well-known psychological theories, among others, Leon Festinger's Social Comparison Theory (1954). According to this concept, a person has the need to obtain a precise assessment of themselves by discerning their opinions and abilities and getting to know their strengths and weaknesses. Whenever possible, people try to use objective criteria to make such evaluations like, for instance, the indications of a bathroom scales when measuring body weight. In life, however, it's often not easy to find such objective indicators to measure the phenomena surrounding us. Most human traits, like honesty, resourcefulness, success, or wealth, are not subject to objective measurements, which is why people often have to compare themselves with others to obtain such information. People usually compare themselves to individuals who are similar to them, and this is exactly how they collect information about themselves.

2.2 The Power of Perception: Financial Optimists Versus Pessimists

In the context of our deliberations on the objective and subjective financial situation, an important question that needs to be put is why, for some people, their evaluation of their material situation is directly connected with how much they earn and own, while for others, their perception of this has nothing to do with reality. In order to find the answer to this question, an analysis was conducted based on the data from our FinBehTrack study (2016). Firstly, the correlation between income and the perception of the financial situation was $r = 0.39$, which is similar to the results observed in other studies (e.g. Grable, Cupples, Frenatt, & Anderson, 2013 – correlation 0.33). Although this correlation is statistically significant[1] and demonstrates that the relationship between these two variables does indeed exist, the level of the

[1] In the case of large samples, relatively low correlations (e.g. $r = 0.15$) are often statistically significant, which is why, when considering their importance, one should look at the value of the correlation itself apart from its significance.

Table 2.1 Relation between objective (income) and subjective (perception) financial situation – four approaches

		Income (objective indicator)	
		Low ($n = 399$)	**High** ($n = 249$)
Perception of the financial situation (subjective indicator)	**Low** ($n = 297$)	**Low income realists** ($n = 251$)	**Financial pessimists** ($n = 46$)
	High ($n = 351$)	**Financial optimists** ($n = 148$)	**High income realists** ($n = 203$)

The income variable has been divided based on the distribution into two subgroups: monthly earnings below PLN 2500 (approx. $ 650) and above this amount. The perception of the financial situation variable was recoded so that the persons evaluating their financial situation as rather bad, bad, and definitely bad are qualified to the "low" group, and persons assessing their financial situation as rather good, good, and very good were put into the "high" group

correlation confirms that there are people for whom these two dimensions of financial satisfaction are not directly connected. This is why the next step in the analysis was to cross two variables, income and the perception of the financial situation (qn. Q37_FS1), which led to the identification of four subgroups of people: (a) persons of low income, perceiving their financial situation as bad (referred to as *low income realists*); (b) persons of low income but assessing their financial situation to be very good (*financial optimists*); (c) persons of high income and assessing their financial situation as very good (*high income realists*); and (d) persons of high income but perceiving it as bad (*financial pessimists*, Table 2.1). Persons assessing their financial situation to be average were excluded from the analysis.

The next step in the analysis was to compare in terms of their individual features the two identified groups characterised by a discrepancy between the level of income and their perception, that is, between *financial optimists* and *financial pessimists*. Although the groups of financial optimists and pessimists are not that large, it is worth taking a close look at them because it turns out that these groups differ in terms of many psychological traits[2] (Table 2.2). For one, financial optimists have a generally more positive approach to life and obtained significantly higher indicators of life satisfaction measured using the SWLS scale. What's more, financial optimists have a higher internal locus of control than pessimists and a smaller sense of injustice. Financial pessimists, however, pay more attention to money as a tool to satisfy their needs than optimists. Additionally, money for pessimists is a source of social comparisons and self-esteem and evaluation of others, as well as a source of a sense of inferiority and frustration.

The last analysis involved an investigation of the responses of *financial optimists* and *pessimists* to the question of how they manage their money: whether they

[2] Due to uneven group sizes, comparisons of the statistical significance in the differences between the groups were carried out using the Mann-Whitney U non-parametric test. However, for the clarity of the presentation of results, the table shows the average values (means) of the compared variables for the group of financial optimists and pessimists.

Table 2.2 The difference in approach to life and money between financial pessimists and optimists

Dimension	Financial pessimists	Financial optimists	Mann-Whitney U test	
			Value	Significance
Satisfaction with Life Scale (SWLS; qn. Q3_LS3)	3.07	**4.71**	845.50	$p = 0.001$
Internal locus of control (LOC; qn. Q4_AL1:A-C)	2.70	**3.19**	1676.00	$p = 0.001$
Sense of injustice (qn. Q4_AL1:F-I)	**2.93**	2.51	2016.50	$p = 0.002$
Money as an instrument (qn. Q35_MAT1:E-G)	**3.00**	2.85	2315.50	$p = 0.03$
Money as the source of feelings of inferiority (qn. Q35_MAT 1:H-L)	**2.60**	2.26	2085.50	$p = 0.004$

Table 2.3 Money management (declaration-based) among financial pessimists and optimists

	How would you describe your approach to money management?			
	Everything goes towards my day-to-day living expenses	I manage to save some money from time to time	I put a certain amount of money aside each month	
Financial pessimists	**67%** ($n = 31$)	**24%** ($n = 11$)	**9%** ($n = 4$)	($n = 46$)
Financial optimists	**25%** ($n = 37$)	**55%** ($n = 82$)	**20%** ($n = 30$)	($n = 149$)

allocate everything to satisfy their current needs or if they manage to save something once in a while or on a regular basis (qn. Q27_SIN1). The data presented in Table 2.3 also shows statistically significant differences in money management between the two identified groups ($\chi^2(2) = 28.03$, $p < 0.001$). *Financial pessimists* allocate most of their income to day-to-day living expenses, whereas *financial optimists*, despite objectively having less money at their disposal, are capable of saving (75% of them claim that they do so at least once in a while), and 20% do this regularly (twice as often than the pessimists).

The conducted analyses have shown that a positive approach to life translates into a positive approach to finance, and this leads to better functioning within the different areas of finance.

2.3 Does Money Bring Happiness?

In light of the reflections on satisfaction with one's financial situation, an important question that is being raised not only by researchers of economic phenomena but also philosophers, sociologists, and psychologists is whether money can be the source of satisfaction with life or even can money bring happiness. The answer to this seemingly simple question is very complex, and the research that has been conducted in this field for many years and in many different countries does not allow an unequivocal response to be formulated. Also in this case, one of the reasons for this may be the large variety of methodologies used and ways of measurement applied in studies addressing this issue. This is why a different picture of results is revealed when analysing the relationships between income and feeling of well-being conducted globally, at the level of societies, and something else when looking at this relationship selectively on an individual level of single persons, and still another when drawing conclusions from longitudinal studies. A clear picture of this relationship is further complicated by the wealth sometimes measured on an individual level (also in different ways, e.g. cumulative household income, household per capita income, an individual's personal income, and possessions) and sometimes on country level (using, e.g. GDP or the Gini index). Despite many incongruous results, several general conclusions can be drawn when looking at the studies conducted to date in this field.

Firstly, numerous studies exploring the relationship between wealth and a sense of happiness on a global level (of whole societies) have demonstrated that, as a rule, richer countries have a higher level of well-being than poorer countries, although this relationship has its exceptions (Diener & Biswas-Diener, 2008; Helliwell, Layard, & Sachs, 2018 – www.worldhappieness.report). The second conclusion concerns the fact that despite an evident relationship on the level of societies existing between the wealth of a country and the observed well-being, the increased prosperity does not translate into a comparable increase in the sense of happiness. In the USA, incomes have been steadily growing over the last 50 years – the gross domestic product per capita has tripled; however, the level of life satisfaction has remained stable throughout this time. Similarly, the lack of any relationship between GDP and life satisfaction can also be found in other countries, where life satisfaction does not increase or increases only slightly compared to the continuous growth in incomes and wealth of societies (Diener & Seligman, 2004; Helliwell, 2003; Diener & Biswas-Diener, 2002). Studies carried out in Poland by Czapiński and Panek (2007) have revealed that despite the repeated growth of the average income of Polish households and the very strong economic growth since 1994 (after the fundamental political and economic changes), no real changes have been observed over these years in the well-being of Poles (Czapiński & Panek, 2007). Clearly, economic growth does not guarantee an increase in happiness of the members of richer societies. Furthermore, economic growth brings with it a range of negative effects both on the social level, like erosion of social ties, higher crime rates, increased pollution, and on the individual level in the form of an increase in the number of people suffering from depression and anxiety disorders, and a rising incidence of suicide (Czapiński & Panek, 2007; Twenge, 2000).

Analysing the dependency between the financial situation and life satisfaction, it is important to note that the most commonly used evidence for the existence of this relationship are correlation data. It turns out that although correlations between these variables have consistently been observed across most studies, these correlations are, however, low (Diener & Biswas-Diener, 2002), and their statistical significance often results from the size of the sample (as was said earlier, in large samples even low correlations are statistically significant). An exception to this are poor countries (or poor populations) where the correlations between the level of personal finance and life satisfaction are evidently higher, for example, in the poverty-ridden neighbourhoods of Calcutta, this correlation has reached 0.45 (Diener & Diener, 1995; Biswas-Diener & Diener, 2001; Diener & Oishi, 2000; Tov & Diener, 2007). These and other findings suggest that when faced with problems with satisfying basic needs in life (absolute poverty), life satisfaction increases with the growth in financial resources and the possibility of satisfying basic subsistence needs that goes hand in hand with it. However, once a certain (not that high) threshold has been reached, which guarantees the fulfilment of basic daily needs, this dependency clearly drops, and it is not at all the case that richer people are happier (Cummins, 2000; Frey & Stutzer, 2002). Hence, the answer to the question of whether money brings happiness is "definitely not", provided, however, that a person's basic needs have been met. One thing that money does give, however, is comfort and convenience of living, security, the chance to take better care of one's health, a higher level of security on retirement, and facilitates crisis and emergency responses (e.g. in case of illness or accident).

The observations resulting from research indicating a weak dependency between the financial situation and life satisfaction are consistent with the saying that "money doesn't buy happiness". What is interesting, however, is that even though people know that money doesn't bring happiness, they still behave as though it does, continuously striving to increase their wealth and prosperity. According to evolutionary psychology, the wealth of a male is probably the most important factor for females when making life partner decisions (Buss, 2001). Males of many animal species accumulate goods to make a good impression on females. Evolutionary psychologists explain this mechanism by women's interest in men with substantial financial resources. However, in order for a man with considerable financial resources to be attractive, at least two additional criteria must be met. Firstly, a man must have the possibility to accumulate, defend, and control his resources (a permanent job and securely stored money), as this guarantees that these resources will not be depleted quickly. Secondly, a man must stand out from his surroundings in terms of his resources, which explains the huge importance of the relative perception of resources (relative assessment of the financial situation). Ahuvia (2008), in his considerations, referred to evolution theories and held that we are not the way we are because we want to be happy but because we want to have children who will be able to survive and procreate in the future. Thus, he made the assumption that the human propensity to accumulate goods may have an evolutionary origin. Following the assumptions adopted by evolutionary psychologists, he identified three potential human desires that may be related to our consumptionist approach to life: the desire to acquire and store resources, the need to increase one's sexual attraction, and the need to gain a high status in the social system. According to him, it is this last goal that makes people want to store resources above what they can actually consume on their own.

Another question raised in this context is whether the possession of money and the possession of goods are the same from a subjective point of view. If not, this may just be one of the factors explaining the discrepancies between findings on satisfaction with one's financial situation across different studies. From an economic point of view, a product of a certain value should have the same monetary worth for a given person as the amount of money that was spent on acquiring it. From a psychological perspective, however, the situation may be very different – the possessed good may have a completely different value than the amount of money corresponding to its price. Hence, an assessment of wealth based on the goods and money held by a person may have completely different outcomes.

It is also worth pointing out that the same purchase, gift, or experience may give different degrees of pleasure to different people. If we were to rely solely on objective economic indicators, such a situation should never take place. However, the same product may have a different utility function for different people. This results from the role that goods have in different people's lives. Apart from fulfilling an individual's basic physiological and safety needs, they also have additional functions. Consumption is often driven by the pursuit of pleasure and hedonic motivations (Campbell, 1998; Jackson, Jager, & Stagl, 2004). Purchased goods also allow people to express themselves. They are a form of self-presentation and describe a person, reflecting what they are like or who they would like to be. Thus, consumption also fulfils a symbolic function, allowing for self-actualisation and enhancing the self-esteem (Hudders & Pandelaere, 2012; Dittmar, 2008; Hanley & Wilhelm, 1992). One can expect, therefore, that the sources of hedonic pleasure and the ways of self-expression through goods vary greatly between people, which is why also the amount needed to acquire goods guaranteeing personal satisfaction will be different depending on the person. Therefore, it should come as no surprise that people with the same goods or salary can have different levels of satisfaction with their financial situation and, in effect, with their lives.

Premises can be found across different approaches in psychology indicating that both money and goods can also have a subjective psychological value alongside an objective economic value. The acquisition of symbolic values of money is explained in light of behavioural theories by the fact that money is a peculiar kind of conditioned stimulus linked to unconditional enhancements by of various consumer goods. It means that money exposure leads to reactions related to the exposure of goods (Chen & Williams, 2016; Gąsiorowska, 2014; Ng & Diener, 2014; Saeki, Oishi, Maeno, & Gilbert, 2014).

2.4 Financial Situation Versus Satisfaction with Life: Own Study

Considering the results presented earlier (e.g. concerning *financial optimists* and *financial pessimists*), we can assume that since satisfaction with life is a subjective and psychological dimension, it will be more dependent on how people perceive their financial situation (which is also a psychological dimension) than on how much money or what kind of goods they actually possess. In order to verify this hypothesis, three databases of FinBehTrack were analysed (from 2009, 2010, and 2011) in terms of the dependency between life satisfaction and various measures of the financial situation (objective and subjective). All three studies were conducted on nationwide representative samples in terms of the basic demographic variables: (a) Study I (from 2009) had 834 respondents (437 of which were women and 397 were men), (b) Study II (2010) – 1000 persons (524 women and 476 men); and (c) Study III (2011) – 1000 persons (524 women and 476 men). All the respondents across the three studies were 18–65 years old and with a level of education proportional to the population structure.

Life satisfaction was measured using the classic Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; qn. Q3_LS3, Appendix 2). The scale was composed of five statements referring to their current life (e.g. "In most ways my life is close to my ideal"). The financial situation was measured using four indicators: two objectives and two subjectives. The first and the most classic indicator of the objective financial situation was the actual (nominal) personal income, and the second was the number of material goods held. The respondents indicated the material goods in their possession from a list of 12 goods (e.g. audio equipment, washing machine, computer, car, etc.). The indicator of the possession of goods was created by simply adding the number of material goods from the list (regardless of the type of goods). The indicator took on values from 0 to 12. Two measures of a subjective assessment of the financial situation were also used in the study. The first was the response on a seven-point scale to the question of how a person assesses their financial situation (ranging from 1, definitely bad, to 7 – definitely good). The second indicator was the response to a question concerning their relative evaluation of their financial situation compared to other Poles. The answers were provided on a five-point scale (ranging from 1, definitely worse, to 5 – definitely better).

The data presented in Table 2.4 shows a similar picture of results across all three waves of the study. Satisfaction with life has a much stronger correlation with the perception of financial situation (from $r = 0.509$ to 0.560) than with objective indicators. It is worth pointing out that income has by far the weakest relationship with

Table 2.4 Satisfaction with life (SWLS) vs. the financial situation (FS) of an individual

		Satisfaction with life (SWLS)		
		Study 1 (2009); $n = 834$	**Study 2** (2010); $n = 1000$	**Study 3** (2011); $n = 1000$
Objective indicators of FS	**Income**	0.129*	0.219**	0.150**
	Number of goods possessed	0.349 **	0.260**	0.319**
Subjective indicators of FS	**Perception of FS**	**0.530****	**0.560****	**0.509****
	Relative perception of FS	**0.420****	**0.466****	**0.424****

$^{**}p < 0.001$; $^{*}p < 0.05$

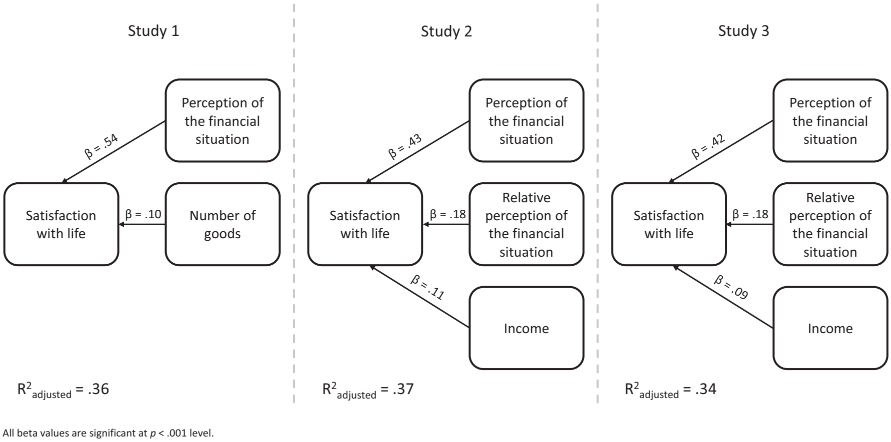

Fig. 2.2 Determinants of Satisfaction with life (Q3_SWLS) across three studies (visual presentation of regression analysis results)

satisfaction with life (correlations from $r = 0.129$ to 0.219). These outcomes once again confirm that perception (a subjective assessment) has a much greater significance for life satisfaction than the objective indicators of financial situation (e.g. income).

The next stage in the analysis involved performing three linear regression analyses,[3] which investigated which of the indicators of financial situation would be the strongest predictor of satisfaction with life (SWLS). Separate regression analysis was performed for each of the three studies. The strongest predictor of life satisfaction across all three studies was the perception of one's financial situation. Additionally, in the first study, another significant predictor of life satisfaction was the number of goods possessed. The regression analysis performed in study 2 and 3 showed three significant factors: two indicators of subjective financial situation (perception of one's FS and relative perception) and one objective – income (Fig. 2.2). The created models explained 34–37% of the variability in satisfaction with life. The results of these analyses support, once again, the biggest role of the perception of one's financial situation (subjective indicator) in explaining life satisfaction. This variable proved to be a significant predictor of life satisfaction in all three studies. Moreover, it was the strongest predictor among all of the analysed variables.

[3] Regression analysis is used for estimating the relationship among variables and to test hypotheses on the impact of several variables (also known as independent variables or predictors) on one variable (also called the dependent variable). This analysis allows us to establish which of the variables included in the analysis (independent variables) have an effect on the phenomenon being observed (i.e. the dependent variable) and to what extent. Contrary to correlation analysis, regression analysis tests the impact of several variables concomitantly, and the direction of this impact (not only the strength of this relationship) is assumed.

The presented research findings have revealed that satisfaction with life (regardless of the way in which it was measured) has the weakest relationship with the objective indicator of the financial situation, in this case, individual income. Another important outcome of the presented analyses is that, in line with expectations, the strongest predictor of satisfaction with life, much stronger than income itself, is the perception of one's financial situation – the better people believe their material situation to be, the more satisfied with life they are. Importantly, this dependency was observed in all three studies.

An even stronger role of subjective above objective financial situation was observed in further analyses exploring the impact of the same four financial situation indicators (objective and subjective) on the perception of the future financial perspective (qn. Q40_FS4). These analyses conducted on the same databases as the previous ones gave a similar picture of results. Here, however, income was not a predictor in any of the cases, whereas the subjective indicator (perception of the financial situation) was significant across all three studies (Sekścińska & Maison, 2014).

The analyses described above show clearly that it is not the amount of money or tangible goods that a person has that gives the greatest satisfaction with life but our beliefs about our own financial situation (significantly, they can be very subjective and not reflect the reality at all). These findings explain why there are people who, despite having considerable possessions, are constantly dissatisfied with what they have (*financial pessimists*) and all the time want to have more (because of their materialistic inclinations). The described results show also, consistently with the findings of studies conducted in various different countries, the big role of the relative financial situation. These results revealed that comparisons of one's financial situation with others are key to building life satisfaction. The conducted regression analysis is a comprehensive summary of these conclusions, where the impact of various financial factors on satisfaction with life was verified (Fig. 2.2). This analysis has once again shown that it is the perception of one's financial situation and not the level of income that is decisive in the sense of satisfaction with life.

The significance of subjective measures of the financial situation is attracting growing interest among researchers (Litwin & Sapir, 2009; Grable et al., 2013). It turns out that this variable also affects other areas of life that are not directly linked to finance. For example, Williams et al. (2017) showed that the subjective financial situation was a better predictor of health outcomes among young adults than traditional and more objective socioeconomic indicators.

2.5 The Psychological Background of Financial Satisfaction: Which Psychological Factors Influence the Perception of Financial Satisfaction?

Since we have already demonstrated that satisfaction with one's financial situation does not directly depend on the amount of money that a person has, and these two factors do not always influence general satisfaction with life, this brings another question to the fore concerning individual psychological factors that may moderate these dependencies. There are clearly persons whose personal satisfaction with life strongly depends on their material situation. The lack of money may not only be the source of a momentary decrease in well-being for them but also of a general state of dissatisfaction with life (which is particularly strong in materialists, cf. Chap. 1). Alongside them are also people for whom these two elements are almost independent. They find satisfaction with life mostly outside the material sphere (e.g. *Family-oriented Non-materialist*, cf. Chap. 1).

Probably everyone is capable of singling out at least two people or two families with a similar financial situation, living in similar conditions, yet assessing how they are doing in life completely differently (cf. *financial optimists* and *pessimists*). Satisfaction or dissatisfaction with one's material situation is a complex result of a plethora of factors, both external and associated with a person's environment (Brickman, Coates, & Janoff-Bulman, 1978; Milanovic & Jovanovic, 1999), and internal, linked to their perception of their situation (Grable et al., 2013) and their psychological characteristics (Burchardt, 2005; Tang, Tang, & Homaifar, 2006).

Becchetti and Rossetti (2009) took up this complex issue of the relationship between income and satisfaction with life and, based on their research conducted in Germany identified a group of people, which they called "frustrated achievers". These are people who claim that their financial situation changed for the better recently but at the same time they have less satisfaction with life than they did before. This group in German society comprises 16%. This is also one third of all Germans whose income has increased over the past year and less than half of those who declared a low level of life satisfaction. This finding shows that only an improvement in one's financial situation does not guarantee greater life satisfaction but, even more, a pick-up in financial situation may sometimes actually reduce satisfaction with life. There may be many reasons for this. Firstly, various factors affect satisfaction with life, and it can sometimes may be the case that an increase in income may be accompanied by a deterioration in other fields (e.g. marital relations, working conditions, and health). Secondly, and more importantly, the reason for this phenomenon may also be psychological in nature – if someone perceives their material situation as the source of their happiness (overestimating the relationship between happiness and money), an improvement in their financial situation will usually not lead to any change in their life satisfaction because, in reality, it is impacted by something different.

At this point, we have to return to the phenomenon of materialism discussed in the previous chapter (cf. Chap. 1). Materialists are people who perceive the world through the prism of their money and possessions. Not only is their self-esteem and happiness dependent on their possessions but they also view others through the same prism – admiring those who have achieved many things in the material sphere. Numerous studies conducted in different countries using an assortment of measures of materialism have shown that it has negative correlation with well-being (Speck & Roy, 2008; Dittmar, 2005; Richins, 2004; Ryan et al., 1999; Kasser & Ryan, 1996; Richins & Dawson, 1992). This systematic picture of results demonstrating the relationship between materialism and reduced satisfaction with life is also confirmed by the meta-analysis of Dittmar, Bond, Hurst, and Kasser (2014) containing dozens of studies.

Tim Kasser, the researcher working in the field of positive psychology interested in the role of materialistic values in life and looking for correlations between happiness and satisfaction with life, posed the question of what the source of a person's well-being is: the "good life" or the "goods life" (Kasser, 2004). By the term "good life", he understood good relationships with others, a sense of meaning in life, etc. He understands the notion of the "goods life" as a vision of a happy life supported by mass media, consisting of the purchase and acquisition of goods and services. He conducted a series of studies to establish which of these visions of a good life translates into greater satisfaction with life. In the first step, two types of goals and values were identified (Kasser & Ryan, 1996, 2001; Kasser, 2004). The first type comprised extrinsic values and goals made up of actions aimed at getting rich, enhancing self-image, and climbing up the social ladder. These goals were considered extrinsic because they focus on obtaining external rewards. The second type was intrinsic values and goals, including striving for personal growth. The authors assumed that these types of goals are intrinsic in nature because the very striving to achieve them is already satisfying and may meet deeper psychological needs. The results of studies conducted among college students have revealed that persons focused on extrinsic goals were characterised with a lower level of self-actualisation, vitality, and higher levels of depression and anxiety. However, in the case of those centred on intrinsic goals, these dependencies were exactly the opposite. It was also discovered that being fixed on extrinsic goals was accompanied by a lower satisfaction with life and a lower level of happiness. Such persons experience less positive emotions and are also characterised by higher levels of drug and alcohol consumption. Subsequent studies have also shown a negative correlation between aspiring for financial success and well-being, where the more focused a person is on being financially successful, the less satisfied they are with life, and a positive correlation between concentrating on goals relating to personal growth and life satisfaction (Kasser & Ryan, 1993). It seems that people whose life revolves around money are definitely not as happy as those who are not so focused on material possessions. This has been confirmed by other studies the results of which indicate that a relationship exists between materialism and a sense of happiness. Persons with a materialistic approach to life are characterised by a significantly lower well-being than less materialistic persons (Dittmar, 2005; Sirgy, 1998).

The concept of materialism is commonly associated with a negative human characteristic, describing a person whose world is overshadowed by their actual or desired material possessions and money, and whose happiness mainly rests on what they have accumulated. This intuitive definition is not much different from the definitions given by researchers dealing with this topic (Belk, 1984; Furnham, 1984; Richins & Dawson, 1992; Tang, 1992; Kasser & Ryan, 1996; Dittmar et al., 2014; cf. Chap. 1). Dittmar defines materialism as "individual differences in people's long-term endorsement of values, goals, and associated beliefs that centre on the importance of acquiring money and possessions that convey status" (Dittmar et al., 2014, p. 880). In literature, materialism is also used to refer to an approach to life where the material aspect of human functioning is considered much more important compared to other aspects of life (Sirgy, 1998). The reduced life satisfaction observed in materialists is explained by the fact that they experience persistent dissatisfaction with their financial status quo. This is because such persons set themselves lofty goals relating to their acquisition of yet more material possessions, and these goals are so high and unrealistic (e.g. exceeding their financial capabilities) that they are incapable of attaining them. Since these goals are out of their reach, they are dissatisfied with their standard of living, and this exasperation affects their overall sense of happiness (Sirgy, 1998). The above-described dependency, as some researchers have emphasised, may also take an altogether different direction, where unhappy people have the tendency to become fixated on extrinsic goals like getting rich while wrongly counting on money bringing them happiness (Diener & Seligman, 2004).

At this point, it is worth stopping for a moment to consider in greater depth the relationships between the propensity for collecting goods and well-being. The results described above suggest that the more focused we are on getting rich, the more unhappy we are (negative correlation between collecting goods and well-being). This seems to be too simple a conclusion, which is why some researchers have questioned it. They noticed that the possession of material goods does not necessarily have to be associated with a reduced well-being and that the goals linked to the accumulation of wealth do not have to be always related to lower satisfaction with life (Carver & Baird, 1998; Srivastava, Locke, & Bartol, 2001). Some even claim that a better financial situation might promote life satisfaction because it enables an easier, safer, and healthier life to be lead (Diener & Biswas-Diener, 2008). It turns out that the motivation underlying the gathering of goods or money is a key factor here. Collecting money just for the sake of having more material possessions and increasing consumption is something completely different from gathering money to safeguard the future or being independent from others. Srivastava et al. (2001) pointed out the role of individual differences in the relation between the need for money collection and life satisfaction. They identified ten motives by which people collecting money can be guided. Their research suggests that the level of importance that money has for a person does not directly determine satisfaction with life but that it depends on the psychological characteristics of a person. For example, people with low self-esteem can gather money to feel better than others. However, it is not very probable that this will make them truly feel better because the lack of money is not the real source of their problem. The reason for both the low well-being and being money-centred is low self-esteem, and the relationship between well-being and concentration on money is only illusory. A consequence of the assumption that there is no direct link between striving to financial success and well-being is the fact that if people are driven to multiply their wealth by "positive" reasons, this will not reduce their sense of well-being. Such "positive" motivations are, among others, the need to financially support one's family, the need for security, and the need to receive some sort of reward for their efforts.

The theory of materialism is also based on similar premises (Rochberg-Halton, 1986; Srivastava et al., 2001), within which two types of materialism have been identified: instrumental and terminal. Instrumental materialism refers to the use of money as a means, a tool to fulfil personal and non-material life goals. An example of such an instrumental and functional materialism is wanting to buy a car to travel, sightsee, and acquire travel experiences. This type of materialism is not harmful to the level of satisfaction with life (Fournier & Richins, 1991). Things are different in the case of terminal materialism, which refers to people, whose main goal is consumption, gathering money to raise their social status, and being the object of envy and admiration. Having money and collecting material possessions is an end in itself for them and becomes their basic source of satisfaction. Here, a good example would be wanting to have a car to show off one's wealth in front of others, thus raising one's self-esteem.

Another factor that could affect the perception of the financial situation is the discrepancy between material desires and the degree to which they are satisfied, in other words, aligning desires to one's ability to afford them (Solberg, Diener, Wirtz, Lucas, & Oishi, 2002). If somebody even with a sizeable income expects more than they are getting, they will probably be dissatisfied with their level of income. People with more realistic desires (i.e. more aligned to their financial capabilities) are more satisfied with their financial situation than those whose desires are beyond their reach. Thus, the discrepancies between what we can afford and our desires may have a negative influence on our satisfaction with the level of our material possessions – overly elaborate desires make us less happy with what we already own. It is worth stressing that material desires are an individual matter, people may differ quite significantly in these terms, and this is yet another factor that may explain the individual differences concerning the financial satisfaction. Importantly, however, in following these assumptions people should be able to influence their level of life satisfaction by aligning their desires to their capabilities (Cross & Markus, 1991; Solberg et al., 2002).

To conclude the discussion about the psychological factors exerting an impact on the perception of the financial situation, two regression analyses were carried out (based on FinBehTrack 2016 data). In the first analysis, we investigated the effect of four psychological variables: locus of control, sense of injustice, life satisfaction (SWLS, qn. Q3_LS3), and materialistic values (qn. Q36_MAT2) on satisfaction with one's financial situation (qn. Q37_FS1). In the second analysis, the effect of the same predictors was examined but this time on income (objective financial situation). The results (Table 2.5) showed a significant effect of almost all the psychological predictors that were included in the satisfaction with finances model. People with a higher internal locus of control and a higher level of life satisfaction were more satisfied with their finances. On the other hand, a higher feeling of hurt lowered the satisfaction with finances. Surprisingly, the analysis also showed positive relations between status orientation and better perception of financial situation. In the case of income, psychological variables played a smaller role in predicting wages (Table 2.6). The only two variables that appeared to be significant were sense of injustice (lower level of sense of injustice – higher income) and life satisfaction (higher life satisfaction – higher income). This data showed that psychological factors play a much bigger role in predicting the financial satisfaction (34% explained variance) than predicting income (9% explained variance).

Table 2.5 Psychological predictors of perception of financial situation (subjective indicator)

	B	SE	*p*
Internal locus of control (LOC; qn. Q4_AL1:A-C)	0.25	0.07	0.001
External locus of control (LOC; qn. Q4_AL1:D-E)	0.10	0.07	0.15
Sense of injustice (qn. Q4_AL1:F-I)	−0.29	0.08	<0.001
Satisfaction with Life Scale (SWLS; qn. Q3_LS3)	0.53	0.04	<0.001
Materialistic values (qn. Q36_MAT2)	0.06	0.03	0.04
$F=107.10$; $p<0.001$			
$R^2=0.34$			

Table 2.6 Psychological predictors of financial situation (objective indicator)

	B	SE	*p*
Internal locus of control (LOC; qn. Q4_AL1:A-C)	0.01	0.09	0.93
External locus of control (LOC; qn. Q4_AL1:D-E)	0.05	0.08	0.57
Sense of injustice (qn. Q4_AL1:F-I)	−0.34	0.09	<0.001
Satisfaction with Life Scale (SWLS; qn. Q3_LS3)	0.20	0.04	<0.001
Materialistic values (qn. Q36_MAT2)	0.01	0.03	0.88
$F = 19.36$; $p<0.001$			
$R^2 = 0.09$			

2.6 Through Money to Happiness or Through Happiness to Money?

In the context of the considerations so far, which have been focusing on the relationship between the financial situation and satisfaction with life, it is impossible not to ask the question about the direction in which this relationship is going. So far, we have been discussing what financial factors (objective and subjective) impact satisfaction with life, which implicitly assumed such a direction of dependencies. It is worth noticing a reverse causal relationship. Perhaps it's not money that brings us happiness but happiness bringing us money. Researchers of the correlates of happiness have long analysed the impact of income, the gross domestic product, and other measures of the objective financial situation on well-being, assuming that the better people's lives are, the more their needs are satisfied, and the happier they should feel (Veenhoven, 1999). It was only recently, however, that they began to consider if this dependency that was sought does not actually work the other way (Czapiński, 2015; Lyubomirsky, King, & Diener, 2005; Boehm & Lyubomirsky, 2008).

Theory of happiness explains the relationships between the general sense of happiness and its components assume that they can impact themselves from two directions: “bottom – up” and “top – down” (Czapiński, 2004, 2008). The “top – down” approach is based on the assumption that general satisfaction with life is comprised of the sum of the partial satisfactions with various life aspects. The more satisfied we are with work, married life, and the amount of money and possessions we have, the happier we are. In this approach, our financial situation, alongside other factors, affects how we perceive our life. Proponents of this approach (e.g. Veenhoven, 1994, 1996) assume that happiness is a function of individual needs satisfaction. And since money constitutes a universal instrument of satisfying material needs, our mental well-being should depend on absolute income. Apart from the "bottom – up" approach, there is competitive approach called "top – down", which assumes that the happier we are, the greater is our satisfaction with specific aspects of our life. This approach envisages that the same occupation, the same income, and the same family situation will be assessed differently by happy and unhappy persons. What is more, the proponents of this theory are of the opinion that satisfaction is a permanent trait of an individual. Hence, in this approach, the way we perceive our life, whether we are a happy person or not, affects also our perception of the financial situation (Czapiński, 2004, 2008).

An increasing number of studies are suggesting that this may actually be the case – happy people have often a better financial situation than unhappy people. Empirical data in support of this seemingly surprising thesis has been provided by studies involving the observation of people over a 20-year period (Diener, Nickerson, Lucas, & Sandvik, 2002). This data has shown that students who were more cheerful in their first year of university, after 16 years turned out to have higher incomes than their less cheerful peers. The findings of Polish panel on quality of life studies conducted in 1995–1997 within the Polish General Social Survey indicate that it is money that depends more on the psychological well-being than the other way around (Czapiński, 2002, 2004). A similar direction of a relationship between life satisfaction and financial wealth is shown by our studies (Table 2.6). In other study conducted by Lyubomirsky et al. (2005), the direction of the relationship from happiness towards success (and not the other way around) was demonstrated in various areas of life and using various methodologies (cross-sectional, longitudinal, and experimental). Probably the strongest and most convincing arguments for this dependency come from a longitudinal study where the same people are asked the same questions over intervals for several decades. The outcomes of such studies on happiness leave no doubt: satisfaction with life is conducive to achieving greater success in various areas of life, including finance. The same direction of dependencies in the field of finance (from happiness to money) was revealed in the study conducted by Graham and Fitzpatrick (2002), which was mentioned in the previous chapter. This study was based on long-run panel data from Russia, which showed that satisfaction with life was conducive to a growth in income but also accompanied to lower unemployment. In another study carried out in Australia among young adults who described themselves as happy, a greater increase in salary was observed in later time in their case when compared with the others (Marks & Fleming, 1999). In another study, (Diener, Nickerson, Lucas, & Sandvik, 2002) investigated a group of first-year college students and then revisited them after 16 years. It turned out that those who demonstrated a greater cheerfulness during their studies clearly had greater salaries 16 years later when compared with the rest. Importantly, this effect was significant even when the earnings of their parents were controlled. Lyubomirsky et al. (2005) explain this direction of the relationship (which some may find surprising) by the fact that happy people have more adaptive characteristics allowing them to better adapt to the surrounding world. The authors suggest that the mechanisms affecting happy people are similar to the impact that positive emotions have and that their consequences include a positive image of oneself and of others, greater activity and intensity of social contacts, prosocial behaviours, and more effective problem solving (Lyubomirsky et al., 2005).

References

Ahuvia, A. (2008). If money doesn't make us happy, why do we act as if it does? *Journal of Economic Psychology, 29*(4), 491–507.

Alpizar, F., Carlsson, F., & Johansson-Stenman, O. (2005). How much do we care about absolute versus relative income and consumption? *Journal of Economic Behavior and Organization, 56*(3), 405–421.

Argyle, M. (2008). Grounds and correlates of happiness (Przyczyny i korelaty szczęścia). In J. Czapiński (Ed.), *Positive psychology: Science of human happiness, health, strength and virtues. (Psychologia pozytywna. Nauka o szczęściu, zdrowiu, sile i cnotach człowieka)*. Warsaw: Polish Scientific Publishing Company (PWN).

Ball, R., & Chernova, K. (2008). Absolute income, relative income, and happiness. *Social Indicators Research, 88*, 497–529.

Becchetti, L., & Rossetti, F. (2009). When money does not buy happiness: The case of "frustrated achievers". *The Journal of Socio-Economics, 38*, 159–167.

Belk, R. W. (1984). Three scales to measure constructs related to materialism: Reliability, validity, and relationships to measures of happiness. In T. C. Kinnear (Ed.), *Advances in consumer research* (Vol. 11, pp. 291–297). Provo, UT: Association for Consumer Research.

Biswas-Diener, R., & Diener, E. (2001). Making the best of a bad situation: Satisfaction in the slums of Calcutta. *Social Indicators Research, 76*, 185–205.

Boehm, J. K., & Lyubomirsky, S. (2008). Does happiness promote career success? *Journal of Career Assessment, 16*, 101–116.

Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims. Is happiness relative? *Journal of Personality and Social Psychology, 36*(8), 917–927.

Brown, G. D. A., Gardner, J., Oswald, A., & Qian, J. (2005). *Does wage rank affect employees' well-being?* IZA Discussion Paper No. 1505. Available at SSRN: https://ssrn.com/abstract=678868.

Burchardt, T. (2005). Are one man's rags another man's riches? Identifying adaptive expectations using panel data. *Social Indicators Research, 74*(1), 57–102.

Buss, D. M. (2001). Human nature and culture: An evolutionary psychological perspective. *Journal of Personality, 69*, 955–978.

Campara, J. P., Vieira, K. M., & Potrich, A. C. G. (2017). Overall life satisfaction and financial well-being: Revealing the perceptions of the beneficiaries of the Bolsa Familia program. *Brazilian Journal of Public Administration, 51*(2), 182–200.

Campbell, C. (1998). Consumption and the rhetorics of need and want. *Journal of Design History, 11*(3), 235–246.

Carver, C. S., & Baird, E. (1998). The American dream revisited: Is it what you want or why you want it that matters? *Psychological Science, 9*, 289–292.

Chen, Y., & Williams, M. (2016). Subjective well-being in the new China: Religion, social capital, and social status. *The British Journal of Sociology, 67*(4), 719–748.

Clark, A. E. (2001). What really matters in a job? Hedonic measurement using quit data. *Labour Economics, 8*, 223–242.

Clark, A. E., Frijters, P., & Shields, M. (2008). Relative income, happiness and utility: An explanation for the Easterlin paradox and other puzzles. *Journal of Economic Literature, 46*, 95–144.

Clark, A. E., & Oswald, A. J. (1996). Satisfaction and comparison income. *Journal of Public Economics, 61*, 359–381.

Cross, S. E., & Markus, H. (1991). Possible selves across the life-span. *Human Development, 34*, 230–255.

Cummins, R. (2000). Personal income and subjective well-being: A review. *Journal of Happiness Studies, 1*, 133–158.

Czapiński, J. (2002). Quo vadis homo? Zrównoważony rozwój, jakość życia i złudzenie postępu [Quo vadis homo? Sustainable development, quality of life and illusion of progress]. In M. Marody (Ed.), *Dimesions of social life. Poland at the turn of XX and XXI century (Wymiary życia społecznego. Polska na przełomie XX i XXI wieku)* (pp. 356–380). Warsaw: SCHOLAR Scientific Publishing Company.

Czapiński, J. (2004). Ekonomiczne przesłanki i efekty dobrostanu psychicznego (Economic indicators and effects of psychological well-being). In T. Tyszka (Ed.), *Psychologia ekonomiczna (Economic psychology)* (pp. 192–242). Gdańsk: Gdansk Psychological Publishing Company (GWP).

Czapiński, J. (Ed.). (2008). *Psychologia pozytywna. Nauka o szczęściu, zdrowiu, sile i cnotach człowieka [Positive psychology: Science of human happiness, health, strength and virtues]*. Warsaw: Polish Scientific Publishing Company (PWN).

Czapiński, J. (2015). Indywidualna jakość i styl życia. In J. Czapiński & T. Panek (Eds.), Social diagnosis 2015. Objective and subjective quality life in Poland. Contemporary Economics, 9, 200–331.

Czapiński, J., & Panek, T. (Eds.). (2007). *Diagnoza społeczna. Warunki i jakość życia Polaków [Social diagnosis. Conditions and quality of life of Poles]*. Warsaw: Social Monitoring Board.

Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? A literature review and guide to needed research. *Social Indicators Research, 57*, 119–169.

Diener, E., & Biswas-Diener, R. (2008). *Happiness: Unlocking the mysteries of psychological wealth*. Malden, MA: Willey-Blackwell.

Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology, 68*, 653–663.

Diener, E., Emmons, R., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.

Diener, E., Nickerson, C., Lucas, R. E., & Sandvik, E. (2002). Dispositional affect and job outcomes. *Social Indicators Research, 59*, 229–259.

Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E. M. Suh (Eds.), *Culture and subjective well-being* (pp. 185–218). Cambridge, MA: MIT Press.

Diener, E., & Seligman, M. E. P. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest, 5*, 1–31.

Dittmar, H. (2005). Compulsive buying – a growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology, 96*(4), 467–491.

Dittmar, H. (2008). *Consumer culture, identity and well-being. The search for the "good life" and the "body perfect"*. New York, NY: Psychology Press.

Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology, 107*(5), 879–924.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117–140.

FinBehTrack. (2016). Unpublished research report about financial attitudes and behaviors of Polish people.

Fournier, S., & Richins, M. L. (1991). Some theoretical and popular notions concerning materialism. *Journal of Social Behavior and Personality, 6*, 403–414.

Frey, B. S., & Stutzer, A. (2002). *Happiness and economics: How the economy and institutions affect human well-being*. Princeton, NJ: Princeton University Press.

Furnham, A. (1984). Many sides of the coin. The psychology of money usage. *Personality and Individual Differences, 5*, 501–509.

Gąsiorowska, A. (2014). The relationship between objective and subjective wealth is moderated by financial control and mediated by money anxiety. *Journal of Economic Psychology, 43*(C), 64–74.

Gatina, L. (2016). Does money buy happiness. Financial and general wellbeing of immigrants in Australia. *Journal of Behavioral and Experimental Economics, 63*, 91–105.

Grable, J. E., Cupples, S., Frenatt, F., & Anderson, N. (2013). Evaluating the link between perceived income adequacy and financial satisfaction: A resource deficit hypothesis approach. *Social Indicators Research, 114*(3), 1109–1124.

Graham, C., & Fitzpatrick, M. (2002). *Does happiness pay? An exploration based on panel data from Russia*. Center on Social and Economic Dynamics Working Paper No. 24.

Hanley, A., & Wilhelm, M. S. (1992). Compulsive buying: An exploration into self-esteem and money attitudes. *Journal of Economic Psychology, 13*(1), 5–18.

Helliwell, J. F. (2003). How's life? Combining individual and national variables to explain subjective well-being. *Economic Modelling, 20*, 331–360.

Helliwell, J. F., Layard, R., & Sachs, J. D. (Eds.). (2018). *World Happiness Report 2018*. Available at: https://s3.amazonaws.com/happiness-report/2018/WHR_web.pdf.

Hsieh, C. M. (2004). Income and financial satisfaction among older adults in the United States. *Social Indicators Research, 66*, 249–266.

Hudders, L., & Pandelaere, M. (2012). The silver lining of materialism: The impact of luxury consumption on subjective well-being. *Journal of Happiness Studies, 13*, 411–437. https://doi.org/10.1007/s10902-011-9271-9

Jackson, T., Jager, W., & Stagl, S. (2004). Beyond insatiability: Needs theory, consumption and sustainability. In L. Reisch & I. Røpke (Eds.), *Consumption: Perspectives from ecological economics*. Cheltenham: Edward Elgar.

Joo, S. H., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues, 25*(1), 25–50.

Kasser, T. (2004). The good life or the goods life? Positive psychology and personal well-being in the culture of consumption. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in practice* (pp. 55–67). Hoboken, NJ: Wiley.

Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology, 65*(2), 410–422.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin, 22*(3), 280–287.

Kasser, T., & Ryan, R. M. (2001). Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. In P. Schmuck & K. M. Sheldon (Eds.), *Life goals and well-being: Towards a positive psychology of human striving* (pp. 116–131). Ashland, OH: Hogrefe & Huber Publishers.

Litwin, H., & Sapir, E. V. (2009). Perceived income adequacy among older adults in 12 countries: Findings from the survey of health, ageing, and retirement in Europe. *The Gerontologist, 49*, 397–406.

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin, 131*, 803–855.

Marks, G. N., & Fleming, N. (1999). Influences and consequences of well-being among Australian young people: 1980–1995. *Social Indicators Research, 46*, 301–323.

Milanovic, B., & Jovanovic, B. (1999). Changes in the perception of the poverty line during the depression in Russia, 1993–96. *World Bank Economic Review, 13*, 539–559.

Neumark, D., & Postlewaite, A. (1998). Relative income concerns and the rise in married women's employment. *Journal of Public Economics, 70*, 157–183.

Ng, W., & Diener, E. (2014). What matters to the rich and the poor? Subjective well-being, financial satisfaction, and postmaterialist needs across the world. *Journal of Personality and Social Psychology, 107*(2), 326–338.

Richins, M. L. (2004). The material values scale measurement properties and development of a short form. *Journal of Consumer Research, 31*, 209–219.

Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research, 19*(3), 303–316.

Rochberg-Halton, E. (1986). *Meaning and modernity: Social theory in the pragmatic attitude*. Chicago, IL: University of Chicago Press.

Runcinmann, W. G. (1966). *Relative deprivation and social justice: A study of attitudes to social inequality in twentieth-century England*. London: Routledge.

Ryan, R. M., Chirkov, V. I., Little, T. D., Sheldon, K. M., Timoshina, E., & Deci, E. L. (1999). The American dream in Russia: Extrinsic aspirations and well-being in two cultures. *Personality and Social Psychology Bulletin, 25*, 1509–1524. https://doi.org/10.1177/01461672992510007

Saeki, M., Oishi, S., Maeno, T., & Gilbert, E. (2014). Self–informant agreement for subjective well-being among Japanese. *Personality and Individual Differences, 69*, 124–128.

Sekścińska, K., & Maison, D. (2014). Co jest źródłem szczęścia? Zadowolenie z życia a obiektywne i subiektywne wskaźniki sytuacji materialnej (What is the source of happiness? Life satisfaction and objective and subjective indicators of material standing). *Marketing i Rynek, 2*, 15–24.

Sirgy, M. J. (1998). Materialism and the quality of life. *Social Indicators Research, 43*, 227–260.

Sirgy, M. J. (2018). The psychology of material well-being. *Applied Research in Quality of Life, 13*, 273–301.

Solberg, E. C., Diener, E., Wirtz, D., Lucas, R. E., & Oishi, S. (2002). Wanting, having, and satisfaction: Examining the role of desire discrepancies in satisfaction with income. *Journal of Personality and Social Psychology, 83*, 725–734.

Speck, S. K. S., & Roy, A. (2008). The interrelationships between television viewing, values and perceived well-being: A global perspective. *Journal of International Business Studies, 39*, 1197–1219. https://doi.org/10.1057/palgrave.jibs.8400359

Srivastava, A., Locke, E. A., & Bartol, K. M. (2001). Money and subjective well-being: It's not the money; it's the motives. *Journal of Personality and Social Psychology, 80*, 959–971.

Tang, T. L. P. (1992). The meaning of money. *Journal of Organizational Behavior, 13*, 197–202.

Tang, T. L. P., Luna-Arocas, R., & Sutarso, T. (2005). From income to pay satisfaction: The love of money and pay equity comparison as mediators and culture (the US and Spain) and gender as moderators. *Management Research: The Journal of the Iberoamerican Academy of Management, 3*(1), 7–26.

Tang, T. L. P., Tang, T. L. N., & Homaifar, B. Y. (2006). Income, the love of money, pay comparison, and pay satisfaction: Race and gender as moderators. *Journal of Managerial Psychology, 21*(5), 476–491.

Tov, W., & Diener, E. (2007). Culture and subjective well-being. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 691–713). New York, NY: Guilford.

Twenge, J. M. (2000). The age of anxiety? The birth cohort change in anxiety and neuroticism, 1952–1993. *Journal of Personality and Social Psychology, 79*(6), 1007–1021.

Veenhoven, R. (1994). Is happiness a trait? – tests of the theory that a better society does not make people any happier. *Social Indicators Research, 32*(2), 101–160.

Veenhoven, R. (1996). Happy life-expectancy: A comprehensive measure of quality of life in nations. *Social Indicators Research, 39*(1), 1–58.

Veenhoven, R. (1999). Quality of life in individualistic society: A comparison of 43 nations in early 1990s. *Social Indicators Research, 48*, 157–186.

Williams, V. F., Smith, A. A., Villanti, A. C., Rath, J. M., Hair, E. C., Cantrell, J., … Vallone, D. M. (2017). Validity of a subjective financial situation measure to assess socioeconomic status in US young adults. *Journal of Public Health Management and Practice, 23*(5), 487–495. https://doi.org/10.1097/PHH.0000000000000468

Yitzhaki, S. (1982). Relative deprivation and economic welfare. *European Economic Review, 17*(1), 99–113.

Chapter 3
Spending Money: Pleasure or Pain? Why Some People Spend Money Easily While Others Have a Problem with It?

3.1 Functional Versus Emotional Role of Money

The basic function of money is being a legal tender and a means of exchange. The money that people make is exchanged for various kinds of goods and services. Thanks to the money that we spend on goods, we know how much these goods are worth. However, apart from their instrumental function, money also has great emotional meaning for people, which is connected with satisfying various needs and pleasures. People react differently to money than to many other goods of the same value that are more neutral in nature.

Bruner and Goodman (1947) conducted one of the most classic studies showing the emotional value of money. This was an experiment with the participation of children who were asked to estimate the size of coins or the size of cardboard discs. It turned out that the children perceived the coins to be larger than their corresponding in size cardboard discs. Importantly, children from poorer families made larger overestimations of the coins than children from wealthier families. The authors explained this effect as the unconscious impact of affect and unfulfilled needs on perception and evidence of the emotional and social value of money. Since Bruner and Goodman (1947) money has remained the subject of psychological research, where scientists have been endeavouring to grasp what it is that money possesses, which evokes such strong emotions and stirs up such strong reactions: from immense desire to hatred or fear. Scientists are also trying to understand why some people desire money so much that they are capable of doing many bad things in order to acquire it, while for others it is of little to no importance.

One of the significant areas in money research is the investigation of attitudes towards money in the search for universal dimensions according to which it would be possible to classify money attitudes, for instance, from negative to positive, from functional to emotional, from individually to culturally rooted (Furnham, 1984; Tang et al., 2006; Tang & Chen, 2008; Tang & Chiu, 2003; Yamauchi & Templer, 1982). These studies have revealed that, firstly, people differ between themselves in

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their money attitudes. Secondly, regardless of the author of the research and the attitude towards money model, it is evident that for some people money is very strongly emotionally charged through its links with success and prestige and is immensely important both in relation to oneself (building self-esteem) and towards others (basis for valuing others) (cf. Ch. 1). For such persons, the want of money goes far beyond the necessity to satisfy basic life needs. Yet another important dimension of the approach towards money that has been identified by researchers and differentiates between people is treating money as an end in itself, or as a means to an end, in other words, an instrument with the aid of which a person can fulfil different goals (Lea & Webley, 2006). Finally, it's worth highlighting that attitudes towards money are not always conscious, people are usually not altogether aware of their approach to money and of the function that money plays in their life (Sundarasen & Rahman, 2017; von Stumm, Fenton-O'Creevy, & Furnham, 2013).

Another significant mainstream in studies on the role that money plays in people's lives concerns the activation of the concept of money, which tries to explain what it is in money that evokes such different reactions and, most of all, what are the consequences of having contact with money or money activating symbols. The well-known study by Vohs and colleagues (Vohs, Mead, & Goode, 2006) showed that even the peripheral activation of the concept of money in a person's mind has immense consequences for their functioning. In the experiments, the authors activated the concept of money in very different ways, for instance, by introducing screensavers showing dollar bills, by money-related crossword puzzles, or by reading an essay about finance. These ways of money priming had serious implications for various manifestations of social behaviours, like the greater propensity for carrying out tasks independently, being less ready to help others, and giving less money to charity when money was activated (Vohs et al., 2006; Vohs, Mead, & Goode, 2008). The authors explain this phenomenon by the fact that the activation of money in the mind activates a state of self-sufficiency. These studies and those of many other researchers of money concept activation have clearly shown that the impact of money on a person is often unconscious and may give rise to many automatic reactions of which a person is completely unaware (Gąsiorowska, Zaleśkiewicz, & Wygrab, 2012; Roberts & Roberts, 2012; Vohs et al., 2006).

Alongside research on the attitude towards money and the activation of the money concept, another important field constitutes studies on what people do with money, in other words, how and on what do people spend their money and what their decisions in this scope depend on. Rick, Cryder, and Loewenstein (2008) were trying to understand the difference in the functioning of persons with different spending habits, to whom they referred as *spendthrifts* and *tightwads*. The authors examined these two groups in the context of the pain felt at the time of purchase. According to them, *tightwads* anticipate the pain that would be felt by them once they spend some money, which is why they spend less than they would like to ("pain of paying", Prelec & Loewenstein, 1998). Whereas *spendthrifts* do not experience enough pain relating to parting with money, which is why they spend more than they would want to spend. *Spendthrifts* focus on what they gain out of spending money (purchased goods) and *tightwads* on what they lose (money). *Spendthrifts* and *tightwads* also vary in terms of the level of their subjective happiness – *tightwads* are clearly less satisfied with life (Carter, 2014).

The fact that spending money may be "painful" for some people has been confirmed by Knutson, Rick, Wimmer, Prelec, and Loewenstein (2007) in the experiment using functional magnetic resonance imaging (fMRI). The respondents were tasked with deciding which product to buy and which not to buy. The decision was preceded by a presentation of the product after which they were provided with information about its price. It turned out that in the persons who later decided against making the purchase, the insula, which is the place in the brain associated with experiencing painful stimuli (like bad odour), was already activated at the time of the provision of the price information. The findings of this study reveal that the decision to spend money is strongly linked to emotions, which can be manifested at the brain reaction stage and can precede conscious decisions to resign from the purchase. Another study (Plassmann, O'Doherty, & Rangel, 2007) investigated brain reactions to various food products, measured using fMRI. It turned out that the willingness to pay for a product corresponded with the stimulation of specific areas of the brain (e.g. the medial orbitofrontal cortex). These outcomes show that this area of the brain is responsible for the decision-making process connected with the willingness to buy a product. The results of presented studies have shown that both reactions associated with money and purchase decisions alike are strongly emotionally charged and may, to a certain extent, be unconscious and automatic (Chartrand, Huber, Shiv, & Tanner, 2008; Dijksterhuis, 2004; LeDoux, 1998; Maison, 2019).

3.2 Subjective Value of Money and Prices

The basic external factor that undoubtedly affects the purchase decisions of a consumer is the price of a product. However, despite it seeming that the consumer always strives to optimise his/her profits by choosing the cheapest products, we know from the previous chapters that this is not the case. It is also not true that consumers with less money are more inclined to choose cheaper products than consumers with a bigger budget (cf. Ch. 2. *financial optimists* and *pessimists*).

Firstly, it turns out that different people have different approaches to product prices, and the same price may seem low to some but high to others. The same price can also be of different emotional significance: for some it may have negative connotations, while for others, positive ones (Lichtenstein, Ridgway, & Netemeyer, 1993). For consumers who perceive price in a negative sense, price is treated as the amount of money that has to be given up in order to carry out a purchase transaction; thus, a purchase is seen as a kind of loss for the consumer. In this situation, a high price will have a negative impact on the probability of the product being bought – the more something costs, the less probable it is that the consumer will make a purchase since the pain of parting with money is too big.

Researchers of this phenomenon have noticed that a negative perception of a given price (a loss) leads to many specific consumer strategies that enable the feeling of loss to be minimised when making a purchase (Lichtenstein et al., 1993). Firstly, this is a pursuit to pay the lowest price for a product or at least to buy products with the best price-quality ratio. The second type of actions involves looking to take advantage of all kinds of opportunities, discount coupons, and price promotions to save some money and, at the same time, minimising the amount spent and the pain accompanying paying. This approach to prices goes hand in hand with the need to acquire and collect information about different products and places where the cheapest purchases may be made.

Not everyone, however, treats prices in loss terms. There are those for whom prices have positive connotations, perceived as a positive indicator relating to shopping. For example, consumers make more or less conscious inferences about the quality of a product based on its price. Therefore, they have no negative feelings associated with higher prices. Moreover, for those people, the higher price may evoke more positive emotions because it is associated with a higher-quality product. Consumers who see price in this way prefer paying more for a given product or service because it reinforces their conviction that they have made a good decision and chosen a better quality product. Price, as the determinant of product quality, is of special relevance for products whose objective value cannot be objectively assessed by a consumer because they have no prior experience in the field or have insufficient knowledge about them. That is when a consumer makes assumptions about the quality of the product based on its price, and this often is an unconscious process (Maison, 2019; Maison & Gregg, 2016). In the now-classic study conducted in 1968 by McConnell, respondents tested two identical brands of beer, however with information obout their different price (McConnell, 1968a, 1968b). As could be expected, the quality of the more expensive beer was rated more highly than the cheaper beer. Let us not forget, however, that the beer was identical in both cases; hence, the difference in perception resulted purely from the information about the price. In other experiment (Plassmann, O'Doherty, Shiv, & Rangel, 2008), respondents tried wine samples in a blind test. The only information that they were given about the wine (and, at the same time, an experimental manipulation) was the price of one bottle of the tasted wine. Depending on the conditions, bottles (contained the same wine) had information about different price: \$5 or \$45 per bottle. In the other two conditions (contained the second wine) had information about \$10 or \$90 cost per bottle. Brain activation (fMRI) was monitored during the wine tasting. After the wine tasting task, consumers had to say how much they liked the tested wine. A comparison of the evaluation of the same wine showed a difference depending on the price tag – the wine that was presented as more expensive in each pair was liked more (bearing in mind that the same wine was presented at both price levels). What is interesting is that the part of the brain responsible for pleasure was activated while tasting the more expensive wine. This result shows that our brain automatically decodes price information, and an increase in the price of a product is strongly and automatically associated with pleasure. However, an interesting question that this experiment does not provide the answer to, concerns the individual differences between reactions to a high price, namely, whether all consumers have the same brain reactions towards expensive products. We can predict that this reaction might vary depending on certain individual differences like attitudes towards money (Sundarasen & Rahman, 2017; von Stumm et al., 2013), the level of materialism (Dittmar, 2005; Lee & Ahn, 2016; Richins, 2017; Richins & Dawson, 1992; Thomas & Wilson, 2016), or the perception of price in loose terms (Lichtenstein et al., 1993).

Consumers perceive the price of products differently also based on how important consumption of that product (or product category) is for them. A person with a functional approach to consumption will have a very rational attitude to shopping and, as a result, will opt to buy cheaper products. But not everyone treats shopping in this way. For some people, their consumption is emotionally charged, for instance, by relating it to their ego. They consider the products purchased by them as a way of expressing themselves. For them, the brand of car, clothing, watch, or sunglasses reflects who they are – their status, social class, or style (Miller, 2010). These are usually persons with a great need for achievement, and financial success is very important for them. Such persons may favour more expensive products because of their greater prestige. In such situations, a brand that is perceived as expensive not only carries information about the product but also about its buyer. This is why, depending on the values that a given consumer is guided by, we can assume that they will either avoid highly priced goods (a functional approach to consumption) or, the exact opposite, they will have a propensity to buy more expensive products (when consumption is attached to the ego).

3.3 Mental and Emotional Accounting

3.3.1 Mental Accounting: The Drawers and Compartments of the Brain

Many researchers of financial behaviours have endeavoured to understand and explain what's behind spending vs. saving decisions. One of them is Richard Thaler (1999) who, in his mental accounting concept, assumes that people have a more or less conscious money management system "in their heads", which allows them to efficiently organise, evaluate, and control what they spend their money on and, as a consequence, to better manage their spending. According to the assumptions of the mental accounting theory, consumers assign expenditure in their heads into categories – separate mental accounts (e.g. eating, entertainment, running the house). Thanks to that they can better balance their budgets. These categories often have very rigid boundaries, and, as a result, mentally "reclassifying" a certain amount of money from the account assigned for one category of the purchase (e.g. winter boots) to the other account (e.g. for going to the cinema) may be difficult (Thaler & Shefrin, 1981).

Mental accounting that, on the one hand, may be self-controlling tool and help consumers manage their assets may sometimes lead to paradoxical situations where a person does not spend money on something they desire simply because the product belongs to the wrong "mental drawer". The traps of mental accounting were revealed by Heath and Soll (1996), who asked study participants whether they would buy a ticket to the cinema for 20 dollars if they recently (a) spent 50 dollars on a football match ticket (the same account) or (b) got a 50 dollar parking fine (a different account). Those that were confronted with the first situation (football game ticket) were much less eager to spend money on going to the cinema than those in the alternative situation (parking fine). Heath and Soll suggest that the principle behind the "drawers" has further negative consequences – if the assets in a given account haven't been spent, this may led to unplanned and sometimes unnecessary spending within this category (cf. Ch. 2).

3.3.2 Emotional Accounting: The Meaning of the Source of Money

Money is divided into categories not just from the perspective of expenditure (what money is assigned for – mental accounting) but also from the angle of where the money came from. Thus, money coming from a regular salary can be treated differently than money received as a gift. People often have very different approaches to money depending on its source – a regular salary or a windfall gain. Most people are more careful about spending their salary and more profligate when it comes to money obtained as a reward, especially an unexpected one. In one of the studies (Arkes et al., 1994), students were given money either expectedly (of which they were notified earlier) or unexpectedly. It turned out that those who got money unexpectedly (windfall gain) spent more of it on snacks than those who anticipated receiving the payment.

Consumer decisions concerning what they want to spend their money on can also be explained by the theory of emotionally aligning spending with the source of the money used (Thaler, 1999). It states that windfall gains can vary on a serious-frivolous scale from serious to petty *(frivolous)*. An example of serious income is a tax refund, whereas the winnings of an office football pool would already be considered frivolous. The author claims that people have a tendency to match the seriousness of the source of income to the use to which it is put. Thus, frivolous money would rather be spent on eating out or other pleasures ("trivialities"), while serious income on more sensible things like paying the bills.

Apart from situational factors that are external in nature like the source of the income, for instance, which impact what a person does with their money (cf. Chap. 1), the circumstances in which the money was received along with the accompanying emotional context also plays a key role in this. Hence, a windfall gain in the form of a family inheritance will be treated differently from lottery winnings. Money associated with an event that evoked negative emotions (like the already mentioned family inheritance) will make people more inclined to spend it on things that could reduce their negative emotions. An example of this could be giving a portion of this windfall to charity. This mechanism is explained by the concept of emotional accounting formulated by Levav and McGraw (2009), which posits that the feelings accompanying receiving a specific amount of money may be associated with the income itself that, in effect, impacts the way that people end up spending it. They assumed that if the income received is accompanied by certain feelings, then this "affective tag" can be attached to the income received, leading to the money being treated differently. If we get some money in negative circumstances (e.g. compensation for the death of a family member or payment for work that is not totally honest or moral), it gets labelled with negative emotions, which may make a person more inclined to apply various consumption strategies to reduce the level of negative emotions.

These strategies may include avoiding spending money on things that bring us pleasure because this could raise guilty feeling and intensify the negative feelings associated with the money that was received. Avoiding spending on life's pleasures is a passive strategy to cope with the negative affective tag associated with money. Another, this time, active strategy of coping with negative money-related feelings is something referred to as mental money "laundering". In order to reduce the negative emotions associated with income gains, people sometimes allocate a portion of these gains to charity, thus, symbolically cleansing them of negative affect and reducing the unpleasant feelings relating to it. Locating money for the purchase of products that offer many long-term functional gains instead of on goods providing pleasure (hedonic goods) may perform a similar function. Levav and McGraw (2009) also discovered that when faced with choosing from among the two above-described strategies for reducing negative money-related emotions, consumers are more prone to "launder" money than apply pleasure-avoidance strategies. This is probably because money "laundering" leads to a long-term drop in negative feelings relating to money, while avoiding spending for pleasure improves the mood only momentarily. It is possible that the greater popularity of the "laundering" strategy is down to the fact that once the money has been "laundered" by giving it to charity, the rest of the gains can be spent more freely, for instance, for pleasure but without the guilt.

An illustration of how the emotional associations with money resulting from their source can affect spending decisions, whether they are spent on pleasures or saved, has been provided by a subsequent study by Levav and McGraw (2009). In this study, the participants were presented with a hypothetical situation of getting an unexpected substantial financial gift for their high school graduation. Half of the respondents were told that this was a gift from their wealthy banker brother (positive circumstances), while the other half were informed that they got this gift from their artist brother struggling to make ends meet (negative circumstances). They were then asked to imagine that soon after their graduation they go shopping and see fancy designer sunglasses that they like. They were then tasked with indicating whether or not they would make the purchase. It turned out that the emotional connotation impacted their decisions. Significantly more respondents who got the money from their wealthy banker brother decided to purchase sunglasses than those who received the gift from their financially strapped brother (negative connotations with money evoking guilty feelings).

In the next study, they tested if the tendency to use the mental money "laundering" strategy strategy depends on the negative or positive connotation of receiving the cash gift (Levav & McGraw, 2009). In this case, the respondents had to imagine that they received a 200 dollars gift shortly before they went on a vacation. Depending on the conditions, this gift money was relating to (a) the passing away of their uncle or (b) a visit from their uncle. They could choose either to spend it on a spring break with their friends or use it to pay for next year's educational expenses. When the gift money was received in negative circumstances (passing away of their uncle), this prompted more of the respondents to "launder" the gift money, in other words, spend it on something of positive utility (tuition fee), contrary to those who had positive associations with the cash gift, who were more inclined to spend it on pleasure (a short vacation with friends). Moreover, those who were confronted with negative circumstances (uncle's passing) and decided to "launder" the windfall afterwards felt less negative emotions to the gift money than those who failed to use this strategy and spent their gift money on pleasures.

Another possible strategy that does not require either the avoidance of pleasure or "money laundering" is the reappraisal of a negative event. In another experiment conducted by Levav and McGraw (2009), the subjects had to imagine that they were given a $500 bonus from their supervisor for their hard work on a project, and they had to decide whether they would spend this cash bonus on something practical or extravagant. Then, depending on the study conditions, some of them were told that their colleague working in the same company, equally hard and with the same seniority as them, also got the same amount as a bonus. The second group was informed that the same colleague of theirs got a much lower bonus than them ($100), which resulted in feelings of guilt associated with the gift money. As a result, in the unequal bonus conditions many more people than in the equal bonus conditions decided to mentally "launder" the money, that is, to spend their money on something practical. In the next two study conditions, the respondents were provided with statements that gave them various possibilities to reappraise the situation and the negative emotions connected to it, such as: "The decision about the bonuses is beyond my control.", "Many factors are taken into account when allocating bonuses", "There will be other bonuses in the future", and "Receiving any kind of bonus is nice". In the situation where people were not becoming familiar with the possible ways of self-justification, the results were similar to those described earlier showing a higher inclination for the money "laundering" option in the negative circumstances condition. It turned out, however, that when they were given various kinds of "justifications" (engaging mental reappraisal of a negative circumstance), the inclination to (launder) money was the same across both groups (equal and unequal bonus).

A certain objection that is often raised in relation to research in the field of behavioural economics is that most of the studies confront respondents with hypothetical situations that relate to their imagination (just like the studies described earlier). That is why follow-up research created conditions where the study participants were given the opportunity to manage some money actually earned by them in the study. The participants of one such study were rewarded with real money for their involvement in fictional marketing research (Levav & McGraw, 2009). Depending on the study conditions, the respondents were informed that the research is conducted either for a tobacco producer (negative circumstances) or a computer hardware manufacturer (positive circumstances). The subjects could then allocate the money they received in the study to purchase discount coupons for a bookstore (virtuous option) or for an ice cream parlour (hedonic option). The outcomes of this experiment came as no surprise in the context of the results described earlier – money associated with negative emotions (tobacco concern) was spent more often for utilitarian purposes (bookstore) than for pleasures (ice cream). In the case of money that came from a computer hardware manufacturer, the opposite pattern of results was seen.

The phenomena described above are also confirmed in many real-life observations. Teachers at one of the high schools in the USA located in an affluent region were awarded a bonus on account of their pupils' good grades in a standardised, nationwide test (Levav & McGraw, 2009). Some of the teaching staff were not happy with this form of incentive because they did not consider the good grades of their pupils as their merit but a natural consequence of the high social and economic status of their pupils. Hence, they decided to donate their bonus to a poor, rural school whose pupils come from less affluent environments and their chances of success in the test were much smaller. The authors suggest that this "undeserved" bonus money was donated to a good cause by the teachers in order to reduce the negative feelings they had about receiving it.

3.4 Psychological Factors Influencing Spending: Non-specific Factors (Not Connected to Financial Behaviour)

Various factors have been presented above, both situational (emotional accounting) and relating to the functioning of the cognitive system (mental accounting), which affect a person's propensity to spend or save money or to spend it on certain things instead of others. At this point, it would be worth revisiting the basic question posed in this book of why – regardless of the external factors (e.g. the source of the money) and of the economic determinants (income) – some people are better at managing their assets, while others are not as good. Thus, let's go back to the individual psychological traits that make some people with the same earnings always have money while others are constantly grappling with financial problems. Some find it easier to spend money, while others find spending, no matter how small the amount, psychologically painful.

Money management is a skill that a person starts learning from the first years of their life. When a child gets some pocket money, they are faced with a decision as to what they should do with it – spend it straight away or put it aside for later. This is the first experience of managing one's assets. An adult similarly manages his/her finances by making various decisions that are more or less conscious and responsible, for instance, whether they should spend their money right away or save it for a later expense or to allocate it for life's pleasures and fancies or for life's necessities. As has been repeatedly emphasised, the simplest economic explanation for these discrepancies in the form of differences in income is insufficient. As has been shown in this book, more people with lower incomes but who are satisfied with their material situation (*financial optimists*) have savings than people with high incomes but who perceive their financial situation negatively (*financial pessimists*) (cf. Ch. 2). Let us therefore take a look at two very important in the context of these financial behaviours individual characteristics: self-control and the ability to delay gratification.

Thanks to self-control, we can regulate our impulses and the level of performance of various tasks (Baumeister & Alquist, 2009). Self-control means the ability to exercise restraint over impulsive behaviours through the suppression of sudden, fleeting desires or urges. In the financial context, self-control may be manifest in the ability to control an impulsive desire to spend money or to get a loan to buy something that is unnecessary. There are many reasons why people characterised by high self-control function much better in life (cf. Ch. 1). Tangney, Baumeister, and Boone (2004) demonstrated that higher results in a test measuring self-control correlated with higher average school grades, better social adaptation (higher self-esteem, less psychopathological symptoms), lower susceptibility to overeating and alcohol abuse, better relationships with others, higher interpersonal skills, and more adequate emotional reactions. Duckworth and Seligman (2006) even showed that self-control is a better predictor of school success than the intelligence quotient; in other words, it is better than the measure created specifically to predict educational success.

The phenomenon of self-control is closely linked to the issue of delayed gratification, which is of great significance in the context of financial behaviours. This is the ability to wait for a greater reward in the future in place of a smaller immediate gain. Probably one of the most classic studies illustrating this phenomenon is the so-called marshmallow test (Mischel, Shoda, & Peake, 1988). Young children were given the option of an immediate but small reward in the form of one marshmallow or a bigger but delayed reward in the form of three marshmallows in 20 minutes time (which really was a very difficult task for the young children as the marshmallows were lying in front of them all the time). In order to resist the temptation of immediate pleasure and enable themselves to receive a bigger amount of sweets, the children had to have a high level of self-control. Despite the fact that the delay was only 20 min long, many children found it to be a real challenge. The authors of the study managed to get into contact with the adults who took part in these experiments as children. It turned out that the children who coped better with delaying gratification (were capable of waiting for a bigger reward) were more successful as adults, both in their personal and professional lives (Mischel et al., 1988; Shoda, Mischel, & Peake, 1990).

In the context of studies on self-control, a question that has been puzzling researchers concerns to what extent is the level of self-control a permanent and unchanging characteristic or can the level of self-control be subject to change. According to most researchers, self-control is a skill that is naturally developed over the life course. Initially, a child is guided by simple reactions to stimuli, for example, the child strives to things that give immediate pleasure and avoids those that evoke negative emotions (Pechmann, Levine, Loughlin, & Leslie, 2005). A person develops their ability to control their impulses and actions with age, in line with the goals pursued by them, which are not always directly subordinate to the simple drive for pleasure and the avoidance of unpleasant stimuli. As we can see, we are not stuck with one level of self-control for the rest of our lives, but the next question is, of course, to what extent can a person consciously affect this characteristic in order to train it, thus, changing her/his ability to control themselves. Here, too, opinions are divided, and there are proponents of self-control as a relatively stable (at least in adult life) dispositional trait (Rosenbaum, 1980; Shoda et al., 1990), as well as advocates of it being subject to situational variability (Baumeister & Alquist, 2009; Tangney et al., 2004).

The ego depletion concept by Baumeister and Alquist (2009) is probably the most famous concept of self-control as an ability that depends on the situation. It assumes that a person has a specific level of self-control resources, and, once used up in a given area, it may lead to an impairment in other areas. Since we have limited self-control resources, using them in one area of life leads to an impaired capacity to regulate behaviours in other, even seemingly unrelated areas (Baumeister & Alquist, 2009). The authors of this concept compare the action of self-control to the way that muscles work, which can get tired from exertion. Similarly, self-control can also be exhausted. When we have limited self-control resources as a result of our self-regulation efforts in certain areas (e.g. at work), we may have a deficiency in other areas, and this may make us more susceptible to impulse buying, for instance (Vohs & Faber, 2007), or more exposed to breaking a diet that we have set ourselves (Kahan, Polivy, & Herman, 2003).

Controlling our behaviour is undoubtedly associated with positive outcomes (future reward); however, it oftentimes requires considerable effort because it involves overcoming our impulses and desires – we don't eat what we feel like eating, we don't punch people who annoy us, and we don't stay at home instead of going to work just because we feel like having a lie in. Of course, the loss of satisfaction from doing what we feel like in a given moment is a significant cost that we pay for controlling ourselves (Baumeister & Alquist, 2009). Looking at it globally, there are more advantages than losses resulting from a high level of self-control abilities.

Financial behaviour is one of the areas in life where self-control and tolerance to delay gratification is of great significance. This mostly concerns behaviours associated with saving and spending (Brändstatter & Güth, 2000; Otto, Schots, Westerman, & Webley, 2006). We don't buy what we fancy in a given moment because we have to pay the bills or give back money owed to people or because we have decided to save. We refrain from spending money on small, cheap, and perhaps worse quality goods because we will soon, once we have saved the required amount of money, be able to buy something much more valuable. Thaler and Shefrin (1981), in their Behavioural Life-Cycle Theory, assumed self-control to be one of the main factors influencing saving behaviour (cf. Chap. 4). Studies conducted on adults and adolescents alike have confirmed this assumption and revealed that persons with a higher level of self-control were better at saving (Brändstatter & Güth, 2000; Otto et al., 2006).

The research conducted in our team (Trzcińska, Sekścińska, & Maison, 2018) with the participation of children aged 9–11 years showed that self-control also among such young children does affect financial behaviours. Moreover, the experimental study that was carried out demonstrated that elicited self-control made the children more set on saving money for later instead of spending it at once. The studied children took part in a two-part experiment. The first part involved them watching a short animation (experimental manipulation) that, depending on the conditions, was about the role of self-control in a person's life or was neutral (did not concerned self-control). The children were given tokens for their participation in this part of the study, which they could (a) exchange for products (e.g. chocolate bar, juice, crayons) in a tuck shop created for the purpose of the study or (b) put into the "bank" (also established for the study) and take out a token of higher value in 1 week's time (equivalent of interest) and use it in the tuck shop to get products of greater value. The children in the experimental group that activated self-control had a greater propensity for using the "bank" than spending the tokens straight away. In the condition activating self-control, 77.3% of the children deposited the money into the "bank", while only 56.1% did so in the control group. Not only did these findings show the influence of self-control on the financial behaviours of children, but they also revealed that self-control can be activated. This means that a person is not "stuck" with their level of self-control but can also influence it.

The presented two individual characteristics, self-control and tolerance for delay of gratification, are clearly not the only individual psychological variables associated with financial behaviours. Other variables like the Big Five personality trait model (Brown & Taylor, 2014; Donelly, Iyer, & Howell, 2017; Nyhus & Webley, 2001) or time perspectives (Sekścińska, Rudzińska-Wojciechowska, & Maison, 2018a, 2018b) also affect how a person spends their money, but they have not been dealt with here since they were already discussed at length in Chap. 1.

3.5 Psychological Factors Influencing Spending: Specific Factors (Connected to Financial Behaviour)

In the previous chapter (Chapter 3.3), we considered the willingness and reluctance to spend money depending on various situational factors like the source of money or the place of purchase. Apart from the situational context, individual, specific factors associated with financial behaviours also exert a great influence on the way that money is managed and on consumption styles. People differ in terms of their tendency to collect goods and money. Some people strive more to have them, while others care far less about this (Gąsiorowska, 2008).

In light of these considerations, we have to once again briefly revisit the phenomenon of materialism discussed in Chap. 1 and its breakdown into negative and positive materialism (Fournier & Richins, 1991; Górnik-Durose & Pilch, 2016). Let us remind ourselves that there is a "good" materialism in the form of functional or instrumental materialism wherein goods are treated as tools allowing them to achieve non-material goals (Srivastava, Locke, & Bartol, 2001). For such a person, the possession of things or money is not an end in itself but a means to an end. The essence of "bad" materialism is treating possessions as ends in themselves, as the sole source of satisfaction, where collecting goods becomes the main goal in life. It has to be pointed out at this point that what has just been called functional materialism doesn't necessarily have to actually be materialism and is not treated as such by all researchers alike.

In the context of these reflections on materialism, we have to clearly differentiate between two seemingly related phenomena of the propensity for collecting goods and the propensity for collecting money. These are two different phenomena, and the dependency between these dimensions is not straightforward since, for instance, one cannot collect goods and money at the same time because in order to acquire a good, one has to spend money on it; in other words, the more goods we acquire, the less money we have. Moreover, money can be spent on material goods (e.g. a car) and non-material goods (e.g. travelling, learning); hence, the dependency of the more money we spend (i.e. the less money we have), the more goods we possess is not always true (cf. Chapter 2.5).

Following this line of thinking, Miriam Tatzel (2002, 2003) proposed an integrated model of consumption patterns derived from combining the intensity of materialism (high/low) with the approach to money (tightness vs. looseness with money). Based on a review of literature and research, the author assumed that persons with high materialism have the tendency to perceive things through the prism of the status that they can get through them (Tatzel, 2002). Such persons pay close attention to whether the goods that they possess are capable of making an impression on others. People with low scores on the materialism scale are focused on non-material values like, for instance, experiences. It is very interesting that, according to Tatzel, materialistic persons do not actually consume more than non-materialistic persons; these two groups only differ in the manner in which they do this (Tatzel, 2002). The second, alongside materialism, dimension that the author identified was the ease with which people part with money, regardless of the amount of assets held by them. Persons who think twice about every penny they spend perceive product prices in a negative light as something that would eat up their budget. People who find it much easier to spend money do exactly the opposite (cf. Sect. 3.2).

The integration of the two levels of materialism (reflecting people's approach to things) and the ease of parting with money (showing people's approach to money) gave rise to four groups of persons: Value Seekers, Big Spenders, Non-Spenders, and Experiencers (Tatzel, 2002). *Value Seekers* are persons characterised by high materialism and who also find it very difficult to part with money. These individuals try to maximise their profits and minimise their losses by buying as much as possible for the lowest amount of money. *Big Spenders* have a similar level of materialism as Value Seekers but find it very easy to spend money. They feel a strong need for consumption and purchasing goods, particularly flashy, expensive, and branded goods. *Non-Spenders* are people who are non-materialistic and tight with money. They are relatively free of the need to buy material things, but they also enjoy holding on to money and not spending it. The last type – the *Experiencer* – are people who enjoy both spending and consuming. They are also non-materialistic, so they're not interested in collecting material goods or showing off their assets.

3.6 Money Spending Style (Own Concept): Individual Factors Determining Spending Differences

The above examples have shown that what a person does with their money depends on many factors, like cognitive and emotional processes (mental and emotional accounting) and the situational conditions (like the place of purchase). Another such factor is the internal individual determinants that are non-specific in nature like self-control, or the ability to delay gratification, or are specific in nature because of its connection to financial issues, for instance, materialism or susceptibility to impulse buying. Below is a presentation of my own concept of individual differences in the approach to spending, namely, the Money Spending Style (MSS). The aim of this concept is to understand the differences not only between people who behave differently in the context of spending (tight or loose with money) but also between the emotions accompanying each of their behaviours and the motivations underlying it. The dissimilarities between people are not only rooted in their propensity to spend or save but also in their spending pleasure or displeasure like, for instance, negative feelings of guilt. The same applies to taking control of spending, which may be accompanied by both negative and positive emotional framing (Maison, 2018).

The model is based on two key dimensions: the first is the behavioural dimension – spending (similar to the typology by Tatzel, 2002) – and the second comprises the emotions accompanying behaviours associated with spending (e.g. emotions linked to spending or saving). The money spending dimension has two extremities, one of which is (a) easy spending and the other is (b) controlled spending. The emotional dimension also has two extremities: (a) positive emotions and (b) negative emotions. These dimensions combined give four money spending styles which, given that they seem to be similar on the behavioural level (e.g. foregoing buying the product), may be different because of the emotions accompanying them (e.g. *Thrifty Spender* style, when they have positive emotions, or *Tight Belter* style, when experiencing negative emotions) (cf. Fig. 3.1).

The four identified Money Spending Styles will be set out below. Two of the first money spending styles are associated with controlled spending (tight with money)

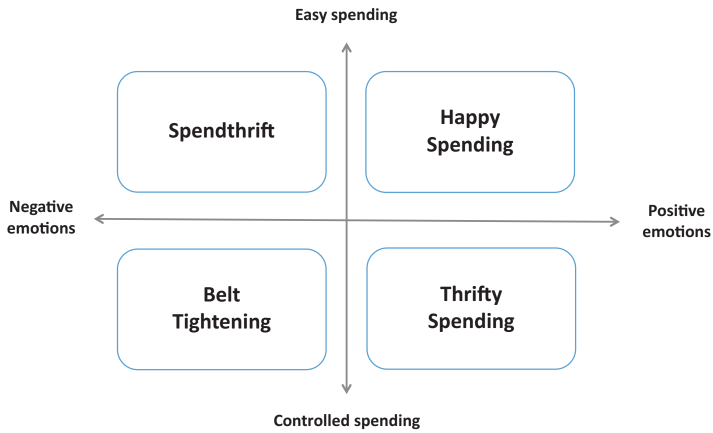

Fig. 3.1 Money Spending Styles (MSS) model

and the next two with easy spending. The money spending style descriptions are based on the theoretical premises presented earlier.

(a) *Thrifty Spending* – this style is associated more with restrictive spending and extensive and effective control of expenses. For Thrifty Spenders, holding on to money is associated with positive emotions. The person refrains from spending because they have a high level of self-control, they don't make on-the-whim purchases, and they can delay gratification. They create a hierarchy of importance of their expenses. A person with a high level of this finance management style often curbs their expenses to be able to use their money for something more important to them in the future, which will give them more pleasure.
(b) *Belt Tightening* – this style is on the surface (behaviour) similar to the Thrifty Spending; however, it is accompanied by negative emotions. A person limits their spending because they feel poor, without sufficient funds to enjoy life's pleasures. Every penny spent in this situation is linked to a strong feeling of guilt or a sense that they can't afford anything better, which is why they don't get any pleasure from the purchase.
(c) *Happy Spending* style is when a person is loose with money and experiences positive emotions when buying. People with a high level of Happy Spending style derive pleasure from spending and from the product acquired by them. They can sometimes buy things that they don't really need or that aren't very sensible but give them great pleasure.
(d) *Spendthrift* style on the level of behaviour is similar to the Happy Spender style but differs on the emotional dimension. This money spending style is accompanied by negative emotions. This is often the result of a lack of control over personal finances. People with a high level of this money spending style spend more money than they can afford. This leads to the inability to keep themselves

from spending or put spending off to another time (e.g. to a time when they have more money). Hence, it is common for people with a high level of this money spending style to experience negative emotions.

In the previous concepts exploring the tightness-looseness dimensions, it was usually assumed that these two extremities have negative implications for a person. Contrary to them, the MSS model assumes that it is not necessary, this may be the case, but it does not have to be that these behaviours evoke negative emotions and have negative consequences. If each of those behaviours (too easy or too restricted spending) is accompanied by negative emotions, it indeed can be dysfunctional. If, however, it is accompanied by positive emotions, such behaviours may be functional and may be a sign of mature and responsible financial behaviours (cf. Fig. 3.2).

A person can be fully aware of the financial behaviours and emotions described in the model, but some of them may be unconscious or unacceptable, particularly motives underpinning particular behaviours (Maison, 2019). It may be the case, for example, that a person may find it easier to admit to behaviours associated with positive emotions than with negative ones. Many of the elements of the attitude to money and spending depend on culture or religion (e.g. Protestant ethics gives money and riches much greater value than Catholics ethics). The family has an important role in creating money spending styles. Beliefs, emotions, or patterns of behaviours in the context of finances are often unconsciously transferred from the parents to the children. Because of the unconscious dimension of the MSS model, it was verified not only in quantitative research but also by using qualitative methods and projective techniques, which allow what is not always perceptible to introspection or acceptable to be identified.

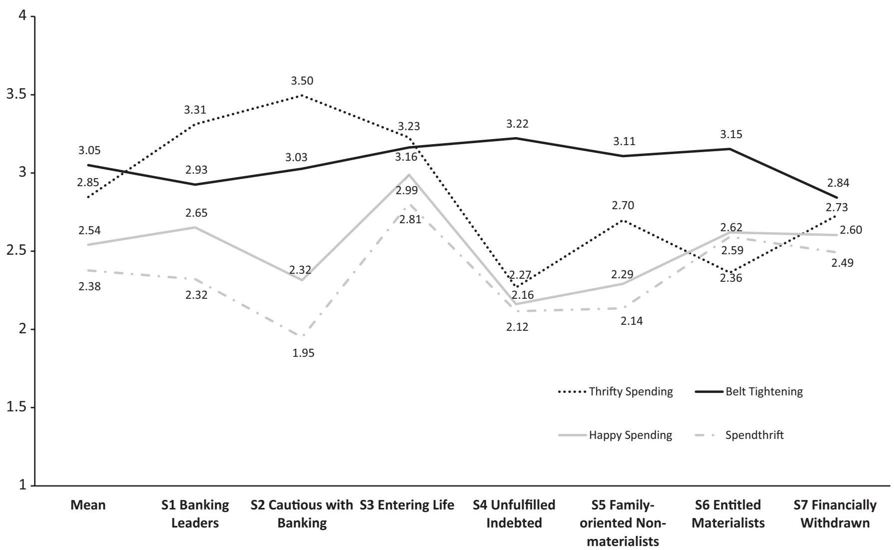

Fig. 3.2 Money Spending Styles across segments

The first step in the research project was to carry out a series of focus group interviews about how people behave in the context of spending and the emotions accompanying these behaviours. The results of these interviews allowed us to develop a battery of 30 statements diagnosing 4 money spending styles within the MSS model. Next, based on subsequent studies, we created a scale comprising 13 statements (see Appendix 2, qn. MSS). The outcomes of the research using this scale are presented below. Cronbach's α reliability analysis[1] for relevant styles shows usually acceptable values for three styles: Happy Spending (0.78[2]), Spendthrift (0.77), and Thrifty Spending (0.86). The Belt Tightening style, however, often has values somewhat below the threshold for acceptable (0.58–0.65, depending on the study). Nevertheless, because of the assumption presented earlier that some phenomena to which the questionnaire statements refer may be unconscious or concealed by a person, we decided to continue exploring the tool using different metodologies (quantitative and qualitative) and present the findings of various analyses using the scale concerning the relationship between the identified styles and the different psychological variables and with the different financial behaviours.

3.6.1 Money Spending Style Versus Emotions and Satisfaction with Life and Finances

The first analysis checked the extent to which various emotions accompany the identified money spending styles (qn. Q26_MSS_E, Table 3.1). As was assumed, the Thrifty Spending and the Belt Tightening styles, despite similarities on the behavioural level, were associated with different emotions: Thrifty Spending with positive ones ($r = 0.27$; $p < 0.001$) and Belt Tightening with negative ones ($r = -0.16$; $p < 0.001$), which is in line with predictions. In the case of the Happy Spending and the Spendthrift style, the difference in emotions was not that clear. The Spendthrift style did not have any statistically significant correlations with emotions towards money. The correlation between the Happy Spending style and positive emotions was statistically significant, but this was a very low correlation ($r = 0.09$). The second analysis, the correlation between MSS and satisfaction with life measured using the SWLS and satisfaction with finance, revealed, firstly, that persons with a high level of the Thrifty Spending dimension were most satisfied with their lives ($r = 0.27$) and finances ($r = 0.37$; Table 3.1). Whereas the Belt Tightening dimension

[1] Cronbach's α – a measure of the consistency of items used in a given scale (if they measure the same theoretical construct). The value of α ranges from 0 to 1. It is assumed that the value of the coefficient should amount to at least 0.70 for scales intended for scientific research that concerns the diagnosis of a phenomenon and a minimum 0.80 for scales implemented in individual diagnosis.

[2] Source: FinBehTrack (2016), an online study on a nationally representative sample of Poles, $n = 1048$.

Table 3.1 The relationship between Money Spending Styles (MSS) and emotions, satisfaction with life (SWLS), and satisfaction with finances

	Emotions (Higher value, more positive emotions)		Life satisfaction (SWLS)		Financial satisfaction	
n = 1048	*r*	*p*	*r*	*p*	*r*	*p*
Thrifty Spending	**0.269**	0.001	**0.268**	0.001	**0.370**	0.001
Belt Tightening	**−0.164**	0.001	**−0.109**	0.001	**−0.184**	0.001
Happy Spending	**0.091**	0.003	**0.072**	0.019	**0.076**	0.014
Spendthrift	0.013	0.680	−0.030	0.336	−0.046	0.139

Source: FinBehTrack (2016)

was accompanied by negative emotions and with lower satisfaction with life and with finances (this result was also in line with expectations).

3.6.2 Money Spending Style and Non-specific Psychological Variables

The next question concerned the dependency between MSS and non-specific psychological variables (psychological variables not linked to finances). Regression analysis was conducted separately for each of the spending styles where the demographic and psychological variables were validated as predictors of each of the spending styles. In the analysis were taken into account the demographic variables (sex, education, and age) and psychological variables: the five dimensions of the Big Five (openness to experience, extraversion, agreeableness, conscientiousness, and emotional stability) and the five dimensions of time perspectives (cf. Chap. 1). An abridged version of the tool comprising 10 items was used to measure personality according to the Big Five model (Gosling, Rentfrow, & Swann, 2003), and a short version of the SZTPI with 15 items (Zhang, Howell, & Bowerman, 2013) was used to measure time perspectives. We performed four hierarchical multiple regression analyses to explore the effect of those variables on each Money Spending Styles. In the first step, we investigated the effect of the demographics; in second, the impact of the Big Five personality dimensions; and in third step, the time perspective (see Table 3.2 – for clarity purposes, only statistically significant results of the analyses from the last, third step in the analyses were included).

The figures presented in Table 3.2 show several important findings in understanding money spending styles. Firstly, looking globally, time perspectives seem to have a greater impact on spending style than the universal Big Five theory of personality (a greater number of significant predictors of Money Spending Styles). The other key outcomes were the differences between the Thrifty Spending and Belt

Table 3.2 Table of stepwise regression analyses results for each Money Changing Style[a]

n = 625	Thrifty spending		Belt tightening		Happy spending		Spendthrift	
Variables	B	sig.	B	sig.	B	sig.	B	sig.
Step 1 – demography								
Sex (0, man; 1, woman)					**0.605**	0.005	**0.437**	0.012
Education	**0.170**	0.037						
Age					**−0.460**	0.001	**−0.290**	0.001
Step 2 – Big Five								
Openness to experience								
Extraversion								
Agreeableness	−0.191	0.070			**−0.361**	0.003	**−0.266**	0.005
Conscientiousness								
Emotional stability	0.143	0.089						
Step 3 – time perspective								
Past negative	**−0.228**	0.048	**0.295**	0.001			0.198	0.057
Past positive								
Present fatalistic								
Present hedonistic			**−0.241**	0.044	**0.711**	0.001	**0.466**	0.001
Future	**0.616**	0.001						
Percent of explained variance	7.2%		7.2%		14%		14.7%	

Source: FinBehTrack (2016)

[a]Next to the wave one (containing questions described in Apendix 2) wave two of the study was conducted containing additional psychological measures (e.g. Big Five, time perspective). Wave two was conducted 1 month later on the same sample of respondents as wave one. The effective sample size of the second wave was n = 625 (those participants of wave one who took part in wave two)

Tightening dimensions. These spending styles, which are similar on the behavioural level, depend on different factors. The Thrifty Spending style is definitely conducive to a future time perspective and emotional stability. At the same time, persons with a high level of the Thrifty Spending dimension have a lower past-negative time perspective. By contrast, this time perspective encourages the Belt Tightening style (which proves the distinctiveness of these dimensions). Other important outcomes concern the Happy Spending and the Spendthrift styles. Firstly, both money spending styles had a very similar individual predictor – Present Hedonic TP – which, once again, confirms the similarity between these two dimensions. Persons focused on satisfying their whims and fancies are more spendthrift and get more pleasure from spending money. Both these dimensions are also negatively correlated with agreeableness and with the two demographic variables: sex and age. These two purchasing styles are more common among women than men and in younger than in older people. The only psychological dimension that differentiates between these two purchasing styles is the past-negative TP, which is associated with the Spendthrift style, but not with the Happy Spending style. This result is in line with the theoretical assumption that the Spendthrift dimension is more related with negative emotions than the Happy Spending style.

Table 3.3 The relationship between money spending styles and the dimensions of materialism (centrality, success, and happiness)

	Centrality		Success		Happiness	
$n = 184$	r	p	r	p	r	p
Thrifty Spending	−0.002	0.973	0.107	0.150	−0.111	0.134
Belt Tightening	−0.018	0.813	**0.154**	0.037	**0.319**	0.001
Happy Spending	**0.409**	0.001	**0.277**	0.001	**0.164**	0.026
Spendthrift	**0.330**	0.001	**0.260**	0.001	**0.181**	0.014

Data source: Gromniak (2018)

3.6.3 Money Spending Style and Materialism

The next research question concerned the relationship between the money spending styles and materialism. The materialism concept was based on the approach of Richins and Dawson (1992) and was measured using their scale distinguishing three dimensions of materialism: (a) centrality, meaning that the acquisition and collection of goods are located in a central place in a person's life; (b) success, treating the goods possessed as a criterion of life success achievement; and (c) happiness, that is, the conviction that possession and gathering of goods lead to happiness and life satisfaction. The study was participated by 184 adults from 18 to 65 years of age, 60% of whom were women and 40% were men (Gromniak, 2018). The results of the analyses conducted on a global indicator of materialism showed a statistically significant relationship between the three money spending styles, Belt Tightening ($r = 0.21$, $p < 0.005$), Spendthrift ($r = 0.29$; $p < 0.001$), and Happy Spender ($r = 0.32$; $p < 0.001$), but no relationship with the Thrifty Spending style. Analyses of MSS conducted separately with the three dimensions of materialism according to Richins and Dawson (1992) (see Table 3.3) revealed much more interesting results. The Happy Spending and the Spendthrift styles have the strongest correlation with the centrality of materialism, but the Belt Tightening style correlates the strongest with the happiness dimension of materialism. This means that for people with a high Happy Spending and Spendthrift index, the possession and collection of goods is central to their lives and is also treated as a measure of their success in life. People with a high level of the Belt Tightening style for a change are convinced that collecting and holding on to goods lead to happiness and satisfaction with life.

3.6.4 Qualitative Exploration of MSS

The aim of the qualitative research was to gain greater insight into the four identified money spending styles and understanding the differences between the styles that are similar on a behavioural level (associated with spending or saving). Most of all, however, we wanted to deepen the differences between the two styles that, based on the quantitative study, looked very similar: Happy Spending and Spendthrift. The analysis was based on 40 in-depth interviews conducted in the homes of respondents (ethnographic interviews), each of which lasted about 120 minutes. The respondents were between the ages of 18 and 24, having an income, and managing their assets on their own. The study was carried out in large cities, small towns, and villages.[3] The interview analyses were based on interview transcripts using thematic analysis (Braun & Clarke, 2006). Projective techniques were applied in the interviews, which allowed us to go beyond the declarations of the respondents and understand the sometimes unconscious motives of their behaviours (Maison, 2019).

The first step of the investigation was an assessment of the individual Money Spending Style profile of each respondent and the determination of his/her dominating style. Afterwards, an in-depth analysis of the differences between styles, which look similar on the behavioural level, was performed.

High Control of Spending: Thrifty Spending Versus Belt Tightening.

As was mentioned earlier, from the behavioural point of view, Thrifty Spender and Belt Tightening styles look similar. Persons with a high intensity of both money spending styles were found to have similar behaviours like, for instance, foregoing spending because of the price or looking for a cheaper store to save some money. However, as shown by the qualitative interviews, the fundamental difference was in the motives underpinning these behaviours. For Thrifty Spenders, this is an element of their budget management strategy, a way of controlling the allocation of funds held by them, whereas for persons with a high level of the Belt Tightening style, the motivation buttressing it is the conviction of having a limited budget accompanied by a sense of injustice and dissatisfaction with life. To put it differently, a Tight Belter will go to a cheaper store with a sense of injustice and inferiority (because they're "poor"), whereas a Thrifty Spender will be happy that they have found a place where they can make a good and reasonably priced buy (e.g. save for something of greater importance to them or simply spend their money on pleasures).

> I'm hardly ever in a situation where I have to deny myself of anything because I can't afford it; I simply don't need such things, I don't have inflated expectations. I don't need to have the newest phone out, this doesn't define a person. I'm happy with what I have at the moment and it's completely sufficient for me. (female, small town, MSS: Thrifty Spender).
>
> I keep my money in envelopes, in birthday cards, camouflaged in between books, in books themselves, in an old childhood diary, amongst my clothes: socks, jacket pockets, and under my bed. They've been placed all around the house so that nobody can rob me of the whole amount. I sometimes do spot checks to see if they're still there, or I switch places if a family member happens to discover them. (female, big city, MSS: Tight Belter).

[3] The study was commissioned for the National Bank of Poland, and its main objective was gaining insights into the barriers to banking service use by young Poles. This is why the group of respondents was limited to individuals from 18 to 24 years of age. The exploration of Money Spending Styles was an additional element to the study.

As we can see from quotations below, relevant money management strategies are similar in persons with a high level of the Belt Tightening and Thrifty Spending styles, but the emotions accompanying spending and the motivations underlying their shopping behaviours are completely different. Firstly, both of them often have a spending plan that they stick to; they know exactly how much money they have and what they're going to spend it on in a given month. They keep track of their spending, doing sum totals of how much they have spent and what they have spent it on. If they realise that they have spent too much on a certain category, they try to limit their spending next month. Thrifty Spenders clearly apply mental money management strategies in practice (mental accounting, Thaler, 1999). Whereas Tight Belters more often rely on physical checks of their budget by keeping a ledger or dividing their cash into separate "piles" of money, for instance, which are kept in separate envelopes or compartments.

> I know exactly what I need to buy right at the beginning of the month; I also know that I'm going away in three month's time so I have to put more money away, and that's exactly what I do. I spend the rest at my discretion: doing the groceries, other purchases, going out with friends, with no clearly defined spending plan. (female, small town, MSS: Thrifty Spender).
>
> I keep my money in a money box, in my purse, and in appropriate envelopes at home. When I get my salary I can estimate how much of it I'm going to spend in a given month so I divide it into appropriate envelopes. Then, when I'm leaving the house, I know on a given day that I have to buy a light bulb and on my way home do a spot of shopping, so I take 50 zloty out of one envelope, and 20 zloty from another for the light bulb, and 20 zloty from yet another one for the transport. (female, small town, MSS: Tight Belter).

Another difference between these two money spending styles is the ability to save in relation to the ability to enjoy spending money. Persons from both groups try to save a portion of their income on a relatively regular basis, differing between themselves only in their saving objectives. Persons with a high level of the *Thrifty Spending* style usually save for a specific purpose. They have an objective for the future and just thinking about it helps them save effectively. Furthermore, they actually derive pleasure from spending their money on their planned purchases. Evidently, they have a certain level of the *Happy Spending* style, but it is a controlled level, leading them to spend on pleasures only when they have the money to spend on them. Persons with a high level of the Belt Tightening style, on the other hand, save money in order to have more of it (however, usually they are not successful with saving). The very fact of collecting money is important to them and not what they can achieve through it. What's more, they don't usually get any pleasure out of spending their money but rather feel sorry to part with it.

> Now I'm thinking about getting a car and I'm saving for one; apart from that, my mate and I are saving money for a trip to China. Before that, I was saving for a trip to Władysławowo (seaside resort in Poland). Alcohol, food, drinks, just for life's pleasures; we had excellent weather and, well... I spent about 1000 zloty there. (male, big city, MSS: Thrifty Spender).
>
> I've got this money box from which I don't take any money out. Sometimes I count the money in this money box. Checking how much I've got makes me feel good. Knowing that I've got this much money is a pleasant feeling. (female, small town, MSS: Tight Belter).

Persons with a high level of the *Belt Tightening* and the *Thrifty Spending* styles are also characterised by a certain rigidity of behaviours. Thrifty Spenders, despite being capable of saving, can spend more money than planned in one go. At the same time, these behaviours are not frequent enough to make them lose control over their finances (contrary to *Spendthrifts*). *Tight Belters* for a change are extremely strict in keeping to their set rules, and every time they break these rules, this undermines their sense of security and evokes negative emotions.

> On the one hand, I manage to find bargains a lot of the time, on the other, I do also find myself impulse buying, on a sudden whim. But I don't buy completely useless things. (male, big city, MSS: Thrifty Spender).
>
> I hate going shopping, I have a big problem with spending money on clothes because 90% of the time I don't like them, and when I do find something I like, it turns out to be too expensive to spend like 90 zloty on some clothes. I like buying shoes and there was one occasion where I just loved the shoes so much and I went ahead and bought them but they ended up to be very uncomfortable. I forked out 99 zloty for them and this was a lesson for the future that all that glitters is not gold. I would have been better off not spending my money. (female, small town, MSS: Tight Belter).

Low Control of Spending: Happy Spending Versus Spendthrift

The next two money spending styles that look similar on the behavioural level are *Spendthrifts* and *Happy Spending*. Despite the behavioural similarities between these styles which are also visible in quantitative studies, qualitative research allowed several important differences to be identified, mainly in the area of the ability to control spending, the actual skill of saving, and the emotions accompanying purchase situations and being out of money.

The qualitative study also revealed the differences between persons with a high level of the *Spendthrift* and the *Happy Spending* styles, which weren't that clear-cut in the quantitative study. Both of the mentioned money spending styles are similar on the behavioural level, manifest in an ease in spending and in the spontaneity of financial decisions (particularly concerning spending); thus, both groups do overspend on occasions. These two groups (people with a high level of the *Spendthrift* and the *Happy Spending* styles) cannot be deemed to manage their budgets well. They don't plan their expenses, and they don't keep track of how much and what they've spent their money on. They don't try to budget by trying to limit certain expenses in order to save for other things. However, people with a high level of the *Happy Spending* style have relatively more control and are better oriented in how much money they have at any given moment and how much they have left to spend. Whenever they exceed their budget, they do so consciously, carefully weighing the consequences of such a move. They even sometimes decide to cut back on their expenditure in order to stick to the budget. They are more inclined to avoid situations where they are completely out of money by the end of the month which, for many Spendthrifts, is completely normal and acceptable. *Happy Spenders* are also effective in money saving, thanks to their greater ability to control expenditures. For a change, effective saving is very rare in *Spendthrifts*. Even if they do manage to save something, they end up quickly spending it. Compared with the group with the greater control, they are also capable of spending quite a substantial amount in one go, even equivalent to their month's wages. Hence, both those with a high level of the *Happy Spending* and the *Spendthrift* style do sometimes overspend so, before they get their next cash injection, they run short of money. However, this oftentimes has more serious consequences for Spendthrifts, and there's a greater chance of them falling into financial difficulties.

> I allocated my entire salary to my car. It was completely spur of the moment, someone called that there's a car for sale and I had a week to complete the payment, so I bought it. Dad lent me some money for the MOT, which I later gave back to him, and slowly but surely I got back on my feet again. (male, small town, MSS: Happy Spender).
>
> I don't know how to hold on to money, it just gets spent quickly, on clothes, shoes, nights out with my mates, dinner, bowling, and on daily expenses. (…) When I was going on holiday to Zakopane, it was just after I got paid so I took everything I had and off I went. And then it was difficult to get to the end of the month". (male, village, MSS: Spendthrift).

None of the groups (neither the one with a high level of the *Spendthrift* or the *Happy Spending* styles) can be considered to manage their finances well. They don't budget or keep track of how much they have spent and what they spend their money on, which is why they often find it difficult to ascertain exactly how much of their budget they allocate to various needs. They don't try to budget by trying to limit certain expenses in order to save for other things. Contrary to *Thrifty Spenders*, they don't do mental accounting or other auxiliary accounting (e.g. writing down expenses or dividing cash into different allocations). However, people with a high level of the *Happy Spending* style have relatively more control and are better oriented in how much money they have at an any given time and exactly how much they have left to spend. If they do exceed their budget, they do it consciously, also carefully considering the consequences of such actions. They even sometimes decide to cut back on their expenditure in order to stick to their budget. They would rather avoid situations where they are completely out of money by the end of the month which, for many Spendthrifts, is completely normal.

Since people with a high intensity of the *Happy Spending* style have a greater ability to control things, they, as was said earlier, are also better at saving. Overall, in their case, saving is dictated by the need to achieve a specific goal of purchasing a certain product (not able to save just in case). This is not, however, planned with precision, and they usually employ a residual saving strategy (Katona, 1975), saving whatever they have left at the end of the month. They sometimes try to additionally limit their expenses to ensure they have a higher level of residual budget. However, since this is not a fully controlled or planned way of saving, goals that have set dates of completion, for example, vacations, are sometimes left unmet.

Planned saving (not only contractual but also residual) is very rare in the group of persons with a high intensity of the *Spendthrift* style since they can neither save effectively nor keep any savings they have made. Even if they do manage to save something, they end up quickly spending it. It's treated as a windfall, in other words, something that could be spent on pleasures (see emotional accounting, Levav & McGraw, 2009). Their attempts at saving are often quite ineffective because having savings at hand is always a temptation for them, and whenever they want to have something new, they simply can't resist the urge and end up breaking into their savings. They often explain their lack of success in saving by not having the opportunity to do so since they don't have sufficiently high earnings. The fact that this is merely an excuse and that the real reason why they have no savings is not the lack of opportunity but the lack of motivation and the skills to do so is demonstrated by the fact that people with similar or even lower incomes and frequently higher expenditure (e.g. fending for themselves) were capable of putting away even large sums of money, however, under the condition that they had a different Money Spending Style.

> I was saving for my vacations because that's when I don't deny myself anything. I had 3,000 and this did the job. (…) First, I put 100 zloty away, next time it was 600 zloty, until I managed to collect 3,000. (male, small town, MSS: Happy Spender).
>
> It's difficult to save anything with the amount I make; it all zeros out, perhaps there may be something left over but there's really no point in saving it. (male, village, MSS: Spendthrift).

Another difference between people representing the discussed two money spending styles that wasn't picked up in the quantitative studies but could be clearly seen in the results of the qualitative studies was the emotions accompanying the situation of being out of money. For those with a high intensity of the *Spendthrift* style, the fact that they can't allow themselves to buy something is the source of negative emotions. In such a situation, they look for ways to satisfy their consumption needs, like through borrowing money or taking loans, for instance. Persons with a high level of the *Happy Spending* style, however, avoid getting out of their situation by taking out loans because using other people's money makes them feel that they have lost their independence and evokes more and much greater negative emotions than denying themselves of another purchase.

> Once I run out of money, I start to limit my spending and, tough, I won't go out with my mates a few times. (male, small town, MSS: Happy Spender).
>
> When the money runs dry then you have to borrow some from somebody like a friend, and then you just give it back, and that's the way it goes. (male, village, MSS: Spendthrift).

Attitudes Towards Money in Persons with Different Money Spending Styles

The results of the qualitative study have shown a very significant difference between persons with a high level of the *Thrifty Spending* and *Belt Tightening* style, mainly in relation to money, in other words, in the role that money plays for each group of people, whether it is more an end in itself (desire to collect) or more a means to an end and if it fulfils a more functional or symbolic role in a person's life (Gąsiorowska, 2014).

Persons with a high level of the *Thrifty Spending* style have a relatively indifferent attitude to money but not towards the things that money can buy. One could say that money is a means to an end for them and not an end in itself. They experience joy and pleasure from spending money, but because they are quite rational in managing it, they never lose track of their budget. They also do not experience any frustration because they don't have the money to buy certain things. What is important to them is the overriding objective: if it's important, they save in order to achieve their goal, and if it's not that important, they have no trouble in foregoing the purchase altogether.

For people with a high level of the *Belt Tightening* style, contrary to *Thrifty Spending*, money is charged with emotions, especially negative ones. They are dominated by a fear of losing money, shame, and frustration that they don't have enough money and a sense of guilt connected with spending. Money is also perceived by people with a high level of the *Belt Tightening* style as the only remedy to their negative emotions, which is why they have a great desire to have as much money as possible, and this is consistent with their high level of materialism. *Tight Belters* appreciate material values like position or status, which is also why they are so set on having more money, and the sense that they don't have enough gives rise to frustration (the relationship with centrality as a dimension of materialism has also been demonstrated by the quantitative studies $r = 0.319$, Table 3.3). However, regardless of how much money they have, the negative emotions associated with it prevail and are even intensified: the more money these people have, the stronger their fear of losing it. Even parting with money in the form of spending it is unpleasant for *Tight Belters* and evokes a sense of guilt and qualms of conscience in them. They have no joy from spending and no single purchase, not even the smallest one, makes them happy (contrary to *Thrifty Spenders*). *Tight Belters* always feel that money could have been spent differently, better, or better still, not spent at all. In their dreams about the future, they pay a great deal of attention to material matters.

> I'm hardly ever in a situation where I have to deny myself of anything because I can't afford it; I simply don't need such things, I don't have inflated expectations. I don't need to have the newest phone out, this doesn't define a person. I'm happy with what I have at the moment and it's completely sufficient for me. (female, small town, MSS: Thrifty Spender).
>
> I keep money in my 'sock'. I check it before leaving the house - I check how much money I have in my purse, how much money I have to spend, and if I'll have enough to get by on during the day. When I go clothes shopping, I know that I can afford something more expensive but I only buy what I actually need. I sometimes manage to save on something. I'm not a big fan of shopping. (female, big town, MSS: Tight Belter).

Attitude towards money is also something that differentiates people with a high level of the *Happy Spending* style from the *Spendthrift*. For people with a high level of the *Happy Spending* style, money on its own has no emotional value, and they remain indifferent towards it (being somewhat similar to *Thrifty Spending* in this respect). For Happy Spenders, it is not money that is the source of positive emotions but actually spending it and the goods that money can buy. The lack of emotional attachment to money makes them spend it with great ease and without the slightest guilt but, at the same time, as was mentioned earlier, they do not have any problems with keeping themselves from spending it whenever they are short of cash (which is a problem for Spendthrifts). Both groups differ also in their dreams about the future. They focus on material issues and they want to have as much money as possible and achieve a certain position or social status. However, the dreams of Happy Spenders are much more realistic than those of Tight Belters. Moreover, Tight Belters desire a high status more desperately because they have illusion that only such a position will make them feel secure.

> [dreams] To have my own house. To build a relatively small house but to have one of my own, so that I wouldn't have to rent, because renting sucks; it's better to pay for your own. (male, small town, MSS: Happy Spender).
>
> [dreams] I'd like to work in a corporation, get a mega big promotion and earn 5 thousand a month. There are various companies, from zero to manger. I'm still young and can still achieve something in life. (female, small town, MSS: Tight Belter)

As was said earlier, for people with a high level of the *Belt Tightening* style, contrary to those with a high level of the *Thrifty Spending* and the *Happy Spending* styles, money has a negative emotional charge. They are dominated by a fear of losing money, a feeling of shame and frustration that they don't have enough of it, as well as a sense of guilt connected with spending. Money is also perceived by people with a high level of the *Belt Tightening* style as the only remedy to their negative emotions, which is why they have a great desire to have as much money as possible. Moreover, Tight Belters appreciate material values position and status, which is also why they want to have more money so much, and their sense that they don't have enough of it gives rise to frustration. Regardless of how much money they have, however, the negative emotions associated with it are still there and even become stronger; hence, the more money they have, the stronger is their fear of losing it. The strong fear of being robbed that these people experience reveals their attachment to the money they have. Even parting with money in the form of spending it is unpleasant for them and evokes a sense of guilt and qualms of conscience. They derive no joy from spending, and no single purchase, not even the smallest one, makes them happy (contrary to *Thrifty Spenders*). *Tight Belters* always feel that money could have been spent differently, better, or better still, not spent at all.

Persons with a high level of the *Spendthrift* style have the most ambivalent attitude towards money. On the one hand, it gives them great pleasure and satisfaction, but these feelings are momentary and very fleeting. They usually feel that they don't have enough money, and, because of this, they have to deny themselves of many things, which, in turn, is the source of frustration for them. Looking at it globally, from a financial perspective, they are dominated by a greater level of negative than positive emotions. Ostentatious consumption is a specific manifestation of the attitude to money of people with a high level of the *Spendthrift* style. They are more prone than others to spend more than they actually earn on goods that emphasise their status (e.g. buying branded clothes and shoes). Their dreams are very much focused on what they'd like to have and the position they would like to reach, and not on what they'd like to become and what they'd like to do to reach such a status. This is clearly evident in the quote below, where the person concerned is currently receiving benefits and is dreaming of earning money that is 20 times the amount that they are currently earning.

> [dreams] To get a good job, earn big money and, most of all, to have, among other things, a car. I don't know how much I would like to earn, 20-30 thousand a month, for the beginning, for a young, twenty-something, and then, perhaps, even more. I'd be some kind of businessman who manages shares of some sort because this is terribly lucrative. (male, big city, MSS: Spendthrift).

Table 3.4 Relationship between Money Spending Styles and financial behaviours

	Level of banking service use		Cash credits		Savings held		Investments held	
n = 184	*r*	*p*	*r*	*p*	*r*	*p*	*r*	*p*
Thrifty Spending	**0.190**	0.001	**−0.192**	0.001	**0.398**	0.001	**0.201**	0.001
Belt Tightening	−0.023	0.465	**0.073**	0.018	**−0.089**	0.004	**−0.104**	0.001
Happy Spending	**0.107**	0.001	0.026	0.403	0.053	0.086	0.038	0.216
Spendthrift	0.056	0.069	**0.063**	0.040	−0.021	0.507	−0.005	0.878

To sum up the analysis of Money Spending Styles, we carried out another quantitative analysis based on the FinBehTrack (2016) research but this time checking the dependency between the money spending styles and the various financial behaviours: level of banking service use (mean from qn. Q8_BP), having cash credits (consumer credit; qn. Q8_BP), and having savings (qn. Q9_S1) and investments (qn. Q13_S6; Table 3.4).

Summing up, the *Thrifty Spending* style has the biggest impact on financial behaviours, which is conducive to mature and responsible asset management: a higher level of banking service use, higher savings, and more investments but also less cash credits taken out. The opposite of this group are people with a high level of the Belt Tightening style who are more prone to take out cash credits and less inclined to save and invest (although the correlations with financial behaviours are very low for this style).

References

Arkes, H. R., Joyner, C. A., Pezzo, M. V., Nash, J. G., Siegel-Jacobs, K., & Stone, E. (1994). The psychology of windfall gains. *Organizational Behavior and Human Decision Processes, 59*, 331–347.

Baumeister, R. F., & Alquist, J. L. (2009). Is there a downside to good self-control? *Self and Identity, 2 &3*, 115–130.

Brändstatter, H., & Güth, W. (2000). A psychological approach to individual differences in intertemporal consumption patterns. *Journal of Economic Psychology, 21*, 465–479.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

Brown, S., & Taylor, K. (2014). Household finances and the 'Big Five' personality traits. *Journal of Economic Psychology, 45*, 197–212.

Bruner, J. S., & Goodman, C. C. (1947). Value and need as organizing factors in perception. *Journal of Abnormal and Social Psychology, 42*, 33–34.

Carter, T. J. (2014). The psychological science of spending money. In E. Bijleveld & H. Aarts (Eds.), *The psychological science of money* (pp. 213–242). New York, NY: Springer.

Chartrand, T. L., Huber, J., Shiv, B., & Tanner, R. J. (2008). Nonconscious goals and consumer choice. *Journal of Consumer Research, 35*(2), 189–201.

Dijksterhuis, A. (2004). Think different: The merits of unconscious thought in preference development and decision making. *Journal of Personality and Social Psychology, 87*(5), 586–598.

Dittmar, H. (2005). Compulsive buying – A growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology, 96*(4), 467–491.

Donelly, G., Iyer, R., & Howell, R. T. (2017). The Big Five personality traits, material value, and financial well being of self-described money managers. *Journal of Economic Psychology, 33*, 1129–1142.

Duckworth, A. L., & Seligman, M. E. P. (2006). Self-discipline gives girls the edge: Gender in self-discipline, grades, and achievement test scores. *Journal of Educational Psychology, 98*(1), 198–208.

FinBehTrack. (2016). Unpublished research report about financial attitudes and behaviors of Polish people.

Fournier, S., & Richins, M. L. (1991). Some theoretical and popular notions concerning materialism. *Journal of Social Behavior and Personality, 6*, 403–414.

Furnham, A. (1984). Many sides of the coin: The psychology of money usage. *Personality and Individual Differences, 5*(5), 501–509.

Gąsiorowska, A. (2008). Skala Postaw Wobec Pieniędzy SPP2008. Podręcznik. (Unpublished manuscript). Institute of Organization and Management, Wroclaw, Poland: Wroclaw University of Technology.

Gąsiorowska, A. (2014). The relationship between objective and subjective wealth is moderated by financial control and mediated by money anxiety. *Journal of Economic Psychology, 43*, 64–74.

Gąsiorowska, A., Zaleśkiewicz, T., & Wygrab, S. (2012). Would you do something for me? The effects of money activation on social preferences and social behavior in young children. *Journal of Economic Psychology, 33*, 603–608.

Górnik-Durose, M., & Pilch, I. (2016). The dual nature of materialism. How personality shapes materialistic value orientation. *Journal of Economic Psychology, 57*, 102–116.

Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*, 504–528.

Gromniak, A. (2018). Typy materializmu a postawy wobec dóbr i pieniędzy (Materialism types and attitudes toward goods and money). Unpublished manuscript.

Heath, C., Soll, J.B. (1996). Mental Budgeting and Consumer Decisions. *Journal of Consumer Research, 23*, 40–52.

Kahan, D., Polivy, J., & Herman, C. P. (2003). Conformity and dietary disinhibition: A test of the ego-strength model of self-regulation. *International Journal of Eating Disorders, 33*, 165–171.

Katona, G. (1975). Psychological Economics. New York: Elsevier.

Knutson, B., Rick, S., Wimmer, G. E., Prelec, D., & Loewenstein, G. (2007). Neural predictors of purchases. *Neuron, 53*, 147–156.

Lea, S., & Webley, P. (2006). Money as tool, money as drug: The biological psychology of a strong incentive. *Behavioral and Brain Sciences, 29*(2), 161–209.

LeDoux, J. (1998). *The emotional brain: The mysterious underpinnings of emotional life*. New York, NY: Simon & Shuster Inc.

Lee, M. S. W., & Ahn, C. S. Y. (2016). Anti-consumption, materialism, and consumer well-being. *The Journal of Consumer Affairs, 50*(1), 18–47.

Levav, J., & Mcgraw, A. P. (2009). Emotional accounting: How feelings about money influence consumer choice. *Journal of Marketing Research, 46*(1), 66–80.

Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: A field study. *Journal of Marketing Research, 30*(2), 234–245.

Maison, D. (2018). Whay shapes spending style: demographics, income, or individual traits? Journal of Insurance, *Financial Market and Consumer Protection, 29*, 3–26.

Maison, D. (2019). *Qualitative marketing research. Understanding consumer behaviour*. London, UK: Routledge.

Maison, D., & Gregg, A. (2016). Capturing the consumer's unconscious. Applying the implicit association test in consumer research. In C. Jansson-Boyd & M. Zawisza (Eds.), *Routledge international handbook of consumer psychology* (pp. 143–164). London, UK: Routledge/Taylor & Francis Group.

McConnell, J. D. (1968a). Effect of pricing on perception of product quality. *Journal of Applied Psychology, 52*(4), 331–334.
McConnell, J. D. (1968b). The price-quality relationship in an experimental setting. *Journal of Marketing Research, 5*, 300–303.
Miller, G. (2010). *Teoria szpanu. Seks, ewolucja i zachowania klienta (Boasting Theory. Sex, evolution and consumer behavior)*. Warsaw, Poland: Prószyński & Publishing Company.
Mischel, W., Shoda, Y., & Peake, P. K. (1988). The nature of adolescent competencies predicted by preschool delay of gratification. *Journal of Personality and Social Psychology, 54*(4), 687–696.
Nyhus, E. K., & Webley, P. (2001). The role of personality in household saving and borrowing behavior. *Personality and Economic Behaviour, 15*(S1), S85–S103.
Otto, A. M. C., Schots, P. A. M., Westerman, J. A. J., & Webley, P. (2006). Children's use of saving strategies: An experimental approach. *Journal of Economic Psychology, 27*, 57–72.
Pechmann, C., Levine, L., Loughlin, S., & Leslie, F. (2005). Impulsive and self-conscious: Adolescents' vulnerability to advertising and promotion. *Journal of Public Policy & Marketing, 24*, 202–221.
Plassmann, H., O'Doherty, J., & Rangel, A. (2007). Orbitofrontal cortex encodes willingness to pay in everyday economic transactions. *The Journal of Neuroscience, 27*(37), 9984–9988.
Plassmann, H., O'Doherty, J., Shiv, B., & Rangel, A. (2008). Marketing actions can modulate neural representations of experienced pleasantness. *PNAS – Proceedings of the National Academy of Sciences of the USA, 105*(3), 1050–1054.
Prelec, D., & Loewenstein, G. (1998). The red and the black: Mental accounting of savings and debt. *Marketing Science, 17*(1), 4–89.
Richins, M. L. (2017). Materialism pathways: The processes that create and perpetuate materialism. *Journal of Consumer Psychology, 27*(4), 480–499.
Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research, 19*(3), 303–316.
Rick, S. I., Cryder, C. E., & Loewenstein, G. (2008). Tightwads and spendthrifts. *Journal of Consumer Research, 34*, 767–782.
Roberts, J. A., & Roberts, C. R. (2012). Money matters: Does the symbolic presence of money affect charitable giving and attitudes among adolescents? *Young Consumers, 13*(4), 329–336.
Rosenbaum, M. (1980). Individual differences in self-control behaviors and tolerance of painful stimulation. *Journal of Abnormal Psychology, 89*(4), 581–590.
Sekścińska, K., Rudzińska-Wojciechowska, J., & Maison, D. (2018a). Individual differences in the time perspectives and risky financial choices. *Personality and Individual Differences, 120*, 118–126.
Sekścińska, K., Rudzińska-Wojciechowska, J., & Maison, D. (2018b). Future and present hedonistic time perspectives and the propensity to take investment risks: The interplay between induced and chronic time perspectives. *Frontiers in Psychology, 9*, 920. https://doi.org/10.3389/fpsyg.2018.00920
Shoda, Y., Mischel, W., & Peake, P. K. (1990). Predicting adolescent cognitive and social competence from preschool delay of gratification. Identifying diagnostic conditions. *Developmental Psychology, 26*, 978–986.
Srivastava, A., Locke, E. A., & Bartol, K. M. (2001). Money and subjective well-being: It's not the money; it's the motives. *Journal of Personality and Social Psychology, 80*, 959–971.
Sundarasen, S. D. D., & Rahman, M. S. (2017). Attitude towards money: Mediation to money management. *Academy of Accounting and Financial Studies Journal, 21*(1), 1–18.
Tang, T. L. P., & Chen, Y. J. (2008). Intelligence vs. Wisdom: The love of money, machiavellianism, and unethical behavior across college major and gender. *Journal of Business Ethics, 82*(1), 1–26.
Tang, T. L. P., & Chiu, R. K. (2003). Income, money ethic, pay satisfaction, commitment, and unethical behavior: Is the love of money the root of evil for Hong Kong managers. *Journal of Business Ethics, 46*, 13–30.

Tang, T. L. P., Sutarso, T., Akande, A., Allen, M. W., Alzubaidi, A. S., Ansari, M. A., ... Arias-Galicia, F. (2006). The love of money and pay level satisfaction: Measurement and functional equivalence in 29 geopolitical entities around the world. *Management and Organization Review, 2*(3), 423–452.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality, 72*, 271–324.

Tatzel, M. (2002). "Money worlds" and well-being: An integration of money dispositions, materialism and price-related behavior. *Journal of Economic Psychology, 23*, 103–126.

Tatzel, M. (2003). The art of buying: Coming to terms with money and materialism. *Journal of Happiness Studies, 4*, 405–435.

Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making, 12*, 183–206.

Thaler, R. H., & Shefrin, H. M. (1981). An economic theory of self-control. *Journal of Political Economy, 89*(2), 392–406.

Thomas, S. E., & Wilson, P. R. (2016). The role of social pressure as a moderator of materialism. *The IUP Journal of Management Research, 25*(2), 7–34.

Trzcińska, A., Sekścińska, K., & Maison, D. (2018, 2018). The role of self-control and regulatory foci in money-saving behaviours among children. *Current Psychology*, 1–11. https://doi.org/10.1007/s12144-018-9944-1

Vohs, K. D., & Faber, R. J. (2007). Spent resources: Self-regulatory resource availability affects impulse buying. *Journal of Consumer Research, 33*, 537–547.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2006). The psychological consequences of money. *Science, 314*, 1154–1158.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2008). Merely activating the concept of money changes personal and interpersonal behavior. *Current Directions in Psychological Science, 17*(3), 208–214.

von Stumm, S., Fenton-O'Creevy, M. F., & Furnham, A. (2013). Financial capability, money attitudes and socioeconomic status: Risks for experiencing adverse financial events. *Personality and Individual Differences, 54*, 344–349.

Yamauchi, K., & Templer, D. (1982). The development of a money attitudes scale. *Journal of Personality Assessment, 46*, 522–528.

Zhang, J. W., Howell, R. T., & Bowerman, T. (2013). Validating a brief measure of the Zimbardo Time Perspective Inventory. *Time & Society, 22*(3), 391–409.

Chapter 4
Saving and Investing

4.1 Why Is Saving Important?

Every financial decision of an individual or a household is a specific choice between present consumption and future consumption; every penny unspent is a saving that can, some day, be allocated to cover the costs of other goods or services. Day-to-day consumption does not exhaust our expenses. From time to time, we want to or have to let ourselves make a bigger buy, whether planned (e.g. replacing an old car with a new one) or unplanned (e.g. getting a new car after an accident), and our expenses may fluctuate over time (e.g. car insurance, seasonal rent, apartment maintenance fees, etc.). We also have to factor in any unexpected loss of our source of income while keeping our level of consumption stable. Finally, most of us have families, children, who could need our help in the future. Therefore, saving is a crucial financial behaviour for every household and a remedy to the problems mentioned above. Saving is not only significant from the perspective of individuals or households but is also from a macroeconomic point of view because it is of immense importance for the development of a country's economy. The savings deposited in banks are reserves and guarantee financial stability.

Despite most people declaring that they are aware of the importance of having savings and readiness to put money away, in practice, most people have savings at a level that can't guarantee their financial security in the event of any unforeseen circumstances. Although the financial assets of households in many countries (e.g. the USA) show systematic growth (Bricker et al., 2014; Xiao, 2015), it is still considered insufficient. According to financial analyses, citizens in many European countries do not have adequate savings to lead a secure life. One such example is a study conducted across 13 European countries (total sample size $N = 13{,}936$) by the ING Group (one of the world's leading banking and financial companies), which revealed that 29% of European citizens declared having no savings and 36% stated that their savings are equal to a maximum 3 months' living costs (ING International Survey, 2017). In the USA, the situation seems to be even more strained where, according

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to a 2017 GoBankingRates survey, 57% of Americans have less than $1000 in their savings accounts, and as many as 39% have no savings whatsoever. In Poland, however, 38% of citizens claim that they would not be able to survive a single month on what they have managed to put away, and another 19% have savings at a level that would not even cover a full 2 months of living expenses (FinBehTrack, 2016).

The assumption is that the emergency fund level should be enough for a family who suddenly found themselves without any income to get through 3–6 months (Xiao, 2015); however, most households around the world do not have such security. The low household savings ratios in many societies have led researchers (economists, psychologists, and sociologists) and practitioners (bank employees and social organisations) to ask themselves the question of why doesn't everyone have savings despite it being so important for a person's security and what underpins why some people have savings while others do not. One of the most common explanations for having savings is, of course, the size of financial assets held, assuming that the more money people have, the bigger too are their savings. Many studies on saving have confirmed these predictions, showing that both the decision to start saving and the amount of money saved are directly dependent on the income level and the household assets (Bricker et al., 2014; Browning & Lusardi, 1996; Davis & Schumm, 1987; Issahaku, 2011; Lunt & Livingstone, 1991; Xiao & Anderson, 1997). Davis and Schumm (1987) studied the savings behaviours associated with households of low and high income, and they noticed that below a certain income threshold, households had no savings at all, above which they rose very sharply. A correlation between income and the savings held was observed only in high-income households and then approached a level of 0.5. Similar dependencies were also found by other researchers who sometimes even claimed that income is the most important factor determining savings (Dynan, Skinner, & Zeldes, 2004; Harris, Loundes, & Webster, 2002).

In view of the results of the mentioned studies, one could expect that savings should increase as income rises. Globally, and based on correlation coefficients, this truly is the case: the savings level of inhabitants of richer countries is usually higher than in poorer countries (although, as was recently demonstrated, still not high enough), and wealthy individuals have higher savings than poor people, on average. However, this is not a regular dependency and, on an individual level, gives a much more complex picture. Firstly, countries with a high and similar level of prosperity differ in terms of the savings of their citizens. This may suggest cultural and historical determinants of saving behaviour. For example, different religions (e.g. Catholicism and Protestantism) attribute slightly different values to saving behaviour. Also countries with a high economic volatility are less open to saving in the near future, an example of which are former Eastern Bloc countries (Góra, 2016). Such an internalised historical experience undercuts motivation mostly for long-term saving (e.g. to secure one's pension). Secondly, wealthy individuals include those that don't save, and there are also less well-off people that have put some money away. And this also suggests individual and psychological determinants for the propensity for saving. Hence, explaining saving behaviour solely or mainly by financial resources and omitting psychological factors and individual differences are an oversimplification.

Apart from the significance of the income level, many researchers (particularly economists) turn their attention to the role of other demographic factors determining saving behaviour. Surveys analysing saving from the household perspective show reserves in the form of different financial assets depending on the age of the head of the house, the employment status, marital status, and children in the family (Xiao, 2015). Higher education has also been demonstrated to increase savings (Gutter et al., 2012). There are also higher savings in the form of more advanced investment products (e.g. stocks and bonds) with higher levels of educational attainment of the head of the family (Zhong & Xiao, 1995).

While appreciating the importance of fostering saving behaviour, banks and various social organisations are eager to promote saving as a responsible financial behaviour. Unfortunately, many such actions, mainly those that are educational in nature, have not had the anticipated effects. This is often because such actions are based on an overly simplified understanding of the factors motivating saving, overestimating the significance of demographic components and financial knowledge while at the same time playing down the psychological, situational, and contextual factors and automatic processes, which are often unconscious. In order for these educational actions concerning saving behaviour to be effective and truly lead to the desired change, it is necessary to understand the individual motives and barriers that are associated with it and to look at saving more broadly, not just from an economic perspective. From the point of view of the entire economy, what is most important is how much money was saved whereas from the point of view of the measures supporting saving (and not just spending) gaining an understanding of the context, which is individual and comprises personality and temperament, attitudes, and beliefs, in other words, everything that may motivate to save money and that can also be an obstacle to saving. It is worth remembering, however, that both motives and barriers are very often unconscious, which is why knowledge that saving is the right thing to do may not be enough to actually save money.

When considering the factors affecting saving, it is also worth differentiating between the time horizons for saving, namely, short-term and long-term saving (Góra, 2016). When it comes to short-term saving, the goal is usually consumption in the near time horizon (ranging from several months to several years). An example of this could be saving for vacations, a new washing machine, or a new car. Long-term saving is when the goal is in the far time horizon, and the best example of this is saving for one's retirement or long-term investment programmes. In this case, savings are accumulated over many years of professional activity in order to be consumed in the distant future, for instance, during retirement.

4.2 Why Do People Save: Different Approaches to Saving Mechanisms

4.2.1 LCH: Life-Cycle Hypothesis

One of the most well-known economic theories on saving is the Life-Cycle Hypothesis (LCH; Modigliani & Brumberg, 1954; Ando & Modigliani, 1963; Modigliani, 1986), which analyses saving directly in relation to income as well as spending and borrowing, also assuming that income is the core determinant of what will predominate in a given person: saving or borrowing. This concept assumes that a person strives to keep a relatively stable level of consumption across all stages of life. According to this assumption, in order to maintain a constant level of consumption, young people (especially low-earners) will rather borrow money, and middle-aged people (earning good money) will put more money away, while the elderly (no longer earning) will spend the savings they accumulated earlier (Browning & Lusardi, 1996; Wärneryd, 2004). This theory is based on the assumption that people, predicting lower earnings in the future, will limit their present consumption so that they can afford to have the same lifestyle once their earnings decrease. An observation of everyday life and of research findings across many different countries has shown that people's saving behaviour still cannot be fully explained in light of the LCH theory (Ando, Guiso, Terlizzese, & Dorsainvil, 1992; Carroll & Summers, 1991; Friedline, Elliott, & Nam, 2011; Nyhus, 2002; Rha, Montalto, & Hanna, 2006). It was noticed, for instance, that young people don't spend as much money (at least not all of them) as could stem from the hypothesis, and older people save more readily than spend (at least most of them do). What's more, people rarely keep their consumption at the same level across their life span (surely, as young persons, how could they know anything about the level of their future consumption and financial capability); all they do is strive to improve their standard of living, which too is an argument against this theory. In the face of these observations, it is surprising that the model described in the Life-Cycle Hypothesis is still so immensely popular.

The LCH model, as most other economic models, firstly assumes human rationality and planning of actions (hence, saving is understood as a consequence of a rational analysis), and secondly, it completely disregards the individual motives of human behaviours and of economic behaviours, too. Observations of genuine saving behaviours of people have shown that this theory fails to fully explain reality. It turns out that young people often have more savings and less personal debt than the LCH theory would have provided (Friedline et al., 2011). Studies carried out in Poland (FinBehTrack, 2016) have also shown that the youngest people (18–24 years old, 53%) and the oldest (aged 55 and over, 51%) usually have savings, while middle-aged people (35–44 years old, 32%) have some money put away much less often (Fig. 4.1). This outcome, although inconsistent with the LCH model, makes complete sense when approached from the perspective of the stages of a family's life, for instance. Persons aged 35–44 years usually have school-aged children and

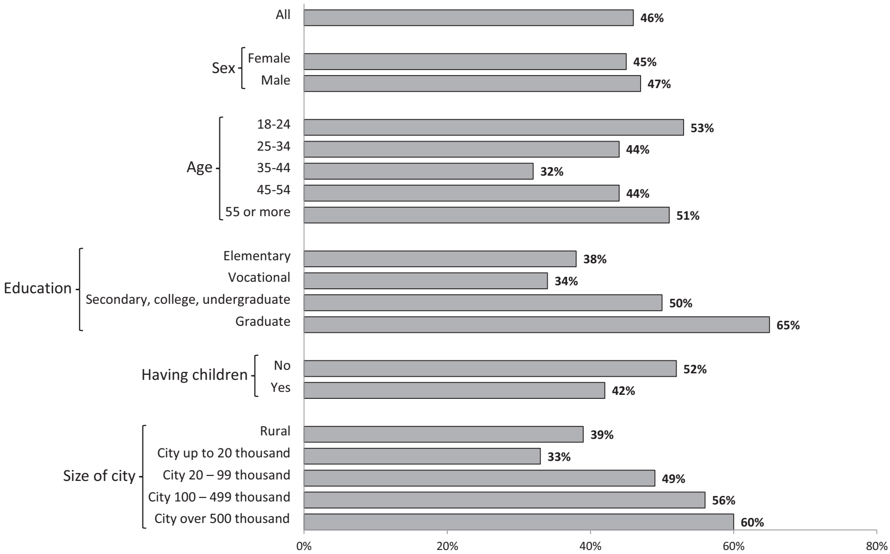


Fig. 4.1 Savings held depending on demographic variables (FinBehTrack, 2016)

considerable expenses relating to this, and most have already grown accustomed to a higher standard of living than young people. Let us also look at the fact that it is less common for people with children to have savings compared to persons without children (Fig. 4.1).

Finally, it is also worth noting that models created on the basis of observations of consumers from Western European nations and the USA do not always show the same picture of results when applied in other regions of the world. The situation is similar in the case of the LCH concept, which is partly confirmed in countries like the USA and the UK (Paxson, 1996), but in other countries, like Poland, Taiwan, or China, the picture of results for the relationship between age and saving behaviour is disparate (Deaton & Paxson, 1994; Liberda, 2013; Liberda, 2016; Zhou, 2012). One of the factors explaining this variation may be the availability of credit facilities for young people. For instance, the indebtedness of young people could be greater in countries with readily available student loans than in countries lacking such facilities and where the award of consumer credit is dependent on having a permanent job and higher earnings.

4.2.2 The Behavioural Life-Cycle Hypothesis

A theory that focuses more on the motivational and psychological aspects of saving was propounded by Shefrin and Thaler (1988). They named it the Behavioural Life-Cycle Hypothesis, and it supplements the concept assuming human rationality with three elements, self-control, mental accounting, and framing, explaining the not always rational behaviours from an economic point of view. The authors assumed that spending is, to a certain degree, tempting for people, whereas refraining from it is difficult as it requires self-control. Therefore, in order to make difficult saving easier and to regain control over this conflicting situation, people set themselves various kinds of rules, be they internal or external, to help them abstain from spending their money. One example of such external rules may be getting involved in various institutionalised savings plans consisting, for instance, of the employer deducting money directly from the salary of an employee or using savings financial products that have strict rules preventing the withdrawal of money before a specific date (Han, Grinstein-Weiss, & Sherraden, 2009; Han & Sherraden, 2009; Hogarth & Anguelov, 2003; Okech, Mimura, Mauldin, & Kim, 2013) (cf. contractual saving, Katona, 1975). An example of such institutional solutions are the Christmas Clubs or Vacation Clubs systems in the USA where consumers sign up to regularly pay a certain amount of money each week into a special savings account. It's a noninterest-bearing account, and the funds accumulated can only be withdrawn on one specific day, for example, first of December in the case of the Christmas Club. This gives people who find it difficult to save money an additional tool helping them to put some money away for Christmas.

A much more difficult and psychologically challenging situation is when a person sets themselves internal finance management rules in order to have more savings than consumption. Sometimes these rules can be very simple (but still difficult to carry out most of the time), like putting a specific amount of money away every month right after getting paid. Yet another rule could involve putting some coins or banknotes into a piggy bank. Mental accounting mentioned earlier can also be considered a form of these rules, where there are separate "mental" compartments for expenses and savings, etc. The theory coined by Shefrin and Thaler (1988) explains many of the human behaviours related to saving that cannot be foreseen using the LCH concept. It mainly concerns actions intended to protect money "from oneself".

As can be observed, the Behavioural Life-Cycle theory draws attention to the important role of self-control in saving, which is responsible for not giving in to impulse buying and promotes delaying gratification. With reference to mental accounting, they identify three main mental accounts, a current spendable income accounts, a current assets account, and a future income account (Shefrin & Thaler, 1988), and assume that the probability of spending or saving a given financial resource will vary depending on which account money is allocated to. Clearly, it is easiest to spend money in the consumption budget (spendable account), and most effortless to save money mentally accounted to the wealth budgets (future income account). What a specific sum of money will be earmarked for and, consequently, the probability of it being spent or saved will depend on its source, like an inheritance, lottery winnings, or wages (Loewenstein & Thaler, 1989; cf. Sect. 3.3: Mental and Emotional Accounting).

4.2.3 The Typology of Saving According to George Katona

A division of saving that takes the psychological dimension into account was also propounded by George Katona (1975), who identified three saving types depending on the level of causation of the person saving money and the locus of control (internal or external): residual saving, discretionary saving, and contractual saving.

Residual saving is when income at least partly exceeds expenses and a certain amount of money is left unspent. This is the most involuntary and unplanned way of saving. Moreover, since income is greater than expenses, this form of saving doesn't really require any effort on the part of the person who is saving. It probably is most closely linked to the level of income although there most definitely are persons who increase their spending with a rise in income. The second type of putting money away is *discretionary saving*, which involves consciously deciding to put a certain amount of money away and abstaining from immediate consumption. This form of saving may be difficult as it often requires a lot of effort to keep oneself from spending the money straight away, and it also is dependent on certain psychological determinants (e.g. level of self-control). The last type of saving identified by Katona is *contractual saving*. It consists of signing a contract with the employer or bank, resulting in a certain amount of the salary being transferred every month to a special savings bank account. This category includes pension funds, life assurance policies, or the special savings plans mentioned earlier, like the Christmas Club, for instance. Hire purchase contracts are a specific form of contractual saving. Anyone taking on such a commitment is forced to allocate money on a monthly basis to pay off the "contracted" instalment. Contractual saving is a strategy that is taken to keep oneself from spending by introducing certain external limitations (similarly to the internal rules discussed by Shefrin & Thaler, 1988).

The first type of saving – residual saving – is an area of much greater interest to economists than psychologists because it is most dependent on income. From a psychological perspective, discretionary saving and contractual saving are much more interesting. Both types require effort on the part of the person who is saving and certain actions to be taken – of an internal nature in the case of discretionary saving and of an external nature when it comes to contractual saving. Moreover, each of these types is more probable in persons with different individual psychological traits, like discretionary saving among people with a higher level of self-control and contractual in those with lower self-control.

4.3 Saving Strategies

Saving, as has been emphasised numerous times, is by no means simple for many people; even if someone truly wants to save, it doesn't mean they will always be successful at it. That's why many people try to help themselves by implementing various different strategies to reach their goal of putting some money away and, in this way, somehow replace their self-control deficit. Beverly, McBride, and Schreiner (2003) decided to analyse these strategies and assumed that asset accumulation takes place in three stages, relocation, conversion, and maintaining, where different saving strategies specific to that particular stage are used in each of them. The first stage, *relocation*, involves redirecting resources. The situation when income naturally exceeds expenses and savings appear effortlessly and independently, meaning money is simply left over (residual saving according to Katona), is not that common, which is why when a person's income is not greater than their expenses, they can be aided by various saving strategies. The first of them entails simply limiting consumption; in other words, one's resources can be redirected from the area of consumption to saving. Another way of achieving the same goal, this time without limiting the level of consumption, is increasing one's earnings. This can be accomplished, for instance, by working more, which is followed by a redirection of resources (time and effort) from the area of rest and recreation to earning money. The second stage is the *conversion stage*. It is based on the fact that in order for people to be successful in saving, they change (convert) the way in which they store their resources into one that is more difficult to spend – from liquid to illiquid forms. Money, for example, can be paid into a current account or a deposit account or given to a trusted person for safekeeping. This corresponds to contractual saving according to Katona (1975) or to external rules in the approach of Shefrin and Thaler (1988). The third stage is the *maintaining stage*, which depends on not giving in to the temptation of spending the money saved. People can use various financial services that have strict rules guarding against unwarranted access to funds, which can help them stick to their saving intentions, an example of which are deposit accounts that, if terminated prematurely, result in a loss of the high interest rates that would otherwise apply.

In order to verify the above assumptions, Beverly et al. (2003) conducted a study on a group of low-income persons because they expected the different applied strategies to be most visible in this group. Based on the study findings, the authors identified six strategies corresponding to the three identified stages of saving (two per stage). The nature of each strategy in a given stage is either psychological, for instance, mind games to reduce the amount of effort required for self-control or to make up for any of its shortcomings, or behavioural, like endeavouring to curb consumption or to open savings accounts.

The psychological strategies in the relocation stage consist of setting money saving goals for oneself, concentrating on these goals and looking for support for the undertaken actions among family and friends. Such strategies can make saving-related goals become top priorities, subjecting other goals to this one overriding goal. These strategies can be fulfilled by putting a certain amount of money away right after payday and consuming what is left over once the money has been saved. This situation can be perceived as "residual consumption" which, in a certain sense, is the reverse of residual saving, where the satisfaction of consumption needs takes place first, and whatever is left over is saved in second order of priority. This strategy also includes "mental accounting" (Shefrin & Thaler, 1988) described earlier, when budgets are mentally reallocated from places designated for consumption to budgets created for saving purposes. On the other hand, behavioural strategies of the relocation stage may consist of spending money more effectively. A person becomes more mindful while shopping, looking for bargains, and choosing places where they can buy better-value products, allowing them to spend less on the same goods or services, thus, putting the saved amount of money away. This strategy also involves consciously working towards increasing one's earnings by working more hours or switching jobs to get a higher salary, as mentioned earlier.

The next stage – the conversion stage – psychological strategies include a change in the way that the process of saving money is perceived by the person. The persons applying this strategy are trying to convince themselves that saving is their duty, something which is an absolute must, and which they have to master. Saving, just like bills that have to be paid, becomes their undeniable obligation. The behavioural strategies applied at this stage are linked to adopting a principle where the sum of money that one plans to save in a given month should be put away immediately after getting paid, before any bills are paid and, of course, before any shopping is done. The most effective strategies here include various forms of automatic money transfer that completely omit the persons who want to save from the process, an example of which could be financial institutions taking a portion of a person's wages and transferring them directly to a savings account. This strategy can also be applied by persons who don't have a bank account, for instance, by passing on money to individuals they trust for safeguarding or hiding money from themselves in their home.

Psychological strategies at the maintaining stage rely on adopting a set of simple rules concerning saving, an example of which could be people arranging (with somebody or with themselves) that the money from their savings can only be used at certain times of the year or in emergencies. The behavioural strategies at this stage include opting for financial products that carry high money withdrawal fees and getting rid of banking services that provide too easy access to money. Another sign that this strategy is in place could be avoiding spending or using payment or credit cards so as not to be exposed to the temptation of spending money too easily (cf. reasons for not using bank cards discussed in Chap. 6).

4.4 Saving Motives and Goals: Why Do People Save and What Do People Save for?

Another question that appears in the savings context is what money purposes are of key motivational significance when it comes to the effectiveness of saving. Greater knowledge of the topic can help create effective communication strategies aimed at promoting saving in society. Since people save for different reasons, to achieve similar goals, different arguments encouraging saving behaviours will appeal to different people. At this point, it is worth pointing out the difference between saving goals and motives (which unfortunately is not always sufficiently differentiated in literature). The goal of saving is the thing that a person is saving for, what they intend to spend their money on in the future. Motives, however, are what make a person want to take certain actions, in this case, saving behaviours. The goal that has been set for the future may, of course, motivate a person to act; however, motivation itself is a much broader concept. In psychology, the term motivation is used to describe all mechanisms responsible for initiating, directing, maintaining, and terminating behaviour (actions). In light of this definition, very different factors that are internal in nature, like the needs, values, character, or temperament traits of a person, can motivate (or be a barrier) to saving.

One of the concepts explaining motives for saving coined by Xiao and Anderson (1997) refers to the most classic theory of motivation – Maslow's human needs theory (Maslow, 1971). The theory of Maslow assumes that human motivation is underpinned by needs arranged in a hierarchy, where the satisfaction of lower-order needs reveals higher-level needs. Xiao and Anderson (1997), based on the studies conducted by them, found that different categories of household assets satisfy different financial needs of a family, analogously to Maslow's hierarchy of needs theory. For example, current accounts and the daily consumption expenses satisfied from them meet needs that are on the lowest level of the pyramid of needs, in other words, those that are essential to survival and to meet physiological needs. Safety needs – the second level in Maslow's pyramid – are satisfied by savings accounts, treasury bonds, motor and property insurance, life assurance policies, and the like, whereas, bonds and shares reflect the need for self-actualisation and the need for achievement, the highest tier in the hierarchy of needs pyramid. As theorised by Maslow, these needs remain in a hierarchical relationship with each other, where higher-level needs appear and are satisfied only once lower-level needs are met. Thus, interest in shares and bonds can only appear once we have paid all our bills and have achieved financial security.

Another concept of the motivation underlying saving was based on a study carried out in Japan by Horioka and Watanabe (1997). According to them, most motives for households to save can be grouped into the following three categories:

1. Motives associated with the human life cycle – These result from needs associated with various stages of life, which create an imbalance between income and expenses. Saving for vacations, for a wedding, or for retirement are all examples of goals resulting from needs linked to different stages of life.
2. Motives relating to the need to secure the future (safety need) – Resulting from the uncertainty associated with future income and expenditure. Examples include saving in case of unemployment, fortuitous events, accidents, natural disasters, and changes in income.
3. Subsequent motives are related to the need to share with others – These are manifested in the desire to leave assets to children or other family members or in the form of "inter vivos transfers", that is, gifting somebody with money or possessions, or also in the form of an inheritance (intergenerational transfer).

The research conducted by Horioka and Watanabe (1997) revealed that saving motives belonging to the first two categories prevail and that the last one, although associated with the need to pass money to the next generation, makes up less than

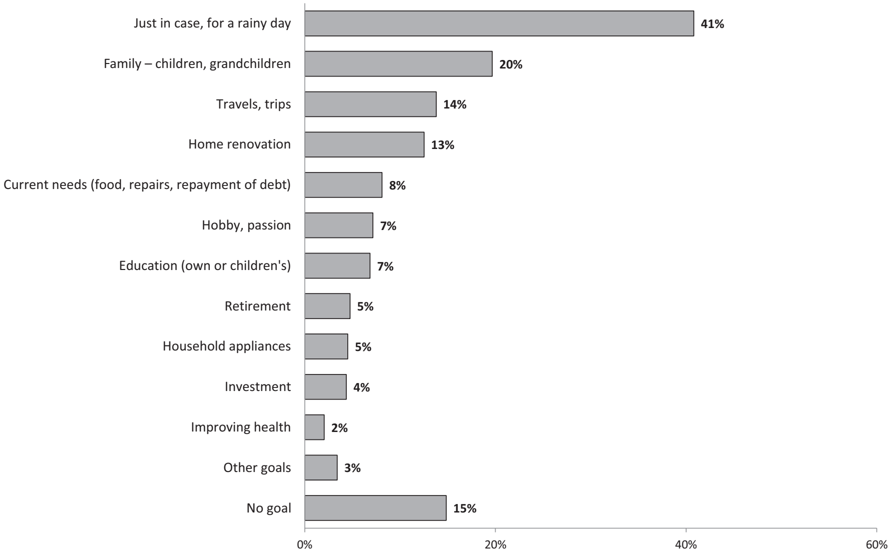


Fig. 4.2 Saving goals of Poles (percentages are based on only those who declared to have any savings) (FinBehTrack, 2016)

4% of the total sum of net savings. It has to be noted, however, that this research was conducted in Japan. The proportion between the identified motives and the goals resulting from them is probably different across societies. In Poland, for instance, the motive to share one's assets with relatives is stronger than the motive of securing a future (Kronenberg, 2009; FinBehTrack 2009 & 2010). Poles are very eager to put money away for their children or grandchildren, regardless of their age or their level of independence, but much less inclined to think about securing their own future for their retirement. In one of the studies conducted in Poland[1] (Maison, 2013), the most common saving goal was "saving for a rainy day", in other words, securing the future in general, without specifying the exact purpose (indicated by 55% of the persons who have some savings). The second most common saving goal identified by Poles was saving for their family, children, and grandchildren (19.7%). More hedonistic goals from which the actual person who is saving can derive pleasure were in third place, where travelling or vacations where indicated by 14% of Polish people who save and hobbies and passions by 7% (which constitutes 4.6% and 2.3%, respectively, of all Poles; Fig. 4.2).

The saving goals are clearly culturally conditioned. For example, goals entailing "saving for a rainy day" were also identified in research conducted in other countries, but this goal did not come up as a prime goal in every one of these states (Wärneryd, 1999). Saving goals associated with providing financial security for loved ones, which was in second place in the Polish population, came up much less

[1] A study on the financial education of Poles was commissioned by the Kronenberg Foundation at Citibank and carried out in 2009 on a representative sample of adult Poles, $n = 1502$.

often in studies carried out in Western Europe. In China, however, saving for one's children, similarly to Poland, was an important saving goal (Xiao & Fan, 2002). On the other hand, the goal that is common in Western European countries, Japan, or the USA of securing one's future and saving for one's retirement or old age (Wärneryd, 2004; Xiao, 2015) seldom appeared among Polish people. Thus, as we can see, saving goals are strongly culturally dependent. They may, for instance, result from the characteristics of a given population on the individualism vs. collectivism dimension (e.g. a sense that a person is financially responsible mainly for themselves or also responsible throughout their whole life for their already adult children) or from the dominant religion (e.g. Catholic vs. Protestant). They may also stem from the level of development and from the stability of the financial system in a given country. For example, in a country where the state provides a pension, the propensity for saving for old age will probably be lower than in countries where the state does not provide such social support; and in more collectivist countries, saving for one's children and grandchildren will be more common than in individualist countries.

Keynes (1936) propounded a list of eight goals for which people save money and refrain from spending it on immediate consumption:

1. Building up reserves against unforeseen contingencies.
2. Providing for an anticipated future relation between income and needs.
3. Enjoying interest and appreciation of assets held.
4. Enjoying a gradually increasing expenditure and improving standard of life.
5. Enjoying a sense of independence and the power to do things (without a clear idea or definite intention of specific action).
6. Securing a masse de manoeuvre to carry out speculative or business projects.
7. Bequeathing a fortune.
8. Satisfying pure miserliness – unreasonable but insistent inhibitions against acts of expenditure as such.

Browning and Lusardi (1996) added one more goal to this list, namely, accumulating deposits to buy houses, cars, and other durables. The typology of saving goals presented above is not, of course, universal (different specific goals may appear among various countries and persons) and certainly do not exhaust all possible saving goals. Nevertheless, they do show several different goals that may stem from the diverse motives described earlier.

Canova, Manganelli-Rattazzi, and Webley (2005) approached the typology of saving goals from a somewhat different side, and not only did they identify various goals based on studies on why people save money conducted by them (this time, 15 goals), but they also revealed how they function hierarchically. According to them, specific goals like saving for a holiday or particular purchases are at the very bottom, whereas more abstract goals like saving to enhance self-esteem or satisfaction are at the very top. It does bear some resemblance to Maslow's hierarchy of needs as it leads from the most specific and vital in life goals to the most abstract ones. The difference being that the authors assume that one person can save for several goals at once; in other words, they do not assume the appearance of another goal on the condition that a previous goal (lower in the hierarchy) has been met.

Wärneryd (2004), on the other hand, identifies four overarching saving motives: (1) cash management, (2) security, (3) bequest, and (4) non-poverty status. The first goal, cash management, involves coping with foreseeable expenses (i.e. paying the bills and other financial commitments). This also includes planned money savings. Security concerns the short-term need of having buffer capital and the long-term need of securing one's future (retirement). The third goal, bequests (leaving assets to others via a will), concerns the need to save to take care of one's loved ones. And the last goal, non-poverty status, entails ensuring a specific socioeconomic status and the desire not to die in poverty. As we can see, this time motives are defined in a concrete way that is related to finance, and not universally, as was the case in Horioka and Watanabe (1997).

Lindqvist (1981) suggested a hierarchy based on four stages of saving (from the most basic and most frequent): (1) cash management, (2) buffer saving, (3) goal-directed saving, and (4) wealth management. These stages correspond to the stages of the household life cycle, which begins from satisfying basic needs and gradually leads to asset management with the increase of wealth by using more and more complex financial instruments. Some researchers indicate that saving goals are not universal and are largely contingent on household income. Less affluent households or persons focus mainly on saving goals linked to securing essential needs and used for daily expenses, medium-income families on "saving for a rainy day", and the wealthiest on retirement savings (Xiao & Noring, 1994).

It is worth taking note of one more issue in research on saving, namely, the difference between the saving behaviour of an individual and of a household. From an economic point of view, the household saving perspective is of greater importance and is analysed more frequently (Xiao, 2015). However, psychologists analysing saving behaviour are more interested in the motives underpinning such behaviour; hence, they are more focused on the individual perspective.

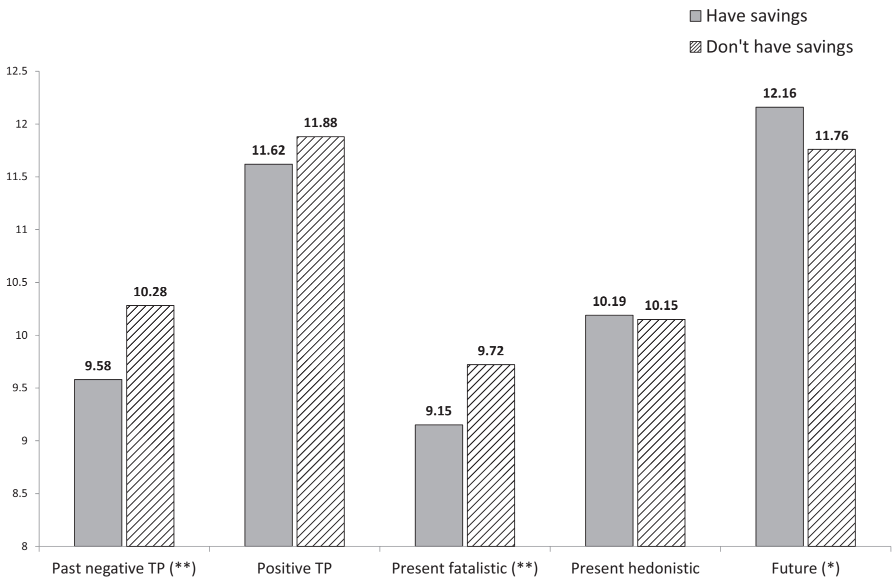
4.5 Individual Determinants of Saving

Let's now go back to an important question put at the beginning of this chapter: what individual factors that are psychological in nature determine greater effectiveness of saving? The results of research concerning the relationship of non-specific psychological traits on saving presented in Chap. 1 (Table 1.2) show that among the analysed traits from the Big Five taxonomy, the conscientiousness dimension has the biggest relationship with saving (Brandstatter, 1996; Ksendzowa, Donnelly, & Howell, 2017; Wärneryd, 1996). The second psychological trait that explains saving-related financial behaviours very well is self-control and the tolerance for delayed gratification associated with it (Ameriks, Caplin, Leahy, & Tyler, 2007; Biljanovska & Palligkinis, 2015; Moffitt et al., 2011; Strömbäck, Lind, Skagerlund, Västfjäll, & Tinghög, 2017; Thaler, 1999). We do not buy what we fancy at a given time because we have to pay the bills, give back money owed to people, or simply because we have decided to save. We refrain from spending money on small, cheap, and perhaps worse-quality goods because we will soon, once we have saved the required amount of money, be able to buy something much more valuable. Studies on the role of self-control in financial behaviours have revealed that not only do persons with a higher level of self-control save more regularly, but they also have money put away for their retirement equally as often (long-term saving; Strömbäck et al., 2017; Moffitt et al., 2011; Choi, Laibson, & Madrian, 2011), have more clear-cut saving goals (Rha et al., 2006), generally have a higher economic status, and are more frequently the owners of real estate and other goods (Biljanovska & Palligkinis, 2015; Moffitt et al., 2011). Vohs and Faber (2007) showed the significance of self-control for financial decisions in an experimental study. In the condition where the depletion of self-control resources was induced, the respondents were willing to buy more products and pay a higher price for their goods than persons in the control group. Thus, the depletion of self-control resources reduces the willingness to save and delay gratification.

Nyhus and Webley (2001) carried out a study to investigate to what degree our personality, particularly features like emotional stability, autonomy, extraversion, agreeableness, and inflexibility or its absence affects behaviours relating to saving and borrowing money. These studies concluded that emotionally stable persons and introverts have more savings and less debts. Contrary to the authors' expectations, autonomy/independence was related to lower savings and an increasing likelihood of getting into debt. Agreeable persons also had less savings and were more inclined to borrow money. The reverse was true of inflexible persons, who had more savings.

Time framing is another psychological dimension that appears in the context of analysing individual factors conducive to saving. Studies have revealed that people who plan their future carefully and take on a longer time horizon have more savings and less borrowings (cf. Lea, Webley, & Walker, 1995; Lunt & Livingstone, 1991). The best known concept relating to time is Zimbardo's Time Perspective Theory (Zimbardo & Boyd, 1999, 2008), which identifies five time perspectives: (1) past positive, (2) past negative, (3) present fatalistic, (4) present hedonistic, and (5) future (cf. for a broader discussion on the concept in Chaps. 1 and 3). This concept assumes that people differ in terms of their approach to time and the predominant perspective in them; hence, some people can be more present-oriented, while others can be more future-oriented. The time perspective is a relatively stable individual characteristic; however, studies have shown that it can change to a certain degree with age (Gonzales & Zimbardo, 1985; Husman & Lens, 1999) and can also be modified by situational factors (Sekścińska, Rudzińska-Wojciechowska, & Maison, 2018b; Zimbardo & Boyd, 1999; Zimbardo & Boyd, 2008). The question arises in this context as to whether the way that people perceive time affects the financial decisions they make concerning, for example, if they should save or not or what form of saving they should choose.

The study run by Sekścińska, Goszczyńska, and Maison (2017) analysed data from a quantitative study (n = 360 persons) where the level of each of the five time



(*) significant at $p < 0.01$ level
(**) significant at $p < 0.001$ level

Fig. 4.3 Differences in intensity of time perspectives among people with and without savings (Sekścińska et al., 2017)

perspectives was compared between persons with and without savings. Those that had savings had a lower intensity of the future-negative and present-fatalistic time perspective than those that didn't have any savings; what is more, they had a clearly higher level of future time perspective (Fig. 4.3). Furthermore, the future time perspective was conducive to putting money away more regularly. The time perspective also differentiated between what a person does with their savings: whether they keep them at home or in a bank or invest in financial instruments or goods (Sekścińska et al., 2017). Firstly, keeping money at home was promoted by a high level of the future negative time perspective, the present-fatalistic time perspective, and a lower level of the future time perspective (the same TPs were significant as in the case of predicting having savings). Correspondingly, keeping money in the bank in a current account, savings account, or term deposit was supported by a high level of future TP and a low level of future negative and present fatalistic (i.e. those related to a low sense of agency). However, when it came to investing in investment funds or real estate, only the current hedonistic perspective played a role. A higher level of the present hedonistic TP facilitated investing in investment funds, and a low level of the present hedonistic TP aided investing in real estate. The presented results, showing how important the future time perspective is for effective saving, are consistent with the findings of earlier studies, which systematically reveal that the future time perspective is associated with a greater willingness and skill to delay gratification (Steinberg et al., 2009; Zimbardo & Boyd, 2008), which translates into both short- and long-term saving.

Another psychological trait that turned out to be important in the context of saving is the approach to goal pursuit. Higgins, in his regulatory focus theory, distinguishes two separate motivational systems that regulate goal-directed behaviour, namely, promotion and prevention motivational systems (or regulatory focuses) (Higgins, 1987, 1997, 1998). People who are promotion-oriented are concerned about achievement and aspirations and motivated by challenges and growth. Prevention-oriented people are focussed on fulfilling safety needs and maintaining security. They are concerned about commitments, duties, responsibilities, and avoiding negative outcomes (Higgins, 1997; Higgins et al., 2001). These two motivational systems lead to various decisions, including financial ones. The promotion motivation system is connected with a positive attitude towards saving, and people are then prone to save for goals that are compatible with their motivational systems: promotion-oriented people were less open to save for prevention goals, and the opposite was true of prevention-oriented people (Cho, Loibl, & Geistfeld, 2014). Another study showed that the prevention motivational system was conducive to a greater openness to saving, whereas the promotion motivational system made investing easier (Sekścińska, Maison, & Trzcińska, 2016).

Promotion and prevention systems are treated as relatively stable, individual characteristics that develop through socialisation from early childhood. It turns out, however, that they can also be situationally activated (Chernev, 2004; Zhou & Pam, 2004). The role of experimentally activated self-regulation motivation in choosing saving or immediate consumption was verified in the research project on the financial behaviours of children described earlier in Chap. 3 (Trzcińska, Sekścińska, & Maison, 2018). The study schema was similar to that described in Chap. 3, where children were given tokens in the first part of the research, which also constituted the experimental manipulation (this time, activating one of two motivational systems). The children could use the tokens they earned in a tuck shop created for the purpose of the study (immediate consumption) or put it off for a week to get a token of a greater value afterwards (an analogy to savings earning interest in a bank), which would allow a somewhat greater but deferred consumption. It turned out that prevention regulatory focus activation resulted in higher immediate consumption (52.9% of the children opted for the “tuck shop” and 47.1% for the bank), while promotion activation resulted in a higher choice of the bank (delayed consumption) (75.6% of the children decided to go to the “tuck shop” and a 24.4% to the bank). This result may seem inconsistent with the studies on saving presented earlier, which revealed that prevention-oriented people were more prone to save (Cho et al., 2014; Sekścińska, Maison, & Trzcińska, 2016). The disparate picture of the findings from this study may be because, for children, the situation of putting money away in a fictitious bank is probably perceived by them as less reliable than immediate consumption. In their case, a deposit in a fictitious bank could be taken as being more risky, hence, the more frequent choice of the “bank” (i.e. the less certain and deferred option, although with greater gratification) among children in whom promotion orientation was activated and higher consumption among prevention-system activated children.

Saving can also be approached from the perspective of habits. In learning theory, it is assumed that certain behaviours are repeated as a result of earlier rewards and punishments (Skinner, 1938). In other words, a habit is a reaction acquired through learning based on earlier experiences. Looking at saving as a kind of habit, we can assume that even if a person has individual psychological traits that are not conducive to saving (e.g. a low level of self-control and conscientiousness and a high level of neuroticism), they can still cultivate this skill. Putting away money for the future even when a person's future has already been secured can also be explained in light of habit. If a person has been setting themselves saving goals for many years and got into this habit, it will continue to drive that person to save more money, even if it no longer is necessary. This explains why some people continue to save to secure their future even after they have gone on retirement (Katona, 1975).

4.6 Having Savings and the Amount of Savings Held (Own Study)

Let's go back, once again, to the dependency between saving and income presented in numerous studies on saving. This relationship is, in my opinion, overrated, and the overestimation of its role is a consequence of (1) an overly simplified understanding of saving, (2) ignoring in analysis subjective financial situation next to objective wealth (income), and (3) the lack of a global and multidimensional perspective (including psychological) in analysing saving issues. Let us start from the first matter – understanding the issue of saving. In most studies, the indicator of effective saving is the amount saved by an individual (Dahlbäck, 1991) or household (e.g. Davis & Schumm, 1987; Fisher & Montalto, 2010). This indicator is fully justified when we are analysing saving in the context of economics, prosperity, or the security of individual or countries. It also comes as no surprise that the level of income correlates to a certain degree (differently across studies) with savings (Fisher & Anong, 2012; Garcia, Barros, & Silvestre, 2011; Gutter et al., 2012; Kostakis, 2012; Lunt & Livingstone, 1991; Rószkiewicz, 2014; Szopiński, 2017; Traut-Mattausch & Jonas, 2011; Yuh & Hanna, 2010). If somebody has a very low income, they evidently can't have high savings from such income (Davis & Schumm, 1987). However, as was shown earlier, the reverse situation where a very wealthy person has no savings at all is already feasible and is not uncommon. And this situation (no savings but high income) is probably much more dependent on psychological characteristics. So, when looking at people with low incomes, a better indicator of their saving effectiveness should be their willingness to spend money (if they have savings or if they save regularly, no matter how small the amount) than the amount of money they have in their savings. Because of this, we will take a close look in the analyses that will follow at two indicators of the effectiveness of saving: the amount saved and the propensity to save (if a person has any savings).

The second key issue to gain an in-depth understanding of saving mechanisms is also taking the subjective material situation (how a person perceives their material status) alongside the objective material circumstances into account. As was earlier mentioned, two people holding the same amount of wealth might perceive it differently because their needs, aspirations, expectations, or past experiences are different (Gasiorowska, 2014, 2015; Joo & Grable, 2004; Malone, Stewart, Wilson, & Korsching, 2010; Porter & Garman, 1993; Vera-Toscano, Ateca-Amestoy, & Serrano-Del-Rosal, 2006; Walson & Fitzsimmons, 1993). This subjective dimension of the financial situation appears in research under different names: economic well-being (Hayhoe & Wilhelm, 1998), financial satisfaction (Joo & Grable, 2004), financial well-being (Kim, Garman, & Sorhaindo, 2003), and economic strain (Mills, Grasmick, Morgan, & Wenk, 1992). The objective (income) and subjective (perception) material situation are correlated with each other, but this reciprocity varies depending on the study and the methods of measurement from 0.25 (Sumarwan & Hira, 1993; Tang, Luna-Arocas, Sutarso, & Tang, 2004; Williams et al., 2017) to 0.50 (Gasiorowska, 2015; Ranta, Chow, & Salmela-Aro, 2013) and sometimes is not statistically significant (Traut-Mattausch & Jonas, 2011). This shows that these phenomena are related, but not fully corresponding. The third key issue is looking at saving and explaining the reasons underpinning this phenomenon not through an analysis of its relationship with single variables but, comprehensively, also taking into account in analyses the different ways of measuring income, demographic variables, and individual variables that are psychological in nature.

The studies carried out by my team have confirmed that when the three dimensions proposed above are taken into account in analysing saving behaviour (propensity to save alongside the amount of savings held, the perception of the material situation alongside income, and the introduction of psychological variables), it gives a much better understanding of this phenomenon. Firstly, the analysis conducted[2] demonstrated that, just like in many earlier studies, when investigating the relationship between income and the amount of money put away (isolated two variables), it is significant (which is consistent with the findings of many earlier studies). However, after stepwise multiple regression analysis was applied, which investigated the role of not only the objective (income) but also the subjective financial situation (perception) on saving, we still found that the objective financial situation has a significant effect on the amount of savings (but weaker); however, what's more important, we also confirmed the significant effect of the subjective financial situation. Interestingly enough, the analysis of interactions showed that the role of the perception of the financial situation as a predictor of the amount of money saved is particularly important in high-earners. If people with a high income thought that their material situation wasn't good, the level of their savings was close to low-income individuals; in other words, they were not at all more prone to save money compared to those earning much less. The second regression analysis (stepwise logistic binominal) furnished even more interesting results concerning the significance

[2] The analysis was based on a database of the FinBehTrack (2016) study, which was carried out in Poland on a national representative sample $n = 1048$ of respondents.

of the objective and subjective material situation for the propensity to save (if somebody has any savings independently of the amount of savings). In this case also, in the first step of the analysis, there was a correlation between the objective material situation and the propensity to save. However, after the next step was introduced into the model analysing the perception of the material situation, income was no longer significant (not statistically significant any more). This outcome shows that it is not how much a person earns that is of greater importance in estimating the propensity to save but how they perceive their material situation. Perceiving one's material situation as good (subjective dimension) definitely increases the effectiveness of saving much more than the amount that they earn. The general picture for the propensity to save as a dependent variable is similar to that conducted for the amount of savings, but in case of the propensity to save, the results are stronger.

Another analysis (Table 4.1) is a summary of the dependencies between the level of savings and propensity to save and different psychological variables. Table 4.1 shows the analysis of the individual variables measured in the first wave of the FinBehTrack, 2016 study, whereas Table 4.2 presents the analyses of psychological

Table 4.1 Correlations between the amount of savings and the propensity to save and different psychological variables (the value of the bivariate Pearson correlation coefficient)

Studied dimension	Measured variable	Amount of savings ($n = 429$ – only those who declared having savings)	Propensity to save ($n = 1048$)
Demographics	Age	0.376 ***	−0.027
	Education	0.278 **	0.222 **
Material situation	Objective – income	0.459 ***	0.268 ***
	Subjective – perception (FS1)	0.199 ***	0.386 ***
Satisfaction with life	SWLS (qn. LS3)	0.030	0.194 ***
	Satisfaction with finances (qn. LS2).	0.184 ***	0.319 ***
Attitude to money	Money as the source of feelings of inferiority (qn. MAT1: H–L)	−0.161 **	−0.219 ***
	Emotions (qn. MSS_E) (higher value, more positive emotions)	0.147 **	0.156 **
Internal locus of control	Qn. AL1: A–C	−0.040	0.131 ***
Sense of injustice	Qn. AL1: F–I	−0.070	−0.109 ***
Money spending style (qn. MSS)	Thrifty spending	0.165 **	0.543 ***
	Belt tightening	−0.211 ***	−0.054
	Happy spending	−0.073	0.090 *
	Spendthrift	−0.140 *	−0.036
Attitude to saving (SI5)	Positive attitude to saving	0.106 *	0.495 ***

*Significance level $p < 0.01$; **Significance level $p < 0.001$; ***Significance level $p < 0.0001$

variables measured during the second wave of the study using standardised psychological scales. A global view of the analyses carried out shows that there is a correlation between most of the measured psychological variables and the level of savings as well as the propensity to save; however, correlations with the propensity to save in the case of most psychological variables were higher. Correlations with the amount of savings held are clearly lower, although often statistically significant, which, as was explained earlier, results from the sample size. Persons with a greater propensity to save are characterised by a higher satisfaction with life and their own finances, a positive approach to money, internal locus of control, a lower sense of injustice, and a much higher level of thriftiness and a more positive attitude to saving (Table 4.1).

Finally, let us take a look at saving in the context of the identified segments in view of the financial behaviours and attitudes described in Chap. 1 (FinBehTrack, 2016). The following groups of persons, differing in terms of their financial attitudes and behaviours, were identified through the segmentation analysis: Banking Leaders, Cautious with Banking, Entering Life, Unfulfilled Indebted, Family-oriented Non-materialists, Entitled Materialists, and Financially Withdrawn. These groups clearly differ in the approach to life, values, psychological characteristics, and, consequently, attitudes towards saving, the level of savings, and their propensity to save (see Chap. 1: Tables 1.4 and 1.5). First of all, a discrepancy can be seen in certain groups between the level of savings and the propensity to save (Fig. 4.4). Banking Leaders have the highest level of savings, both in terms of the amount and the propensity to save. This is hardly surprising because, on the one hand, this group has the highest income in the population (which explains the high amount of money put away), but it also has a high level of life satisfaction, conscientiousness, internal locus of control, a high future time perspective level, and a high level of thriftiness,

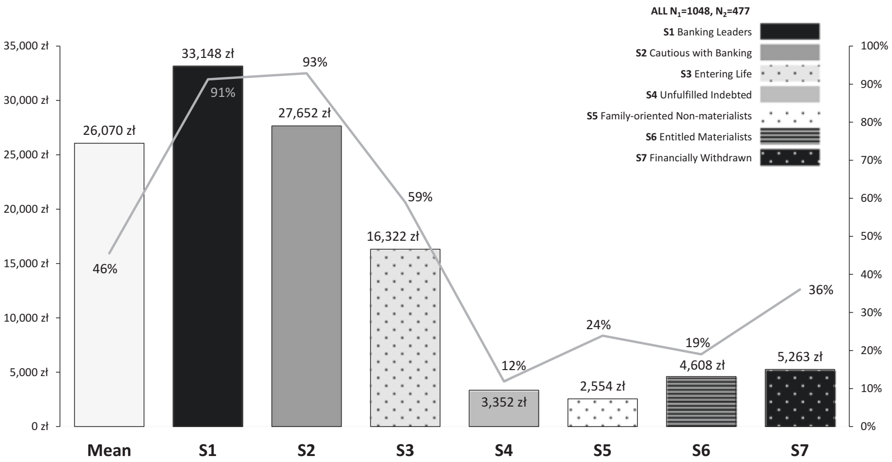


Fig. 4.4 Propensity to save and amount of savings in segments. Line – percentage of people having savings in each segment ($N_1 = 1048$, all population) and bars – average amount of savings ($N_2 = 477$ – number of people stating that they have any savings) (FinBehTrack, 2016)

in other words, all the individual psychological characteristics that are conducive to saving. Persons in the second segment, Cautious with Banking, have lower savings (but also income) than the first segment, but when it comes to the propensity to save, which is more dependent on psychological characteristics, almost the same amount of people in this group declared having savings (93%) than in the first group (90%) (note that the second segment profile is similar to segment 1 in terms of the psychological variables related to financial behaviours). What is also interesting is a comparison of the following two segments: 4, Unfulfilled Indebted, and 5, Family-oriented Non-materialists. Unfulfilled Indebted (segment 4) have a smaller propensity to save (12% have some sort of savings) than Family-oriented Non-materialists (24% have savings), although the amounts saved are higher, which probably results from the significantly higher income in this group compared to segment 5. However, the higher propensity to save in Family-oriented Non-materialists compared to Unfulfilled Indebted can be explained by their greater internal locus of control, higher level of life satisfaction, and lower level of sense of injustice.

The differences between segments in the propensity to spend money vs. to save are revealed by yet another analysis (FinBehTrack, 2016). A hypothetical question was put to the respondents about what they would do if at the end of the month they had free funds and could do the following three things with them at their discretion: (a) spend them all at once, (b) save them, and (c) invest them, e.g. in financial instruments (qn. Q30_SAV4, question used in earlier studies, e.g. Sekścińska, Trzcińska, & Maison, 2016) (Fig. 4.5). A comparison of the answers to this question in different segments once again confirms that the way a given person manages their assets, whether they spend their money or save (invest) it, largely depends on psychological factors. The highest propensity to spend money on consumption was found in the segments with the highest level of materialism (Entitled Materialists) and the lowest level of self-control (Entitled Materialists, Financially Withdrawn). When interpreting these results, we have to bear in mind that the question concerned a windfall

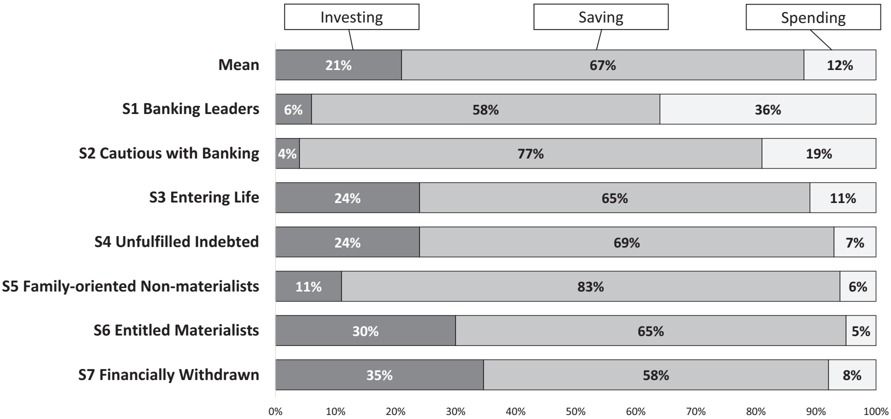


Fig. 4.5 Hypothetical use of free funds (qn. Q30_SAV4: "If you had some spare funds, what would you probably do with them? – comparison across segments) (FinBehTrack, 2016)

gain, in other words, their propensity to spend it on consumption could have also been affected by the source of the money – an unexpected gain in income and being associated with positive emotions (Cf. Chap. 3, mental accounting, Shefrin & Thaler, 1988). Nevertheless, different segments showed disparate propensity to spend or save money, and this decision was not linked to their objective financial situation (see Chap. 1: Table 1.5). Segments 3, 4, 6, and 7 were prepared to allocate the highest percentage of windfall gains to consumption. In the case of segment 3 (Entering Life) and 6 (Entitled Materialists), their decision to spend most of their money on consumption most probably resulted from their high level of materialism. These are the two groups for which being rich or having expensive goods is extremely important. As for Unfulfilled Indebted (segment 4), the cause of their low effectiveness of saving may be living in constant financial stress and the related high level of the Belt Tightening dimension in the Money Spending Style). These people rarely allow themselves to freely spend their money; thus, any windfall profits could be easier for them to spend.

4.7 Investing: A Higher Level of Saving

Investing behaviours have long attracted the interest of economic psychologists, but most studies focus on understanding the behaviours of professional stock market investors, analysing these behaviours mainly in the context of risk and cognitive errors accompanying investment decisions and market forecast (De Bond, 1998; MacGregor, Slovic, Berry, & Evensky, 1999; Törngren & Montgomery, 2004). Numerous studies have confirmed that investors fall into many cognitive traps like that of unrealistic optimism, ignoring some of the available information (Kanheman & Lovallo, 1993), overconfidence when it comes to making predictions, and the illusion of control (Heath & Tversky, 1991), or the adjustment and anchoring effect (Jacowitz & Kahneman, 1995; Tversky & Kahneman, 1974). Researcher interest in the psychological processes accompanying the investment decisions of "ordinary people" is much smaller than those of professional investors, perhaps because investing independently is still uncommon among ordinary consumers and they usually are dealing with much smaller amounts, which leads to much less spectacular consequences of their investment decisions. We should not, however, lose sight of the group of individual investors allocating their capital outside the stock exchange because in the situation of systematically shrinking savings account and deposit account interest rates in many countries, the number of persons investing in more advanced financial instruments will probably grow. The specificity of individual small investors, however, is that they do not usually invest on their own but are assisted by investment advisors or financial institution employees. Therefore, it can be expected that the individual psychological traits affecting the decisions and motivations and investment goals of small, individual investors will be different from professional stock market investors.

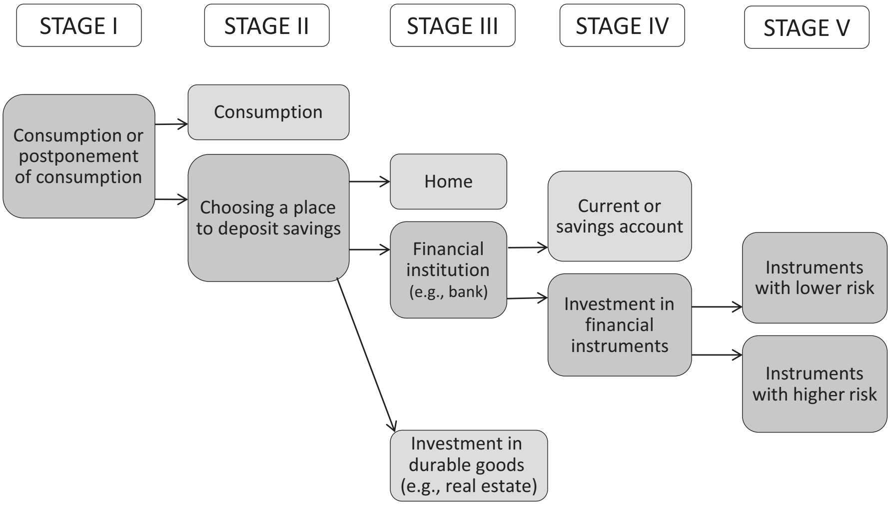


Fig. 4.6 Stages of the decision making process about the selection of investments in financial instruments

The investment decision-making process of individual investors is complex (Fig. 4.6). For a decision on investing in a financial instrument to be made, a person has to first choose between immediate consumption, foregoing their chance of achieving greater profit and perhaps having a larger amount of money in the future for consumption and giving up immediate consumption. If consumption is delayed, the next decision of that person relates to what they can do with the money they have collected: whether to keep it at home, in the bank on a current or savings account, or invest it. The next stage involves deciding what to invest the money in: durable assets, like gold or real estate, or financial instruments. If a person decides to invest in financial instruments, they have to make the last decision as to what instruments they want to choose: instruments giving higher or lower returns and also carrying a higher or lower financial risk.

Investments in various kinds of financial instruments can vary in nature from relatively safe investments on bank deposit accounts, treasury bonds, and investment and insurance products to the most risky, like investing in the stock market or corporate bonds. When deciding on what to invest in, a person factors in the possibility of increasing their wealth in the future but also takes on a certain risk of not achieving their planned profit or even losing out on their investment (Loewenstein, Read, & Baumeister, 2003). Not everyone has the mental strength to take such risks, which is why some people choose to invest, while others opt for risk-free ways of making their savings work (e.g. savings or deposit account). Moreover, despite the fact that a person deciding to invest in a financial instrument with a greater potential of high returns has to take into account a greater risk of not gaining the projected profits and sometimes even losing them, many consumers are unaware or don't even want to consider this fact when making investment decision.

Now, let's go back to an earlier question concerning which individual psychological characteristics are conducive to deciding to invest in financial instruments and not keeping them in a bank or at home? Let's first deal with non-specific (not directly linked to finance) individual psychological traits that are conducive to investing.

Since the risk of loss is an inherent part of investing in financial instruments, an important area of research on the psychological and individual determinants of these decisions is the propensity for risk-taking as a factor explaining investment behaviours. The results of the studies have shown that the nature of the approach to risk is not one dimensional and does not concern all areas of life. The same person may be inclined to take risk in one area but avoid it in another (Vlaev, Kusev, Stewart, Aldrovandi, & Chater, 2010). Weber, Blais, and Betz (2002) created a questionnaire diagnosing people's propensity for risk-taking. It is comprised of five scales: recreational risk (e.g. extreme sports), ethical risk (manifest in the tendency to morally reprehensible behaviour), social risk (behaviours that contradict accepted principles of morality), and financial risk, which comprises of two independent (poorly correlated) subscales: the propensity for risky behaviours related to saving (i.e. investments) and gambling-related risk. The results of the application of this scale revealed that the propensity for risk does not occur in all areas at once. And so, for instance, the propensity for extreme sports may go hand in hand with financial risk avoidance. The inclination to take financial risks is also not homogenous – choosing risky forms of investing does not have to coincide with the propensity for gambling (Vlaev et al., 2010). These outcomes reveal that the general propensity for risk-taking is not a sufficient explanation of the decisions to opt for financial instruments (even the risky ones). We have to remember that investments differ in the degree of risk that they entail. They can carry a real risk, like that of losing shares, and also be relatively safe, as in the case of treasury bonds. Thus, the propensity for risks within financial investments will explain the choice of various products in different ways.

The time perspective is another trait that has already been discussed several times in this book in the context of other financial behaviours and which also has a bearing on the investment decisions that are taken. Research conducted by Sekścińska, Rudzińska-Wojciechowska, and Maison (2018a) investigated the propensity to invest (comparing it to consumption or saving) depending on four time perspectives: past negative, present fatalistic, present hedonistic, and future (Zimbardo & Boyd, 2008). Time perspectives were measured using the short version of the Zimbardo Time Perspective Inventory (SZTPI) created by Zhang, Howell, and Bowerman (2013). The propensity to invest was measured by asking the participants to indicate one financial category (consuming, saving, or investing) to which they would allocate a hypothetical 10,000 zloty (equivalent to approximately $2500). Three time perspectives (Past negative, Present fatalistic and Present hedonistic) were contributive to the propensity to allocate money for consumption: persons pointing to consumption as the way in which they want to use their money had higher indicators of these time perspectives. The last, however, future time perspective, facilitated a greater openness to investing resources – persons ready to

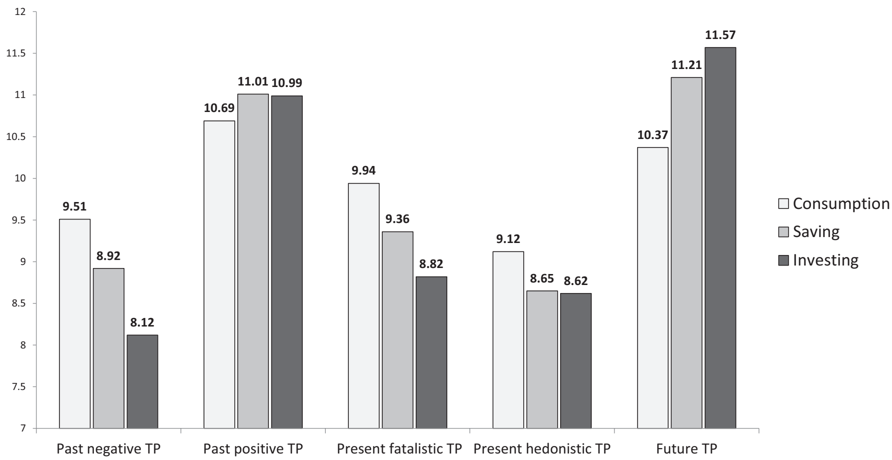


Fig. 4.7 Mean time perspectives scores in different financial choice groups (consumption, saving, or investing) (own elaboration based on data from the article of Sekścińska et al., 2018a)

invest a hypothetical amount had higher Future TP indicators (Fig. 4.7). Subsequent research in this series (Sekścińska et al., 2018b) furnished interesting insights into the role of time perspectives in risky investment choices, namely, that although persons with a high level of present hedonistic TP prefer consumption instead of investing, once they do decide to invest, they go for more risky investment options. A high level of future TP, on the other hand, supports an openness to investing, but mostly in a safe way. An important implication of this study is that explaining the reasons behind investment decisions without taking into account investment diversity in terms of the level of risk associated with them may lead to ambiguous conclusions. It turns out that the mechanisms underlying decisions to invest material resources instead of passively keeping excess cash at home or at the bank are one thing, and choosing investment products that carry more risk (i.e. also with a higher probability of increased profits) or less risk is something altogether different.

Another question concerns the significance of specific individual characteristics (related to finance) in the level of interest in financial investments. To answer this question, we performed stepwise multiple regression analysis to investigate three groups of predictors of investing experience (question Q32_SAV6). In Step 1, we introduced demographics (gender, age, and education) and objective financial situation (income), in Step 2 a subjective financial situation (perception), and in Step 3 Money Spending Style (4 dimensions), while in Step 4, we introduced materialistic values measure (Table 4.2).

We found significant effects of gender, education, and objective financial situation on investing experience, but no effect of age. Men, better educated, and with a better financial situation had more experience with investing. In Step 2, we introduced a subjective financial situation. After introducing these variables, we found significant effects of all the demographics and the percentage of explained variance by the model increased (from 12,8% to 17,7%). In Step 3, next to all earlier intro-

Table 4.2 Predictors of investing experience (regression analysis)

	Step 1			Step 2			Step 3			Step 4		
Variables	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
Gender (woman = 1)	−0.31	0.08	<0.001	−0.32	0.07	<0.001	−0.29	0.07	<0.001	−0.27	0.07	<0.001
Age	0.003	0.003	0.24	0.01	0.003	0.01	0.01	0.003	0.049	0.01	0.003	0.02
Education	0.21	0.05	<0.001	0.17	0.05	<0.001	0.16	0.05	0.001	0.16	0.05	0.001
Income	0.22	0.03	<0.001	0.14	0.03	<0.001	0.13	0.03	<0.001	0.13	0.03	<0.001
Subjective financial situation				0.21	0.03	<0.001	0.13	0.03	<0.001	0.14	0.03	<0.001
Thrifty spending							0.10	0.02	<0.001	0.09	0.02	<0.001
Belt tightening							−0.03	0.02	0.17	−0.04	0.02	0.11
Happy spending							0.01	0.02	0.72	0.004	0.02	0.84
Spendthrift							−0.03	0.03	0.28	−0.04	0.03	0.20
Materialism										0.07	0.03	0.03
	$F = 31.08$		<0.001	$F = 36.25$		<0.001	$F = 24.33$	<0.001		$F = 22.51$		<0.001
	$R^2 = .13$			$R^2 = .18$			$R^2 = .21$			$R^2 = .21$		

duced variables, we introduced the Money Spending Style, and we found a significant effect only of one dimension of MSS – Thrifty Spending (and explained variance increased till 20%). In Step 4, we introduced a materialistic value measure (qn. Q6_MAT2). We found also significant positive effects of materialistic value on experience in investing and the explained variance of the whole model increased till 21,2%.

The conducted regression analysis showed that consumer investment decisions are based on different mechanisms than when it comes to saving. Firstly, demographic characteristics like sex, age, and education have a much greater bearing. Investing experience is much more common among men than women and also increases with age and education. Secondly, income (objective material situation) has a much greater impact on investment experience than it was observed in the case of saving. However, the subjective financial situation (perception), Thrifty Spending, a dimension of money spending styles and materialism, are also important in explaining investment experience. More Thrifty Spenders have greater investment experience. Persons who are focused on materialistic goals also have more investment experience. It's important to emphasise that adding specific psychological dimensions (related to finance) to regression analysis turned out to be statistically significant and provided a clearly better explanation of investment experience – an increase in the explained variance from 12.8% to 21.2% after the inclusion of the subjective financial situation, Thrifty Spending (from MSS), and materialistic values.

The propensity to take financial risks, apart from individual psychological traits, can also be also influenced by external, situational factors such as familiarity with specific tasks (Massa & Simonov, 2006), mood (Leith & Baumeister, 1996), framing (Tversky & Kahneman, 1981), promotion or prevention focus (Sekścińska, Maison, & Trzcińska, 2016), and situationally introduced time perspective (Sekścińska et al., 2018b), fresh memory of success (Forgas, 1995), and even experimentally induced earlier financial success or failure (Sekścińska, 2015) as well as experience of being treated fairly or unfairly.

A study conducted by Sekścińska (Sekścińska, Trzcińska, & Maison, 2016) showed that even the activation of a stereotypical social role (more or less associated with risky behaviour) can influence the propensity to choose more risky investing products. The starting point for the study was the assumption that the activation of stereotypical and traditional female social roles will result in risk avoidance (also relating to finances), whereas the activation of nontraditional female social roles will increase openness to risk. The experimental study was conducted where the social role was activated by presenting the respondents with a coffee commercial where the main character, depending on the study condition, was either shown as a housewife (traditional social role) or depicted as a businesswoman (nontraditional social role). The results, which were consistent with predictions, showed that the activation of a traditional social role (in line with the stereotypical role assigned to women) increased the tendency to save money (less risky financial choice), while the activation of a nontraditional social role (consistent with a stereotypically male role) increased the tendency to invest (more risky financial choice).

Another study (Sekścińska et al., 2018b) demonstrated that the situationally triggered future or present hedonistic TP influenced risky financial choice preferences consistent with the same dispositional trait. The triggering of future TP lowered the preferred level of portfolio riskiness. However, the activation of the present hedonistic TP had the reverse effect and gave rise to more risky financial product investment choices.

4.8 Cultural Determinants of Saving and Investing

Finally, let us take a look at the comparisons between saving and investing behaviour in different countries. These collations also show that financial decisions can be dependent on cultural and historical factors. A comparison of the results of the study mentioned at the beginning of the chapter, which was carried out by ING (one of the world's leaders in the finance industry) in 13 European countries and the USA and Australia, revealed that about 1/4 of the inhabitants of most European countries (24–25% across 6 countries) claim that they have no savings whatsoever (Fig. 4.8). The exceptions were people living in Romania, where the group of persons without any savings at all was as large as 45% of the population, and the inhabitants of Luxembourg, where a mere 13% of persons declare that they do not have any money put away. There is also a relatively small group of persons who have no savings in the USA (16%).

Investment choices can also depend on cultural factors affecting the decision-maker. These choices may also be conditioned by the financial traditions of a given country, the diversity of financial instruments available to ordinary citizens, and the prevalent savings management traditions. Residents of the USA or Western Europe have unquestionably much more experience with investment products than residents of less economically developed states, for instance, Poland, Romania, or the Czech Republic, where economic transformations facilitating unrestricted use of different financial instruments took place as late as towards the end of the last century. This historical conditioning (lack of investment traditions) explains the relatively small investment experience of Polish people, too. Sixty-one per cent of Poles have never had any investment products, and for 25% of Poles, this investment experience was limited to holding term deposits (FinBehTrack, 2016: qn. SI6). Only 13% of Poles claim that they have any number of more advanced (and also more risky than a bank deposit) investment products, for example, investment funds, shares, or bonds (qn. Q8_BP). It is also worth highlighting that almost all these products are held by one segment of Poles – by Banking Leaders. In this group, as many as 41% of persons have investment funds, and 29% have shares. Taking into account that the Cautious with Banking have a good financial situation but have no investing experience, this once again supports the thesis on the psychological and individual determinants of openness to investing in financial instruments.

A comparison of the ways of investing across different countries in Europe reveals their great diversity. Data from the ING study across 15 countries that was

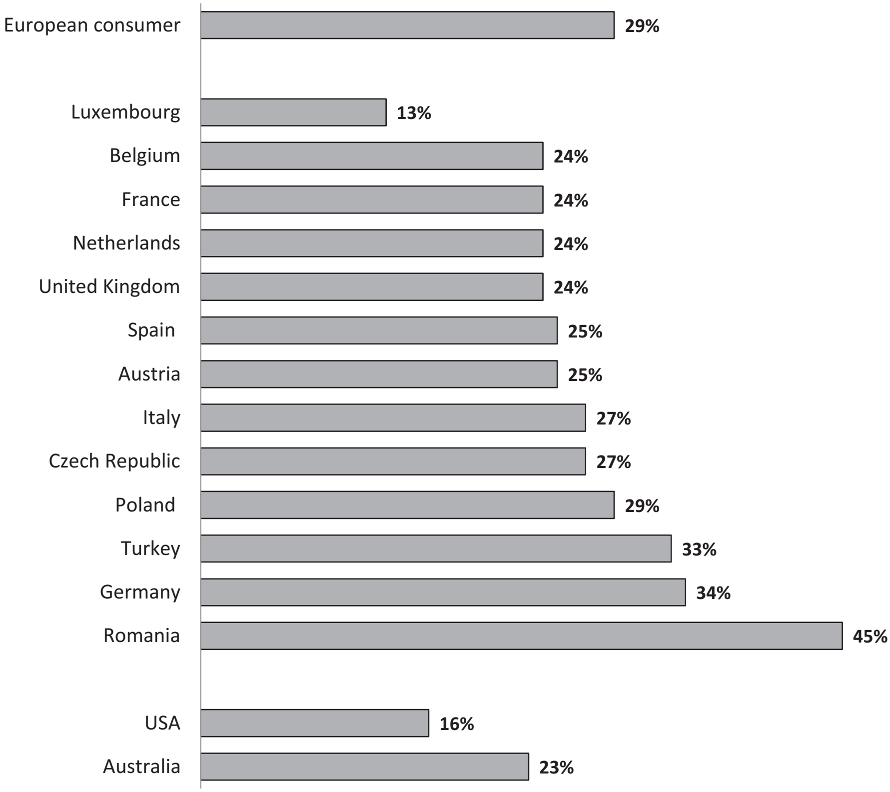


Fig. 4.8 Percentage of residents from different countries in Europe (including the USA and Australia) claiming that they don't have any savings (n = 13,936) (own elaboration based on the ING International Survey, 2017)

cited earlier reveals that the residents of less economically developed countries (Turkey and Romania) and former Eastern Bloc countries, that is, poorly developed in the near past, prefer more traditional forms of investing (Poland and the Czech Republic) like investing in real estate and gold (Fig. 4.9). It would be good to point out that investing in gold is most popular in two countries: Romania (53% have such investments) and Turkey (58%). Investing in precious metals is a more conservative form of investing, which is why interest in such investment forms is greatest in countries with the smallest economic stability (presently and in the past). Investing in financial instruments bearing a higher risk (shares and bonds), on the other hand, is prevalent in more economically developed countries of Western Europe: Luxembourg, Great Britain, Belgium, Italy, and Germany. Interest in investment financial instruments in Europe is still much lower than it is in the States where 42% of persons declare that they have mutual funds, 32% shares, and 26% bonds. What is also interesting is the very limited interest in investing in financial instruments in

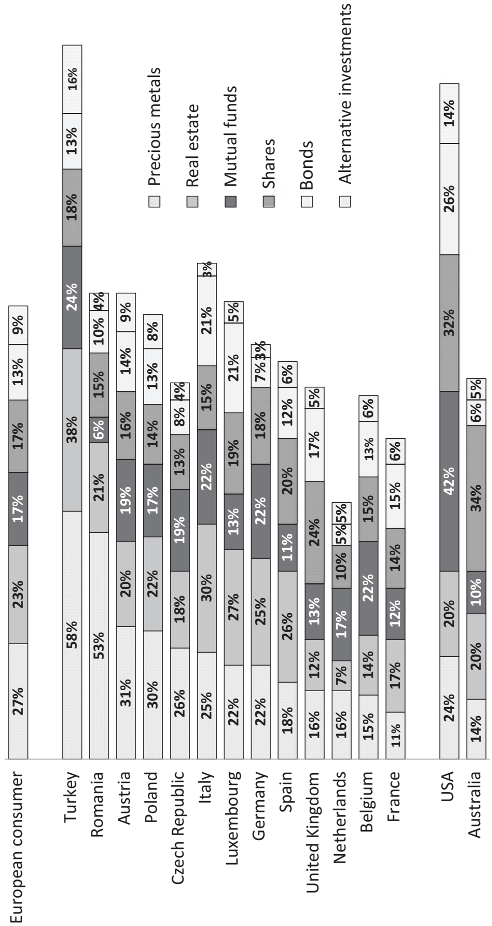


Fig. 4.9 Types of investments held across different European countries (including the USA and Australia) (own elaboration based on the ING International Survey, 2017)

the Netherlands, where each of the said investment instruments is held by less than 10% of its residents.

The last table shows long-term saving for retirement (individual plans), and here too European countries vary greatly from each other. In countries such as the Netherlands or Germany, there is almost double the amount of people who are working on securing their future retirement than, for example, in Italy, Spain, or Turkey (Fig. 4.10). The available data is insufficient to explain these dependencies, but one of these explanatory hypotheses may be the different role that family plays in these countries. If we look at the countries where residents are less concerned about making sure that they have financial security for their retirement, these are places where the traditions of multi-generation families are stronger and the social expectations of providing financial support to family members are greater (both the financial support of adult children by parents and the support of elderly parents by adult children). Moreover, looking at the highest percentage of persons securing their own future for their retirement among the inhabitants of the Netherlands, where there is, at the same time, the lowest interest in investments bearing any risk at all, one could wonder if this stems from certain specific traits, for instance, those

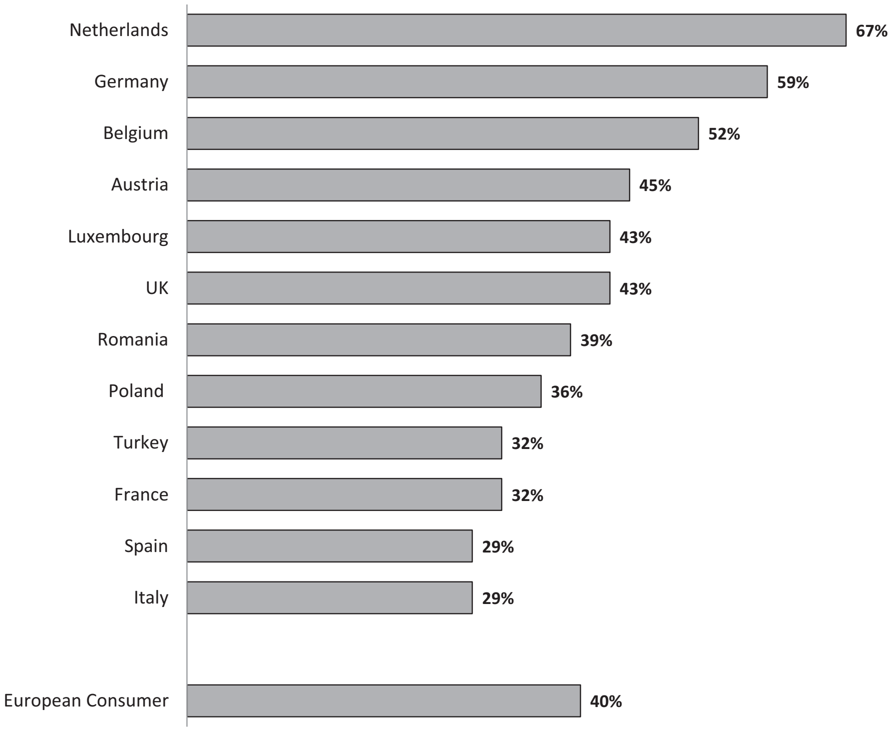


Fig. 4.10 Individual investment programmes in different European countries ($n = 14{,}606$) (own elaboration based on the ING International Survey, 2012)

relating to greater precautionary behaviours and a higher propensity for avoiding risk (at least in the area of financial investments).

References

Ameriks, J., Caplin, A., Leahy, J., & Tyler, T. (2007). Measuring self-control problems. *The American Economic Review, 97*(3), 966–972.

Ando, A., Guiso, L., Terlizzese, D., & Dorsainvil, D. (1992). Saving among young households. Evidence from Japan and Italy. *Scandinavian Journal of Economics, 94*(2), 233–250.

Ando, A., & Modigliani, F. (1963). The "life cycle" hypothesis of saving: Aggregate implications and tests. *American Economic Review, 53*, 55–84.

Beverly, S. G., McBride, A. M., & Schreiner, M. (2003). A framework of asset-accumulation stages and strategies. *Journal of Family and Economic Issues, 24*(2), 143–156.

Biljanovska, N., & Palligkinis, S. (2015). Control thyself: Self-control failure and household wealth. *SAFE Working Paper No. 69*. Available at SSRN: https://ssrn.com/abstract=2509080

Brandstatter, H. (1996). Saving, income, and emotional climate of households related to personality structure. *Progress Report* 38. *VSB-CentER Savings Project*, Tilburg University, The Netherlands.

Bricker, J., Dettling, L. J., Henriques, A., Hsu, J. W., Jacobs, L., Moore, K. B., et al. (2014). Changes in U.S. family finances from 2010 to 2013: Evidence from the survey of consumer finances. *Federal Research Bulletin, 100*(4), 1–40.

Browning, M., & Lusardi, A. (1996). Household saving: Micro theories and micro facts. *Journal of Economic Literature, 34*, 1797–1855.

Canova, L., Manganelli-Rattazzi, A. M., & Webley, P. (2005). The hierarchical structure of saving motives. *Journal of Economic Psychology, 26*, 21–34.

Carroll, C. D., & Summers, L. H. (1991). Consumption growth parallels income growth: Some new evidence. In B. D. Bernheim & J. B. Shoven (Eds.), *National saving and economic performance* (pp. 305–348). Chicago, IL: University of Chicago Press.

Chernev, A. (2004). Goal-attribute compatibility in consumer choice. *Journal of Consumer Psychololgy, 14*, 141–150.

Cho, S. H., Loibl, C., & Geistfeld, L. (2014). Motivation for emergency and retirement saving: An examination of regulatory focus theory. *International Journal of Consumer Studies, 38*(6), 701–711.

Choi, J. J., Laibson, D., & Madrian, B. C. (2011). $100 bills on the sidewalk: Suboptimal investment in 401 (k) plans. *The Review of Economics and Statistics, 93*(3), 748–763.

Dahlbäck, O. (1991). Accident-proneness and risk-taking. *Personality and Individual Differences, 12*(1), 79–85.

Davis, E. P., & Schumm, W. R. (1987). Savings behavior and satisfaction with savings: A comparison of low- and high-income groups. *Home Economics Research Journal, 15*, 247–256. https://doi.org/10.1177/1077727X8701500405

De Bond, W. F. M. (1998). A portrait of the individual investor. *European Economic Review, 42*, 831–844.

Deaton, A., & Paxson, C. (1994). Saving, growth, and aging in Taiwan. In D. A. Wise (Ed.), *Studies in the economics of aging* (pp. 331–362). Chicago: University of Chicago Press.

Dynan, K. E., Skinner, J., & Zeldes, S. P. (2004). Do the rich save more. *Journal of Political Economy, 112*, 397–444. https://doi.org/10.1086/381475

FinBehTrack. (2009). Unpublished research report about financial attitudes and behaviors of Polish people.

FinBehTrack. (2010). Unpublished research report about financial attitudes and behaviors of Polish people.

FinBehTrack. (2016). Unpublished research report about financial attitudes and behaviors of Polish people.

Fisher, P. J., & Anong, S. T. (2012). Relationship of saving motives to saving habits. *Journal of Financial Counseling and Planning, 23*(1), 63–79.

Fisher, P. J., & Montalto, C. P. (2010). Effect of saving motives and horizon on saving behaviors. *Journal of Economic Psychology, 31*, 92–105.

Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin, 117*, 39–66. https://doi.org/10.1037/0033-2909.117.1.39

Friedline, T. L., Elliott, W., & Nam, I. (2011). Predicting savings from adolescence to young adulthood: A propensity score approach. *Journal of the Society for Social Work and Research, 2*(1), 1–22.

Garcia, M. T., Barros, C., & Silvestre, A. (2011). Saving behaviour: Evidence from Portugal. *International Review of Applied Economy, 25*, 225–238. https://doi.org/10.1080/02692171.2010.483467

Gasiorowska, A. (2014). The relationship between objective and subjective wealth is moderated by financial control and mediated by money anxiety. *Journal of Economical Psychology, 43*, 64–74. https://doi.org/10.1016/j.joep.2014.04.007

Gasiorowska, A. (2015). The impact of money attitudes on the relationship between income and financial satisfaction. *Polish Psychological Bulletin, 46*, 197–208. https://doi.org/10.1515/ppb-2015-0026

Gonzales, A., & Zimbardo, P. G. (1985). Time in perspective. *Psychology Today, 19*(3), 21–26.

Góra, M. (2016). Oszczędzanie długoterminowe, czyli alokacja dochodu w cyklu życia. In J. Rutecka-Góra (Ed.), *Długoterminowe oszczędzanie. Postawy, strategie i wyzwania*. Warszawa, Poland: Oficyna Wydawnicza SGH.

Gutter, M. S., Hayhoe, C. R., DeVaney, S. A., Kim, J., Bowen, C. F., Cheang, M., … Cho, S. H. (2012). Exploring the relationship of economic, sociological, and psychological factors to the savings behavior of low-to moderate-income households. *Family and Consumer Sciences Research Journal*, (41), 86–101. https://doi.org/10.1111/j.1552-3934.2012.02130.x

Han, C. K., Grinstein-Weiss, M., & Sherraden, M. (2009). Assets beyond savings in individual development accounts. *Social Service Review, 83*, 221–244. https://doi.org/10.1086/600861

Han, C.K., M., Sherraden, M. (2009). Do institutions really matter for saving among low-income households? A comparative approach Journal of Socio-Economics 38, 475–483. doi: https://doi.org/10.1016/j.socec.2008.07.002

Harris, M. N., Loundes, J., & Webster, E. (2002). Determinants of household saving in Australia. *Economic Record, 78*, 207–223. https://doi.org/10.1111/1475-4932.00024

Hayhoe, C. R., & Wilhelm, M. S. (1998). Modeling perceived economic well-being in a family setting: A gender perspective. *Journal of Financial Counseling and Planning, 9*(1), 21–34.

Heath, C., & Tversky, A. (1991). Preference and belief: Ambiguity and competence in choice under uncertainty. *Journal of Risk and Uncertainty, 4*(1), 5–28.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319–340. https://doi.org/10.1037/0033-295X.94.3.319

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280–1300.

Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 1–46). New York, NY: Academic Press.

Higgins, E. T., Friedman, R. S., Harlow, R. E., Idson, L. C., Ayduk, O. N., & Taylor, A. (2001). Achievement orientations from subjective histories of success: Promotion pride versus prevention pride. *European Journal of Social Psychology, 31*, 3–23.

Hogarth, J. M., & Anguelov, C. (2003). Can the poor save? *Journal of Financial Counseling and Planning, 14*(1), 1–18.

Horioka, C., & Watanabe, W. (1997). Why do people save? A micro-analysis of motives for household saving in Japan. *Economic Journal, 107*(442), 537–552.

Husman, J., & Lens, W. (1999). The role of the future in student motivation. *Educational Psychologist, 34*, 113–125.

ING. International survey on saving. (2017). Available from: https://www.ezonomics.com/ing_international_surveys/savings-2017/

Issahaku, H. (2011). Determinants of saving and investment in deprived district capitals in Ghana: A case study of Nadowli in the upper west region. *Continental Journal of Social Sciences, 4*(1), 1–12.

Jacowitz, K. E., & Kahneman, D. (1995). Measures of anchoring in estimation tasks. *Personality and Social Psychology Bulletin, 21*, 1161–1166.

Joo, S. H., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues, 25*, 25–50.

Kanheman, D., & Lovallo, D. (1993). Timid choice and bold forecasts: A cognitive pespective on risk taking. *Management Science, 39*(1), 17–31.

Katona, G. (1975). *Psychological economics*. New York, NY: Elsevier.

Keynes, J. M. (1936). *The general theory of employment, interest and money*. Palgrave Macmillian.

Kim, J., Garman, E. T., & Sorhaindo, B. (2003). Relationships among credit counseling clients' financial well-being, financial behaviors, financial stressor events, and health. *Journal of Financial Counseling and Planning, 14*(2), 75–87.

Kostakis, I. (2012). The determinants of households' savings during recession: Evidence from Greece. *International Journal of Economic Practices & Theories, 2*, 253–265.

Kronenberg. (2009). Postawy Polaków wobec oszczędzania [*Attitudes of Poles towards saving*]. Report of the Kronenberg Foundation at Citi Handlowy. Available at http://www.citibank.pl/poland/kronenberg/polish/files/fk_badania_03.pdf

Ksendzowa, M., Donnelly, G. E., & Howell, R. T. (2017). A brief money management scale and its associations with personality, financial health and hypothetical debt repayment. *Journal of Financial Counseling and Planning, 28*(1), 62–75.

Lea, S. E. G., Webley, P., & Walker, C. M. (1995). Psychological factors in consumer debt: Money management, economic socialization, and credit use. *Journal of Economic Psychology, 16*(4), 681–701.

Leith, K. P., & Baumeister, R. F. (1996). Why do bad moods increase selfdefeating behavior? Emotion, risk tasking, and self-regulation. *Journal of Personality and Social Psychology, 71*, 1250–1267.

Liberda, B. (2013). *Przezorność. Kto oszczędza w Polsce*. Warszawa: Wydawnictwo Uniwersytetu Warszawskiego.

Liberda, B. (2016). Oszczędności gospodarstw domowych – analiza przekrojowa i analiza kohort. In J. Rutecka-Góra (Ed.), *Długoterminowe oszczędzanie. Postawy, strategie i wyzwania. [Long-term saving. Attitudes, strategies and challenges]* (pp. 25–40). Warsaw, Poland: Oficyna Wydawnicza SGH.

Lindqvist, A. (1981). A note on determinants of household saving behavior. *Journal of Economic Psychology, 1*, 37–59.

Loewenstein, G., Read, D., & Baumeister, R. (Eds.). (2003). *Time and decision: Economic and psychological perspectives on intertemporal choice*. New York, NY: Russell Sage Foundation.

Loewenstein, G., & Thaler, R. (1989). Intertemporal choice. *Journal of Economic Perspectives, 3*(4), 181–193.

Lunt, P. K., & Livingstone, S. M. (1991). Psychological, social and economic determinants of saving: Comparing recurrent and total savings. *Journal of Economic Psychology, 12*, 621–641.

MacGregor, D. G., Slovic, P., Berry, M., & Evensky, H. (1999). Perception of financial risk: A survey study of advisors and planners. *Journal of Financial Planning*. Available at SSRN: https://ssrn.com/abstract=1860403

Maison, D. (2013). *Polak w świecie finansów [A Pole in the world of finance]*. Warsaw, Poland: PWN.

Malone, K., Stewart, S. D., Wilson, J., & Korsching, P. F. (2010). Perceptions of financial well-being among American women in diverse families. *Journal of Family and Economic Issues, 31*, 63–81.

Maslow, A. H. (1971). *The farther reaches of human nature*. New York, NY: Arkana/Penguin Books.

Massa, M., & Simonov, A. (2006). Hedging, familiarity and portfolio choice. *Review of Financial Studies, 19*, 633–685.

Mills, R. J., Grasmick, H. G., Morgan, C. S., & Wenk, D. (1992). The effects of gender, family satisfaction, and economic strain on psychological well-being. *Family Relations, 1*, 440–445.

Modigliani, F. (1986). Life cycle, individual thrift and the wealth of nations. *The American Economic Review, 76*(3), 297–313.

Modigliani, F., & Brumberg, R. H. (1954). Utility analysis and the consumption function: An interpretation of cross-section data. In K. Kurihara (Ed.), *Post-Keynesian economics*. New Brunswick, Canada: Rutgers University Press.

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., et al. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Acadademy of Sciences – PNAS, 108*(7), 2693–2698.

Nyhus, E. K. (2002). *Psychological determinants of household saving behaviour*. Bergen, Norway: Norges Handelshøyskole.

Nyhus, E. K., & Webley, P. (2001). The role of personality in household saving and borrowing behavior. *Personality and Economic Behaviour, 15*(S1), S85–S103.

Okech, D., Mimura, Y., Mauldin, T., & Kim, J. (2013). The influence of financial factors on motivation to save among poor individuals. *Journal of Policy Practice, 12*, 107–124.

Paxson, C. (1996). Saving and growth: Evidence from micro data. *European Economic Review, 40*(2), 255–288.

Porter, N. M., & Garman, E. T. (1993). testing a conceptual model of financial Well-being. *Journal of Financial Counseling and Planning, 4*, 135–164.

Ranta, M., Chow, A., & Salmela-Aro, K. (2013). Trajectories of life satisfaction and the financial situation in the transition to adulthood. *Longitudinal and Life Course Studies, 4*, 57–77.

Rha, J. Y., Montalto, C. P., & Hanna, S. D. (2006). The effect of self-control mechanisms on household saving behavior. *Journal of Financial Counseling and Planning, 17*(2), 3–16.

Rószkiewicz, M. (2014). Objective and subjective factors shaping saving behaviours–the case of Polish households. *International Journal of Consumer Studies, 38*, 602–611.

Sekścińska, K. (2015). People's financial choice depends on their previous task success or failure. *Frontiers in Psychology, 6*, 1730. https://doi.org/10.3389/fpsyg.2015.01730

Sekścińska, K., Goszczyńska, M., & Maison, D. (2017). Rola perspektywy czasowej w działaniach ekonomicznych – perspektywa psychologiczna. *Psychologia Wychowawcza, 54*(12), 63–84.

Sekścińska, K., Maison, D. A., & Trzcińska, A. (2016). How people's motivational system and situational motivation influence their risky financial choices. *Frontiers in Psychology, 7*, 1360. https://doi.org/10.3389/fpsyg.2016.01360

Sekścińska, K., Rudzińska-Wojciechowska, J., & Maison, D. (2018a). Individual differences in the time perspectives and risky financial choices. *Personality and Individual Differences, 120*, 118–126. https://doi.org/10.1016/j.paid.2017.08.038

Sekścińska, K., Rudzińska-Wojciechowska, J., & Maison, D. (2018b). Future and present hedonistic time perspectives and the propensity to take investment risks: The interplay between induced and chronic time perspectives. *Frontiers in Psychology, 9*, 920. https://doi.org/10.3389/fpsyg.2018.00920

Sekścińska, K., Rudzińska-Wojciechowska, J., & Maison, D. (2018c). Co ma znaczenie przy ryzykownych wyborach finansowych – to, ile mamy, czy to, jak postrzegamy swoją sytuację finansową? [What influences risky financial choices – how much we have or how much we think we have?]. *Marketing i Rynek, 2018*(2), 31–40.

Sekścińska, K., Trzcińska, A., & Maison, D. A. (2016). The influence of different social roles activation on women's financial and consumer choices. *Frontiers in Psychology, 7*, 365. https://doi.org/10.3389/fpsyg.2016.00365

Shefrin, H., & Thaler, R. H. (1988). The behavioral life-cycle hypothesis. *Economic Inquiry, 26*(4), 609–643.

Skinner, B. F. (1938). *The behavior of organisms*. New York, NY: Appleton-Century-Crofts.

Steinberg, L., Graham, S., O'Brien, L., Woolard, J., Cauffman, E., & Banich, M. (2009). Age differences in future orientation and delay discounting. *Child Development, 80*(1), 28–44.

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance, 14*, 30–38.

Sumarwan, U., & Hira, T. K. (1993). The effects of perceived locus of control and perceived income adequacy on satisfaction with financial status of rural households. *Journal of Family and Economical Issues, 14*, 343–364. https://doi.org/10.1007/BF01013984

Szopiński, T. (2017). The determinants of household savings in Poland. *Acta Scientiarum Polonorum. Oeconomia, 16*(2), 117–125. https://doi.org/10.22630/ASPE.2017.16.2.24

Tang, T. L., Luna-Arocas, R., Sutarso, T., & Tang, D. S. (2004). Does the love of money moderate and mediate the income-pay satisfaction relationship. *Journal of Managerial Psychology, 19*, 111–135. https://doi.org/10.1108/02683940410526091

Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making, 12*, 183–206.

Törngren, G., & Montgomery, H. (2004). Worse than chance? Performance and confidence among professionals and laypeople in the stock market. *Journal of Behavioral Finance, 5*(3), 148–153.

Traut-Mattausch, E., & Jonas, E. (2011). Why do people save? *Zeitschrift für Psychologie, 219*, 246–252. https://doi.org/10.1027/2151-2604/a000079

Trzcińska, A., Sekścińska, K., & Maison, D. (2018). The role of self-control and regulatory foci in money-saving behaviours among children. *Current Psychology, 1*, 11. https://doi.org/10.1007/s12144-018-9944-1

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*, 1124–1131.

Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science, 211*(4481), 453–458.

Vera-Toscano, E., Ateca-Amestoy, V., & Serrano-Del-Rosal, R. (2006). Building financial satisfaction. *Social Indicators Research, 77*, 211–243. https://doi.org/10.1007/s11205-005-2614-3

Vlaev, I., Kusev, P., Stewart, N., Aldrovandi, S., & Chater, N. (2010). Domain effects and financial risk attitudes. *Risk Analysis, 30*(9), 1374–1386.

Vohs, K. D., & Faber, R. J. (2007). Spent resources: Self-regulatory resource availability affects impulse buying. *Journal of Consumer Research, 33*, 537–547.

Walson, C. O., & Fitzsimmons, V. S. (1993). Financial manager's perception of rural household economic well-being: Development and testing of a composite measure. *Journal of Family and Economic Issues, 14*, 193–214. https://doi.org/10.1007/BF01022177

Wärneryd, K. E. (1996). Risk attitudes and risky behavior. *Journal of Economic Psychology, 17*(6), 749–770.

Wärneryd, K. E. (1999). The psychology of saving: A study on economic psychology. *Journal of Economic Psychology, 17*(6), 749–770.

Wärneryd, K. E. (2004). Oszczędzanie, [w:] T. Tyszka (Ed.) *Psychologia ekonomiczna* (pp. 530–566). Gdańsk, Poland: Gdańskie Wydawnictwo Psychologiczne.

Weber, E. U., Blais, A.-R., & Betz, N. E. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making, 15*(4), 263–290.

Williams, V. F., Smith, A. A., Villanti, A. C., Rath, J. M., Hair, E. C., Cantrell, J., … Vallone, D. M. (2017). Validity of a subjective financial situation measure to assess socioeconomic status in us young adults. *Journal of Public Health Management and Practice, 23*, 487–495. https://doi.org/10.1097/PHH.0000000000000468

Xiao, J. J. (2015). *Consumer economic wellbeing* (International series on consumer science). New York, NY: Springer. https://doi.org/10.1007/987-1-4939-2821-7

Xiao, J. J., & Anderson, J. G. (1997). Hierarchical financial needs reflected by household financial asset shares. *Journal of Family and Economic Issues, 18*(4), 333–355.

Xiao, J. J., & Fan, J. X. (2002). A comparison of saving motives of urban Chinese and American workers. *Family and Consumer Science, 30*(4), 463–495.

Xiao, J. J., & Noring, F. E. (1994). Perceived saving motives and hierarchical financial needs. *Financial Counseling and Planning, 5*, 25–44.

Yuh, Y., & Hanna, S. D. (2010). Which households think they save. *Journal of Consumer Affairs, 44*, 70–97. https://doi.org/10.1111/j.1745-6606.2010.01158.x

Zhang, J. W., Howell, R. T., & Bowerman, T. (2013). Validating a brief measure of the Zimbardo time perspective inventory. *Time and Society, 22*, 391–409. https://doi.org/10.1177/0961463X12441174

Zhong, L. X., & Xiao, J. J. (1995). Determinants of family bond and stock holdings. *Financial Counseling and Planning, 9*(1), 1–12.

Zhou, R., & Pam, M. T. (2004). Promotion and prevention across mental accounts: When financial products dictate Consumers' Investment goals. *Journal of Consumer Research, 31*, 125–137.

Zhou, S. (2012). Explaining the saving puzzles in urban China. *The Review of Income and Wealth, 58*(3), 504–530. https://doi.org/10.1111/j.1475-4991.2012.00501.x

Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology, 77*, 1271–1288.

Zimbardo, P. G., & Boyd, J. N. (2008). *The time paradox: The new psychology of time that will change your life*. New York, NY: Free Press.

Chapter 5
Loan: Needed or Wanted?

5.1 Indebtedness and Everyday Functioning

In the previous chapter, we were dealing with saving and devoted a lot of attention to the decision to spend or save, which is significant from the point of view of finance management. These reflections did not address another important aspect of the financial decision that consumers often have to deal with, particularly when the purchase exceeds his/her financial resources at the time. It consists of a person postponing a purchase (giving up the purchase altogether or saving for it in the future), or they can also decide to buy it straight away using the various financial support possibilities in the form of consumer credit and loans. The possibility of getting consumer debt makes life easier because it allows for the earlier enjoyment of various goods that are necessary at different stages of life. A person may own a car and enjoy using it a few years before actually being able to save up for it; they can have a home of their own decades or several decades earlier than if they would have had to wait until they scrape the money together. Thanks to this, the possibilities of taking out consumer credit have a positive effect on consumer well-being. Consumer credit does, however, require the obligations of the credit contract to be met, in other words, for the credit to be paid off regularly. Engaging in irresponsible borrowing, when consumer credit exceeds a person's financial ability to repay their obligations or offering very unfavourable terms, can be the reason for ill-being and many other problems that may even lead to consumer bankruptcy. This chapter will be dedicated to borrowing money and the factors (mostly psychological) underpinning this next financial behaviour.

Getting into debt, especially problems with paying off debts, is a key topic in the area of consumer finances. Lack of control over finances is manifested in excessive borrowing and can have serious consequences for the functioning of an individual or a family. Therefore, we can observe increasing interest in mechanisms underlying indebtedness, particularly its causes and the consequences of excessive contracting of debt and the ways of coping with such problems (Xiao & O'Neill, 2016;

D. Maison, *The Psychology of Financial Consumer Behavior*, International Series on Consumer Science, https://doi.org/10.1007/978-3-030-10570-9_5

Xiao & Porto, 2016). Studies show that taking on financial liabilities that a person cannot cope with has serious implications for their well-being and their family's functioning. Over-indebtedness entails health and mental costs such as stress, reduced sleep quality, general health problems, ill-being, and even depression and suicidal thoughts and attempts (Berger, Collins, & Cuesta, 2016; Kamleitner, Hoelzl, & Kirchler, 2012; Sweet, Nandi, Adam, & McDade, 2013; Tran, Mintert, Llamas, & Lam, 2018; Vieira, Rovedder de Oliveira, & Reis-Kunkel, 2016). Studies comparing indebted and debt-free persons showed differences both in subjective and objective measurements of psychological well-being. Households that report having problems with monthly payments (e.g. paying the rent or mortgage) and are at least 2 months in arrears with their payments have worse mental health (Gathergood, 2012a). Studies have revealed that the negative consequences for well-being do not only concern indebted persons but also their relatives and close friends (Gathergood, 2012a); thus, one could say that debt not only poses a problem for the persons that are in debt but also for their environment.

Taking out consumer credit and loans and over-indebtedness is a multidimensional phenomenon which is determined, similar to other financial behaviours, by many different factors, both external, like the financial situation (Bazira & Hubei, 2018; Dupas & Robinson, 2013; Luan & Bauer, 2016) or demographic characteristics (Kim & Lee, 2018; Vieira et al., 2016), and general internal traits (i.e. not relating to finance), like self-control (Kamleitner et al., 2012), narcissism (Pilch & Górnik-Durose, 2017; Rose, 2007), and emotional instability combined with extraversion (Norvilitis et al., 2006; Nyhus & Webley, 2001), and may also be specific in nature (linked to finances), like attitudes towards debt (Baker & Hagedorn, 2008), materialism (Watson, 2003), and the propensity for compulsive buying (Brougham, Jacobs-Lawson, Hershey, & Trujillo, 2011; Pirog & Roberts, 2007), or financial literacy (Norvilitis et al., 2006; Norvilitis & MacLean, 2010).

When considering the issue of indebtedness, we also have to bear in mind that there are various kinds of arrearages, which also have different consequences for a person's functioning. Firstly, there is a big difference between short-term and long-term debt and its consequences on the way that an individual functions. Credit card debt and outstanding bills generate a greater reduction in well-being and higher indicators of depression than it is the case of long-term mortgages (Berger et al., 2016). Our FinBehTrack (2016) study also revealed a significant difference when comparing the level of life satisfaction of persons who have a mortgage with those who have loans and consumer credit. The level of satisfaction with life of people who have mortgages came to 4.38 (measured using the SWLS, Diener, Emmons, Larsen, & Griffin, 1985), whereas of those who have loans totalled 3.97 (the difference was statistically significant: $t\,(92) = 2.63$, $p = 0.01$).

Another thing to remember when analysing the consequences of indebtedness is that it is not the indebtedness itself which is the problem but actual over-indebtedness and maladjustment of the height of debts to the financial capabilities of the household, leading to complications or even preventing the repayment of the debt. Not only can objective debt repayment problems be the source of stress and discomfort but also excessive concern about possible complications with repayment (subjective dimension). However, the majority of debtors are not oblivious to the dark side of loans and enjoy living with them (Hełka & Wojcik, 2019). Thus, taking out consumer credit or loans does not have to be dysfunctional at all. Sometimes they help to solve unexpected problems, sometimes make life easier, or help to make dreams come true (see Box 5.1 – good vs bad sides of loans). Credit products were created for people and are there to be used by them. What is also important, however, is the ability to use them so that they are a help in everyday life and not the source of worries and problems.

The analysis of credit behaviors, motives, needs, and barriers discussed in this chapter will be illustrated by quotes from qualitative marketing research (for more about the methodology of the qualitative market research, see Maison, 2019). They will be presented in Boxes 5.1–5.5. Qualitative researches included FGIs and IDIs and were conducted by Maison&Partners company for different financial institutions. Participants were persons who took out consumer loans in a bank over the last 12 months and those planning to take out loans over the next 6 months.

Box 5.1 Advantages and disadvantages of loans
(Respondent statements from qualitative research)
(Qualitative research for a financial institution, sample respondent statements)[1]

Advantages of loans

- They solve many human problems, allowing people to meet their needs when they want to change something in their life, changing them for the better. They help raise your standard of living, make life more colourful.
- A cash loan is like a lifebelt for me – whenever I've got my sights set on something and I'd have to start wondering what I'd suddenly have to deny myself of to get the right amount of money together. It helps me fulfil my dreams without having to make any major sacrifices, even if they are short-term.
- Whenever I take out a cash loan, I feel happy that I will now be able to fulfil my dreams as and when I want to. I feel happy once I use it.

Disadvantages of loans

- I've got these dark thoughts that I've got a high credit instalment plan and that I'll lose my job. Everyone has fears for their job.
- It may be the case that my situation will change, that I could be in an accident, and I won't be able to work anymore. But surely one can't think like this all the time.

[1] All the quotes in this chapter (Box 5.1–5.5) are from the qualitative researches conducted by Maison & Partners commissioned by a financial institution in Poland. The study encompassed 6 in-depth IDIs and 6 dyads with persons who took out consumer loans in a bank over the last 12 months, and with individuals planning to take out loans over the next 6 months (for more about the methodology of the qualitative market research, see Maison, 2019).

5.2 External Factors Determining Borrowing

In the case of indebtedness, just like when examining other financial behaviours analysed in this book, it is worth considering the relationship between personal debt and income. Sometimes incurring financial liabilities is explained by a difficult financial situation that prevents a person from satisfying their basic life needs. It is true that many studies have demonstrated that low-income persons have a greater need for taking out consumer credit and it is taken out more often by such people than by high-income people (French & McKillop, 2016; Lea, Webley, & Levine, 1993; Lea, Webley, & Walker, 1995), by people belonging to a minority (Sullivan & Fisher, 1988), having a part-time job (Lown & Rowe, 2002), being of a young age, a single parent (Webley & Nyhus, 2001), or being separated or divorced (Canner & Luckett, 1991). Such persons also have a greater chance of having problems with repaying their debts (French & McKillop, 2016; Zhu & Meeks, 1994).

However, studies on poor persons have revealed that the relation between low incomes and indebtedness is not a simple one. Poverty-stricken persons take on financial obligations that are too big in relation to their incomes, leading to a further deterioration of their financial condition. Shah, Mullainathan, and Shafir (2012) showed in a series of experiments that poverty may lead to changes in how people allocate attention and, in consequence, focusing too much of it on certain criteria while ignoring others, which may explain their overborrowing behaviour. Poverty may affect cognitive functioning through the reduction of cognitive capacity. The authors experimentally induced thinking about finances and discovered that this reduces cognitive performance but only in poor, not wealthy persons (Mani, Mullainathan, Shafir, & Zhao, 2013; Shah et al., 2012). The authors explain this outcome by the fact that poverty-related concerns deplete mental resources, leaving less resources for other problem-solving. In life, this may mean that poor people, because it lowers their cognitive functioning, are less thorough when analysing personal credit offers and their terms and conditions. As a consequence, they are more vulnerable to unattractive or even deceptive financial products.

When it comes to decisions about the choice of a suitable credit offer (one that is financially most beneficial) and avoiding over-indebtedness, the level of education also has a bearing, where better educated persons take out more favourable credit facilities and are better at paying them off (Kim & Lee, 2018). This dependency, however, is not direct and is mediated by financial literacy. Persons with a higher level of financial literacy, who have an understanding of the principles of economy and the way that market mechanisms function, are less prone to taking out significant interest-bearing payday loans (Kim & Lee, 2018).

The sex of an individual also has an influence when it comes to explaining debt behaviour. Men generally have a more positive approach to entering into financial commitments than women, mainly due to the fact that they expect higher incomes and have a smaller propensity to experience financial stress and anxiety. Women, on the other hand, are more prone to getting into credit card debt. This is explained by them being more emotional, more prone to negative moods and giving in to depressive states, which translates into their greater propensity for compulsive buying (Vieira et al., 2016).

Situational factors resulting from a fortuitous event involving additional expenses, like major damage to property (due to flooding), health problems, or job loss (Berthoud & Kempson, 1992; Canner & Luckett, 1991; Drentea & Lavrakas, 2000), may also affect borrowing decisions. However, the way that a person deals with such a situation, whether they get into borrowings that they won't be able to repay or not, largely depends on other individual and psychological characteristics.

Box 5.2 Examples of Goals and Motives Underpinning Borrowing
(Respondent statements from qualitative research)

Pleasure-giving – hedonic motivations

- I was going through a rough patch, I needed total rejuvenation, to catch some sun, get away from all these problems, so I came to the conclusion that I have to take a short break in the Mediterranean – to relax, give my body some TLC, to free myself from these negative emotions. I needed a bit of luxury.

Professional development

- I took out a loan to buy a car because I got a job in a private school out in the country, and I didn't have any way of getting there. This car has helped me earn some money and bounce back from financial rock bottom.
- I've had this idea in the back of my mind for a year or so now to finally get my act together and start up my own business and to fulfil myself. I'd like to give massages so I have to get the money to buy this folding massage table that I can take in my car to clients. This is a chance for me to finally stand on my own two feet and somehow start earning some real money.

The need to be independent

- I bought a car which gives me this inner peace – should I need to get anywhere, there won't be any problems. I've got aging parents 600 km away. The time came for me to be independent. I wanted to have a car of my own, just for myself, so that I won't have to ask for any favours from anyone, not to have to keep borrowing things from others.

Changes in life circumstances

- Our child was born, and the old car kept on breaking down all the time. We couldn't have our car breaking down on the way to the doctor's surgery with our ailing child. A child has their demands. We bought this car with our child in mind, to give greater comfort, for things to be safer.
- It soon turned out that our boy quickly needed an eye operation. Theoretically, it could have been done on the national health service but there's a long waiting list. The same thing applies to rehab – it's a must after such an eye operation. But all of this costs a lot unfortunately.

5.3 Knowledge, Skills, and Attitudes as the Determinants of Consumer Debt

Researchers of borrowing behaviours and problems with their repayment have pointed out that inadequate financial knowledge and financial literacy may underpin the unfavourable behaviours in this field (French & McKillop, 2016). Financial literacy is understood as the ability to process economic information and take informed and sound decisions about financial planning, wealth accumulation, debt, and pensions (Lusardi & Mitchell, 2014). It turns out that households characterised by low financial literacy have a smaller income, own less homes, are less educated, and have a lower employment rate and a higher level of unemployment, as well as lower credit scoring (Disney & Gathergood, 2013). Looking at the general picture, a lower financial literacy results in a lower level of prosperity and lower financial security for the future (e.g. having no pension or insurance products; Gathergood, 2012b; Gathergood & Weber, 2017). A lower creditworthiness (objective factor) may also have implications for taking out loans without constrains related to the borrower but with terms and conditions that are less favourable for him/her (higher interest rate).

Kim and Lee (2018) measured both objective and subjective financial literacies, and it turned out that both dimensions are related to prudent financial behaviours and decrease the propensity for taking out short-term loans with unfavourable interest rates. Consumers with low financial literacy, however, often take the wrong credit decisions, leading them to financial troubles and over-indebtedness (Calcagno & Monticone, 2015). Financial literacy is assumed to have two main components: (a) numeracy, closer to arithmetic skills, and (b) money management skills (e.g. budgeting), in other words, more practical expenditure planning skills (French & McKillop, 2016). French and McKillop (2016) revealed that good financial planning related to debt only depends on one dimension of financial literacy, namely, on money management skills, but it is not conditional on numeracy skills.

It is evident, based on the cited results of research, that the lack of financial literacy (and particularly the financial planning dimension) leads to unfavourable debt behaviour. This is particularly dangerous when the absence of financial literacy is accompanied by overconfidence in this area, defined as a gap between objective and subjective financial knowledge. It is exactly this combination of characteristics that often leads to a heavy burden of excessive borrowing and loan non-repayment (Porto & Xiao, 2016). Low financial literacy paired with lack of self-control is equally unfavourable in the context of debt. Persons with such a combination of traits are also susceptible to incurring excessively high levels of debt that exceed their repayment capacity (Disney & Gathergood, 2013).

Financial literacy, similar to many other attitudes, skills, and financial behaviours, has its source in the family home. When children talk to their parents about money and consumption but also watch their consumer decisions and parental behaviour patterns, they often unconsciously take them on (Davies & Lea, 1995; Maison, Furman, Sekścińska, Trzcińska, & Poraj-Weder, 2018; Roland-Lévy, 2004). Nevertheless, a person is not compelled to have the same level of financial literacy that they took from their home. The knowledge acquired through their life course and their experience in the area of finance can raise their level of financial literacy. The same also applies to debt literacy. Both direct and indirect (acquired through their parents) borrowing experiences raise the prospect of having borrowings, probably through the impact of a more positive attitude towards them (Tokunaga, 1993; Xiao, Noring, & Anderson, 1995). Persons who had consumer credit or loans actually gain experience in the field, and, with time, their debt management skills can increase (choosing more favourable credit/loan terms and conditions that are better fitting to their financial capabilities). However, it is quite likely that this can be the case provided that the person does not possess the individual characteristics that are conducive to engaging in unfavourable financial behaviours (e.g. low self-control, high level of materialism, impulsivity, or lack of emotional balance).

Credits and loans are also an area requiring objective knowledge in order to make the right decision relating to a given financial product (similar to investments but different to saving). The decision to get consumer credit is based on comparing available options and should be finalised only once a proper understanding of the situation has been gained. For a person to make the right decision, they have to understand how consumer credit works, what additional fees and interest rates apply, what are the terms and conditions for earlier repayment, and so on and so forth. The assumption is that there are three key components when deciding what kind of consumer credit to get: searching for information, factoring in various elements of the credit offer, and carefully considering the risk involved (Kamleitner et al., 2012). Studies have shown that consumers who are looking for information and take note of the monthly instalment amount, the credit repayment period, and the interest rate usually opt for more favourable credit conditions than those who do no research at all (Carlsson, Larsson, Svensson, & Åström, 2017; Kamleitner et al., 2012). Furthermore, consumers who do not understand the costs of consumer credit have less favourable credit facilities with higher annual interest rates (Disney & Gathergood, 2013). Consumers with a low level of understanding of credit products also often have less certainty when it comes to their credit choice decisions and are more disoriented but also less prone to getting involved in basic behaviours that could improve their knowledge about credit products (e.g. reading the financial pages in newspapers; Disney & Gathergood, 2013). This means that a lack of knowledge usually goes hand in hand with a lack of the desire for knowledge that could make up for this shortcoming. It's also worth highlighting that having consumer credit does not necessarily mean that people have more knowledge on the matter – people take out consumer credit regardless of whether they can reasonably calculate the costs of the credit, whereas those who have less knowledge take out credit on less favourable terms and conditions leading to their over-indebtedness (e.g. due to their credit instalment being incommensurate with the level of their income; Disney & Gathergood, 2013).

Knowledge of consumer credit is part of a much bigger area, that is, of financial knowledge, and an element of a broader concept of financial literacy. Financial knowledge, which includes knowledge of consumer credits and is a part of a broader concept of financial literacy, may have two dimensions: objective and subjective. Objective financial knowledge consists of thinking about the financial future, in other words, being aware of the need to save, to have insurance, and to plan for retirement. When it comes to consumer credit, objective financial knowledge includes having a solid grasp of the terms and concepts relating to consumer credit, annual interest rates, simple and cumulated interest amounts, and early credit repayment charges. Subjective financial knowledge, on the other hand, is the consumer's conviction about the financial skills and abilities that they possess. A high level of both objective and subjective financial knowledge contributes to exhibiting more responsible financial behaviours like participation in pension plans and a low level of involvement in risky asset investments (Tang & Baker, 2016). Greater knowledge of consumer credit facilitates more responsible credit decisions and better money management that follows from this; however, consumers often lack sufficient financial knowledge (objective knowledge) or distrust their knowledge (subjective knowledge). That is why in many countries financial advisors play an important role in financial decision-making, and they often lead to better financial capability and financial well-being, too (Disney & Gathergood, 2013). Porto and Xiao (2016) identified four groups of consumers in terms of objective and subjective levels of financial knowledge, investigating their openness to using various types of financial advisors. The identified consumer groups are:

- *Competent* – high subjective and objective financial knowledge (consistency between the levels)
- *Naive* – low subjective and objective (consistency)
- *Overconfident* – high subjective and low objective (inconsistency)
- *Underconfident* – low subjective and high objective (inconsistency)

Competent consumers actively strive to fill any knowledge gaps, which is why they use financial advisory services to the greatest extent. This does not apply to the category of advice concerning getting out of debt possibly because they do not incur problematically high debt due to their high financial competences. The group of naive consumers turns to financial advisors least often across all the categories apart from debt. Therefore, this is a group which does not seek financial advice when making financial decisions, only when they encounter problems (and, due to their low financial competencies, problems are highly probable). Financial advice in their case does not serve prevention but rather "curative" purposes, helping them get out of their financial problems and difficulties. The largest group is *underconfident* persons who get financial advice to a moderate extent across all categories. The last group – *overconfident* – makes least use of financial advice when it comes to investing and getting consumer loans but seeks debt advice twice as often. One assumption that can be made for this group is that being overconfident and lacking in competencies increase the probability of unfavourable behaviours like getting into more debt than they can financially handle or using financial instruments that generate losses (e.g. investing in high-risk stocks).

Attitudes towards debt also have a significant effect on the consumer credit taken out and the level of borrowings. Chisholm-Burns, Spivey, Jaeger, and Williams (2017) identified three dimensions of attitudes towards debt:

- Tolerant attitudes towards debt – determine how open an individual is to being in debt
- Contemplation and knowledge about loans – is about how well thought-out the decision to take out consumer credit is and whether the individual is familiar with the credit terms and conditions
- Fear of debt – provides information as to the degree of anxiety and fear of being in debt

Fear of debt is associated with increased stress and strengthens the feeling that the credit taken out is too high. Contemplation and knowledge about loans lead to taking a lower credit amount and taking into account a shorter repayment time horizon and to better credit facility management compared to persons with a low level of contemplation and knowledge about loans (Chisholm-Burns et al., 2017). Tolerant attitudes towards debt, however, give rise to a greater openness to taking on financial liabilities and debt tolerance and have a positive correlation with payday loans (Kim & Lee, 2018).

Aversion towards debt and the negative attitude towards borrowing associated with it reduce the likelihood of getting loans (Dahlbäck, 1991) but do not differentiate between the level of indebtedness (Livingstone & Lunt, 1992). Moreover, an aversion to debt does not apply equally to all types of debt. It turns out that reluctance towards debt is not a barrier or is less of an obstacle when it comes to getting loans to finance education, especially student loans, and, what's more, earlier experiences with debt were found to increase the probability of taking out education loans (Eckel, Johnson, Montmarquette, & Rojas, 2007). However, it has also been demonstrated that the propensity for financial risk-taking increases the probability of taking out a loan to finance education and also affects its amount (Ortiz-Núñez, 2014).

Attitudes towards debt may also underpin decisions to take out consumer credit and also change with debt experience. A tolerant attitude towards debt concerning an acceptance of being in debt does not necessarily imply a higher level of debt (Park, Yusuf, & Hadsall, 2015), whereas experience in taking out loans is conducive to positive attitudes and a greater tolerance of borrowings (Park et al., 2015). A positive attitude towards debt, particularly when paired with optimism, unfortunately encourages borrowing larger amounts (Kamleitner et al., 2012). Optimists demonstrate a tendency to assume that it will take less time for them to repay their loans and they have a higher level of credit card debt when compared to pessimists. A positive attitude towards debt combined with the propensity for risk-taking also translates into a higher amount of credit being taken and a resulting higher level of debt (Ortiz-Núñez, 2014).

A separate issue in the context of debt is the use of credit cards and the debt relating to this as well as the necessity to repay it. The ubiquity of credit cards is very

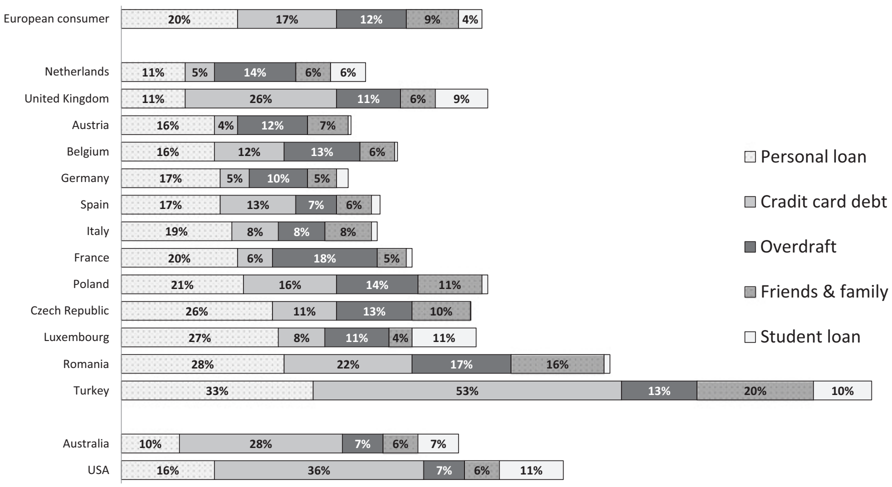


Fig. 5.1 Comparison of different types of debt between countries. (Source: ING, 2017)

different across countries and, as a consequence, so are the attitudes towards credit cards. For example, in the USA, credit cards are widely used (Basnet & Donou-Adonsou, 2016), but they are less popular in some European and Asian countries (Abdul-Muhmin & Umar, 2007). In Poland, for instance, only 1/3 of payment card holders have credit cards, and, importantly, they are mostly only used sporadically (several times a year when making bigger purchases) or not at all (FinBehTrack, 2016). Moreover, even if credit cards are used, they have more functions as a paying tool than just being a source of consumer credits (Guseva & Rona-Tas, 2014). In the study cited earlier conducted by ING, a global financial institution (ING, 2017) comparing different types of consumer debt across countries (Fig. 5.1), it turned out that countries differ in terms of the popularity of various sources of debt, like, for instance, in the UK, credit card debt is three times more popular than personal loans (26% vs. 11%), but the reverse is true in France, where 20% of the population have personal credit, but only 6% have credit card debt. In Poland and in the Netherlands, borrowing from friends and family is twice as popular as in Spain or Italy. However, even in countries where personal credits are more popular, there are still people who do not feel comfortable with this source of credit (see Box 5.3). Student loans are held by people in Turkey, Luxembourg, the UK, and the Netherlands but are practically non-existent in the remaining European countries. These differences may result from the systemic solutions (e.g. the availability of student loans or credit cards and the credit limits granted), as well cultural determinants (e.g. a smaller or greater openness to borrowing from friends and family).

Studies carried out in Saudi Arabia (Abdul-Muhmin & Umar, 2007) and in Poland (Maison, 2013) show that a positive attitude towards credit cards promotes credit card possession (the more positive, the more often they are held) but is not associated with the intensity of their use and the level of credit card debt. A factor that could, according to some researchers, increase credit card debt is unlimited

Internet access and the higher online purchase frequency related to this (Basnet & Donou-Adonsou, 2016). However, considering the data presented in this book showing the important role of psychological traits in determining financial behaviour, we can assume that unlimited access to the Internet, and the growing availability of online lending companies connected to this, will mostly attract specific types of consumers: impulsive, materialistic, and with a lower creditworthiness.

Box 5.3 Barrieres of borrowing from Friends and Family
(Respondent statements from qualitative research illustrating the barriers to borrowing from friends and family)

- Borrowing from family or friends is terribly awkward. I would most probably ultimately borrow money if I needed it for an operation or for medication. But borrowing to get your house done up would be an abuse of friendship.
- It would be shameful to borrow from friends or family, especially for pleasures, because surely everyone has their own needs, everyone's struggling to get by. I mean, what would it look like if I'd go to my friend who's got three kids, and wanted to borrow some money for a holiday? There's no shame in borrowing from a bank because loans are for everyone.
- If I'd go to my mother and tell her that I wanted to borrow some money, she'd start worrying straight away that I'm having difficulties, that I'm not coping on my own; she'd probably think that I'm in a really bad position. And if I borrow from a bank, I don't have to explain myself to anyone. I just take it and that's that. No unnecessary questions asked.

5.4 Impact of Psychological Non-specific (Not Related to Finances) Characteristics on Taking on Debt and Paying It Off

Kamleitner and Kirchler (2007) proposed an interesting differentiation between "needs" and "wants" as the reasons underlying the decision to contract debt. "Needs" motivate to contract debt in order to make up for any financial shortages, thereby helping a person satisfy basic life needs. Borrowing for such reasons is often dependent on external factors like low income, life situations requiring additional expenditure, or fortuitous events. Contrary to "needs", "wants" are often (but not exclusively) internally conditioned by individual psychological traits and affect the overall readiness to take out borrowings (Kamleitner & Kirchler, 2007). "Wants" can also be triggered by external social influences (Zelizer, 2010). This probably can especially happen in the case of highly materialistic people, as a consequence of comparing their own possession to others.

Studies exploring the significance of individual psychological traits for getting into debt and especially over-indebtedness mainly point out the immense role of self-control (Achtziger, Hubert, Kenning, Raab, & Reisch, 2015; Biljanovska & Palligkinis, 2015; Gathergood, 2012b; Livingstone & Lunt, 1992; Norvilitis & Batt, 2016; Strömbäck, Lind, Skagerlund, Västfjäll, & Tinghög, 2017). Studies involving students revealed that the intensity of credit card use and high credit card debt go hand in hand with a greater involvement in brawls, drunkenness, cigarette smoking, and drug use and even the risk of obesity (Chisholm-Burns et al., 2017). Thus, as can be seen, getting into credit card debt is another behaviour that may appear in persons with a low level of self-control. A low level of self-control heightens various categories of financial risk. Consumers with a low level of self-control are more susceptible to income shock, for instance, upon losing their job, a drop in income, credit withdrawal, and large unexpected expenses (Gathergood, 2012b). Yet another trait that debt researchers usually point to is impulsivity, which is associated with self-control problems. A high level of impatience and impulsivity is connected with more intense credit card use and results in more frequent use of easily available in many countries but costly credit products (e.g. store cards with credit facilities and payday loans) (Gathergood, 2012b).

Over-indebtedness, especially on a credit card, is also associated with low self-esteem. Vieira et al. (2016) showed that a lower self-esteem increases the level of credit card debt. Authors believe that a lower self-esteem is strongly associated with materialism and, at the same time, with a greater propensity for compulsive buying, which results in over-indebtedness. Tang and Baker (2016) demonstrated that positive self-esteem, also connected with a higher assessment of financial knowledge (subjective dimension), translates into many beneficial financial behaviours like saving, prudent investing, and good debt management. Other individual characteristics increasing the probability of credit use in the households include such traits of the head of the family as being more agreeable, having less emotional stability, being less meticulous, and more autonomous (Groenland & Nyhus, 1994; Webley & Nyhus, 2001).

Overappreciating the positive and underappreciating the negative effects of debt by the consumer (Hoelzl et al., 2009) and a shorter time perspective also influence a higher openness to credit use (Joireman et al., 2010; Webley & Nyhus, 2001). The time perspective theory (Zimbardo & Boyd, 1999, 2008), which was already discussed earlier in different parts of this book (cf. Chaps. 1, 3, and 4), is also significant when it comes to understanding the motives underpinning taking on various types of financial commitments: credit card debt or mortgages. In the research,[2] the levels of five different time perspectives were measured in persons having those two

[2] In the research conducted in Poland (Sekścińska, Goszczyńska, Maison, 2017) the levels of five different time perspectives were measured in persons having those two types of financial commitments.

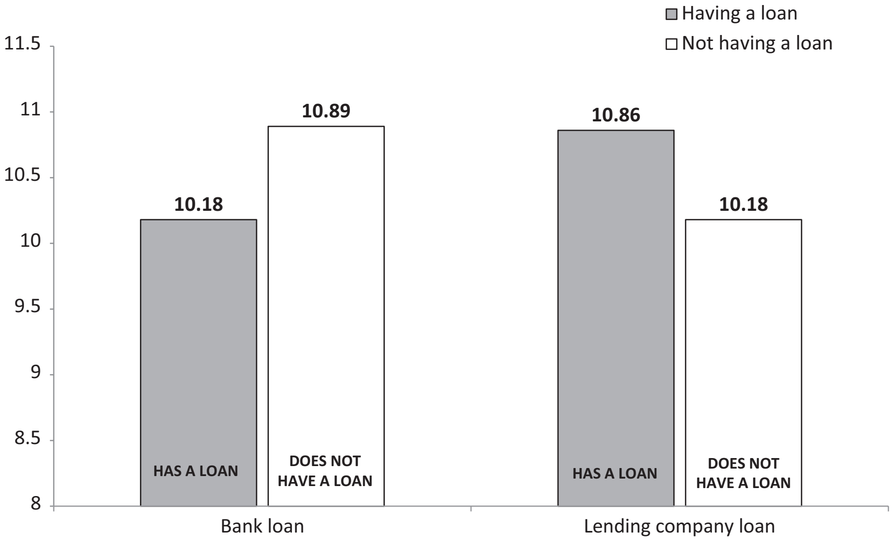


Fig. 5.2 Level of hedonistic time perspective across groups of consumers depending on place of getting loans (bank vs. lending company). (Source: Sekścińska et al., 2017)

types of financial commitments. Five time perspectives (past-positive, past-negative, present-fatalistic, present-hedonistic, and future, cf. Chap. 1) were measured using the short version (15 items) of the time perspective inventory (SZTPI-15: Zhang, Howell, & Bowerman, 2013, cf. Chap. 3). People who had credit card debt had a higher level of the present-hedonistic TP (mean 10.86 in credit card debt users and 10.04 in persons with no such debt), whereas people having a mortgage had higher future TP (mean 12.37 among those having a mortgage and 11.09 among those not having this type of debt). What's more, there were different time perspective intensities in persons taking loans, depending on where the loan was taken: in the bank or lending companies (see Fig. 5.2). Persons with consumer credit provided by a bank had a lower level of present-hedonistic TP (10.18) than those who had no bank credit (10.89), whereas persons who had a loan from a lending company (e.g. online) had a higher level of present-hedonistic TP (10.86) than those who had no personal credit commitments (10.18) and those who had bank loans (Sekścińska, Goszczyńska, & Maison, 2017). Considering the fact that loans from a lending company require less paperwork and the procedure is usually faster, a higher level of present-hedonistic TP is perfectly understandable in persons benefitting from such loans.

Box 5.4 Personality Factors Determining Taking Out Loans
(Respondent statements from qualitative research illustrating the role of loans as a way of making up for individual personality deficits: low self-control, intolerance for delaying gratification, and the presenthedonic time perspective)

- When I take a loan I get the money straight away, there's no waiting involved – this is incredibly convenient. I can enjoy things right away without having to wait many years for them.
- Putting money away, saving, requires sacrifices, and this can be felt in the household budget but you don't really feel it when you're paying small instalments off because the bank just takes it from your account and the instalment isn't that big.
- Why should I give up existing pleasures and not enjoy life, having to tighten my belt all the time in order to save? Life is so short. And a loan allows you to enjoy things straight away.
- It's just down to my personality that I am incapable of putting money away. Even if I do manage to scrape some money together, I end up spending it before I get the whole amount. So, I wouldn't have anything if it wasn't for loans.

5.5 Impact of Psychological Characteristics (Specific, Connected to Finances) on Taking on Debt and Paying It Off

An individual trait connected to finances that has a substantial impact on debt is materialism and the propensity for compulsive buying partly related to it. The phenomenon of materialism has already been extensively discussed in Chaps. 1, 2, and 3, which is why we will only recall that materialism is understood as being overly interested in money, material goods, as well as possessions and attributing them too great a role in life (Belk, 1984; Dittmar, 2008; Dittmar, Bond, Hurst, & Kasser, 2014; Kasser & Ryan, 1993; Richins & Dawson, 1992). One of the signs of materialism is the conviction that new possessions make an individual a better version of themselves and an object of other people's admiration. Since one can always want to have more or better things than one has or needs, this need can never be fully satisfied. Hence the high tendency among materialists to buy continually new things (Donnelly, Ksendzova, Howell, Vohs, & Baumeister, 2016) and consumption for the purpose of showing off (Goldsmith & Clark, 2011; Goldsmith, Flynn, & Clark, 2012), particularly visible among materialists of the "peacock" type (Górnik-Durose & Pilch, 2016 – see Chap. 1). Thus, materialists easily fall into debt, especially to buy luxury goods (Watson, 2003).

Materialism is a predictor of both objective and subjective factors of financial well-being and the propensity to spend money, both in a compulsive and controlled manner (Garðarsdóttir & Dittmar, 2012). As a consequence, persons who admit materialistic values fare worse when it comes to money management, get into greater financial problems, and show a higher propensity for compulsive buying and overspending. Not only do materialists get into debt in the form of loans and credit cards more often, but they also demonstrate more positive attitudes towards borrowing money (Kamleitner et al., 2012). Moreover, materialists show tendencies of not getting involved in managing their consumer credit (Donnelly, Ksendzova, & Howell, 2013) or not managing it properly, which may lead to untimely repayment of debts and the further exacerbation of their financial problems. Materialism, apart from a lower level of well-being, is also associated with a higher debt level, the propensity for compulsive buying and buying triggered by emotions, as well as worse money management skills and a higher level of financial worries (Garðarsdóttir & Dittmar, 2012).

An interesting study explaining the paradoxical propensity for overspending by people with a lower income was carried out by Kim, Callan, Gheorghiu, and Matthews (2016). Respondents were given feedback on how their income fared once they had paid their rent and bills (discretionary income) compared with the earnings of other persons. Persons whose income turned out to be lower than others revealed a greater propensity for raising their discretionary expense limit so as to purchase material goods and a lower interest in saving or making donations to charity. These findings suggest that perceiving one's income as lower paradoxically increases the desire to spend money on consumer goods and not to control expenses. This also explains some of the mechanisms underpinning materialism (lower assessment of the financial situation and greater need to spend). This outcome is also consistent with the results presented in Chap. 4 showing that, in the vast majority of cases, the perception of one's material situation as good and not, as it may seem, the perception of one's financial circumstances as bad, facilitates control of finances.

Another psychological factor alongside materialism that affects debt, particularly short-term debt (payday loans and credit card debt), is the propensity for compulsive buying (Garðarsdóttir & Dittmar, 2012). Compulsive buying is defined as the situation where a person feels a strong and irresistible urge to buy, and, as a result, they lose control over their buying behaviour, ending up going ahead with the purchase (Dittmar, 2005; Garðarsdóttir & Dittmar, 2012). This need to make a purchase is immeasurable, repetitive, and uncontrollable, regardless of any negative consequences that it may entail (Edwards, 1993). Compulsive buying is associated with such serious consequences that it has been recently classified as a psychiatric disorder. One of the critical negative consequences of compulsive buying is high debt exceeding a person's debt repayment capacity (Faber, 2004; Garðarsdóttir & Dittmar, 2012). Studies carried out in the UK estimate that compulsive buying is the reason behind approximately 20% of problematic debt (Elliot, 2005). Compulsive buying undoubtedly leads to more frequent use of credit cards and greater debt racked up by this (Vieira et al., 2016), but the power that can limit over-indebtedness and facilitate better control of credit card use is foreseeing the ill-being resulting from future financial problems (Vieira et al., 2016). Apart from compulsive buying, other buying behaviours motivated by the need to boost one's mood or self-esteem are also conducive to over-indebtedness and bad personal credit management (Donnelly et al., 2013).

As was mentionned earlier, the consept of materialism coined by Richins and Dawson (1992) identified three dimensions of materialism: (a) centrality, when acquisition and collection of goods are located in a central place in a person's life; (b) success, when a person treats the goods possessed by him/her or others as a criterion of life success achievement; and (c) happiness, when a person believes that possession and gathering of goods lead to happiness and life satisfaction (cf. Chap. 1). Nepomuceno and Laroche (2015) assumed that the opposite of materialism is an anti-consumption lifestyle, which is also made up of three components: frugality, voluntary simplicity, and tightwadism. The authors checked the relationship between debt and those two concepts: materialism and an anticonsumption lifestyle. A high level of materialism in the happiness dimension (chasing material things in search of happiness) facilitated greater indebtedness and less money on the bank account. Materialism as success, on the other hand, was conducive to a lower level of debt and a healthier bank balance. The two components of anti-consumption lifestyle contributed to beneficial financial behaviours: frugality was associated with a healthy bank balance, and voluntary simplicity was connected to lower indebtedness (Nepomuceno & Laroche, 2015).

Finally, it is worth stressing that the level of debt in a given society does not depends solely on individual characteristics but also on the financial system, which can either facilitate or impede taking up personal credit commitments. In Poland, for instance, mortgages carry severe restrictions that reduce the creditworthiness of the borrower. Therefore, a relatively modest percentage of people in Poland have mortgages (approx. 9%, FinBehTrack, 2016), but consumers don't have many problems with their repayment, also because morgages are given to low credit risk borrowers. Current account overdraft limits and credit card issue are also strictly controlled (credit cards are not approved for everyone, and, if they are, they oftentimes have relatively low limits). However, over the last few years, in the wake of the greater availability of non-bank loans in Poland, mostly thanks to companies that do not require credit collateral (e.g. in the form of information on fixed income), we can see a marked increase in debt, mostly unpaid debt or irregular debt repayment. According to the Poland's National Debt Register Economic Information Bureau (2018 Report), growing problematic debt is mainly the domain of young persons (18–25 years old) who have been able to take out loans only thanks to the new non-bank financial systems on the market (often online financial companies). Problem debt among the youngest may also stem from the fact that these are persons with very limited life experience who have not yet managed to acquire the skills necessary to manage their finances, which is one of the causes of over-indebtedness (Carlsson et al., 2017).

5.6 Borrowing Money and Saving

A concept of saving referring to the relationship between saving and borrowing money was presented by Livingstone and Lunt (1993). These researchers discovered that both these financial behaviours are determined by different than economic and social factors, being mainly psychological. It turned out, for example, that people who often borrow money from others and those who save money differ in how they perceive debt. Those that borrow money consider it to be a normal part of everyday life, an unavoidable aspect of modern consumer society, whereas those who do not get into debt perceive every form of debt as something bad, a failure in life, which is why they strive to a fully balanced household budget. Researchers have linked this difference in approach with a lower resistance to stress and intolerance of losing control.

The research carried out by Livingstone and Lunt (1993) has also shown that neither saving nor borrowing depend directly on the level of income. Another key outcome observed by Livingstone and Lunt in their studies is that people can't simply be divided into those who save and those who tend to get into debt because these are not two extremes on the same scale (Livingstone & Lunt, 1993). The authors of this concept, based on their research findings, identified six personal finance management strategies resulting from intersecting three economic behaviours: regular saving, having savings, and borrowing money. It turned out that people, regardless of their level of income, can characterise different combinations of these variables; thus, we have six types of persons:

Type 1 – persons who don't have any debts and also don't have any savings and don't save – they live by spending their entire income on their current needs.
Type 2 – persons who don't have debts but put money away regularly and have savings.
Type 3 – persons who have savings and don't have debts despite the fact that they don't save intentionally.
Type 4 – indebted persons, with no savings and who don't put any money away.
Type 5 – persons who have debts but save regularly and have savings.
Type 6 – persons who have both debts and savings but who don't save intentionally.

The groups identified by the authors do not greatly differ between themselves in terms of their demographic characteristics or the amount of money held, but what sets them apart to a much greater degree are their attitudes towards economic matters and the way in which they handle money, as well as their general attitudes towards life. For example, persons who regularly save – compared with those who don't do this – are more optimistically inclined and have a higher sense of control and, what seems to be of great importance, a greater sense that they are, to a certain degree, protected against unforeseen changes in economic conditions. These authors also argue that indebted persons (e.g. with personal credit) but who have savings and who do not allocate all their money on repaying their debts (type 5) are

Table 5.1 Satisfaction with life (100-point scale) and the savings and mortgage held

n = 1322		**Having savings – propensity to save**	
		Yes	**No**
Having mortgage	**Yes**	**7%** Satisfaction – mean **75.4**	**10.7%** Satisfaction – mean **63**
	No	**26.5%** Satisfaction – mean **75**	**55.7%** Satisfaction – mean **62.6**

characterised by a sense of control over their present situation and use money to enjoy life and reward themselves – this feature differentiates them from those who have debts but have no money put away. Similarly, those who instead of paying off the money they owe quicker should save some of their earnings for later are also characterised by a greater sense of control and optimism – contrary to persons who don't manage to put any money away when repaying their debts. It is interesting that persons who balance their budgets so as not to have any debts or savings (type 1) are characterised by an inflexible approach to personal finance management; hence, having no debts is not always the most desirable way of managing one's finances.

The results of research carried out in Poland[3] (Maison, 2013) comparing the level of life satisfaction depending on having a mortgage and savings held are also consistent with the findings of Livingstone and Lunt (1993). Table 5.1 shows the level of satisfaction with life in four groups that arose from crossing these variables: having a mortgage and having savings. These results show, firstly, that in Poland there is the smallest amount of persons who have both savings and a mortgage (7%) and there are many more people who have no savings or mortgages (55.7%). In terms of life satisfaction, however, it turns out that it is not related to having a mortgage – the level of life satisfaction is similar across both groups: persons who have and do not have a mortgage. The level of satisfaction with life is also clearly linked to the savings held. Persons who have savings are clearly more satisfied with life (mean = 75), than those who have no money put away (mean = 62.7). Interestingly, this dependency is definitely greater for having any savings whatsoever (propensity to save) and not for the amount of actual savings.

It is also worth emphasising once again that having a mortgage has no direct relation to life satisfaction – persons with and without mortgages do not differ between themselves in the level of satisfaction with life. However, those that have mortgages differ between themselves depending on whether they have savings or not (group 4 and 5 from the typology of Livingstone and Lunt). It turns out that those who have mortgages and savings at the same time are much more satisfied with life than those who only have mortgages, which is consistent with the observations of Livingstone and Lunt (1993). At this point, it would be worth considering where such a dependency came from and attempting to explain it in the context of the financial

[3] The results of research carried out in Poland on nationwide representative sample (n = 1502) comparing. The aim of the research was to diagnose the level of financial education in Poland.

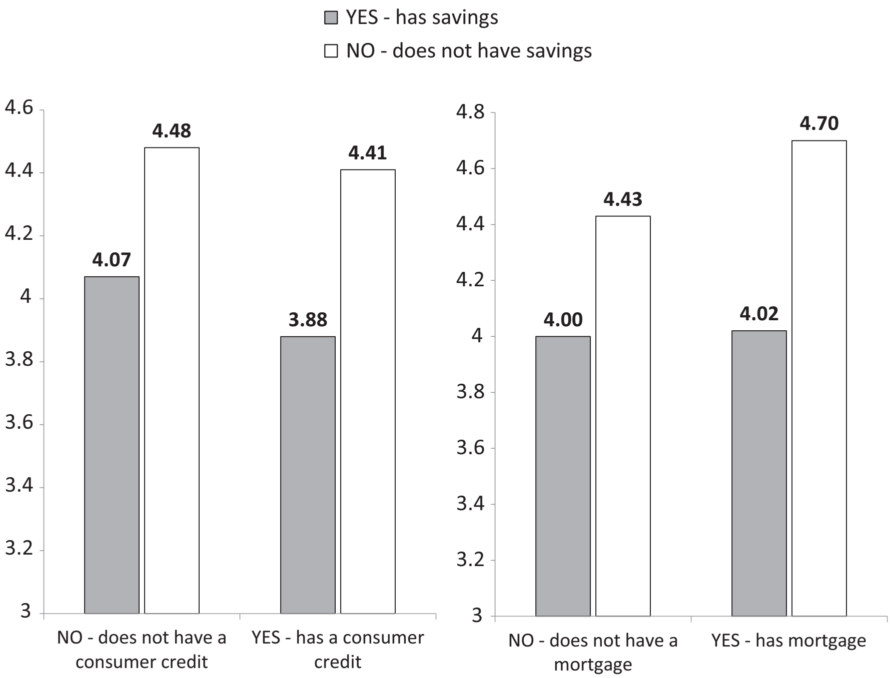


Fig. 5.3 The level of satisfaction with life (SWLS) among groups of consumers having a cash loan or a mortgage and having or not having savings

management styles discussed in Chap. 3 and the probable motivations underpinning not only mortgages but also consumer credit-taking among persons who have savings and have no savings. Perhaps, for persons who can save and have savings, the decision to take out personal credit or mortgages is a strategic element of managing their finances associated with both a higher self-control (savings) and the ability to enjoy consumption and spending money. However, in persons who have financial commitments but have no savings, taking out consumer credit may be motivated more by the desire for immediate gratification and the inability to delay gratification associated with it. The absence of savings resulting from poorer self-control and delaying gratification skills may consequently lead to a lower satisfaction with life. Following along these lines, another analysis was conducted to check the level of life satisfaction among persons with debt versus without debt and persons with savings versus without savings, this time, however, divided into persons with consumer credit or cash loans (expected lower level of satisfaction with life because of their poorer finance management skills) and with a mortgage (expected higher level of satisfaction with life due to being more skilled in finance management). Figure 5.3 shows the level of satisfaction with life depending on having a consumer credit or a mortgage and the savings held. This data reveals, firstly, that the level of life satisfaction among persons who have savings is greater than in persons with no savings (similar to the previous analysis). Moreover, among those who have no savings,

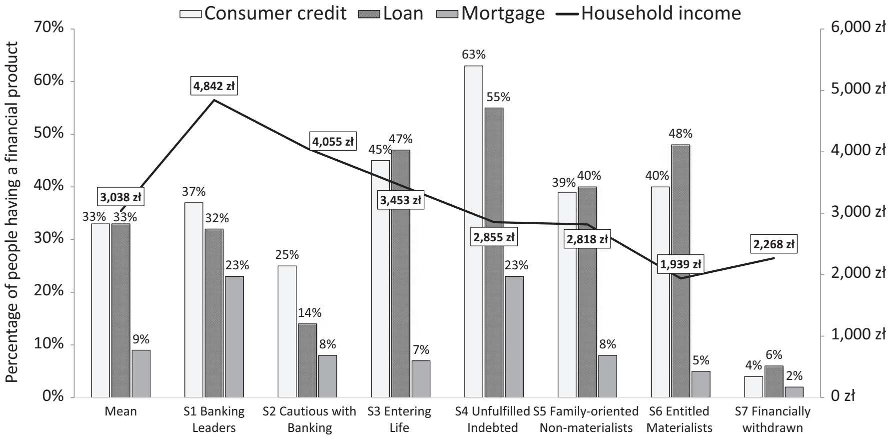


Fig. 5.4 Consumer credit, loans, and mortgages in different segments (line shows information about householde income in segments)

people with consumer credit or cash loans had a lower level of life satisfaction than people with mortgages. The two most extreme groups are persons with consumer credit or cash loans but no savings (lowest level of life satisfaction) and persons with a mortgage and with savings (highest level of life satisfaction). Of course, it is not the fact of actually having a mortgage that guarantees happiness in life but the right configuration of intrinsic (inner) characteristics (e.g. self-control) that allows for the right management of one's own finances (cf. Chap. 3) and the right decisions to be taken in this scope. A mortgage may be a sign of a responsible finance management strategy when one has savings, whereas a cash loan without saving may be an irresponsible decision of a desperate consumer (clearly, not all cash loans have to be a result of consumer irresponsibility).

Wrapping up the discussion on the individual determinants of getting into debt, let's go back to the segments identified earlier (Banking Leaders, Cautious with Banking, Entering Life, Unfulfilled Indebted, Family-oriented Non-materialists, Entitled Materialists, Financially Withdrawn) (see Chap. 1) to see how they differ in terms of the various personal credit and loans held by them. The first thing that is evident is that debt is not directly related to income (Fig. 5.4), for example, the Financially Withdrawn, despite their low income, have no financial commitments whatsoever. The two groups with comparable earnings: Unfulfilled Indebted and Family-oriented Non-materialists, differ greatly when it comes to debt-related behaviour. Family-oriented Non-materialists take out loans and personal credit but mortgages much less often and, most importantly, have a level of debt two times lower than Unfulfilled Indebted (Figs. 5.4 and 5.5). The biggest debt in terms of the amount is among Banking Leaders, the segment with the highest earnings (Fig. 5.5) mostly due to mortgage (Fig. 5.4). However, the the highest percentage of people

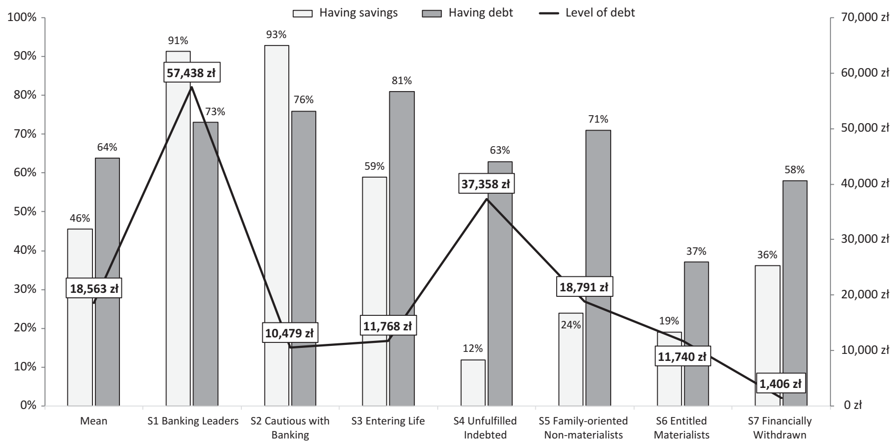


Fig. 5.5 Debts vs. savings in segments: (a) left bar ("Having savings") shows percentage of people having savings in segments; (b) right bar ("Having debts") shows percentage of people having debt in segments; (c) line - shows amount of savings in segments

having debt, particularly consumer credits and payday loans, are among the Unfulfilled Indebted, the group which has by far much lower level of income (Fig. 5.4). Almost everyone among the Banking Leaders has savings alongside their debts, but these persons have a high level of life satisfaction, internal locus of control, and future orientation (strong future time perspective), while the Unfulfilled Indebted are characterised by a lower level of satisfaction with life (comparable level to the population average), a strong external locus of control, and a pronounced sense of injustice. Yet another group that has a relatively high level of debt in terms of the number of people with loans and mortgages and not in terms of the debt amount is among the Entering Life segment. This is a group where consumer credit clearly dominates: only 7% have mortgages, whereas 47% have bank loans, and 45% have payday loans. This indebtedness pattern is consistent with their high level of materialism (particularly the centrality dimension). Comparing the Entering Life with Entitled Materialists, two groups with the highest level of materialism, also offers interesting insights. There is a similar pattern of indebtedness (many with consumer credit, few with mortgages), the level and average amount of debt across both groups; however, these groups are very different in terms of the level of savings held by them (three times less people have any savings whatsoever in the second group) (Fig. 5.5). These groups also differ in the type of materialism present; in the Entitled Materialists, this mostly concerns the intensity of the happiness dimension, so it is hardly surprising that the level of satisfaction with life among them is the lowest across all groups.

Box 5.5 Strategic Approach to Loans
(Respondents statements from qualitative research - the choice dilemmas between using savings and getting a loan)

- I've got savings but I take out a loan because this makes me feel that I'm in control of the situation; I always have this security if I'm short on cash to repay my instalment from my wages. If I didn't take out loans I wouldn't have any savings either because I'd spend it all.
- I can't imagine life without savings. I've got this deep conviction that a person has to have some money put away at least to cover half a year of one's life. It's like a hard and fast reserve that can't be touched, money for a rainy day. If I would start spending it – on a car, on vacations, on a new TV, the money would run out pretty quickly and I'd be hung out to dry. Savings are a security and a loan is to fulfil your needs.
- We've got money on a term deposit but it's my husband's inheritance. In our head, this is money that is not to be touched, money, which is not there, which we even forget about. This money is for our children. So, naturally, whenever we need money for our son's rehab, we get a loan from the bank.

5.7 Segmentation of Debtors: Own Study

The reflections in this chapter were focused mainly on attempting to understand the differences between persons taking on different kinds of financial commitments and those who don't have any commitments of this kind. As can be seen based on earlier analyses, the fact of having financial commitments does not always have to result from worse financial management or be linked to a lower satisfaction with life, lower level of self-control, or materialism. Borrowings may result from a conscious financial strategy and be a way of improving consumer well-being (Xiao, 2015). On the other hand, the decision to get consumer credit or a personal loan is also a commitment to pay off the amount owed. However, not all consumers pay their debts off on time. Some don't pay them back at all, falling deep into debt. This is why, when considering the individual psychological determinants of credit behaviour, we have to differentiate between the factors conditioning falling into debt and the factors decisive in delivering on debt commitments. Webley and Nyhus (2001) distinguished five stages from incurring a loan to bankruptcy: (1) model consumers, who meet their commitments on time; (2) badly organised consumers, who occasionally have cash flow problems, struggling to pay bills; (3) temporarily indebted consumers, who happen to spend more than they earn but usually manage to repay their debts; (4) the chronically indebted, who spend more than they earn for extended periods but this is not sustainable forever; and finally (5) defaulting consumers, who have racked up such large amounts of debt that they will never be capable of getting out of these difficulties on their own.

This chapter will deal with the results of a large and complex study of debtors, showing the motives for contracting financial commitments (personal credit and loans) and, first and foremost, with attitudes and behaviours towards problem debt (inability to keep up with payments). The survey was commissioned by Hill+Knowlton Strategies, a global public relations and consulting agency, for Kruk, a Polish debt collection company.[4] The aim of the study was to create a typology of debtors (segmentation) that would provide insight into the various attitudes and behaviours associated with getting out of debt and help develop guidelines for a "get out of debt strategy" for various types of borrowers. The study was conducted on a quota-purposive sample of persons aged 20 years and over who had at least one contact with a debt collection company or debt collection department over the last 5 years. This means that persons from the second to the fifth group in the typology of Webley and Nyhus (2001) took part in the study. Moreover, they were persons whose debt (resulting in their contact with a debt collection department or company) could have originated from personal credit or loans and from defaulting on other commitments (e.g. bills, fines).

A total of 604 persons differentiated in terms of sex (42% women and 58% men), age, education, place of residence, and income (representing the quantified demographic structure of debtors in Poland) took part in the study. A survey lasting about 30 min, apart from questions concerning contacts with debt collection companies and the perception of the debt collection process, included the following debt-related issues: attitudes towards debt, borrowing motives and objectives, problems with meeting financial commitments, causes of loan default, debt repayment motives and barriers, and perception of the consequences of debt dodging. Universal attitudes and behaviours (not directly relating to finances) were additionally measured in the study (also taken into account in the earlier FinBehTrack study; see Appendix 2), such as (1) approach to life (passive, active, ways of spending free time, internal vs. external locus of control) and satisfaction with life; (2) approach to work and family; (3) needs and values; (4) approach to money and spending (attitude towards money, Love for Cash, Money Spending Style, materialism); (5) financial attitudes and behaviours; and (6) possession of financial products. Due to the primary marketing (not scientific) goal of the study (similarly to FinBehTrack) and the resulting limited room for psychological variables, in most cases it was impossible to use standardised questionnaires measuring the psychological phenomenon. For this reason, custom, abridged scales (and not standardised psychological scales) were used for most of the measurements of the psychological variables. However, the custom scales that were used, despite being applied for the requirements of this study, were validated and implemented in earlier studies (e.g. FinBehTrack).

Below is a general characteristic of the identified debtor segments and their differentiated approach to contracting and meeting financial commitments. The procedure for identifying the segments was analogous to that described in Chap. 1. Based on cluster analysis (K-means cluster method; Aldenderfer & Blashfield, 1984; Jain,

[4]The study was carried out in 2016 by Maison&Partners, a market research company, under the direction of Dominika Maison.

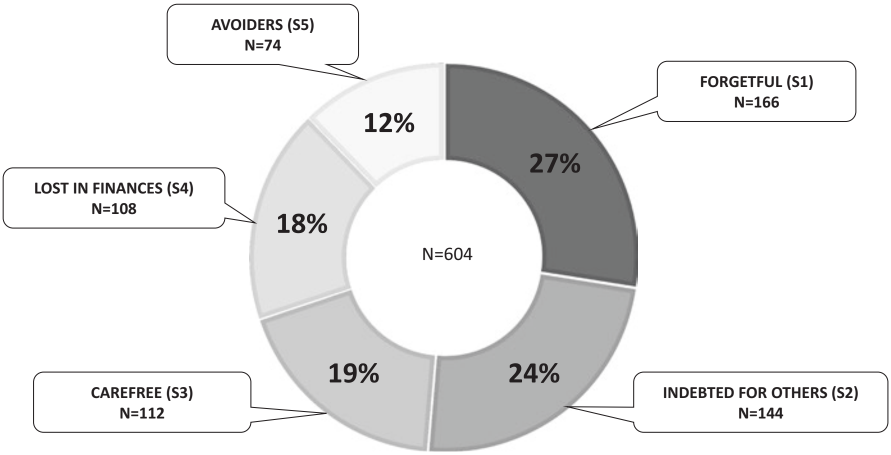


Fig. 5.6 Segmentation of debtors

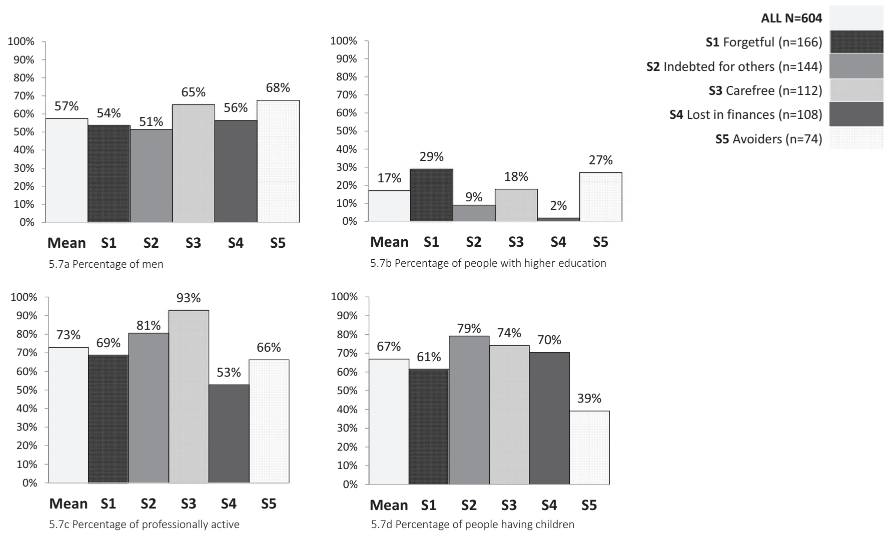


Fig. 5.7 Demographic characteristics of segments

Murty, & Flynn, 1999; see Chap. 1 for a description of the segmentation analysis), five segments of debtors were identified (Figs. 5.6 and 5.7). Before the segmentation analysis, variable distribution and their and their potential impact on persons belonging to a given segment were controlled. Factor analyses with oblimin rotation were then used to verify the construction of the scales.

5.7.1 *Segment 1: Forgetful (24%)*

Psychological profile They are happy with all aspects of their lives, with high self-control and high internal locus of control (Fig. 5.8). They like taking charge of their lives, they're precautionary, and they try to make well thought-out decisions (financial, too).

Finances and approach to money They have a reasonably good material situation and tend to perceive it in a positive way. They also have the most positive of all outlooks on their financial future. *Forgetful* are not materialists (Fig. 5.9). They have a positive approach to money; money is important to them, but they don't treat it as a measure of their value, and it doesn't determine their self-esteem, and becoming wealthy and having lots of expensive possessions is not their priority. They have a rational approach to spending, trying to have some savings, controlling their expenditure, and not giving in to "temptations", but they can also enjoy the pleasures of life like material possessions and also enjoy spending money when they have their sights set on something. They have a high level of Thrifty Spending and Happy Spending at the same time (Money Spending Style; Fig. 5.10).

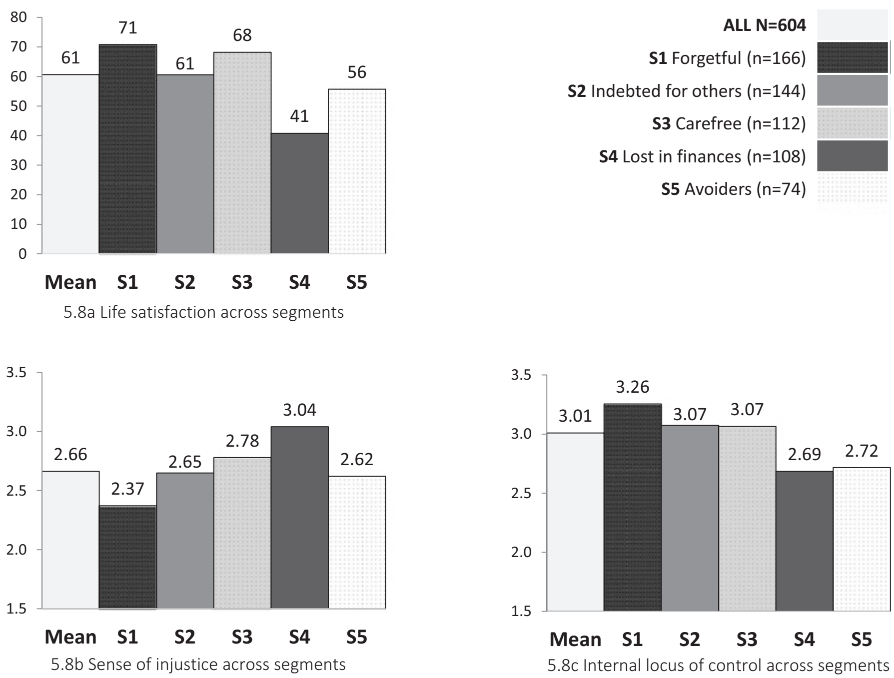


Fig. 5.8 Approach to life in segments

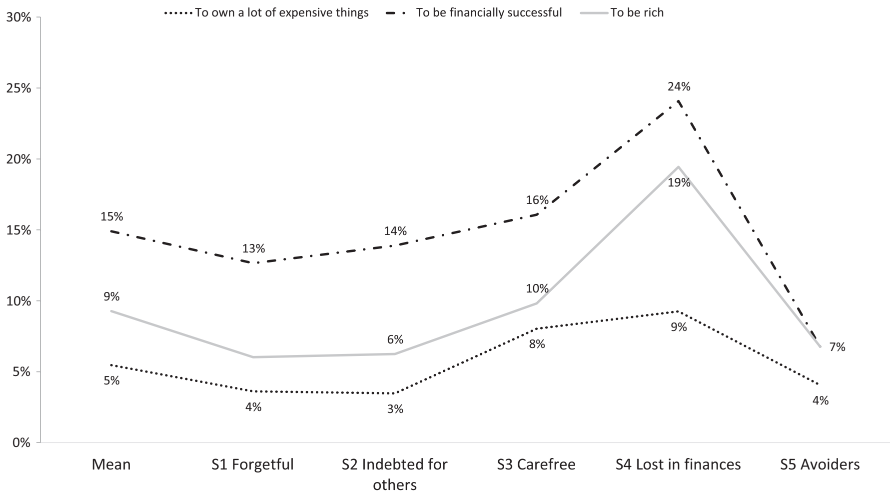


Fig. 5.9 Materialistic goals in segments (percentage of people considering the goals" very important")

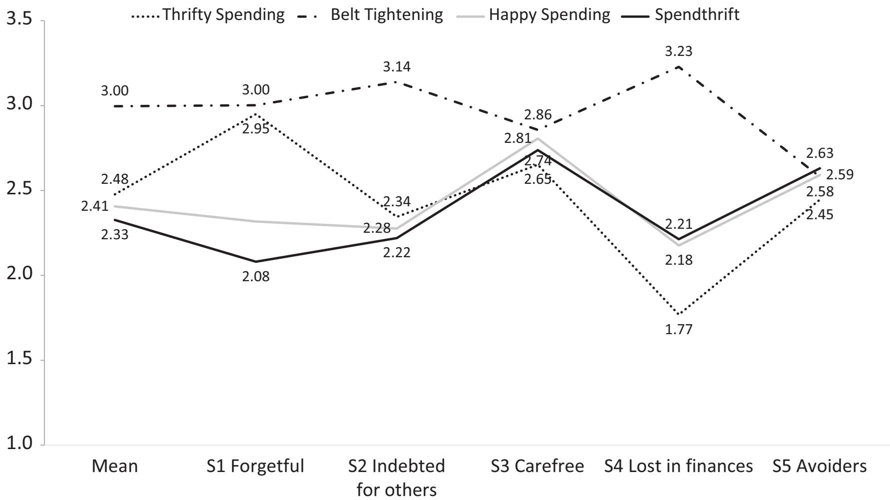


Fig. 5.10 Money Spending Style in segments (answers on a 1–4 scale, higher value – higher intensity of the style)

Approach to debt This is the largest segment constituting over ¼ of borrowers with repayment problems while, at the same time, having the smallest average level of debt (debt amount below the average in the sample). These are persons who often get into debt by chance, for instance, through unpaid bills, defaulting on a loan, personal credit, or a fine instalment, oftentimes simply because they forgot to pay their bills on time or were unaware that they were in debt. However, once this problem actually surfaced, it was quickly and efficiently dealt with. Persons in this segment are definitely convinced that debts must be repaid, regardless of the circumstances. They feel fully responsible for their debt. Their sense of responsibility, the values held by them, and their moral code (inner standards) motivate them the most out of all the groups to meet their payment commitments. They do not advocate taking out loans and consumer credit (especially cash loans and loans for consumption) as they believe that one should only borrow money when absolutely necessary and for "serious" purchases.

Demographics These are persons with the highest level of education (29% have completed higher education; Fig. 5.7), and the vast majority are in permanent relationships (66%) and have children (61%). They are also professionally active (69%). There is slightly more men (54%) than women (46%) here.

5.7.2 Segment 2: Indebted for Others (24%)

Psychological profile These are persons who are rather satisfied with their life; they are definitely more satisfied with their personal and family life than with their professional life and finances. Family is important to them, and they are ready to make sacrifices for their close friends and relatives. Despite the lack of satisfaction with many aspects of their lives, they do not feel that any injustice has been done, and they don't blame others for their failures. The *Indebted for Others* would like to control their life and act in a well thought-out and prudent way, for their life to be full of surprises, but they do not always manage to achieve this.

Finances and approach to money They have average earnings and also assess their current material situation as not being very good and have a pessimistic view of their financial future (things are not going to get any better). They feel that they have to curb their spending so that they have enough for everything, often looking for "cheaper" alternatives feeling that they can't afford anything more expensive (Fig. 5.10). They consider money as a tool to satisfy the needs and requirements of their family. They save on their own needs so as to give as much as they can to their nearest and dearest. They also take each day as it comes and don't really have many savings.

Approach to debt This is the most indebted segment (highest amounts of debt), and this is largely due to consumer credit – almost half are paying off cash loans, and almost every third person has engaged in instalment buying (Fig. 5.11). The mean total amount of consumer credit and loans taken out is twice as big as the mean in the whole sample. These are persons who are ready to get consumer credit or a loan when they think the family needs this. They are definitely more willing to contract debt for others (family) than for themselves. They have the greatest

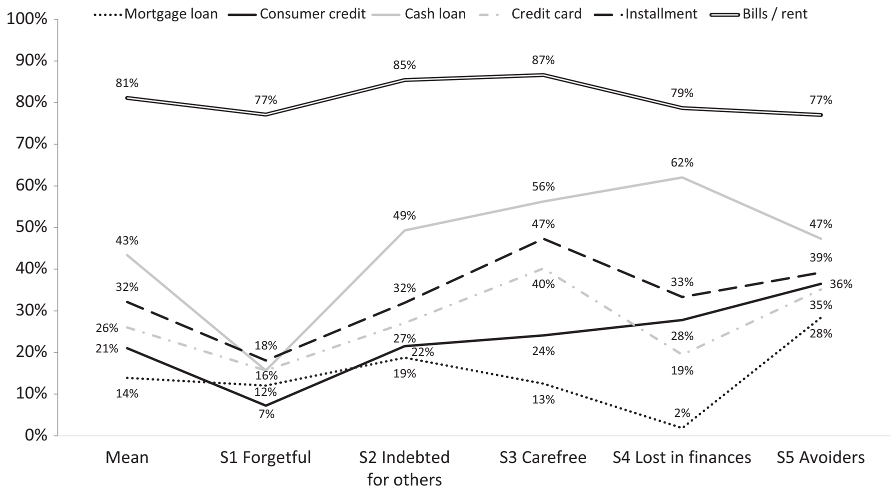


Fig. 5.11 Types of debt held in segments

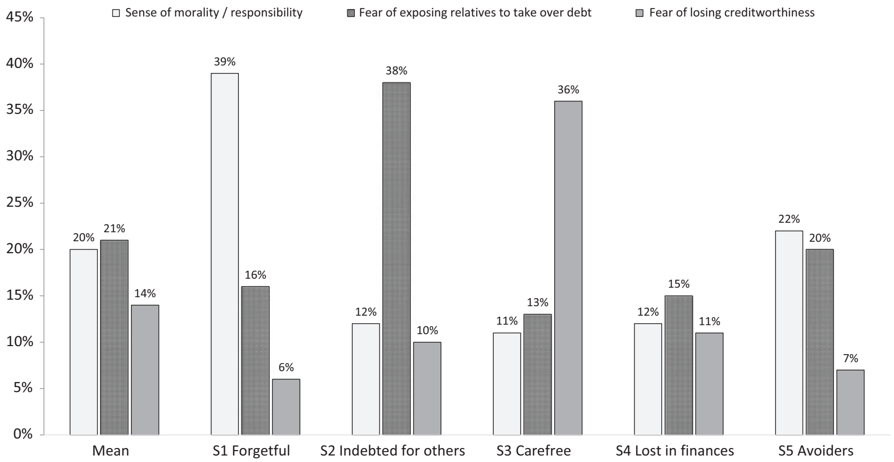


Fig. 5.12 Factors encouraging debt repayment (percentage of answers "yes")

readiness for borrowing to renovate their house or cover their children's education. They believe that debts should be repaid and conscientiously try to do just this, although they aren't always successful in this. They are motivated to meet their financial commitments on time by the possible negative consequences for the family of not paying off a debt, by the fact that they could burden their loved ones with their borrowing (Fig. 5.12). If problems with timely payments appear in this group, they result from the large number of financial commitments (exceeding their financial capabilities) and temporary liquidity problems (e.g. resulting from job loss) but probably also because of poor personal budget management. Debt repayment problems in this group, more often than in other groups, result from conscious delays in payment so that other payments can be made (e.g. they first settle household bills and later repay consumer credit and loans).

Demographics This is a segment made up of an equal number of women (49%) and men (51%), although, compared with other segments, this one proportionally has the most women (there were 42% women and 58% men debtors across the study sample as a whole, which is reflected by the greater openness of men to excessive debt observed in many different countries). This group also contains the highest percentage of residents of large and big cities (similar to the *Forgetful* group). The majority hold down a job (81%), are in a relationship (71%), and have children (79%).

5.7.3 Segment 3: Carefree (19%)

Psychological profile The *Carefree* are people with a high level of satisfaction with life (right after the *Forgetful*), both in private and professional areas. They have a high level of injustice; they are, to a certain degree, convinced that they are being used by other people and that other people are responsible for the fact that they may be failing in some areas of life. They have a carefree approach to life, they like being surprised by life, and they sometimes think about the future and make spur-of-the-moment decisions. They are oriented much more to the present and are hedonistic pleasure seekers.

Finances and approach to money This group has the highest earnings and has a relatively good evaluation of their material situation (subjective financial situation), slightly worse than the *Forgetful* segment. However, they are also materialists, and money and success play a central role in their lives. They like money and would like to have lots of expensive possessions which are a source of their self-esteem, but they also look at other people through the prism of possessions – money for them, more so than for other groups, is a measure of the value of a human person (Fig. 5.9). They enjoy spending money, they are spendthrift, they don't deny themselves of any costly pleasures, they like going on shopping sprees, and they like to show off by spending. They don't tighten their belts, and despite their relatively high income, few actually save on a regular basis.

Approach to debt In their case, the type of indebtedness results from their materialistic approach to life: it is not uncommon for them to get cash loans or to instalment buy, although these are rarely for large sums of money. They are open to debt not only for "serious" needs, and they would be the most open out of all the groups to take loans to cover the cost of their vacations or entertaining friends. What clearly

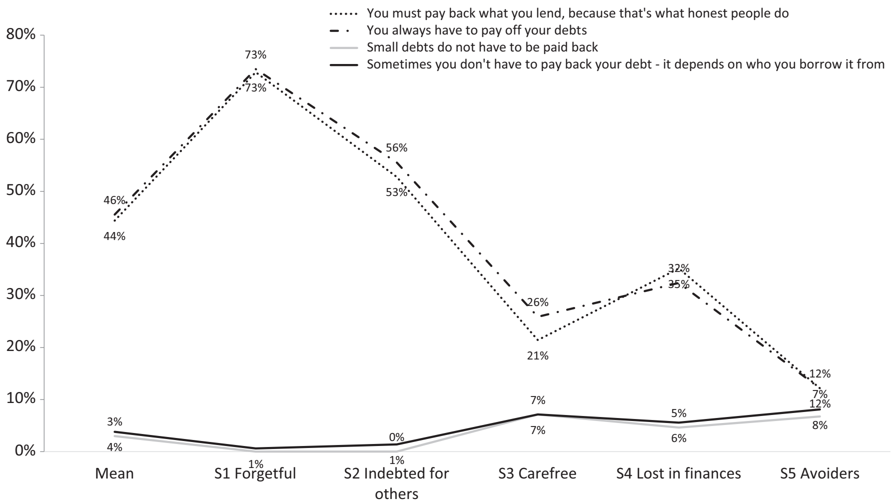


Fig. 5.13 Attitudes towards debt in specific segments (percentage of "definitely agree" answers)

sets them apart from the two previous segments is the conviction that debts don't always have to be repaid (Fig. 5.13) (in contrast especially to *Forgetful* but also *Indebted for Others*). They believe that there are sometimes attenuating circumstances and not repaying their debts may sometimes be justified (e.g. when the amount is small); they are also counting on their unpaid commitments expiring with time so that they won't have to pay them off any longer. They are sometimes deliberately late with an instalment payment so that they can pay off other commitments. They don't take responsibility for their debt and explain any payment defaults by their bad financial health (which objectively is good); however, this is often down to them living above their means. They are afraid of losing their creditworthiness as this would limit their standard of living and prevent them from using many of life's pleasures, and it is this that motivates them the most to pay off their debts (Fig. 5.12).

Demographics The *Carefree* group is a mostly male segment (68% male), with an average level of education (50% have secondary education, 18% have higher). The mean age is 42 years, but the group is comprised of people of all ages. Almost all are professionally active (93% have a job). Most of them are in relationships (71%), and almost 3/4 of them have children.

5.7.4 Segment 4: Lost in Finances (18%)

Psychological profile The *Lost in Finances* segment is made up of people who are the most dissatisfied with their lives in all of its aspects (the mean in the segment is 41, the mean across the whole sample is 61, on a 100-point scale; Fig. 5.8). They feel that they have been dealt a bad hand in life by fate and other people. They blame external factors, not themselves, for their failures, and they have a strong sense that whatever is happening in their life is down to quirks of fate or the actions of other people (external locus of control). Most believe that they deserve a better life than they have and feel used and unappreciated by others (high sense of injustice; Fig. 5.8). They are convinced that other people can't be trusted.

Finances and approach to money This segment objectively and subjectively has the worst material situation, and they also see their financial future in negative light. The Belt Tightening Money Spending Style dominates; they often go bargain hunting, convinced that they can't afford normal priced goods (Fig. 5.10). They live with feelings of hurt and injustice. They take each day as it comes; they don't put any money away, spending everything on their current needs. They are materialists (Fig. 5.9) with a very strong dimension of happiness (according to Richins & Dawson, 1992); in other words, they believe that the possession and gathering of goods lead to happiness and life satisfaction and that money could solve all their problems and that they would be happier if they had more money. They also associate money with negative emotions and with worries. They are persons with a low level of banking service use and with a high level of Love for Cash (see Chap. 6) – they like using cash and believe that only cash is real money.

Approach to debt The indebtedness of persons in this group mainly results from cash loans (Fig. 5.11). They think that indebtedness and problems with timely debt repayment are ubiquitous and caused by the poor economic situation of the country (high unemployment, low earnings) and by the dishonesty of other people (indebtedness is not the fault of the debtors themselves). They are strongly convinced that it's difficult to live without borrowing in today's times, and they also have a feeling of injustice, being embittered by the world. They are mainly motivated to pay off their debt by a fear of financial penalties and legal consequences (the bailiff coming calling) associated with outstanding financial commitments. Nevertheless, it is quite common for them to fall behind with payments (the highest percentage among all groups with unresolved debt problems). They are the most ready out of all the groups (next to *Carefree*) to take out a loan to repay an earlier debt (Fig. 5.14). They also are most open from all groups to get into debt for current consumption or celebrations as wedding or baptism (Fig. 5.15).

Demographics The oldest segment – half of them are aged 50 and older. They are also the most poorly educated among the segments – 76% are persons with primary education or vocational training, and only 2% have completed higher education (Fig. 5.9). The largest group in this segment is made up of divorcees and widowers (35%), within which there is a relatively large number of unemployed persons, where 17% are unemployed and 25% retired or receiving a disability pension.

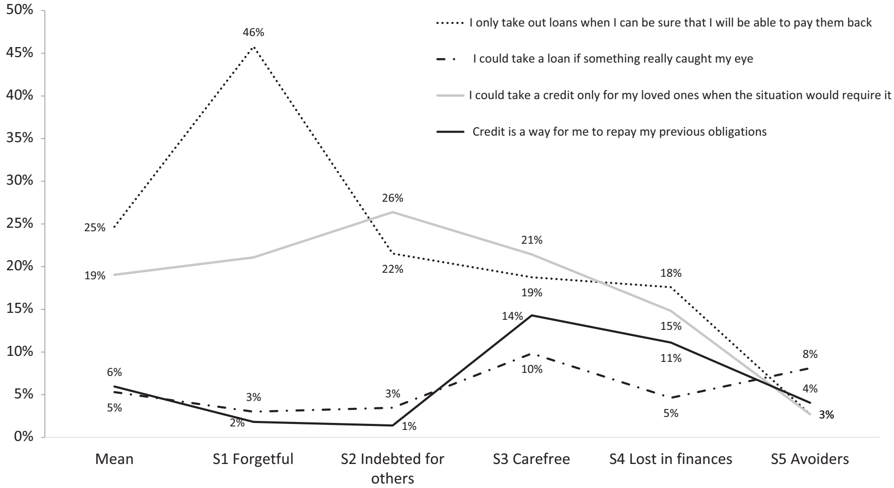


Fig. 5.14 Readiness to get into debt in specific segments (percentage of "definitely agree" answers)

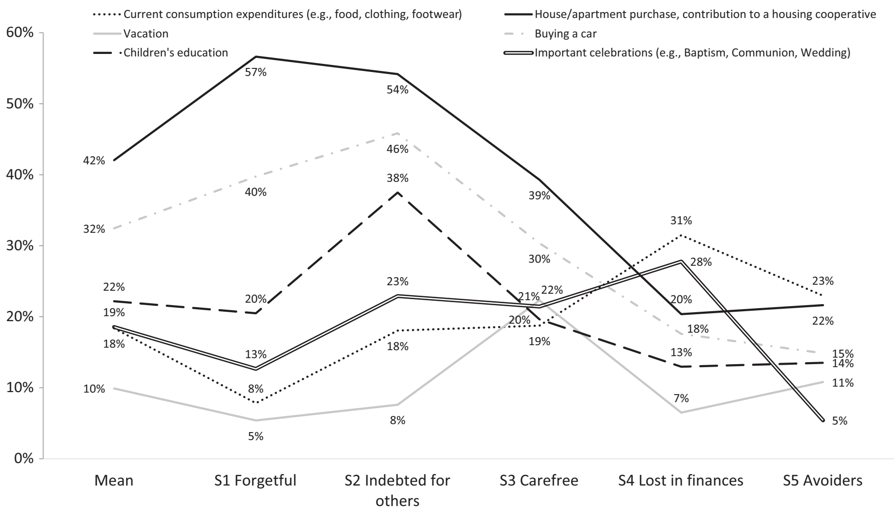


Fig. 5.15 Readiness to get into debt for different purposes in specific segments (answers to the question "Which of the following could you take a loan for?")

5.7.5 Segment 5: Avoiders (12%)

Psychological profile They don't feel very satisfied with their life, neither personal, professional, nor financial (mean 56 – slightly higher than the previous segment), but they also don't blame anyone for this. They don't like thinking about the future and the consequences of their actions too much, believing that if they truly want something, there's no need in doing much thinking but simply enjoying the present moment. They are focused on the here and now, often taking rash decisions (also concerning finances).

Finances and approach to money They are persons with average earnings and assessing their material situation and perspectives for the future to be similar. Money is important to them, and they perceive themselves and others through the prism of their money and possessions (the second segment after the *Carefree* with such a strong treatment of money as a measure of human value); however they are not saying this openly. They are also spendthrift (MSS), they like spending, and they often admit that if they like something they can't stop themselves from buying, even though they know that they can't afford it.

Approach to debt Most persons in this segment are currently paying off some sort of consumer credit or loan; nearly one in three people has a mortgage. This group has had the most debt collection cases over the last 5 years; over 40% still have a hard time paying off their commitments on time. Their repayment problem usually concerns defaults on mortgage payments and bills. They are the least inclined to think that debts must be paid off and usually look for excuses, justifying their unpaid arrears (Fig. 5.13). They are the most willing out of all the groups to take out a loan to finance pleasure and entertainment. They often think that debt is unfair or is caused by unfortunate events. They seem to be the most disobedient when it comes to debt recover, and they are perfectly aware of this resistance of theirs.

Demographics This segment has the largest number of males (68%) and is the youngest – 70% of *Avoiders* are under the age of 40, and only 15% are over 50. The persons in this group have predominantly secondary education, many with higher education (bachelor's degree), too. They mostly live in small towns and villages (highest percentage of the whole sample studied). Most have not started a family yet (30%), and only 39% of the persons in this group have kids (smallest number in the whole sample). Interestingly, despite their young age and low number of persons with children, as many as 28% of *Avoiders* persons pay alimony.

The presented results describing the identified segments reveal that people are very different in terms of their approach to debt and that the factors underpinning debt, particularly over-indebtedness and irresponsible borrowing, are highly complex and, apart from demographic determinants, are also conditioned by the individual traits of a given person (psychological factors). In the case of debts, particularly conscientiously paying off debt, another important factor is the convictions that are moral in nature: to what extent a person believes that debts should be paid off and that this is their moral duty (*Forgetful*) and to what extent this is unnecessary (*Carefree* and *Avoiders*), and then their relationship with the company where the person has debts becomes a kind of cat-and-mouse game to see who can outdo the other (Fig. 5.13).

Another interesting observation is the differences in approach to borrowings depending on the more collectivist approach to others (*Indebted for Others*) or egocentric attitude towards oneself (*Carefree*). *Indebted for Others*, a segment with strong family values, gets into debt for the sake of their nearest and dearest (wanting to please them or satisfy their needs) but also tries to stay out of debt problems (as far as possible) for the sake of their family (Fig. 5.15). Another important result concerns trying to explain indebtedness with reference to oneself or external factors. Persons with a strong internal locus of control perceive debt problems as resulting from their own actions and also feel responsible for getting out of these problems (*Forgetful*, *Indebted for Others*). The situation is different in the case of persons with a strong external locus of control who blame external factors for their debt and, consequently, don't feel responsible (or feel less responsible) for resolving these problems (*Lost in Finances* and *Avoiders*).

The segmentation approach to indebtedness presented above has immense practical implications. We already know that over-indebtedness and irregular indebtedness are problems for some people, but they also constitute a problem for the environment, for instance, for financial institutions. That is why different measures are being taken to prevent over-indebtedness and to assist persons who are experiencing problems with paying off their debt. Based on the presented results of the segmentation analysis, it is clear that the same arguments will not get through to everyone and the same get-out-of-debt strategies won't be equally as effective in every case. Some people need help with managing their finances (*Lost in Finances*, *Indebted for others*), while actions relating to ethics and responsibility may prove to be more effective for others.

5.8 Individual Predictors of Debt and Debt Repayment

Finally, let us go back to the question that came up multiple times in the earlier chapters of this book: Is the objective or subjective material situation more important when explaining this time the amount of debt and problems with its repayment? The second question is the dependency between the same two variables (the amount of debt and problems with debt repayment) and the individual variable described earlier in the book comprising Money Spending Styles (cf. Chap. 3) with four dimensions: Thrifty Spending, Belt Tightening, Happy Spending, and Spendthrift.

In order to answer the question about determinants of amount of debt held, stepwise multiple regression analysis was carried out, where the dependent variable was the portion of the monthly income that the household allocated to credit and loans. The respondents could indicate one of six intervals: from 1, less than 10%, to 5, more than 50%. In Step 1 of the regression analysis, we introduced demographics (gender, age, and education) and objective financial situation (income); in Step 2, a subjective financial situation (perception); and in Step 3, Money Spending Styles (four dimensions) (Table 5.2). The FinBehTrack (2016) database was used for the analysis. The analysis was performed only on those who declared having any credit or loans.

Table 5.2 Predictors of loan size – portion of the monthly income of the household allocated to consumer credit and loans (regression analysis)

	Step 1			Step 2			Step 3		
Variables	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
Gender (woman = 1)	−0.03	0.15	0.86	−0.03	0.14	0.84	−0.07	0.14	0.60
Age	0.004	0.01	0.49	−0.01	0.01	0.39	−0.01	0.01	0.19
Education	0.01	0.07	0.09	0.04	0.06	0.49	0.06	0.06	0.35
Income	−0.19	0.06	0.002	−0.06	0.06	0.34	−0.03	0.06	0.63
Subjective financial situation				−0.37	0.06	<0.001	−0.25	0.06	<0.001
Thrifty spending							−0.13	0.04	<0.001
Belt tightening							0.08	0.04	0.08
Happy spending							−0.01	0.04	0.92
Spendthrift							−0.05	0.05	0.31
	$F = 2.73$	0.03		$F = 10.91$	<0.001		$F = 8.49$	<0.001	
	$R^2 = 0.03$			$R^2 = 0.12$			$R^2 = 0.16$		

In the first step of the analysis, we found only income to be a significant predictor of loan repayment size and no effects of other demographic variables (gender, age, and education). People with a lower income allocated a bigger portion of their monthly household income to their credit and loans. In Step 2, after the introduction of the subjective financial situation, we still did not find any significant effect of the demographics, but the subjective financial situation was significant; however, more importantly, the objective financial situation (income) stopped to be significant. People who assessed their financial situation as worse allocated a bigger part of their household income to paying back their loans. In Step 3, after the introduction of Money Spending Style, the subjective financial situation was still significant, and we also found a significant effect of Thrifty Spending and a marginal effect of Belt Tightening. People with a higher level of Thrifty Spending style transferred a smaller portion of their monthly income to paying back loans, whereas those with a Belt Tightening style allocated a bigger part of their earning to this (but this was only a marginally significant effect). After the introduction of individual psychological variables, the explained variance of the model increased from 3% to 16% ($F = 8.49$; $df = 4.405$; $p < 0.001$).

The second analysis referred to the predictors of difficulties with paying back debts. Respondents were provided with a four-point scale ranging from 1, always repaying debts on time, to 4, not always repaying commitments and resulting in contacts with a debt collection company. Stepwise multiple regression analysis was performed with the same independent variables. Similar to the previous analysis, in Step 1, we introduced demographics (gender, age, and education) and the objective financial situation (income); in Step 2, the subjective financial situation (perception); and in Step 3, Money Spending Styles (four dimensions; Table 5.3). The analysis was performed on the same database (FinBehTrack, 2016) using only those respondents who declared having any credits or loans.

Table 5.3 Predictors of problems with repayment of credit/loans (regression analysis)

	Step 1			Step 2			Step 3		
Variables	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
Gender (woman = 1)	0.08	0.08	0.34	0.08	0.08	0.33	0.05	0.08	0.51
Age	−0.004	0.003	0.17	−0.01	0.003	0.01	−0.01	0.003	0.008
Education	−0.12	0.04	0.001	−0.10	0.04	0.003	−0.09	0.04	0.01
Income	−0.04	0.03	0.24	0.02	0.03	0.61	0.03	0.03	0.34
Subjective financial situation				−0.16	0.03	<0.001	−0.09	0.04	0.01
Thrifty spending							−0.07	0.02	<0.001
Belt tightening							0.03	0.02	0.23
Happy spending							−0.03	0.02	0.18
Spendthrift							0.03	0.03	0.33
	$F = 5.06$	0.001		$F = 9.28$	<0.001		$F = 7.41$	<0.001	
	$R^2 = 0.05$			$R^2 = 0.10$			$R^2 = 0.14$		

In the first step of the analysis, we found only education to be a significant predictor of problems with paying back debts, where higher educated people had less problems with paying off their debts. In Step 2, after introducing the subjective financial situation, education was still a significant predictor of problems with loan repayment, but age also became significant (older people had less problems), and the subjective financial situation was also significant (better evaluation, less problems). In Step 3, all the variables introduced earlier remained significant, but only one dimension of Money Spending Style – Thrifty Spending – was significant. People with a higher level of Thrifty Spending style had less problems with paying back their loans. After the introduction of the subjective financial situation and Money Spending Style, the explained variance of the model increased from 5% to 14% ($F = 7.41$; $df = 4.405$; $p < 0.001$).

The two regression analyses that were carried out showed that also in the case of debt, similar to the other financial behaviours discussed earlier, the way a person perceives their material situation (very good or very bad) has a greater impact on their behaviour than the actual level of their earnings. The better evaluation of their financial situation, the smaller the percentage of money is allocated to debt repayment and the less problems they have with paying off their debt. The other key outcome is, once again, the insignificance of demographic variables – in the case of the percentage of income put aside for the repayment of debts, it is not dependent on sex, age, or education. When it comes to problems with timely debt repayment, the situation is different. In this case, a lower education and younger age contribute to bigger problems with meeting financial commitments and, consequently, lead to contacts with debt collection companies. The third meaningful result was the link between indebtedness and the Money Spending Style. Thrifty Spending has the greatest influence when it comes to debt. Persons with a high level of this Money Spending Style allocate a smaller portion of their household budget to repaying their personal credit and loans and are more diligent about paying them.

References

Abdul-Muhmin, A., & Umar, Y. A. (2007). Credit card ownership and usage behavior in Saudi Arabia: The impact of demographics and attitudes toward debt. *Journal of Financial Services Marketing, 12*, 219–234.

Achtziger, A., Hubert, M., Kenning, P., Raab, G., & Reisch, L. (2015). Debt out of control: The links between self-control, compulsive buying, and real debt. *Journal of Economic Psychology, 49*, 141–149.

Aldenderfer, M. S., & Blashfield, R. K. (1984). *Cluster analysis*. Newbury Park, CA: SAGE Publications.

Baker, P. M., & Hagedorn, R. B. (2008). Attitudes to money in a random sample of adults: Factor analysis of the MAS and MBBS scales, and correlations with demographic variables. *Journal of Socio-Economics, 37*, 1803–1814.

Basnet, H. C., & Donou-Adonsou, F. (2016). Internet, consumer spending, and credit card balance: Evidence from US consumers. *Review of Financial Economics, 30*, 11–22.

Belk, R. W. (1984). Three scales to measure constructs related to materialism: Reliability, validity, and relationships to measures of happiness. In T. C. Kinnear & U. T. Provo (Eds.), *NA - Advances in consumer research* (Vol. 11, pp. 291–297). Provo, UT: Association for Consumer Research.

Berger, L. M., Collins, J. M., & Cuesta, L. (2016). Household debt and adult depressive symptoms in the United States. *Journal of Family and Economic Issues, 37*, 42–57.

Berthoud, R., & Kempson, R. (1992). *Credit and debt: The PSI report*. London: Policy Studies Institute.

Bazira, B. A., & Hubei, W. (2018). Financial inclusion in Burundi: The determinants of loan-taking motivation in semi-rural areas. *International Journal of Organizational Innovation, 11*(1), 1–15.

Biljanovska, N., & Palligkinis, S. (2015). Control thyself: Self-control failure and household wealth. *SAFE Working Paper No. 69*. Available at SSRN: https://ssrn.com/abstract=2509080.

Brougham, R. R., Jacobs-Lawson, J. M., Hershey, D. A., & Trujillo, K. M. (2011). Who pays your debt? An important question for understanding compulsive buying among American college students. *International Journal of Consumer Studies, 35*(1), 79–85.

Calcagno, R., & Monticone, C. (2015). Financial literacy and the demand for financial advice. *Journal of Banking & Finance, 50*, 363–380.

Canner, G. B., & Luckett, C. A. (1991). Payment of household debts. *Federal Reserve Bulletin, 4*, 218–229.

Carlsson, H., Larsson, S., Svensson, L., & Åström, F. (2017). Consumer credit behavior in the digital context: A bibliometric analysis and literature review. *Journal of Financial Counseling and Planning, 28*(1), 76–94.

Chisholm-Burns, M. A., Spivey, C. A., Jaeger, M. C., & Williams, J. (2017). Associations between pharmacy students' attitudes toward debt, stress, and student loans. *American Journal of Pharmaceutical Education, 81*(7), 5918.

Dahlbäck, O. (1991). Saving and risk taking. *Journal of Economic Psychology, 12*(3), 479–500.

Davies, E., & Lea, S. E. (1995). Student attitudes to student debt. *Journal of Economic Psychology, 16*(4), 663–679.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.

Disney, R., & Gathergood, J. (2013). Financial literacy and consumer credit portfolios. *Journal of Banking & Finance, 37*, 2246–2254.

Dittmar, H. (2005). Compulsive buying–a growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology, 96*(4), 467–491.

Dittmar, H. (2008). *Consumer culture, identity, and Well-being. European monographs in social psychology*. London: Psychology Press.

Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology, 107*(5), 879–924.

Donnelly, G., Ksendzova, M., & Howell, R. T. (2013). Interplay of materialism poor credit management and emotional buying motives in predicting compulsive buying. *Journal of Economic Psychology, 39*, 113–125.

Donnelly, G. E., Ksendzova, M., Howell, R. T., Vohs, K. D., & Baumeister, R. F. (2016). Buying to blunt negative feelings: Materialistic escape from the self. *Review of General Psychology, 20*(3), 272–316.

Drentea, P., & Lavrakas, P. J. (2000). Over the limit: The association among health status, race and debt. *Social Science & Medicine, 50*, 517–529.

Dupas, P., & Robinson, J. (2013). Savings constraints and microenterprise development: Evidence from a field experiment in Kenya. *American Economic Journal: Applied Economics, 5*(1), 163–192.

Eckel, C., Johnson, C., Montmarquette, C., & Rojas, C. (2007). Debt aversion and the demand for loans for postsecondary education. *Public Finance Review, 35*(2), 233–262.

Edwards, S. (1993). Openness, trade liberalization, and growth in developing countries. *Journal of Economic Literature, 31*(3), 1358–1393.

Elliot, A. (2005). *Not waving but drowning: Over-indebtedness by misjudgement*. London and New York: Centre for the Study on Financial Innovation (CSFI).

Faber, R. J. (2004). Self-control and compulsive buying). In T. Kasser & A. D. Kanner (Eds.), *Psychology and consumer culture: The struggle for a good life in a materialistic world* (pp. 169–188). Washington, DC: American Psychological Association.

French, D., & McKillop, D. (2016). Financial literacy and over-indebtedness in low-income households. *International Review of Financial Analysis, 48*, 1–11.

FinBehTrack (2016). Unpublished research report about financial attitudes and behaviors of Polish people.

Garðarsdóttir, R. B., & Dittmar, H. (2012). The relationship of materialism to debt and financial wellbeing the case of icelands perceived prosperity. *Journal of Economic Psychology, 33*, 471–481.

Gathergood, J. (2012a). Debt and depression: Causal links and social norm effects. *The Economic Journal, 122*, 1094–1114.

Gathergood, J. (2012b). Self-control, financial literacy and consumer over-indebtedness. *Journal of Economic Psychology, 33*, 590–602.

Gathergood, J., & Weber, J. (2017). Financial literacy, present bias and alternative mortgage products. *Journal of Banking and Finance, 78*, 58–83.

Goldsmith, R. E., & Clark, R. A. (2011). Materialism, status consumption, and consumer independence. *The Journal of Social Psychology, 152*(1), 43–60.

Goldsmith, R. E., Flynn, L. R., & Clark, R. A. (2012). Materialistic, brand engaged and status consuming consumers and clothing behaviors. *Journal of Fashion Marketing and Management: An International Journal, 16*(1), 102–119.

Górnik-Durose, M. E., & Pilch, I. (2016). The dual nature of materialism. How personality shapes materialistic value orientation. *Journal of Economic Psychology, 57*, 102–116.

Groenland, E.A.G., & Nyhus, E.K. (1994). *Determinants of time preference, saving and economic behavior. A comparison between Norway and The Netherlands*. Paper presented at the IAREP SABE conference, Erasmus University Rotterdam, July 10–13.

Guseva, A., & Rona-Tas, A. (2014). *Plastic money: Constructing markets for credit cards in eight postcommunist countries*. Stanford, CA: Stanford University Press.

Hełka, A.M., & Wojcik, M. (2019). Social norms in the process of incurring and repaying financial liabilities among Poles with various indebtedness experiences. *Polish Psychological Bulletin, 1*, 1–22.

Hoelzl, E., Pollai, M., & Kamleitner, B. (2009). Experience, prediction and recollection of loan burden. *Journal of Economic Psychology, 30*, 446–454.

ING (2017). ING - International survey on saving. Available on: https://www.ezonomics.com/ing_international_surveys/savings-2017/

Jain, A. K., Murty, M. N., & Flynn, P. J. (1999). Data clustering: A review. *Journal ACM Computing Surveys (CSUR), 31*(3), 264–323.

Joireman, J., Kees, J., & Sprott, D. (2010). Concern with immediate consequences of magnifies the impact of compulsive buying tendencies on college students' credit card debt. *Journal of Consumer Affairs, 44*, 155–178.

Kamleitner, B., Hoelzl, E., & Kirchler, E. (2012). Credit use: Psychological perspectives on a multifaceted phenomenon. *International Journal of Psychology, 47*(1), 1–27.

Kamleitner, B., & Kirchler, E. (2007). Consumer credit use: A process model and literature review. *European Review of Applied Psychology, 57*(4), 267–283.

Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology, 65*, 410–422.

Kim, K. T., & Lee, J. (2018). Financial literacy and use of payday loans in the United States. *Applied Economics Letters, 25*(11), 781–784.

Kim, H., Callan, M. J., Gheorghiu, A. I., & Matthews, W. J. (2016). Social comparison, personal relative deprivation and materialism. *British Journal of Social Psychology, 56*, 373–392.

Lea, S. E. G., Webley, P., & Levine, M. (1993). The economic psychology of consumer debt. *Journal of Economic Psychology, 14*(1), 85–119.

Lea, S. E. G., Webley, P., & Walker, C. M. (1995). Psychological factors in consumer debt: Money management, economic socialization, and credit use. *Journal of Economic Psychology, 16*(4), 681–701.

Livingstone, S. M., & Lunt, P. K. (1992). Predicting personal debt and debt repayment: Psychological, social and economic determinants. *Journal of Economic Psychology, 13*(1), 111–134.

Livingstone, S., & Lunt, P. (1993). Savers and borrowers: Strategies of personal financial management. *Human Relations, 46*(8), 963–985.

Lown, J., & Rowe, B. (2002, November). A profile of consumer bankruptcy petitioners. Report presented at the annual conference of AFCPE, Scottsdale, Arizona

Luan, D. X., & Bauer, S. (2016). Does credit access affect household income homogeneously across different groups of credit recipients? Evidence from rural Vietnam. *Journal of Rural Studies, 47*, 186–203.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literacy, 52*, 5–44.

Maison, D. (2013). *Polak w świecie finansów – o psychologicznych uwarunkowaniach zachowań ekonomicznych Polaków [A Pole in the world of finance]*. Warsaw: PWN.

Maison, D., Furman, A., Sekścińska, K., Trzcińska, A., & Poraj-Weder, M. (2018). Edukacja i socjalizacja ekonomiczna dzieci-rodzice jako źródło wiedzy, wzorców zachowań, wartości i emocji wobec finansów [Children's economic education and socialization — Parents as source of knowledge, behaviour patterns, values and emotions towards finances]. *Marketing i Rynek, 5*, 15–27.

Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. *Science, 341*(6149), 976–980.

Nepomuceno, M. V., & Laroche, M. (2015). The impact of materialism and anti-consumption lifestyles on personal debt and account balances. *Journal of Business Research, 68*, 654–664.
Norvilitis, J. M., & Batt, M. J. (2016). Beyond financial need: Predictors of student loans and student loan attitudes. *Journal of Student Financial Aid, 46*(3), 4.
Norvilitis, J. M., & MacLean, M. G. (2010). The role of parents in college students' financial behaviors and attitudes. *Journal of Economic Psychology, 31*(1), 55–63.
Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality factors, money attitudes, financial knowledge, and credit-card debt in college students. *Journal of Applied Social Psychology, 36*(6), 1395–1413.
Nyhus, E. K., & Webley, P. (2001). The role of personality in household saving and borrowing behaviour. *European Journal of Personality, 15*(1), 85–103.
Ortiz-Núñez, A. (2014). Attitudes toward risk and socioeconomic factors related to educational loans. *Contemporary Economic Policy, 32*(4), 710–718.
Park, T., Yusuf, A. A., & Hadsall, R. S. (2015). Pharmacy students' attitudes toward debt. *American Journal of Pharmaceutical Education, 79*(4), 52.
Pilch, I., & Górnik-Durose, M. E. (2017). Grandiose and vulnerable narcissism, materialism, money attitudes, and consumption preferences. *The Journal of Psychology, 151*(2), 185–206.
Pirog, S. F., III, & Roberts, J. A. (2007). Personality and credit card misuse among college students: The mediating role of impulsiveness. *Journal of Marketing Theory and Practice, 15*(1), 65–77.
Porto, N., & Xiao, J. J. (2016). Financial literacy overconfidence and financial advice seeking. *Journal of Financial Service Professionals, 70*(4), 78–88.
Richins, M. (2004). The material values scale measurement properties and development of a short form. *Journal of Consumer Research, 31*, 209–219.
Richins, M., & Dawson, S. (1992). Materialism as a consumer value: Measure development and validation. *Journal of Consumer Research, 19*, 303–316.
Roland-Lévy, C. (2004). How does one acquire economic notions and values? In T. Tyszka (Ed.), *Psychologia ekonomiczna* (pp. 277–299). Gdańsk: Wydawnictwo GWP.
Rose, P. (2007). Mediators of the association between narcissism and compulsive buying: The roles of materialism and impulse control. *Psychology of Addictive Behaviors, 21*(4), 576–581.
Sekścińska, K., Goszczyńska, M., & Maison, D. (2017). The role of temporal perspective in economical activity – Psychological perspective. *Educational Psychology, 54*(12), 63–84.
Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some consequences of having too little. *Science, 338*(6107), 682–685.
Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance, 14*, 30–38.
Sullivan, A. C., & Fisher, R. M. (1988). Consumer credit delinquency risk: Characteristics of consumers who fall behind. *Journal of Retail Banking, 10*(3), 53–64.
Sweet, E., Nandi, A., Adam, E. K., & McDade, T. W. (2013). The high price of debt: Household financial debt and its impact on mental and physical health. *Social Science & Medicine, 91*, 94–100.
Tang, N., & Baker, A. (2016). Self-esteem, financial knowledge and financial behavior. *Journal of Economic Psychology, 54*, 164–176.
Tokunaga, H. (1993). The use and abuse of consumer credit: Application of psychological theory and research. *Journal of Economic Psychology, 14*(2), 285–316.
Tran, A. G. T. T., Mintert, J. S., Llamas, J. D., & Lam, C. K. (2018). At what costs? Student loan debt, debt stress, and racially/ethnically diverse college students' perceived health. *Cultural Diversity and Ethnic Minority Psychology*. Advance online publication*, 24*, 459. https://doi.org/10.1037/cdp0000207
Vieira, K. M., Rovedder de Oliveira, M. O., & Reis-Kunkel, F. I. (2016). The credit card use and debt: Is there a trade-off between compulsive buying and ill-being perception? *Journal of Behavioral and Experimental Finance, 10*, 75–87.

Watson, J. J. (2003). The relationship of materialism to spending tendencies, saving, and debt. *Journal of Economic Psychology, 24*, 723–739.

Webley, P., & Nyhus, E. K. (2001). Life-cycle and dispositional routes into problem debt. *British Journal of Psychology, 92*, 423–446.

Xiao, J. J. (2015). *Consumer economic wellbeing*. New York, NY: Springer.

Xiao, J. J., Noring, F. E., & Anderson, J. G. (1995). College students' attitudes towards credit cards. *Journal of Consumer Studies and Home Economics, 19*, 155–194.

Xiao, J. J., & O'Neill, B. (2016). Consumer financial education and financial capability. *International Journal of Consumer Studies, 40*, 712–721.

Xiao, J.J., Porto, N. (2016). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. Available at SSRN: https://ssrn.com/abstract=2769393

Zhang, J. W., Howell, R. T., & Bowerman, T. (2013). Validating a brief measure of the Zimbardo Time Perspective Inventory. *Time & Society, 22*(3), 391–409.

Zhu, L. Y., & Meeks, C. B. (1994). Effects of low income families' ability and willingness to use consumer credit on subsequent outstanding credit balances. *The Journal of Consumer Affairs, 28*(2), 402–422.

Zimbardo, P. G., & Boyd, J. N. (2008). *The time paradox: The new psychology of time that will change your life*. New York: Free Press.

Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology, 77*, 1271–1288.

Zelizer, V. (2010). *Economic lives: How culture shapes the economy*. Princeton: Princeton University Press.

Chapter 6
Banking, Unbanking, and New Banking

6.1 Why Do Some People Not Have Bank Accounts?

Having a bank account seems to be something completely natural in today's world. Most financially included inhabitants of developed countries can't imagine life without a bank account, especially an account without online access; otherwise where could they possibly keep their money and how could they possibly pay their bills and make bank transfers? However, even though globally 69% of adults have an account (Findex – Demirgüç-Kunt, Klapper, Singer, Ansar, & Hess, 2017), there are still many countries in the world where more than half of the population still don't have bank accounts. In 2017 in Pakistan, for example, only 21% of the population had a bank account, in Egypt 32%, Indonesia 44%, Bangladesh 51% (Findex – Demirgüç-Kunt et al., 2017) (see Fig. 6.1). On the other hand, there are many countries where the level of banking is very high, which means that over 90% of the population has bank accounts, for example, Canada, USA, Australia, and New Zealand. In Europe, there is a very high level of banking in Scandinavian countries (Norway, Finland, Denmark), Great Britain, Ireland, France, Germany, the Netherlands, and Switzerland. In Sweden, nearly 100% of the population has bank account (see Fig. 6.1). In Asia, the general level of people with bank accounts is lower; however, there are exceptions like Japan where 98% of the population has bank account (Findex – Demirgüç-Kunt et al., 2017). We can also see a tremendous growth of percentage of people having bank account between 2011 and 2017 in many countries. For example, in 2011, 11% of Pakistani had bank account, whereas in 2017 it is 21% of the population. In India the number of people having bank account grows from 35% to 82% within 6 years (see Fig. 6.1).

In the case of developing countries, such a high level of unbanked persons is a serious problem as it is often combined with the broader issue of financial exclusion and poverty, which consequently has many other negative social repercussions (Kamran & Uusitalo, 2016; Anong & Kunowskaya, 2013; Sen & De, 2018). Not having a bank account leads to the exclusion of a person from the taking advantage

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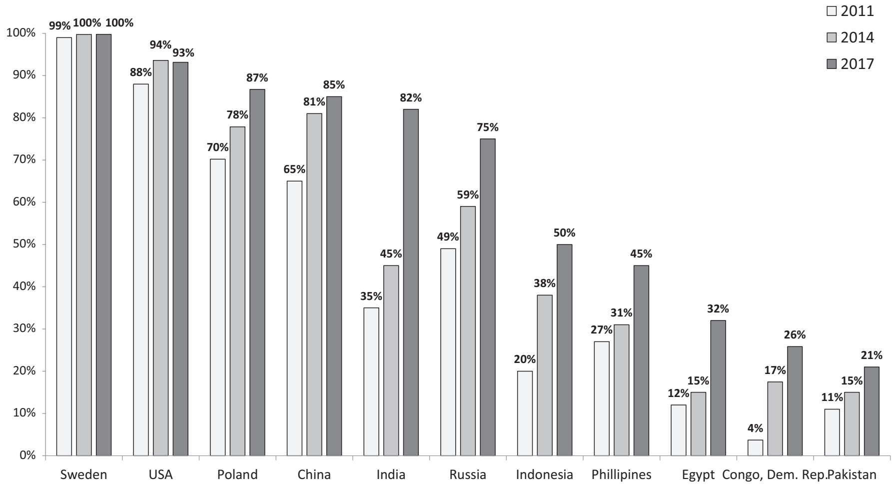

Fig. 6.1 Growth of the level of banking service use over the years (2011, 2014, and 2017) in selected countries (percentage of persons who have a bank account). (Source: Demirgüç-Kunt et al., 2017)

of many different solutions that make life easier in the modern financial world like having a payment card, access to bank loans with more favourable interest rates, easy and convenient paying of bills online (not at a bank branch), and the possibility of making bank transfers. Therefore, understanding the underlying reasons for being unbanked, particularly the chances of raising the level of banking service use, is the subject of research. Most research on the reasons underlying unbanking are mainly conducted in countries where banking service use is still low, like India, China, Turkey, or Pakistan (Kamran & Uusitalo, 2016; Burhouse, Homer, Osaki, & Bahman, 2016; Rona-Tas & Guseva, 2014), or in different ethnic groups in developed countries (e.g., USA) to analyse the differences between them (Brown, Dodini, Gonzalez, Merry, & Thomas, 2016; CFPB, 2016; Anderson, Strand, & Collins, 2018).

There may be many reasons for not having a bank account. Sometimes, it is because of objective factors relating to banking infrastructure like, for instance, there not being any bank branches or cash points near the place of residence (Arun & Punj, 2016; Anderson et al., 2018; Hayashi, 2016; Sen & De, 2018). Respondents in studies also point to such reasons as the financial and time-consuming travel costs to bank branches as well as long queues in banks (Arun & Punj, 2016; Anderson et al., 2018; Hayashi, 2016; Sen & De, 2018). Although we have to admit that in a world where the Internet and online banking are increasingly ubiquitous, bank branches are no longer as important as they were in the past; thus, the absence of bank branches as the reason for being unbanked will too cease to be important with time.

Another barrier to banking is a low level of education, financial illiteracy, and financial knowledge gaps (Adhikari & Bhatia, 2010; Anderson, Kotwal, Kulkarni,

& Ramaswami, 2013; Sen & De, 2018). A consequence of this is failing to comprehend banking jargon and the terms and conditions of bank account management that, for many people with low financial literacy, are too complicated to understand (Shah, Eisenkraft, Bettman, & Chartrand, 2016; Anderson et al., 2018). A barrier preventing financially excluded persons from being banked may also be their negative experiences with bank employees. Bank staff often manifest their impatience towards people who are poorly educated and with low incomes and financial knowledge (Anderson et al., 2018). People with a low level of financial literacy are convinced that they will not be able to adequately manage their bank account and payment card use (Chattopadhyay, Gulati, & Bose, 2018). This is accompanied by a fear of banking products and losing money (Shah et al., 2016), as well as a general distrust in banks (Anderson et al., 2018), which also make it more difficult to help these people become banked.

The World Bank (Demirgüç-Kunt et al., 2017) also points to financial exclusion as resulting from being unbanked, which it defines as a state where a person has no access to financial products and banking services and does not have savings or insurance. The concept of financial exclusion is clearly broader than simply not having a bank account because it also factors in its consequences including not participating in the non-bank financial sector (e.g., insurance). It is also acknowledged that financial exclusion is a long-term condition with many consequences that exacerbate it further (Honohan, 2008). Financially excluded persons do not have any access to short-term bank credit facilities simply because they don't have a bank account, which is why they often reach for high interest rate non-bank loans (Kempson & Whyley, 1999). Consequently, they find it more difficult to repay their loans, which may in turn make their financial exclusion worse.

Financial exclusion researchers point to the external and internal causes of this phenomenon. External factors are largely independent of a person and mainly result from various circumstances like long-term unemployment or discrimination in the labour market (Baker, Gentry, & Rittenburg, 2005; Walsh, 2009), functional illiteracy, a total inability to read and write (Adkins & Ozanne, 2005), or coming from a financially excluded environment. Internal factors, on the other hand, include a low level of financial literacy (Anderson et al., 2018) or being unaware of the different banking products facilitating everyday functioning available to them (Chattopadhyay et al., 2018; Hayashi, 2016). These are factors which can also be influenced by financial education. Internal psychological factors include, for example, values, attitudes, and life goals, as well as low life satisfaction (Hamilton & Catterall, 2005). What is important is that the consequences of financial exclusion are not only financial (e.g. difficulties in getting access to loans with more favourable terms and conditions already mentioned earlier) but also psychological and social: leading to limiting or even completely blocking social contacts which in itself has a detrimental effect on self-esteem and well-being (Walsh, 2009; Collard & Kempson, 2005; Kamran & Uusitalo, 2016).

Kamran and Uusitalo (2016), based on the results of qualitative research carried out by them in Pakistan, stress the complex implications of being unbanked, financial exclusion, and economic vulnerability. The former are consequences which are economic in nature, like keeping savings at home and the resulting difficulties in accumulating savings, as well as the high costs and risks in sending the money they earned to their families (delivery by private couriers is commonplace in Pakistan). The latter are social consequences. Financial exclusion is often accompanied by social exclusion, for example, having to borrow money from friends and relatives has a negative impact on relations with them. The authors also emphasise personal consequences of financial exclusion, like fear of being robbed and losing one's wages or savings, feeling embarrassed in relation to the people who lent them money, emotional discomfort associated with loans from illegal sources, and fear of intimidation upon running into repayment difficulties (particularly applicable to the repayment of risky commitments when borrowing money from people they don't know).

Most research on unbanked people is carried out in developing countries like India, Pakistan, or African countries, where a frequent objective barrier is the absence of appropriate infrastructure (bank branches, cash machines, payment terminals, and Internet access). Not having a bank account in these countries is often linked to poverty, low earnings, or lack of regular income (Sen & De, 2018; Kamran & Uusitalo, 2016; Anong & Kunowskaya, 2013; Hamilton & Catterall, 2005). It turns out, however, that persons without bank accounts can also be found in highly developed countries, and this does not result from an ailing infrastructure and is not associated with poverty (or not only). In Central and Eastern European countries where the political and economic transformations taking place there at the end of the twentieth century were followed by rapid economic growth, the banking sector has also advanced considerably, and an increasing number of bank branches and cash points and greater access to payment terminals could be seen (Rona-Tas & Guseva, 2014). Thus, the level of banking service use in most of these countries over last 20 years has clearly risen. For example, in Poland, the number of bank accounts has trebled over the last decade and increased from 0.45 bank accounts per inhabitant in 2001 to 1.48 in 2011. In the Eurozone where the level of banking has been higher for a long time, this increase was much smaller: from 1.2 bank accounts per inhabitant in 2001 to 1.35 in 2011. Over these years, in the most highly banked countries like Luxembourg or Finland, there were three bank accounts per inhabitant in 2011 (Rabong, 2013). This increase in banking also concerns the number of payment cards per inhabitant. For example, in 1998 there were 0.1 cards per inhabitant both in China and in Poland, and in 2008 this rose to 1.4 in China, and in 2010 to 1 payment card per inhabitant in Poland. In Russia, however, there were practically no people using payment cards in 1998, whereas this payment card index rose to 1 per person in 2010 (Rona-Tas & Guseva, 2014).

Despite the relatively high level of banking service use in developed countries compared to developing ones, there are still people in these countries who do not have a bank account and even if they do have a bank account, don't want to use it. The question arises at this point as to what keeps them from opening a bank account and becoming part of the modern banking system which has so many conveniences to offer and, perhaps more importantly, what can be done to convince them to use banking services and all the benefits that they bring, including increasing cashless transaction frequency (online accounts, mobile accounts, payment cards). What individual characteristics that are psychological in nature, non-specific and specific (related to finance) alike, contribute to a greater openness to banking service use and an acceptance of cashless transactions? Finding the answers to these questions was the aim of an extensive research project carried out under my direction over a period of 15 years for the National Bank of Poland. The project entailed dozens of studies, both quantitative on representative samples and qualitative: IDIs, in-home ethnographic interviews, and focus group interviews. Some of the results from these studies concerning banking service use and cashless transactions will be presented in this chapter. The described results will mainly be universal in nature, showing the psychological determinants of barriers to banking service use and cashless transactions and, only to a small extent, dependent on the specificity of Poland, the country where the studies were carried out.

6.1.1 *How to Increase the Level of Banking – A Diagnosis of Barriers to Having a Bank Account (Own Study)*

In 2009, over 20% of adults in Poland did not have a bank account.[1] The most commonly stated reason by unbanked persons for not having a bank account in this study was "I don't need an account – I'm doing just fine without one" (72%). The next two reasons were related to finances: "My earnings are too low to open a bank account" (65%) and "bank fees are too high" (55%) (Source: Maison, 2010a). Stating "not having the need for a bank account" as the main reason for not having one is consistent with the findings of research on unbanked individuals carried out in other countries (Adhikari & Bhatia, 2010; Anderson et al., 2013; Anderson et al., 2018). The next, seemingly rational arguments indicated by the respondents, relate to banking costs and low personal income. The reasons for not having a bank account that were pointed out seem not to exhaust the real reasons underpinning unbanking, particularly that some of the barriers may be unconscious in nature, which is why respondents fail to mention them in a typical, declaration-based study. If the intention is to lead to a change in behaviours (which was the case in education campaign planned the NBP), such actions must take all the motives into account, even the unconscious ones. For this reason, the next step taken by the National Bank of Poland was in-depth qualitative research (Maison, 2010a),[2] aimed at gaining an insight of the deeper reasons for not having a bank account and understanding what could motivate the unbanked to open a bank account and use it.

[1] Quantitative study carried out on representative nationwide sample about cashless transaction showed that in 2009, over 20% of adults in Poland did not have a bank account (Maison, 2010a).

[2] More information about the methodology of qualitative research in D. Maison's book "Qualitative marketing research. Understanding consumer behaviour" (2019), London: Routledge.

The first qualitative study was composed of 14 extended focus group interviews (Maison, 2010b[3]). Eight of these interviews were carried out with persons who did not have a bank account, of different ages, and in various life circumstances: (a) young, unemployed, aged 18–25 years; (b) employed with a steady income, aged 30–40 years; (c) disability pensioners aged 40–50 years; and (d) retired aged over 60. The interviews lasted from 2.5 to 3 h. The remaining eight interviews were conducted with banked persons of varying levels of banking service and cashless transaction use. These groups were a reference point for analyses of barriers to being banked.

The study revealed four main barriers to not having a bank account: (a) fear of new technologies, (b) distrust in financial institutions, (c) belief that a bank account is too expensive, and (d) Love for Cash, in other words the worship of physical money.

(a) *Fear of new technologies*. Persons who don't have a bank account, especially the elderly (although not exclusively), are characterised by a strong fear of new technologies, new solutions, and any changes whatsoever in their life. They don't trust anything new and unknown, anything they have not yet used, and are afraid that they will not be able to manage in a new situation should anything change. When using technological inventions, they assume straight away that something bad will happen and that they will be unsuccessful. When approaching technology in the context of banking, they additionally fear losing their money when taking money out of a cash machine, making online bank transfers on their own, and paying with a card in a store. This fear also concerns external factors – system flaws and imperfections that could lead to it crashing or being hacked, as well as lack of confidence in their own abilities, fear of not being able to cope (doing something wrong and losing their money). Being haunted by new technologies, even if a person has a bank account, also leads to them not using a cash point (withdrawing cash at a cash counter in a branch) and refraining from using payment cards (paying with cash).

> Cash machines are very dangerous. When I had an account, I'd always go with my son and my son would stand behind me because you never know if anyone was watching. (unemployed, 40–50 years old, urban agglomeration)
>
> I don't have a mobile phone, never had one, and don't feel the need for one. I grew up not having a phone; we'd just run to the village administrator whenever there was a problem. I've also never had a computer and don't want to have one, either. (retired, over 60 years old, small town)
>
> It was my son who would tap the numbers in from my card, not me. I'd just go up to the cash machine and would never know what to do. My son showed me that you have to put the card in, enter the number in. I wouldn't have managed on my own. You have to put the

[3] Qualitative research comprising 14 focus group interviews "*Analizy barier dotyczących korzystania z obrotu bezgotówkowego oraz wskazanie działań ograniczających te bariery. Qualitative research* [Analysis of barriers concerning use of cashless transactions and indication of actions that could limit these barriers]". Study carried out under the direction of D. Maison (Maison, 2010b) https://www.nbp.pl/badania/seminaria/4i2011.pdf.

card in and still remember this number, these digits, entering them using this keypad on the cash machine – I'd just get lost in it all. (retired, over 60 years old, big city)

(b) *Distrust in financial institutions*. Persons without a bank account often have a low level of trust in financial institutions. One consequence of this is the spreading of many myths and conspiracy theories with a strongly negative emotional charge concerning the financial sector. Such information is easily picked up by the unbanked, remembered well by them, and readily shared with others because it reaffirms the unbanked in their views and in steadfastly remaining in the non-banking system. Some examples of such convictions are as follows:

- There are no cheap or free banking services – there's always hidden bank fees buried in every offer that will have to be incurred (which is why they are not convinced by no-cost bank account offers).
- Banks are only led by their own interests – financial institutions put their own profits ahead of others, wanting to make as much money as they can by deceiving their clients.
- You can easily lose your money in the bank – the conviction that the banking market is not very stable and banks can go bankrupt ("banks appear and disappear again") and the belief that stealing money from people's bank accounts (both standard and online) are widespread.

A bank is a bit like a casino for me, where you don't profit just always lose. They're just after profits – nothing's free and the customer always bears the brunt of this. (working, 30–40 years old, urban agglomeration)

Every once in a while you hear of employees ripping off customers of 1.5 million because they controlled their data. The bank correspondence that I receive has all my personal details, balance, bank account number – what more do they need? All they have to do is wait for their chance, hit you over the head, and go straight to the bank to get your money out. This is a real threat. (retired, over 60 years old, urban agglomeration)

Banks make things really complicated so the customer won't be able to understand how things work. The most important stuff is all in small print or implied. I'm concerned that I wouldn't read the agreements given to me when opening a bank account and I'd be unpleasantly surprised after making my first withdrawal. (employed, 18–25 years old, small town)

I always considered accounts as something bad and that there's always problems with them. My brother had a problem with his PIN, my sister with interest. You can really lose out on this. (unemployed, 18–25 years old, village)

(c) *Conviction of having a too low income to have a bank account*. A strong barrier (declared both in the quantitative and the qualitative study) to opening a bank account and having one's wages or pension transferred directly to one's account is having wages/salaries that are too low. True enough, some people's income really is too low (e.g., disability pensioners). But for others, this barrier is mainly down to their perception of their income being too low to open an account (subjective dimension). At the same time, these people often lack saving and budget planning skills or are even spendthrift. The conviction that one's earnings are too low is accompanied by many inconsistencies. On the one hand, these persons reject any form of payment for their account (even 1 euro), but, on the other, they are also capable of having no qualms whatsoever about paying the letter carrier 5 euro for delivering their pension to their door or paying their electricity or gas bills by cash (e.g. at the post office or bank), which has high service charges. Clearly, finances aren't the only problem. Making references to financial aspects is rather a post-rationalisation of other barriers that are more of an emotional and often unconscious nature.

I don't have an account in a bank and I've never had one. I've never had earnings that would allow me to open an account. I've always got paid in cash and I've gotten used to this because this way I know exactly how much I'm getting and I can always count it through. (retired, over 60 y.o, small town)

If I'd have greater inflows, I'd be happy to use an account. But with the pennies that I'm getting, I can't let others derive benefits. I simply can't afford it. (retired, over 60 y.o, big city)

I don't have enough cash to open an account. It's probably worth it if you're earning somewhere between 3 or 4 thousand a month. If I'd have 3 thousand then maybe I'd be able to put some away and have bank account. (retired, over 60 y.o, urban agglomeration)

Right now I don't need an account. I earn as I go and then spend it right away. It'd be pointless to pay money in, then pay it out again. And the money that I do save from every payday is only a few zloty. I'm not going to run to the bank every time I need a few zloty. (employed, 18-25 y.o., big city)

(d) *Love for Cash*. Another factor contributing to a reluctance to open a bank account is money worshipping practised by some people – in other words, the belief that cash is the only money of value, whereas all virtual money are of no value. These persons fail to understand the symbolic value of money, treating banknotes as objectively valuable objects and not as objects of conventional value. Cash evokes highly positive feelings among these people. They strive to have contact with physical money; they enjoy counting it, looking at it, moving it from place to place, stroking it, or simply looking at it as all of this elicits positive emotions in them. The positive emotions associated with contact with cash discourage them from opening a bank account because it would involve them being "separated" from their beloved cash. Additionally, the use of cash for many unbanked people is associated with better control of expenses because physical money can be easily counted at any time, facilitating future expenditure planning by putting money into piles or into different envelopes.

I like looking at this money, stroking it, looking at how the pile is growing when I put it away for later. (working, 30–40 years old, urban agglomeration)

When the letter carrier brings it round, you can really feel the cash in your hand. It gives you full control. Once I get it, I settle basic bills and put the rest away in piles for the remainder of the month. (retired, over 60 years old, urban agglomeration)

I don't feel the need to pay by card; I like having cash with me and I can see exactly how much I have. Otherwise, I go over the limit and I'd end up spending more than I have. So, this way, I know exactly how much I have and how much I'm spending. (working, 25 years old, small town)

This money on these cards and accounts is all virtual. You don't know if banks would have the same amount in cash if everyone wanted to withdraw their money in one go. It's just fictional money. (disability pensioners, no bank account, big city)

In developed countries where there are no problems with banking infrastructure (readily available bank branches, cash machines, and payment terminals), opening an account by an unbanked person mainly entails a psychological cost – the cost of changing habits and the loss of a sense of security, confidence, and control. Contemporary banking use, for it to be truly beneficial to consumers, requires a person to fully embrace modern solutions like online banking and use of payment cards, at the same time accompanied by the development of infrastructure in the form of both the Internet and payment terminals. However, this requires a complete turnaround in a person's money movement system (purchases, bills) and learning new skills (which often gives rise to fears of "will I be able to cope?"). This barrier is of special significance to elderly people on retirement as they've often devised their own effective system of money management that is fail-safe in almost every situation. This system consists of their pension being delivered to them by a letter carrier, them paying their bills at cash counters in relevant institutions, and feeling comfortable with their money management because they can physically count their money through at any time they please to see how much they have left until the end of the month. In their case, keeping money in a bank would complicate matters in their day-to-day life and would involve them having to go to the bank to get some money out before they do any shopping, thus requiring additional effort on their part.

Apart from the above-mentioned barriers to opening an account, the study revealed that sometimes persons who had an account stopped using it and closed it down (secondary unbanked) (Fig. 6.2). When it comes to persons who have been forced (e.g., by their employer) to open an account that they don't want or they are not ready yet to have an account, use of the account is accompanied by negative emotions (e.g., associated with a reluctance to banks or fear for the safety of their

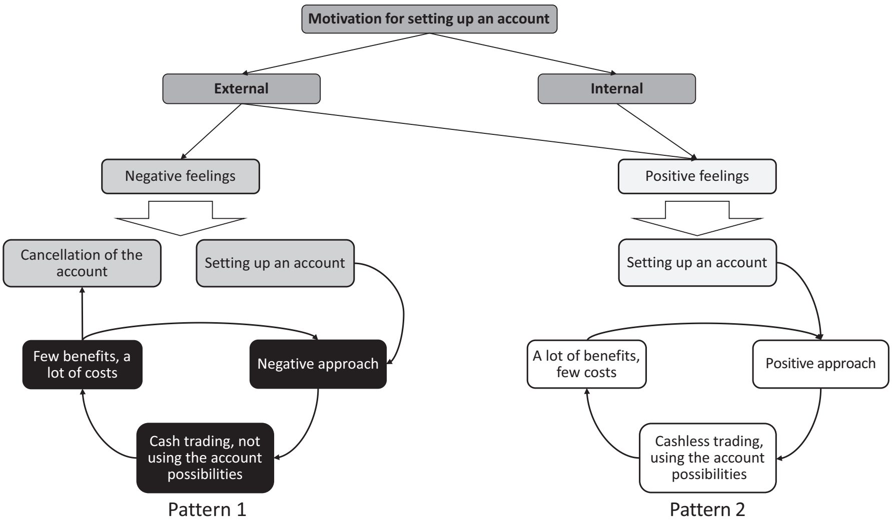

Fig. 6.2 Motivation underlying opening a bank account (internal vs. external) and their emotional and behavioural consequences

finances). Thus, they often do not use the possibilities provided by a bank account and still mostly use cash (usually withdrawing the whole amount right after getting the money transfer). Since such people fail to take advantage of the possibilities that a bank account gives (online money transfers, use of a bank card), they don't feel any benefits of having an account. At the same time, having an account in their case forces them to take additional steps to get their cash out (going to the bank instead of simply taking the money out of their closet). As a result, their negative attitude towards the bank account is reinforced, and, at the next opportunity (change of job, retirement), they end up closing it down and going back to their old, tried and tested cash-only system.

Those that open accounts voluntarily (the decision to open an account was theirs) have a positive attitude at the start. This positive approach relatively quickly leads them to using the various conveniences that are available (e.g., cashless solutions), giving them a quick feel of the advantages of having a bank account, which in turn reinforces their positive attitude to the bank account and positive emotions towards being banked. Such people, once they feel the benefits of the conveniences resulting from bank account use, will find it more difficult to give up their account and return to the old, cash-only system.

6.2 Love for Cash: Psychological Barriers to Cashless Transactions

Economists analysing the development of the banking and cashless systems focus mainly on objective factors like the availability of infrastructure in the form of bank branch networks, places accepting card payments, or Internet connections allowing for unrestricted access to the Internet and mobile banking. Sociologists analyse the problem of being banked from the social aspect and the influence of the environment, family, traditions, and religion. Psychologists, however, are attempting to gain deeper insight into this topic by analysing individual psychological factors like personality traits, temperament, or cognitive functioning, acting as barriers to the use of banking services. Among the barriers to banking service use mentioned in the previous subchapter diagnosed using qualitative research, probably the most interesting from a psychological perspective is Love for Cash, in other words, a positive and strong emotional attitude to cash, consisting of a preference for concrete, physical money instead of virtual, symbolic money. This can also be called money worshipping. For people with a high level of money worship, virtual money (money in the bank) is not real money in their subjective and emotional feelings. When money is in an account, a person with a high level of Love for Cash can't feel its value and is left with the impression that they don't have any money at all. Interestingly enough, such a feeling appears independently from their objective awareness of the equivalence of traditional and virtual forms of money. It is not the case that the person is unaware of the fact that both forms have the same value but that they feel as though the value was different (this is an emotional and not a rational mindset).

In Poland, there is still a large group of persons who treat cash as the only real form of money, and having physical contact with cash gives them a lot of pleasure and satisfaction, thus making it difficult for them to accept virtual money. Many false convictions about the way the financial and banking systems work are often also associated with such an attitude. For example, persons with a high level of Love for Cash can't get their head around the concept of the conventionality of money, treating physical money as an object of value and not as an object of conventional value. This complex relation to physical money is interesting because in reality banknotes and coins are also symbolic money with an agreed value and, contrary to commodity money, are of little to no value on their own. In the past, various goods like shells, cloth, hide, and precious metals fulfilled the role of money. This type of "money" is referred to as "commodity money" or "full-value money" because the value of the material of which it was made corresponds to its purchase value. In the modern world, money is of symbolic value (token money) because its worth as a legal tender exceeds its manufacturing cost. Its value, contrary to earlier forms of commodity money, results from a social arrangement. As was described in Chaps. 1 and 3, the value of money is not just limited to its basic economic role as a purchasing means. If this was the case, every 100 dollar banknote would have the same value for everyone. Money also has symbolic value (Gąsiorowska, Zaleśkiewicz, & Wygrab, 2012); it elicits emotions (Yamauchi & Templer, 1982; Furnham, 1984; Tang, 1992) and may be related with self-esteem and with building one's social status (Hanley & Wilhelm, 1992). Just how strong the symbolic value of money is was shown in the studies of Vohs and colleagues who demonstrated that the activation of the concept of money alone results in a person being less willing to work with others and help others (Vohs, Mead, & Goode, 2006, 2008) (cf. Chap. 3). Banknotes and coins, what with their ubiquitous use, have acquired both emotional and value-based meaning and are perceived by many people as though the cash itself was of value, becoming an object of desire, anxiety, fear, and envy (Richins & Dawson, 1992; Dittmar, Bond, Hurst, & Kasser, 2014). The Love for Cash described in the previous subchapter is one such example of money taking on a symbolic value that goes beyond its basic economic value. The results of research aimed at penetrating further Love for Cash as an individual characteristic, which may significantly affect their everyday functioning in the world of finance, will also be presented here.

The analyses of data presented below come from further qualitative research commissioned by the National Bank of Poland and carried out on two of the least banked groups of Polish people: above 60 years of age (Maison, 2012[4]) and aged

[4] (Maison, 2014). Qualitative research commissioned by the National Bank of Poland *Badanie postaw i zachowań Polaków powyżej 55 roku życia (badanie jakościowe)* [A study on the attitudes of Poles over 55 years of age towards cashless transactions (qualitative research)] directed by D. Maison. The study involved 30 ethnographic (in-home) individual in-depth interviews and each interview lasted from 3 to 4 h. The respondents were persons aged 55–75 years with varying levels of banking service use. http://www.nbp.pl/systemplatniczy/obrot_bezgotowkowy/raport_55_plus.pdf.

18–24 (Maison, 2014[5]). The results revealed that there are four main drivers for a preference for cash. The first is that being in contact with physical money itself gives some people pleasure: they like counting money, looking at it, stroking it, and putting it from place to place. When they can't physically see the money, they feel as though they didn't have any at all. Thus, they have negative emotions to virtual money, calling it false, fake, plastic, and dead money (contrary to "live" money). The second is that cash gives them a sense of security resulting from the conviction that they can pay anywhere with cash (which is, of course, to some extent true). The third is the need to have control over their finances – these people, when they have cash in their wallet, purse, or home, always see exactly how much money they have as they can easily count it through. The fourth reason why some prefer cash is that it gives them a sense of freedom and independence, leaving them feeling that they are free to do as they please with cash and having no constraints relating to technology failures (e.g. broken terminal) and to barriers imposed by others (e.g. payment limits). A positive attitude and emotional attachment to cash detract these persons from wanting to open a bank account because this would involve them "being separated" from their cash, entrusting it into other people's hands and, at the same time, depriving them of the positive emotions associated with it, thus leading to negative emotions associated with cashless transactions.

Those that love cash also like spending it, oftentimes admitting outright that they're rubbish at saving and that all their money goes on daily expenses. They perceive buying as an act of genuine exchange of goods for money (cash, of course, because payment cards are virtual, unreal). Their decision not to use cashless transactions is very conscious and voluntary, mainly based on the positive aspects of cash transactions (and not, for instance, on infrastructural limitations). If they have the choice, they don't open any accounts, whereas if they are left with no choice (e.g. required by their employer), they try to take all their money out of their account as soon as they get their money through and use cash only until they get their next bank transfer. This specific approach to money is, to a certain extent, age-dependent; thus, the older the people, the more cash worshippers there are. However, these studies revealed that this attitude can also be found among many young people.

> I like having money – when I've got it in my wallet I feel free. Because without money there's no freedom. (retired, no bank account, Warsaw)
>
> When you've got money in an account you can't count it or touch it and that's such a nice feeling… If I'd have money in the bank, I'd have to go in often and look at how much I've got on it. (unemployed, 18–25 years old, small town)
>
> Cash is more "money" than electronic money because then I can see it, but when it's virtual I may wake up one day and suddenly have none. And, with cash, I've actually physically got it so it can't just disappear. (employed, 18–25 years old, big city)

[5] (Maison, 2014). Qualitative research commissioned by the National Bank of Poland "Study on barriers relating to banking service use among young persons in Poland" under the direction of D. Maison. The study involved 40 ethnographic (in-home) individual in-depth interviews. Each interview lasted 2–3 h. The respondents were unbanked persons aged 18–24 years who did not have a bank account but had a stable income. The income of the respondents came from one of four sources: (a) benefit or disability pension, (b) official income, (c) unofficial income, and (d) regular pocket money (unpublished research report).

> I've got an account but I don't have a card. I don't like paying by card, somehow I don't think I'd be able to. This card that you just hold up and take money out, you never know how would the money get there in the first place? When I get my pension I know how much money I have, how much I can spend. And I don't know the ins and outs of using this card. Once a month, I withdraw my whole pension. (retired, bank account, big city)

Based on the conducted qualitative research, a 6-item scale measuring Love for Cash was developed (qn. Q34_LfC, FinBehTrack, 2016) comprising, among others, the following statements: "I find more pleasure in paying with cash than by card", "When I have money in the bank, I feel as though I didn't have this money". The scale is characterised by a high reliability (Cronbach's alpha from 0.85 to 0.90).

Further analyses of the specificity of Love for Cash were verified as to which financial attitudes and behaviours correlate with this phenomenon (Table 6.1). The results show that persons who have a high Love for Cash are less satisfied with life and with their finances than those with a lower level of Love for Cash. The approach to life and finances of people who worship physical money translates into their Money Spending Style (more about Money Spending Style in Chap. 3). Love for Cash contributes to being spendthrift ($r = 0.26$) and getting enjoyment from spending money ($r = 0.19$) and has a negative correlation with being a thrifty spender ($r = -0.16$). Persons with a high level of money worship are less controlling of their finances, have savings less frequently, invest less frequently, and their debts are so high that they eat up most of their income, making it difficult for them to meet their financial commitments (Table 6.2). It is evident that Love for Cash contributes to worse functioning in the world of finance and more dysfunctional behaviour like spending more money than they earn or failing to meet financial obligations.

Table 6.1 Correlations between Love for Cash and financial attitudes

	Level of pearson's *r*	
	Correlation	*p*
Life satisfaction – SWLS (Q1_LS1)	−0.14	<0.001
Financial satisfaction (Q2_LS2B)	−0.21	<0.001
Mony spending style (Q25_MSS)		
Thrifty spending	−0.16	<0.001
Belt tightening	0.07	0.02
Happy spending	0.19	<0.001
Spendthrift	0.26	<0.001
Materialistic goals		
To have lots of expensive possessions (Q36_MAT2A)	0.21	<0.001
To achieve financial success (Q36_MAT2B)	0.15	<0.001
To be rich (Q36_MAT2C)	0.21	<0.001
Attitude towards money	0.21	<0.001
Money is evil (Q35_MAT1)	0.21	<0.001
Money as a tool (Q35_MAT1)	0.14	<0.001
Money as a source of inferiority (Q35_MAT1)	0.42	<0.001

Table 6.2 Correlations between Love for Cash and financial behaviours

	Level of pearson's *r*	
	Correlation	*p*
Having savings (Q9_S1)	−0.26	<0.001
Amount of savings (Q12_S4)	−0.20	<0.001
Experience in investing (Q32_SAV6)	−0.15	<0.001
Portion of income allocated to debt repayment (qn. Q14_LC1)	0.19	<0.001
Conscientiousness of debt repaying (qn. Q15_LC3)	−0.34	<0.001

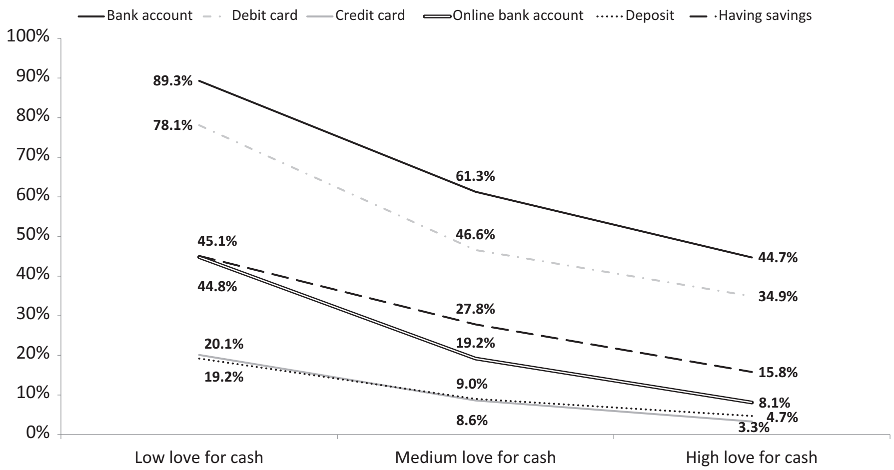

Fig. 6.3 Use of various different banking services depending on the level of Love for Cash. (Source: Maison, 2009/2013)

The next analyses checked which banking products are held by persons with various levels of Love for Cash. In order to do this, respondents were divided, based on the Love for Cash distribution, into three subgroups: low, medium, and high Love for Cash. Then, the percentage of different banking products possessed by persons with different levels of Love for Cash was verified (Fig. 6.3).[6] Money worship clearly differentiates the use of various banking products, mostly those that rely little on financial factors like income. For instance, twice as many people with a low level of Love for Cash have a bank account, a payment card, and savings (regardless of the amount) than persons with a high level of Love for Cash. Moreover, if people with a high level of Love for Cash have any kind of savings, they are much more likely to keep them at home than in the bank (Fig. 6.4), which, in the context of what money worshipping is, is completely understandable.

[6] Study conducted for the Kronenberg Foundation (Citibank Polanad) about financial education. National representative sample of Poles, $n = 1500$.

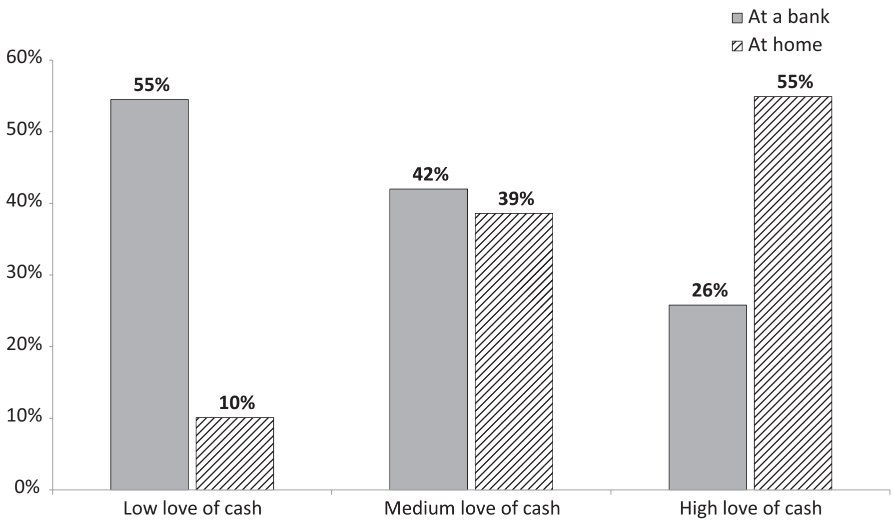

Fig. 6.4 Places where savings are kept depending on Love for Cash. (Source: Maison, 2009/2013)

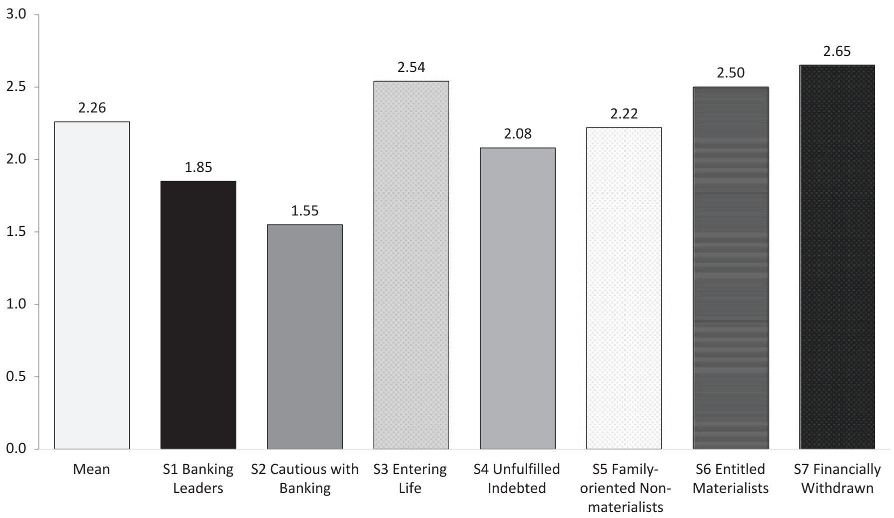

Fig. 6.5 Level of Love for Cash in different segments (FinBehTrack, 2016)

Finally, let's look at the intensity of Love for Cash in the identified segments in light of the financial attitudes and behaviours described in detail in Chap. 1 (FinBehTrack, 2016). The greatest Love for Cash was found in the segments with the highest level of materialism: Entering Life, Entitled Materialists, and Financially Withdrawn. The lowest level of Love for Cash, on the other hand, was identified in the two segments that function best in the world of finance: Banking Leaders and Cautious with Banking (Fig. 6.5).

The Love for Cash scale was also validated cross-culturally. Research conducted in Indonesia[7] using the scale showed a comparable high reliability as in Polish studies (Cronbach's alpha 0.85) and similar relations with different financial variables to those observed in the Polish studies: negative relation with having bank account, using paying card, and life satisfaction. Despite the fact that the researches on Love for Cash presented in this chapter were conducted mostly in Poland (except one conducted in Indonesia), it may be assumed that this phenomenon also occurs in other countries and can help to understand mechnisms underlying transforming them from cash into cashless societies.

6.3 Levels of Banking: From Cash to Full Cashless Societies

An important feature of contemporary banking is the increasing intensity with which people are moving towards cashless transactions. Switching to cashless transactions is beneficial from the perspective of the state budget and of individual citizens. What is relevant from the country perspective is that cash transactions generate high costs resulting from a number of factors, like the expenses involved in the manufacturing of coins and banknotes, anti-forgery and anti-counterfeiting security features, and ensuring cash transport security systems and safe storage. From the perspective of an individual person, an argument in support of not using cash is greater financial security since cash is subject to much higher risk of theft. This is also why both technological and legal advances are moving towards the universalisation and greatest possible facilitation of cashless transactions. In most countries, the number of payment cards being issued is systematically increasing year by year, as is the number of payment terminals, facilitating cashless transactions in more and more places (Rona-Tas & Guseva, 2014). What's more, new technology solutions are increasingly being introduced, enabling much faster and easier cashless transactions than ever before (contactless payments) or not even having to use payment cards to make transactions, like mobile payments or smartwatch payments. Cashless transactions also involve the use of online banking for paying bills and making money transfers. All these solutions have led to a growing number of online banking and payment card users across many countries. In some countries in Europe (especially in Scandinavia), one can manage without cash altogether.

Although there have been many changes that have enabled numerous countries to move towards cashless transactions, there are still people who prefer cash transactions and, despite having payment cards, refrain from using them for anything else apart from taking their money out of the bank/ATM at the beginning of the month and using cash only from then. Changing the habits formed over many years

[7] Study carried out in Indonesia on a sample of $n = 862$ adult respondents (351 females and 511 males, aged 18–65).

is not an easy task and usually requires time and a multitude of actions relating to legal and financial regulations (like interchange fees), the development of technology (e.g., contactless payments, which have led to an increase in payment card use for smaller transactions), as well as consumer-directed actions (e.g., educational campaigns or stimulating desired behaviours through different processing fee strategies). Despite this, consumers have a tendency to use payments that are convenient, safe, and cheap from their perspective, although the consumer's perspective is not always consistent with their objective attributes. This applies especially in the situation of a conflict between the financial cost of a transaction and its psychological cost. This is often the case for senior citizens who are used to paying with cash and are not very open to changes. The psychological cost that these people would incur in the event of switching to cashless ways of paying their bills may be even greater than the financial cost resulting from higher service fees for paying the bills in cash over the counter. The same may apply to persons with a high level of Love for Cash for whom the cost of losing the subjective pleasure derived from being around money often surpasses the objective advantages of cashless transactions (e.g., convenience, security, being cheaper). Interestingly, studies on persons using cash have revealed that many of them are aware of this and they can easily list the advantages of having a payment card while finding it more difficult to point to the benefits of a cash-only system. Despite this, these persons still do not switch to cashless transactions, which illustrates that these behaviours are often habitual in nature and the motivations underpinning them are mostly unconscious (Maison, 2012, 2014).

It is worth noting that between the unbanked, financially excluded, and economically vulnerable consumers (Burhouse et al., 2016; Kamran & Uusitalo, 2016; Hayashi, 2016) and consumers who are banked, who are financially included, with a high level of financial literacy, and who are fully cashless, there are various intermediate levels of being banked that may constitute interim stages between being unbanked and being fully banked. Researchers of banking service use, similarly to the findings of our studies, have also identified underbanked consumers, that is, people who have a bank account but withdraw cash from it, mainly sticking to cash payments; who have a payment card but don't really use it; and who don't take out bank loans, just loans from non-banking financial institutions (Burhouse et al., 2016; Sinha, Joshi, & Kamani, 2017; Hayashi, 2016).

The aim of the next studies commissioned by the National Bank of Poland was to investigate the different levels of banking service use between unbanked and fully banked consumers, understanding the specificity of the persons on the different levels of banking service use and identifying the barriers related to moving up to the next level of banking, leading to fully cashless consumer behaviour (Maison, 2016). Hierarchical model of banking service use was created based on seven levels of banking identified in the study, differing between themselves in the intensity of making various cashless transactions (Fig. 6.6). The lowest level in the model is zero, which means no use of cashless transactions whatsoever due to not having a

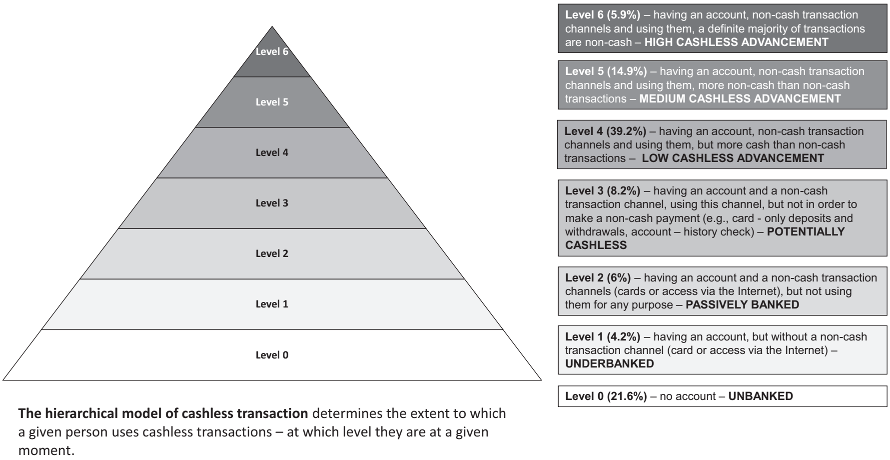

Fig. 6.6 Hierarchical model of banking service use – seven levels of adoption to cashless transactions

bank account (*unbanked*). These persons are, in fact, outside the banking system altogether. Level 1 are persons who have a bank account but don't have the option of making cashless transactions as they don't have a payment card or online access to their bank account (*underanked*). Level 2 are those who do have the cashless transaction option as payment card, online banking, but fail to use it (*passively banked*). Level 1 and 2 are similar to the underbanked consumers described by Burhouse et al. (2016) and Hayashi (2016). Level 3 includes consumers who have payment cards and access to online banking but don't use them for cashless transactions. They use cards just to withdraw money from cash machines but not for paying and use online banking simply to check their bank account balance but not for doing any transactions (*potentially cashless*). Level 4 are those who have an account, possess cashless transaction tools, and use them from time to time. Here, however, cash transactions still prevail (*low cashless advancement*). Level 5 comprises persons who are mostly cashless, paying with their card more often than with cash, and who use online banking more often than bank branch services; however, from time to time, they pay cash and go to the bank (*medium cashless advancement*). Level 6, being the top level of cashlessness, is manifest not only by the use of all cashless transaction tools generally available but also by the highest intensity of use of such transactions (*high cashless advancement*). These people are almost completely cashless and very often don't have any cash in their wallet. A cashless behaviour index (CBIndex) was developed on the basis of the dimensions used to define the levels of being banked, ranging from 1 to 100. This index has been used since 2009 to monitor levels of advancement of cashless transactions among Polish consumers.

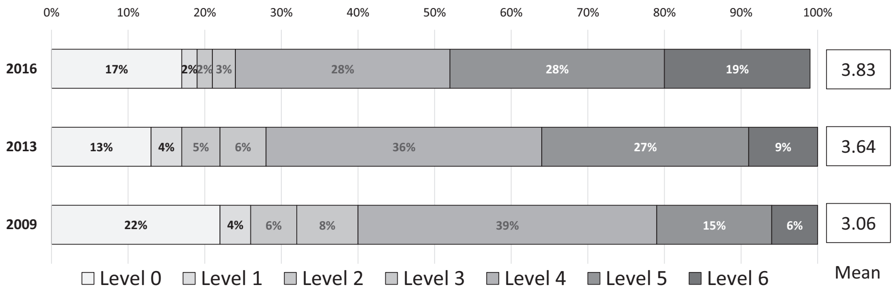

Fig. 6.7 Levels of adoption to cashless transactions in Poland across time (2009–2017)

A comparison of data concerning the levels of cashless transactions in Poland shows a significant growth between 2009 and 2016. The CBIndex increased from 28 points in 2009 to 41 points in 2016. The magnitude of various cashless transaction levels has also changed (Fig. 6.7). The most significant changes occurred on the highest levels of cashless transactions – levels 5 and 6. There has been a clear rise in the proportion of Poles who use all the cashless transaction tools available (medium and high level of cashless advancement). The group of Poles with the most intense use of all cashless transaction tools increased from 6% in 2009 to 19% in 2016. This change was partly caused by the introduction on a wide scale of contactless payments in Poland, which revealed the scale of card payments in Poland and speeded up the payment process. At the same time, contactless payments were intensely promoted by retailers in Poland who actively encouraged customers to use this form of payment. As a result in 2017, contactless payment option has 79.6% of cards, 68% of all cashless transactions are done with contactless technology, and Poland became a leader in Europe in terms of this form of payment (NBP, 2018), which is interesting since there still is a relative large amount of unbanked people. The group with the lowest level of banking service use, that is, persons from level 1, 2, who don't have a bank account and who do not use cashless transactions at all, decreased at that time (percentage of people on levels 1 and 2 dropped from 10% in 2009 to 4% in 2016). This means that there are less and less people who enter either the first level of banking (only opening an account) or the second level – having a card but not paying with it or having internet access to the bank account but not using it – and stay there. This also shows that overcoming the first barrier of not having a bank account is a very important step in moving on to the higher levels of cashless transactions.

The development of cashless transactions is probably similar in other countries where consumers also have to climb the steps of the ladder from being unbanked to intense use of cashless transactions. Moving up the cashless transaction ladder is undoubtedly facilitated by the development of infrastructure enabling this type of payment: the introduction of contactless payment possibilities assisting micropayments, availability of payment terminals and the Internet, and low interchange costs. However, the individual characteristics of a person, their education, age, and income are also of significance here (Fig. 6.8). Younger persons (but over the age of 25),

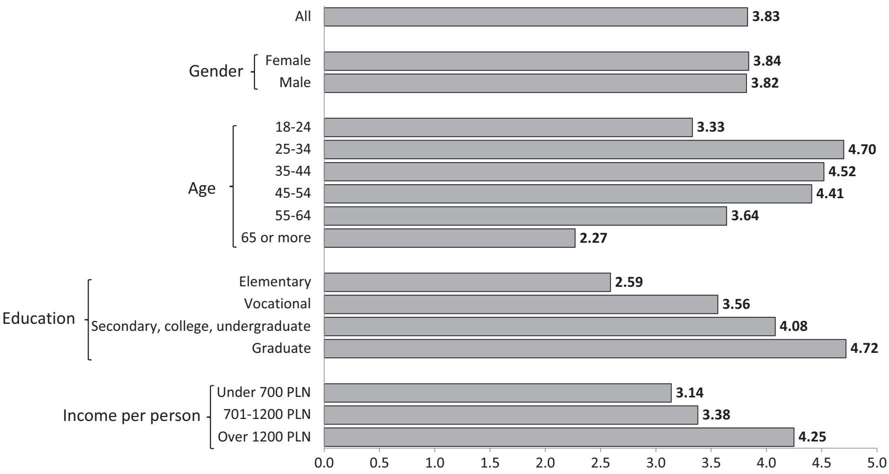

Fig. 6.8 Average banking levels in different demographic groups (mean from seven levels of banking)

who are better educated and with higher earnings, are on higher levels of cashless transaction advancement, but the level of being banked is not dependent on sex.

To summarise the discussion on the factors affecting the level of banking, stepwise multiple regression analysis was carried out where the dependent variable was the cashless behaviour index (CBIndex). This analysis was performed in order to check if any other individual characteristics discovered in earlier qualitative and quantative studies determine the level of advancement of a consumer in their cashless transactions and especially to investigate the role of Love for Cash. Step 1 of the regression analysis involved the introduction of demographics (sex, age, education) and the objective financial situation (income). In step 2, the subjective financial situation (perception) and fear of technology were introduced and in step 3 the Love for Cash (Table 6.3). Fear of technology was measured by asking respondents to what extent they agree with eight statements about bad side of technology (e.g. "Computers are too complicated for me" or "In the internet you can be easier deceived than in a regular shop"). The answers were on 4-point scale from 1, I totally disagree, to 4, I totally agree. The higher value indicated higher fear of technology.

In the first step of the analysis, we found age, education, and income to be a significant predictor of cashless behaviour, while gender was not significant. Younger people, better educated and with a higher income, had higher levels of cashless behaviour. In the second step, after the introduction of the subjective financial situation (perception) and fear of technology, these three variables were also significant, and also subjective financial situation and fear of technology were significant. In Step 3, Love for Cash was introduced, which was also a significant predictor of cashless behaviour; however, after introducing Love for Cash, income

Table 6.3 Predictors of cashless behaviour – CBIndex (regression analysis)

	Step 1			Step 2			Step 3		
Variables	*B*	SE	*p*	*B*	SE	*p*	*B*	SE	*p*
Age	−6.26	0.55	<0.001	−1.58	0.56	0.005	−2.50	0.53	<0.001
Education	6.54	0.92	<0.001	3.58	0.80	<0.001	2.99	0.75	<0.001
Income per person	5.64	1.27	<0.001	2.60	1.10	0.02	1.30	1.04	0.21
Subjective financial situation				3.36	1.21	0.006	2.83	1.13	0.01
Fear of technology				−19.55	1.34	<0.001	−8.90	1.63	<0.001
Love for cash							−13.24	1.29	<0.001
	$F = 92.09$	<0.001		$F = 130.88$	<0.001		$F = 142.93$	<0.001	
	$R^2 = 0.29$			$R^2 = 0.49$			$R^2 = 0.55$		

was no longer a significant predictor of cashless behaviour. The variables introduced in the model provide a good explanation of cashless behaviours, which, without doubt, depend on demographic variables, but psychological variables also play a key role. The percentage of the explained variance rose from 29% in the first step of the analysis to 55% in the last step (Table 6.3). The conducted analyses revealed that two psychological dimension fear of technology and money worship (Love for Cash) may become a key factor on the path to be more banked and cashless and to become fully cashless society.

References

Adhikari, A., & Bhatia, K. (2010). NREGA wage payments: Can we bank on the banks? *Economic and Political Weekly, 14*(1), 30–37.

Adkins, N. R., & Ozanne, L. J. (2005). The low literate consumer. *Journal of Consumer Research, 32*, 93–105.

Anderson, D. M., Strand, A., & Collins, J. M. (2018). The impact of electronic payments for vulnerable consumers: Evidence from social security. *The Journal of Consumer Affairs, 52*(1), 35–60.

Anderson, S., Kotwal, A., Kulkarni, A., & Ramaswami, B. (2013). Observations on the scope of corruption in NREGA projects (*Working Paper No. F-7013-INC-1*). International Growth Centre. Retrieved from https://www.theigc.org/wp-content/uploads/2013/03/Anderson-Et-Al-2013-Working-Paper.pdf.

Anong, S. T., & Kunowskaya, I. (2013). M-finance and consumer redress for the unbanked in South Africa. *International Journal of Consumer Studies, 37*, 453–464.

Arun, G. M., & Punj, S. (2016). Banking on E-cash. *India Today*. Retrieved from https://www.indiatoday.in/magazine/from-india-today-magazine/story/20170102-digital-economy-cashless-transactions-online-banking-mobile-banking-digital-currency-e-wallets-830074-2016-12-22.

Baker, S., Gentry, J. W., & Rittenburg, T. L. (2005). Building understanding of the domain of consumer vulnerability. *Journal of Macromarketing, 25*, 128–139.

Brown, A., Dodini, S., Gonzalez, A., Merry, E., & Thomas, L. (2016). Consumers and mobile financial services 2015. In O. Cortez (Ed.), *Mobile financial services for economically vulnerable and underserved consumers* (pp. 97–173). New York: Nova Science Publishers Ltd.

Burhouse, S., Homer, M., Osaki, Y., & Bahman, M. (2016). Assessing the economic inclusion potential of mobile financial services. In O. Cortez (Ed.), *Mobile financial services for economically vulnerable and underserved consumers* (pp. 47–96). New York: Nova Science Publishers Ltd.

CFPB – Consumer Financial Protection Bureau. (2016). Mobile financial services: A summary of comments from the public on opportunities, challenges and risks for the underserved. In O. Cortez (Ed.), *Mobile financial services for economically vulnerable and underserved consumers* (pp. 1–46). New York: Nova Science Publishers Ltd.

Chattopadhyay, S., Gulati, P., & Bose, I. (2018). Awareness and participation of small retail businesses in cashless transactions: An empirical study. *Management Dynamics in the Knowledge Economy, 6*(2), 209–225.

Collard, S., & Kempson, E. (2005). *Affordable credit: The way forward*. York, UK: Joseph Rowntree Foundation.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2017). *The global Findex database 2017: Measuring Financial inclusion and the Fintech revolution*. Washington, DC: World Bank Group.

Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology, 107*(5), 879–924.

FinBehTrack. (2016). Unpublished research report about financial attitudes and behaviors of Polish peolpe.

Furnham, A. (1984). Many sides of the coin: The psychology of money usage. *Personality and Individual Differences, 5*(5), 501–509.

Gąsiorowska, A., Zaleśkiewicz, T., & Wygrab, S. (2012). Would you do something for me? The effects of money activation on social preferences and social behavior in young children. *Journal of Economic Psychology, 33*(3), 603–608.

Hamilton, K., & Catterall, M. (2005). Towards a better understanding of the low-income consumer. *Advances in Consumer Research, 32*, 627–632.

Hanley, A., & Wilhelm, M. S. (1992). Compulsive buying: An exploration into self-esteem and money attitudes. *Journal of Economic Psychology, 13*, 5–18.

Hayashi, F. (2016). Access to electronic payment systems by unbanked consumers. *Economic Review*, (Q III), 51–76.

Honohan, P. (2008). Cross-country variation in household access to financial services. *Journal of Banking & Finance, 32*, 2493–2500.

Kamran, S., & Uusitalo, O. (2016). Vulnerability of the unbanked: Evidence from developing country. *International Journal of Consumer Studies, 40*, 400–409.

Kempson, E., & Whyley, C. (1999). *Kept out or opted out? Understanding and combating financial exclusion*. Bristol: Policy Press.

Maison, D. (2009). Stan wiedzy finansowej Polaków. Raport z badania ilościowego [*Finansial education of Polish population. Quantitative research report*]. Study conducted for The Kronenberg Foundation (Citibank Polnd). Available at: http://www.citibank.pl/poland/kronenberg/polish/files/fk_badania_01.pdf.

Maison, D. (2010a). Postawy Polaków wobec obrotu bezgotówkowego [*Attitudes of Poles towards cashless transactions*]. Research report from the study conducted for Polish National Bank. Available at: https://www.nbp.pl/systemplatniczy/obrot_bezgotowkowy/postawy_polak%C3%B3w_wobec_obrotu_bezgotowkowego_raport.pdf.

Maison, D. (2010b). Analizy barier dotyczących korzystania z obrotu bezgotówkowego oraz wskazanie działań ograniczających te bariery [*Analysis of barriers concerning use of cashless transactions and indication of actions that could limit these barriers*]. Research report from the study conducted for Polish National Bank. Available at: https://www.nbp.pl/badania/seminaria/4i2011.pdf.

Maison, D. (2012). Badanie postaw i zachowań Polaków powyżej 55 roku życia (badanie jakościowe) [*A study on the attitudes of Poles over 55 years of age towards cashless transactions (qualitative research)*]. Research report from the study conducted for Polish National Bank. Available at: http://www.nbp.pl/systemplatniczy/obrot_bezgotowkowy/raport_55_plus.pdf.

Maison, D. (2013). *Polak w świecie finansów – o psychologicznych uwarunkowaniach zachowań ekonomicznych Polaków [Pole in the financial world. About psychological bacground of financial behaviour]*. Warszawa: PWN.

Maison, D. (2014). *Study on barriers relating to banking service use among young persons in Poland*. Research report from the study conducted for Polish National Bank. Unpublished Research Report.

Maison, D. (2016). Postawy Polaków wobec obrotu bezgotówkowego. Raport z badania 2016 i analiza porównawcza z danymi z 2009 i 2013. [*Attitudes of Poles towards cashless transactions. Comparative analysis from 2009, 2013 and 2016*]. Research report from the study conducted for Polish National Bank. Available at: https://www.nbp.pl/badania/seminaria/8v2017.pdf.

Maison, D. (2019). *Qualitative marketing research. Understanding consumer behavior*. London: Routledge Taylor & Francis Group.

NBP. (2018). Informacja o kartach płatniczych IV kwartał 2017 r. [*Information about paying cards in IV quater 2017*]. National Polish Bank Report. Available at: https://www.nbp.pl/systemplatniczy/karty/q_04_2017.pdf.

Rabong, M. (2013). Stan rozwoju obrotu bezgotówkowego w Polsce na tle innych krajów UE. In H. Żukowska & M. Żukowski (Eds.), *Rozwój bezgotówkowy w Polsce* (pp. 261–288). Lublin: Wydawnictwo KUL.

Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research, 19*(3), 303–316.

Rona-Tas, A., & Guseva, A. (2014). *Plastic money: Constructing markets for credit cards in eight postcommunist countries*. Stanford, CA: Stanford University Press.

Sen, G., & De, S. (2018). How much does having a bank account help the poor? *The Journal of Development Studies, 54*(9), 1551–1571.

Shah, A. M., Eisenkraft, N., Bettman, J. R., & Chartrand, T. L. (2016). Paper or plastic?: How we pay influences post-transaction connection. *Journal of Consumer Research, 42*(5), 688–708.

Sinha, K., Joshi, D., & Kamani, G. (2017). Consumers' attitude and perception towards doing cashless transactions: An empirical study in Vadodara. *SIES Journal of Management, 13*(1), 18–30.

Tang, T. L. P. (1992). The meaning of money revisited. *Journal of Organizational Behavior, 13*, 197–202.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2006). The psychological consequences of money. *Science, 314*, 1154–1156.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2008). Merely activating the concept of money changes personal and interpersonal behaviour. *Current Directions in Psychological Science, 17*(3), 208–212. https://doi.org/10.1111/j.1467-8721.2008.00576.x.

Walsh, G. (2009). Disadvantaged consumers' experiences of marketplace discrimination in customer services. *Journal of Marketing Management, 25*, 143–169.

Yamauchi, K., & Templer, D. (1982). The development of a money attitudes scale. *Journal of Personality Assessment, 46*, 522–528.

Appendix 1: Demographic Structure of Sample of FinBehTrack 2016

		N	%
Total		1048	100
Sex	Females	557	53.2
	Males	491	46.8
Age	Under 24 years old	151	14.4
	25–34 years old	214	20.5
	35–44 years old	172	16.4
	45–54 years old	192	18.4
	55–65 years old	271	25.9
	Over 65 years old	46	4.4
Education	Elementary	279	26.6
	Vocational	239	22.8
	Secondary, college, undergraduate	353	33.7
	Graduate	176	16.8
Size of city	Rural	396	37.8
	City up to 20,000	148	14.2
	City 20–99,000	193	18.4
	City 100–499,000	174	16.6
	City over 500,000	137	13.0

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Appendix 2: FinBehTrack 2016 – Questionnaire

Part 1. Life Satisfaction (LS)

Q1_LS1. Overall, to what degree are you satisfied with your life now? Please state to what degree are you satisfied with your life now on a scale of 1–100, where 1 means you are completely dissatisfied with your life now, and 100 means you are completely satisfied with your life now.

1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100

Q2_LS2. Now consider the different areas of your life. To what degree are you satisfied with each of these areas?

In rotating order		I'm very dissatisfied	I'm somewhat dissatisfied	I'm somewhat satisfied	I'm very satisfied
A	Health	**1**	**2**	**3**	**4**
B	Finance	**1**	**2**	**3**	**4**
C	Work	**1**	**2**	**3**	**4**
D	Social life	**1**	**2**	**3**	**4**
E	Family relationships	**1**	**2**	**3**	**4**
F	Intimate relationships	**1**	**2**	**3**	**4**
G	My own character/ personality	**1**	**2**	**3**	**4**
H	Appearance	**1**	**2**	**3**	**4**
I	Future perspectives	**1**	**2**	**3**	**4**

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Q3-LS3. Please rate the degree to which you agree or disagree with each of the following statements related to life

In rotating order		Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
A	In most ways my life is close to my ideal	1	2	3	4	5	6	7
B	The conditions of my life are excellent	1	2	3	4	5	6	7
C	I'm satisfied with my life	1	2	3	4	5	6	7
D	So far I have gotten the important things I want in life	1	2	3	4	5	6	7
E	If I could live my over, I would change almost nothing	1	2	3	4	5	6	7

SWLS (Diener et al. 1985)

Part 2. Approach to Life (AL)

Q4_AL1. Below are different statements about life. To what extent do you agree with each of them?

In rotating order		1 – Strongly disagree	2 – Slightly disagree	3 – Mostly agree	4 – Strongly agree
A	A person should take matters into their own hands and not wait until things are handed to them	1	2	3	4
B	My life is the way it is because of my choices and decisions	1	2	3	4
C	My life depends on me and me alone	1	2	3	4
D	There are many factors in my life outside of my control: happiness, misfortune, mysterious coincidence	1	2	3	4

(continued)

In rotating order		1 – Strongly disagree	2 – Slightly disagree	3 – Mostly agree	4 – Strongly agree
E	I often have no control over many of the things that happen in my life – other people are largely responsible for the way that my life is	1	2	3	4
F	Overall, I feel unappreciated by others	1	2	3	4
G	I often feel used by other people	1	2	3	4
H	I'm one of those persons who has been treated unjustly by fate	1	2	3	4
I	I deserve a better life than what I have now	1	2	3	4

Q5_AL2. Please assess how important the issues set out below are in your life?

In rotating order		Not important at all	Not important	Of little importance	Neither important nor unimportant	Moderately important	Important	Very important
A	Having a good time, living life to the full	1	2	3	4	5	6	7
B	Pursuing new sensations and pleasure	1	2	3	4	5	6	7
C	Starting a family	1	2	3	4	5	6	7
D	Helping others, e.g. volunteer work	1	2	3	4	5	6	7
E	Ecology and environmental protection	1	2	3	4	5	6	7
F	Faith and religion	1	2	3	4	5	6	7
G	Abiding the law and maintaining social order	1	2	3	4	5	6	7
H	Living a life full of challenges, adventures, changes, and novelties	1	2	3	4	5	6	7
I	Creating new and original things	1	2	3	4	5	6	7
J	Living a life of constant entertainment	1	2	3	4	5	6	7
K	Making an impression on others	1	2	3	4	5	6	7
L	Power	1	2	3	4	5	6	7
M	High social status	1	2	3	4	5	6	7
N	Living in harmony with nature	1	2	3	4	5	6	7
O	My physical appearance and attractiveness	1	2	3	4	5	6	7
P	Staying in touch with many people	1	2	3	4	5	6	7
Q	Bragging and talking about my own accomplishments	1	2	3	4	5	6	7

Q6_AL3. Below are different statements about family and work. To what extent do you agree with each of them?

In rotating order		1 – Strongly disagree	2 – Slightly disagree	3 – Mostly agree	4 – Strongly agree
A	The satisfaction that I draw from my family is worth more to me than anything else in my life	1	2	3	4
B	The most important thing to me is family	1	2	3	4
C	Work and family are equally important to me	1	2	3	4
D	My life would be incomplete without work	1	2	3	4
E	I get a lot of satisfaction out of my job	1	2	3	4
F	The way people do their job is a measure of their worth	1	2	3	4
G	People work because they have to	1	2	3	4
H	Money is my biggest motivator for work	1	2	3	4
I	Having a well-paid job is more important to me than having an interesting job	1	2	3	4
J	Even if a child thinks that his/her parents are wrong, they shouldn't argue with them	1	2	3	4
K	It's more important for a woman to take good care of her home and family than to go on to higher levels of education and/or climb up the career ladder	1	2	3	4
L	Equality in marriage is important, but the man should always have the decisive say	1	2	3	4

Q7_AL5. How often do you do the following?

In rotating order		Once a year or less	Several times a year	Once every 2–3 months	Once a month	Several times a month	Several times a week or more
A	Out-of-home sports (e.g. jogging, aerobics, swimming, skiing)	1	2	3	4	5	6
B	Socialise with friends outside your home	1	2	3	4	5	6
C	Go to the cinema, theatre, concerts, and outdoor events	1	2	3	4	5	6
D	Meet up with friends	1	2	3	4	5	6
E	Travel, go away (both longer holidays and short breaks)	1	2	3	4	5	6
F	Pursue your hobbies and passions	1	2	3	4	5	6

Part 4. Banking Products (BP)

Q8_BP. Which of the following financial products do you have?

		Yes	No
A	Bank account (personal bank account)	1	2
B	Consumer credit	1	2
C	Mortgage	1	2
D	Loan	1	2
E	Deposit	1	2
F	Savings account	1	2
G	Shares	1	2
H	Bonds	1	2
I	Investment funds	1	2
J	Insurance	1	2
K	I don’t have any banking products	1	2

Part 5. Saving and Investing (S)

Q9_S1. Do you have any savings?

Yes	**1 → go to S3**
No	**2 → go to S2**

Q10_S2. Why don't you have any savings? Please select two of your most important reasons for this

Rotation of statements		Yes	No
A	I can't afford it; I only have enough to cover my current needs	1	0
B	I don't know how to save; I somehow end up running out of money all the time	1	0
C	I think saving is pointless; it's much better to simply take life as it comes	1	0
D	I did have some savings but I recently spent them on a large purchase	1	0
E	I really do think I should save but I simply can't get round to it	1	0
F	There's no need to save, what could I possibly be saving for?	1	0
G	Some other reason. If so, why? …………………………………………………	1	0

Q11_S3. What are the sources of your savings?

Rotation of statements		Yes	No
A	I regularly set aside a certain amount of money	1	0
B	From an inheritance or sale of house/apartment/land, etc.	1	0
C	I don't save money on a regular basis only when I have a surplus/more money left over	1	0
D	I simply have a certain amount of money left over each month; I don't spend everything I make	1	0
E	I used to put some money away but don't any more	1	0
F	I once invested in a financial product and I still have it	1	0
G	Some other source, what kind? …………………………………………………	1	0

Q12_S4. What level of savings do you have?

Up to 500 zł	**1**
501–1000 zł	**2**
1001–5000 zł	**3**
5001–10.000 zł	**4**
Powyżej 10.000 zł	**5**
10.001–30.000 zł	**6**
30.001–50.000 zł	**7**
50.001–100.000 zł	**8**
Over 100.000 zł	**9**
I don't know, it's difficult to say	**10**

Q12_S5. What level of savings do you have?

Up to my monthly income	**1**
Up to my 3-monthly income	**2**
Up to my 6-monthly income	**3**
Over my 6-monthly income	**4**
I don't know, it's difficult to say	**5**

Q13_S6. What do you do with your savings?

		Yes	No
A	I keep them in the bank, in a bank account that I use regularly	1	2
B	I keep them in the bank, in a term deposit or savings account	1	2
C	I've invested in investment fund shares	1	2
D	I've purchased insurance as an investment (where all or a part of the resources are multiplied)	1	2
E	I've bought an additional pension plan	1	2
F	I keep them at home	1	2
G	I've invested in real estate	1	2
H	I've invested in objects of substantial value (e.g. paintings or gold)	1	2
I	I've invested them in treasury bonds	1	2
J	I've invested them in shares of companies on the stock exchange	1	2
K	Some other source, what kind?	1	2

Part 6. Borrowing – Loans and Credits (LC)

Q14_LC1. Please give an approximation of the sum of loans and consumer credit that you have

……………………………………

Q14_LC1_A. What portion of your average monthly income has your household allocated to repayment of consumer credit and loans over the last 3 months? *(only one answer is possible)*

Less than 10%	**1**
Between 11% and 20%	**2**
Between 21% and 30%	**3**
Between 31% and 40%	**4**
Between 41% and 50%	**5**
Over 50%	**6**

Q15_LC3. Do you repay your consumer credit/loans?

Yes, I always repay them on time	**1**
Yes, but I sometimes repay it just after the payment date (but not exceeding the billing cycle)	**2**
Yes, but I sometimes repay it long after the payment date (exceeding the billing cycle)	**3**
There have been instances where I had not paid my commitments in the past and was subsequently contacted by a debt collection company	**4**

Part 7. Payment Cards (PC)

Yes	**1 → go to PC2**
No	**2 → go to NT1**

Q16_PC1. Which of the following types of payment cards do you have?

		No, I don't have any	Yes, but I don't use them	Yes and I use them	I don't know
A	Debit card/ATM card (connected to your bank account)	**0**	**1**	**2**	**3**
B	Credit card	**0**	**1**	**2**	**3**
C	Prepaid card	**0**	**1**	**2**	**3**

Q17_PC2. How often do you pay for products and services using various types of payment cards?

		Daily or almost daily	Several times a week	From time to time (1–2 times a month)	Rarely (1–2 times a quarter)	I don't use this payment card at all
A	Debit card/ATM card (connected to your bank account)	**4**	**3**	**2**	**1**	**0**
B	Credit card	**4**	**3**	**2**	**1**	**0**
C	Prepaid card (electronic purse)	**4**	**3**	**2**	**1**	**0**

Q18_PC3. Can you make contactless payments using the cards that you have? If you have more than one card of this type, please consider the card you use most often.

		Yes	No
A	Debit card/ATM card (to your bank account)	**1**	**0**
B	Credit card	**1**	**0**
C	Prepaid card (electronic purse)	**1**	**0**

Q19_PC4. How often have you made contactless payments over the last 3 months?

Daily or almost daily	**4**
Several times a week	**3**
From time to time (1–2 times a month)	**2**
Rarely (1–2 times a quarter)	**1**
I haven't made any payments of this type at all	**0**

Part 8. New Technologies (NT)

Q20_NT1. How often do you use the Internet?

Daily or almost daily	**5**
Several times a week	**4**
Once a week	**3**
Several times a month	**2**
Once a month or less	**1**

Q21_NT2. How often do you use online banking?/How often do you access your bank account online?

Daily or almost daily	**5**
Several times a week	**4**
Once a week	**3**
Several times a month	**2**
Once a month or less	**1**
I don't use online banking at all	**0**

Q22_NT3. What kind of activities do you do when using online banking? *(choose as many answers as apply)*

		Yes	No
A	I check my bank balance and transactions (payments and withdrawals)	**1**	**0**
B	I make payments and bank transfers	**1**	**0**
C	I open deposit accounts	**1**	**0**
D	I buy shares in investment funds	**1**	**0**
E	I take out consumer credit and personal loans	**1**	**0**
F	I buy insurance products	**1**	**0**
G	Controlling expenses (e.g. checking what I spend my money on)	**1**	**0**
H	Others, what kind?	**1**	**0**

Q23_NT4. Which form of using a bank account – through a bank branch or online – do you choose more often?

I do my banking at bank branch more often than over the Internet	**1**
I probably do more of my banking at a bank branch than over the Internet	**2**
I do my banking at a bank branch in equal proportions to over the Internet	**3**
I probably do more of my banking over the Internet than at a bank branch	**4**
I do most of my banking over the Internet than at a bank branch	**5**

Part 10. Insurance

Q24_IN1. Please rate the degree to which you agree or disagree with each of the following statements related to insurance

	In rotating order	Strongly disagree	Slightly disagree	Mostly agree	Strongly agree
A	It's good to have home or company insurance because if something would happen the insurance would cover the costs	**1**	**2**	**3**	**4**
B	It's good to have insurance because if I'd fall ill or have an accident, I'd have money for treatment, physiotherapy and for everyday expenses	**1**	**2**	**3**	**4**
C	Having insurance is a sign of maturity and taking responsibility for yourself and those around you	**1**	**2**	**3**	**4**
D	Thanks to the insurance, I can feel calm and safe about the livelihood of my family	**1**	**2**	**3**	**4**

(continued)

	In rotating order	Strongly disagree	Slightly disagree	Mostly agree	Strongly agree
E	Insurance is a waste of money because there's a strong possibility that you won't get any of this money back	**1**	**2**	**3**	**4**
F	I'm not worried at all about my health of life so I don't need any insurance	**1**	**2**	**3**	**4**
G	It's not worth getting insurance because the probability of anything happening to you is so low and insurance is so expensive	**1**	**2**	**3**	**4**

Part 12. Money Spending Style (MSS)

Q25_MSS. Below are various statements about shopping and spending. To what extent do you agree with each of them?

	In rotating order	Strongly disagree	Slightly disagree	Mostly agree	Strongly agree
A	Since I regularly save, I always have some money saved for a rainy day	**1**	**2**	**3**	**4**
B	Since I'm good at controlling my budget, I always got some money put aside	**1**	**2**	**3**	**4**
C	I try to have some money put away because you never know when you're going to need certain things	**1**	**2**	**3**	**4**
D	I sometimes happen to buy things that I don't need that much just because they really caught my eye	**1**	**2**	**3**	**4**
E	I sometimes spend larger amounts of money without a second thought, completely spontaneously	**1**	**2**	**3**	**4**
F	When I'm really set on something, I can spend a lot of money to get it	**1**	**2**	**3**	**4**
G	Sometimes I like buying something nice, even if it isn't a particularly reasonable buy	**1**	**2**	**3**	**4**
H	I sometimes deny myself of certain products because I can't afford them	**1**	**2**	**3**	**4**
I	In order to save, I mainly buy in thrift stores, large supermarket chains, or discount stores	**1**	**2**	**3**	**4**
J	I sometimes visit several shops in search of the cheapest product	**1**	**2**	**3**	**4**
K	I sometimes can't curb the urge to buy something and then I end up skint	**1**	**2**	**3**	**4**

(continued)

In rotating order		Strongly disagree	Slightly disagree	Mostly agree	Strongly agree
L	Sometimes, when I see something I'd really like to have, I can't resist buying it	**1**	**2**	**3**	**4**
M	I can sometimes spend money on things that are completely unnecessary and then I end up regretting it	**1**	**2**	**3**	**4**

Q26_MSS_E. Please complete the sentence: "*Thinking about money usually gives rise to emotions that are…*"

Strongly negative	**1**
Rather negative	**2**
Indifferent	**3**
Rather positive	**4**
Strongly positive	**5**

Part 13. Saving and Investing (SAV)

Q27_SAV1. Some people spend their income on their day-to-day living expenses while others always make savings. How would you describe your way of managing money? Please select one answer that best describes you

Everything goes towards my day-to-day living expenses	**1**
I usually spend money on day-to-day living expenses but, from time to time, I do manage to put some away/invest some of it	**2**
Apart from my day-to-day living expenses, I do manage to put a certain amount of money away/invest a certain amount of money	**3**

Q28_SAV2. Roughly what amount of money do you manage to save each month?/ONLY ONE ANSWER IS POSSIBLE/

Up to 50 zloty	**1**
51–100 zloty	**2**
101–200 zloty	**3**
201–500 zloty	**4**
501–1000 zloty	**5**
Over 1000 zloty	**6**
I don't know, it's difficult to say	**7**
I refuse to answer this question/I don't want to answer this question	**8**

Q29_SAV3. If you suddenly found yourself in a situation where you had to live off just the money that you'd managed to save, how long would it last for?

Less than a month	1
About 1–2 months	2
About 3–5 months	3
About 6–12 months	4
Over a year	5
I don't know, it's difficult to say	6

Q30_SAV4. If you had some spare funds, what would you probably do with them?

I'd spend it (spending it on various things)	1
I'd save it (saving the money for later, e.g. at a bank)	2
I'd invest it (putting my money in financial instruments like term deposits, shares, and bonds)	3

Q31_SAV5. Please rate the degree to which you agree or disagree with each of the following statements related to saving and investing

		Strongly disagree	Slightly disagree	Mostly agree	Strongly agree
A	I save my money because this lets me buy certain things that I normally wouldn't have the money for/couldn't afford	**1**	**2**	**3**	**4**
B	I save money because you never know what could happen and you might suddenly end up needing it	**1**	**2**	**3**	**4**
C	Saving money is difficult but I still manage to put money away	**1**	**2**	**3**	**4**
D	Saving isn't really for me – I don't like "tightening the belt" and prefer spending everything at once on my needs and pleasures	**1**	**2**	**3**	**4**
E	I don't put any money away because I think it's better to just spend it all on day-to-day needs	**1**	**2**	**3**	**4**

Q32_SAV6. What investing experience do you have? Please select one answer that best describes you

NONE AT ALL: I haven't made any investments; I don't have any saving products	1
HARDLY ANY: I don't have that much experience I've only got saving products like term deposits, bonds, and a savings account	2
RELATIVELY LIMITED: I try to buy some sort of investment products from time to time; I make my investment decisions with my advisor/agent	3
AVERAGE: I've got 1–2 investment products; I make most of my investment decisions with my advisor/agent	4
SUBSTANTIAL: I've made many investments on my own but I have sometimes been aided by an advisor; I'm familiar with various types of funds and I know what's going on in the market so I can react appropriately	5
EXTENSIVE: I've invested on my own; I can choose the best investments on my own and I know the exact differences between funds, I'm really well informed as to the different types of assets and constantly monitor the investment market, reacting to any market swings as they appear	6

Q33_SAV7. Regardless of whether you have experience or not, how would you describe your propensity for risk taking in financial investments? Please select one answer that best describes you

I avoid risk – I expect reliable investments	1
I can tolerate low risk – I assume that I can lose certain benefits without jeopardising the initial capital	2
I can tolerate moderate risk – slight but temporary capital loss	3
I can tolerate medium risk – I assume that losses are an inevitable part of getting long-term returns	4
I can tolerate high risk – I'm ready for losses	5

Part 14. Love for Cash (LfC)

Q34_LfC. Could you now rate the degree to which you agree or disagree with the following statements?

In rotating order		Strongly disagree	Slightly disagree	Mostly agree	Strongly agree
A	I find more pleasure in paying with cash than by a card	**1**	**2**	**3**	**4**
B	I like the feel of banknotes because it gives me the sense of having money	**1**	**2**	**3**	**4**
C	Only cash is real money	**1**	**2**	**3**	**4**

(continued)

In rotating order		Strongly disagree	Slightly disagree	Mostly agree	Strongly agree
D	I prefer getting my salary or other benefits paid in cash	**1**	**2**	**3**	**4**
E	When I have money in the bank, I feel as though I didn't have this money	**1**	**2**	**3**	**4**
F	It's best to get money in hand than bank transfers	**1**	**2**	**3**	**4**

Part 15. Attitude to Money and Material Possessions (MAT)

Q35_MAT1. Please answer a few questions concerning your opinion about money and material possessions

In rotating order		Strongly disagree	Slightly disagree	Mostly agree	Strongly agree
A	Love of money is the root of all evil	**1**	**2**	**3**	**4**
B	There's no honest way to make big money	**1**	**2**	**3**	**4**
C	Most people are capable of doing many bad things to get more money	**1**	**2**	**3**	**4**
D	Money is evil	**1**	**2**	**3**	**4**
E	Money is important to me because it gives me a sense of independence	**1**	**2**	**3**	**4**
F	Thanks to money I can pursue my passions and interests	**1**	**2**	**3**	**4**
G	Money is important to me because it allows me to hone my skills	**1**	**2**	**3**	**4**
H	I find it upsetting that I own so very few things	**1**	**2**	**3**	**4**
I	Money is a measure of a person's worth	**1**	**2**	**3**	**4**
J	It's infuriating that I can't buy many of the things I'd want to buy	**1**	**2**	**3**	**4**
K	It's annoying when my friends have things that I can't afford	**1**	**2**	**3**	**4**
L	I sometimes feel worse than people who have more money than me	**1**	**2**	**3**	**4**

Q36_MAT2. Please state how important the following goals are to you:

		Not important at all					Very important
A	To have lots of expensive possessions	**1**	**2**	**3**	**4**	**5**	**6**	**7**
B	To achieve financial success	**1**	**2**	**3**	**4**	**5**	**6**	**7**
C	To be rich	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Part 19. Financial Situation (FS)

Q37_FS1. How would you assess your material situation?

Very good	**7**
Good	**6**
Rather good	**5**
Average	**4**
Rather bad	**3**
Bad	**2**
Very bad	**1**

Q38_FS2. How would you assess your material situation compared to the situation of most Poles? Is it…?

Much better	**5**
Slightly better	**4**
Similar to most Poles	**3**
Slightly worse	**2**
Much worse	**1**

Q39_FS3. Which of the following statements best describes the material situation of your family?

There's not even enough money for the bare necessities	**1**
We have to deny ourselves of many things to make ends meet	**2**
We have enough money to get by but can't afford to cover higher expenses	**3**
We have enough to cover all our expenses but we can put some of them off	**4**
We're comfortably well-off and can afford to cover higher expenses	**5**

Q40_FS4. In your opinion, over the next 12 months, will the economic situation…

Get much worse	**1**
Get slightly worse	**2**
Will remain unchanged	**3**
Will pick up slightly	**4**
Will get much better	**5**

Q41_FS5. Assessing your household's financial situation, to what extent can you satisfy the following needs?

In rotating order		1 – Completely impossible	2 – Mostly impossible	3 – Mostly possible	4 – Very possible
A	Paying for a 1-week holiday for the whole family at least once a year	**1**	**2**	**3**	**4**
B	Eating meat, fish (or substitutes for vegetarians) at least every other day	**1**	**2**	**3**	**4**
C	Heating your home according to your needs	**1**	**2**	**3**	**4**
D	Having and maintaining a car	**1**	**2**	**3**	**4**
E	Paying off any commitments relating to rent, electricity, gas, instalments, etc., on time	**1**	**2**	**3**	**4**
F	Covering unforeseen expenses of 500 zloty	**1**	**2**	**3**	**4**
G	A trip to the cinema, restaurant, or concert for the whole family at least once a month	**1**	**2**	**3**	**4**
H	Having friends or family round for lunch/dinner at least once a month	**1**	**2**	**3**	**4**
I	Entertaining friends and family at your house for special occasions like birthdays and New Year's Eve, etc.	**1**	**2**	**3**	**4**
J	Giving gifts to close friends and relatives (children, parents, siblings, etc.) at least once a year	**1**	**2**	**3**	**4**
K	Replacing damaged or broken furniture and equipment/appliances	**1**	**2**	**3**	**4**
L	Buying new clothes and footwear to replace old/unfit or damaged items	**1**	**2**	**3**	**4**
M	Visits to the dentist for the whole family at least once a year	**1**	**2**	**3**	**4**
N	Buying all required medication when needed	**1**	**2**	**3**	**4**

(continued)

In rotating order		1 – Completely impossible	2 – Mostly impossible	3 – Mostly possible	4 – Very possible
O	Putting several hundred zloty away every month	**1**	**2**	**3**	**4**
P	Paying for a vacation abroad for the whole family at least once a year	**1**	**2**	**3**	**4**
Q	Covering unforeseen expenses of several hundred zloty	**1**	**2**	**3**	**4**
R	Buying branded clothes and footwear	**1**	**2**	**3**	**4**

Reference

Diener, E., Emmons, R., Larsen, R.J., Griffin, S. (1985). The Satisfaction With Life Scale. Journal of Personality Assesment, 49, 71–75.

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D. Maison, *The Psychology of Financial Consumer Behavior*, International Series on Consumer Science, https://doi.org/10.1007/978-3-030-10570-9