# UNDERSTANDING THE INVESTOR

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# UNDERSTANDING THE INVESTOR: A MALTESE STUDY OF RISK AND BEHAVIOR IN FINANCIAL INVESTMENT DECISIONS

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Dedicated to the individual investor.

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# Contents

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# List of figures

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# List of tables

# List of abbreviations

| | |
|---|---|
| AGH | Attention Grabbing Hypothesis |
| BOV | Bank of Valletta |
| CAPM | Capital Asset Price Model |
| CBM | Central Bank of Malta |
| DWDTI | Different ways to disseminate information |
| FA | Financial Advisor |
| GDP | Gross Domestic Product |
| IDH | Information Dissemination Hypothesis |
| ISO | International Standard Organisation |
| MIFID | Markets in Financial Instruments Directive |
| MFSA | Malta Financial Services Authority |
| MGS | Malta Government Stock |
| MMA | Mixed Method Approach |
| MRS | Mean Rating Score |
| MSE | Malta Stock Exchange |
| NSO | National Office of Statistics |
| p. | Page |
| PPH | Price Pressure Hypothesis |
| Q. | Question |
| SPSS | Statistical Package for the Social Sciences |
| SR | Standard Residual |

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# Preface

Dear Reader,
I would like to thank you for taking the interest and the time to read through this book. Writing it was a most exciting and inspiring experience. What started as a requirement for a Masters by Research degree, turned into a much needed deep and compelling investigation.

If you are an investor, interested in financial investment or come in contact with investors on a regular basis, then, this book should be an interesting read to you. This is because it delves into the realm of stocks and shares, exploring different scenarios, and analyzing alternative possibilities and outcomes: all embedded in the ever present element of risk.

The biggest impediment of this study was brought about by unexpected financial and political scandals which led to all gatekeepers closing ranks in an effort to safeguard customer data protection. This limitation was circumvented by the use of social media and the help of newly made connections with financial institutions.

Replies from online and paper surveys were compared to those from semi-structured interviews with financial advisors, to extract the realities of the Maltese financial market. The book sheds light onto the fears, concerns, habits, and choices of the Maltese financial investor with the purpose of understanding the investor better. Unfortunately, it also uncovers some harsh unspoken truths, for which I make no apologies, as I believe that it is important to face a shortcoming in order to improve.

Despite the structure of the study, each chapter can be read in isolation. However, reading it in its entirety will give you a better understanding of the profile of the Maltese investor. A glimpse into the appendix is also encouraged as it offers a databank of information most useful to those interested in the field.

I appeal to you, managing authorities and financial advisers to use this book as a tool by which to enhance the services offered, and to you, investors, to learn from it and improve your trading performance. Whatever the use you make of this book, I sincerely hope it appeals to you and instigates more research on financial trading and financial investors.

Antonietta Bonello.
20-09-2018

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# Acknowledgments

No work is done alone, and I certainly required the contribution of hundreds in the completion of this book.

I, therefore, would like to take the opportunity to reflect on those kind-hearted people who have somehow shown support, all those who reached out to help me, and/or contributed in some way to this study. To all those individual investors who took the time to patiently and selflessly, answer the questionnaire.

I would also thank all those who contributed to the distribution of the questionnaire and to all those talented financial advisors who have accepted to sit for an interview and shared their experiences. Thank you all, your help is greatly appreciated.

My gratitude accompanied by many hugs goes to my husband and children for always being there for me. Thank you for making do, and for the many and much needed cups of tea that came my way.

Appreciation also goes to my tutor and co-editor, Dr Simon Grima, for his valuable advice, constant support. and unwavering encouragement. Sincere thanks to you, Dr Grima.

Lastly, my thanks goes to my publisher and her team for their attention to detail and publishing advice.

A renewed "thank you" to all, as without you this book would not have been possible.

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Chapter 1

# An Introduction

## Background to the book

Determining factors and traits in decision-making is a subjective matter, and researchers differ in their views as to what constitutes a "factor" in the investor's decision-making, especially with issues concerning the investor's behavior (Klement, 2015). Understanding the profile of an investor involves more than just studying his/her portfolio. It requires a deeper analysis of his/her needs, expectations, knowledge, fears, and perceptions both in terms of return on investment and in terms of risk. This is because emotions are said to be linked with trading performance (Lo, Repin, & Steenbarger, 2005) and concepts of volatility, tolerance, and risk take a new dimension when dealing with human emotions, fears, and personal experiences (Mooreland, 2014).

Investors' profiling thus becomes a very important aspect of retail wealth management. For the retail investor, every financial decision carries an element of risk (Riffin & Ahmad, 2012) which can bring high profits or equally high losses, hence, the need to gauge and evaluate each decision. Through risk profiling, one can obtain the optimal level of investment risk acceptable to the investor, taking into account all the factors affecting the asset risk, the investor's risk appetite, and the investor's risk capacity (Klement, 2015).

Traditional theory has indicated that the investor is (1) "completely rational," (2) able to deal with complex choices, (3) is risk averse, and (4) wants to maximize his/her own wealth (Fama, 1970; Baker, Hargrove, & Haslem, 1977; Christie & Huang, 1995; Devenow & Welch, 1996; Von Neumann & Morgenstern, 1944). Rational investors are known to assess the risks and returns of available investments to obtain the investment portfolio that best suits their objectives (Barber & Odean, 2011; Rabin, 1998). Yet investors are not always rational as evidenced by the studies of Kahneman and Tversky, (1982), Tversky and Kahneman (1992), and Shleifer & Summers (1990).

> The most common rules of the theory (of rational choice) are commonly violated by decision makers. (Tversky & Kahneman, 1986, p. 252)

Instead of the ideological investor following normative behavior, modern theory sees investment decision-making as a "maximization process" (Tversky & Kahneman, 1986, p. S251), a process based on options, preferences, expectations, and evaluation.

**Understanding the Investor: A Maltese Study of Risk and Behavior in Financial Investment Decisions, 1–8**

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Every person is faced with different amounts and kinds of risks (Lunt, 1996) and every investor ascribes a weight or value or level of risk to each variable effecting a decision, with the aim of either maximizing gains or minimizing losses (Tversky & Kahneman, 1992). Similarly, every individual absorbs the same given risk or prospect differently depending on how one "represents" the problem, limitations, and objectives and lastly on the context in which one evaluates the risk (Tversky & Kahneman, 1992).

Thus, financial choices would depend on one's objectives and perception of risk and on one's evaluation of the possible outcomes or prospects. Concurrently, the possibility of a loss looms over the prospect of a gain (Rabin, 1998), and investors seek refuge in practices of their own making in an attempt to safeguard themselves from loss (e.g., cutting losses when an investment underperforms, being risk averse in probabilities of gain and becoming risk takers when faced with a possible loss) (Rabin, 1998; Toma, 2015; Tversky & Kahneman, 1992).

In pursuing their objective, investors adopt different strategies. Some use models to explain and predict asset prices (Kraus & Stoll, 1972). Other investors focus on risk, and investment performance (Modigliani & Modigliani, 1997), while others still, try to predict outcomes (Black, Jensen, & Shleifer, 1972; Sharpe, 1964). In the process, some aspects are common to a multitude of investors For example, many investors are motivated by portfolio diversification, generation of new cash, and/or straightforward speculation (Entrop, Fischer, Mckenzie, & Wilkens, 2016). Other common considerations include dividends, expected returns, and the firm's financial stability (Baker & Haslem, 1974; Entrop et al., 2016).

Similarly, some factors such as return on investment, available income, time horizon, and benchmarks affect the investor's risk tolerance (Barberis, 2000; Entrop et al., 2016; Rabin, 1998; Tversky & Kahneman, 1979), while past experiences, perceptions, and expectations determine the investor's behavior to risk (risk appetite) (Barberis, 2000; Cervellati, Ferretti, & Pattitoni, 2014; Furtenberg, 1990).

In turn, both risk tolerance and risk appetite are influenced by other factors, such as information at hand, marketing, advice received, and the country's culture (Barber & Odean, 2001; Black, 1986; La Blanc & Rachlinski, 2005; Shleifer & Summers, 1990). These last factors are external to the financial and personal aspects of the investor, yet still have a significant weight on the outcome of the investor's decisions. Ultimately, the outcome of one decision is likely to have an impact on the investor and, by consequence on his/her future decisions, thus creating a vicious circle of experiences, decisions, and outcomes (Grima, Romānova, Bezzina, Chetcuti Dimech, 2017; Raab, 2003).

Thus, it can be seen that investor behavior need not be rational nor predictable. Nonetheless, behavior reflects the sentiment of the investor at that point in time and, consequently, has an impact on the investor's decision-making, also leaving ripple repercussions on market liquidity and asset pricing (Amihud, 2002; Liu, 2015; Shleifer & Summers, 1990). Taking the right decision is very important in investment as it would reduce possible future losses and increase future returns (Alaf & Sarwar, 2016; Baker & Haslem, 1974; Entrop et al., 2016; Raab, 2003; Tversky & Kahneman, 1979; Veld & Veld-Merkoulova, 2008).

All decisions involve risk: the greater the risk, the greater the probability of gains or losses (Barber & Odean, 2008; Merton, 1969; Okuyama & Francis, 2006; Tversky & Kahneman, 1979). Moreover, the perception of what constitutes a risk and the gravity of the risk differ by gender (Barber & Odean, 2001; Croson & Gneezy, 2009; Hallahan, Faff, & Mckenzie, 2004; Kasilingam, 2013; Merkle, Egan, & Davies, 2015), race (Finucane, Alhakami, lovic, & Johnson, 2000; Montalto, Gutter, & Fox, 1999; Praba, 2011), age (Palsson, 1996; Purkayastha, 2008; Reyna, 2004; Viceira, 1999), and status (Baker & Haslem, 1974; Barber & Odean, 2001; Praba, 2011; Purkayastha, 2008).

In summary, the financial sector offers multiple opportunities but when faced with choices and risk, matters become more complicated and different people tend to make different decisions (Paulsen, Platt, Huettel, & Brannon, 2012; Reyna, 2004; Warren, 1990). The risks taken up by investors need to be understood and managed in the best interest of the same investor and of society as a whole (Pompian, 2016). There are various factors or issues that can influence an investor's ability and willingness to risk. Modern theories show that such factors can be economical as well as behavioral (Nevins, 2004).

## The reasons behind researching the Maltese investor trading on the Malta Stock Exchange

This book will be analyzing aspects of decision-making and risk management practices adopted by the Maltese investor trading on the Malta Stock Exchange (MSE).

Malta, a small island state situated in the heart of the Mediterranean, has a population of over 430,000 people (National Office of Statistics, 2016). Like other "small states," Malta faces "special handicaps and (is) economically vulnerable to external shocks as a result of (its) small size" (Kisanga, 2004). Small size and insularity expose small states like Malta to particular hardships and "negative impacts." These setbacks arise from their inherent characteristics and trade openness that leaves the small states highly dependent on the outside world (Briguglio, 2015).

Though considered a micro state, Malta "has never resigned itself to smallness" (Pace, 2006, p. 33), and has developed "appropriate economic policies that have been instrumental in enabling … (it) … to cope with some aspects of … (its) … inherent vulnerability" (Kisanga, 2004). This was done by taking advantage of the requirements for membership into the European Union to restructure the economy and increase efficiency through internal competition, diversification, and updated regulation (Pace, 2006). Though run by a centralized government, Malta's Constitution provides for various checks and balances that promote democracy, and accountability (Pirotta, 2001). Moreover, local firms have developed effective "risk management mechanisms (that) allow for a strong risk culture, defined risk management goals, accountability and continual improvement" (Bezzina, Grima, & Mamo, 2014, p. 587).

The largest in an archipelago of five small islands, Malta is a reputed platform for international businesses and is known to offer "stability, predictability, and security" (Finacemalta, 2014). Malta is said to be among the top six countries to have a "highly stable" banking system that, since 1970 has been both credit abundant and crisis free (Calomiris, 2015). Assets of local banks represented 56.8% of Malta's GDP in late 2015, while those of the core domestic banks accounted for 23.8% of GDP (Grima, Romānova, Bezzina, & Chetcuti Dimech, 2016; MFSA, 2016).

After joining the European Union in 2004, Malta "prides itself on being one of the best performing Eurozone economies, registering healthy economic growth and low unemployment" (Financemalta, 2015, p. 7). Though being the smallest economy in the Union, Malta has been resilient in the face of adversity and global recession. Low debt to GDP ratio, sound financial and banking sectors, good governance, and plenty of flexibility are the factors that make Malta a "self-made," consistent success story in the resilience index (Briguglio, Gordon Cordina, & Farrugia, 2006; Briguglio, 2015).

> Malta stands alone as an oasis of financial prosperity in a Europe desiccated by the financial crisis. From a financial standpoint, Malta is proof that you do not have to be a big country to be a big player. (FinanceMalta, 2015, p. 7)

Malta's financial market is a key pillar in the island's economy, accounting for 13% of Malta's GDP and providing employment for 10,000 people (FinanceMalta, 2015).

The MSE in particular has earned a high reputation for itself and for the country. Currently, processing over 30,000 trades per year, the MSE's performance over the past 25 years has been more than just positive. Since the turn of the century, MSE annual turnover has doubled and market capitalization has tripled (Table 2.5).

> This level of confidence in the market by investors combined with the increasingly entrepreneurial private sector has created an environment that allows the capital market to co-exist with the traditional banking sector. Pace (2016).

MSE Index is said to be one of the world's best performing indices (Pace, 2016). Thus, it is not surprising that the Maltese financial sector has recently been recognized as the "Best International Financial Centre" for 2017 (FinaceMalta, 2017).

To this author, choosing Malta as the ground for this book was not simply a convenience sampling technique deemed to facilitate work and reduce research costs (Saunders, Lewis, & Thornhill, 2016). Irrespective of the familiarity and convenience aspect, the author has chosen Malta because it sets an example in financial markets and is a good model for research.

## Statement of the problem

Financial services in Malta have been set up in the 1980s with the formation of a financial services center. Actual trading operations as a platform commenced in 1992 with the setting up of the MSE. As young as the Maltese financial market is, local financial risk profiling is a relatively new concept. Existing local literature includes studies associated with pension funds (Aquilina, 2013), hedge funds (Meilak, 2015), protection of the investor (Grech, 2012), investor's confidence in investment services (Scicluna, 2014), and investor perceptions (Xerri, 2015; Zammit, 2016). Moreover, the existing local studies cover one or two variables at a time, but do not present a holistic profile of the local investor and of his/her willingness to risk. With this research, the author aims to fill this gap by delineating, as much as possible the many factors underlying the local investor's decisions and by producing a valid, in-depth, and reliable database of results that presents a clear and detailed profile of the Maltese investor trading on the MSE.

## Aim and objectives of the book

This book focuses on the investor, his/her choices, the reasons and risks behind these choices, and the effect of these choices on the investor's portfolio. Many of the factors have already been discovered in existing literature, some having been the basis of new theories. The scope will now be to determine which of these known factors pertain to the Maltese investor and to possibly uncover new variables. The book also seeks to find out whether the difficulties faced by investors as depicted in literature are evident with the local investor, particularly in terms of women's participation in financial investment.

Previous studies revolve around the Maltese investor's risk appetite and tolerance and/or the investor's portfolio. With this research, the author aims to take a more holistic approach into the study of the Maltese investor by analyzing his/her profile, habits, behavior, needs, fears, expectations, tolerance, and perceptions. In combining the aspect of the investor as a "human," to the analysis of his/her "monetary" portfolio, this research will be providing a better understanding of the investor's preferences (Kahneman & Tversky, 1982); his/her risk profile and the resulting outcome on the investor's performance and on the local trading market.

Another objective of this book is to address directly and solely the Maltese investor. By addressing active investors, the researcher will be seeking answers directly from the "source." In addition, this strategy aims at reducing the fallouts of replies by non-investors, whose replies would distort the results and interfere with the scope of the research: namely to delineate the profile of the Maltese investor.

This research will possibly determine how far a Maltese investor is likely to go in terms of investment risk and also how s/he relies on the guidance of his/her financial advisor. The research shall consider the perceptions of the individual investor on the current advisory services, to then question how financial advisors and brokers are using their privileged position.

Another aim of this book is to change the focus from the normative view of investor finance (what an investor should do) to a positive perspective showing what the Maltese investor actually does in this current age and why she/he does so (De Bondt & Thaler, 1994; Jensen, 1993; Kourtidis, Sevic, & Chatzoglou, 2011; Nofsinger, 2014).

## The research questions

(1) What are the determinants behind the Maltese investor's buy-and-sell decisions and what impact do they have on the investor's risk appetite and tolerance?
(2) How does the role of the financial advisor effect the financial decisions of the Maltese investor?

## Propositions

The following are a number of propositions the author will use to uncover some of the factors underlying the investor's risk appetite and influencing the investor's decision-making.

(1) Expectations and Performance
Investors have high, but unrealistic expectations in terms of financial returns (Barber & Odean, 2001). Actual returns are usually less than those expected (Barber & Odean, 2011).

(2) Disposition and Trading behaviour
   (a) Investors sell winners and retain losers (Barber & Odean, 2011; Odean, 1999; Shefrin & Statman, 1985, p. 788).
   (b) Investors are risk averse when they stand to gain money but are risk seekers when there is a chance of losing money. This indicates that investors are more loss averse than risk averse (Rabin, 1998; Tekce, Yilmaz, & Bildik, 2016; Tversky & Kahneman, 1979, 1992).
   (c) Overconfidence leads to excessive trading and excessive trading leads to lower returns (Barber & Odean, 2011).
(3) Financial literacy
   (a) Information at the hand of individual investors is mostly promotional (Cervellati, et al., 2014; La Blanc & Rachlinski, 2005).
   (b) Individual investors lack knowledge on investment in general and on their own investments. They also have little insight on the issuing companies (Damodaran, 2012).
   (c) Increased financial literacy invokes more financial maturity and confidence in investors. It also instigates participation and helps to reduce risk aversion, minimize unnecessary risks (Klement, 2015; Miller, 1977), and encourage diversified portfolios. Males are prone to be more overconfident than females (Allie, West, & Willows, 2016; Barber & Odean, 1970; Rabin, 1998; Willows & West, 2015).
(4) Other factors
   Investors' decisions are influenced by various factors. Most dominant being (not necessarily in this order):
   - Demographics (age, status, and income).
   - Financial advisor and financial advice (Strategy, investors' expectations, impact) (Allie et al., 2016; Kaufmann, Weber, & Haisley, 2013).
   - Past experiences (success, failure) (Kaufmann et al., 2013; Raab, 2003).
   - Other behavioral traits (fear, herding, familiarity, and home bias) (Harvey & Gray, 1997; Pompian, 2016).
   - Costs (transaction costs; commissions, after sales services, regulations such as MIFID II) (Barber & Odean, 2011; Cervellati, et al., 2014; Pompian, 2016).

## Conceptual framework

The conceptual framework of this book reflects the evolution of theories and thoughts in existing literature, as understood by the author. Value and wealth, monetary or otherwise, are relative to the person's circumstance (Bernoulli, 1954), and although people's choices might not always be rational (Hodges, 2015; Rabin, 1998), every individual will always try to maximize his/her expected utility (Friedman & Savage, 1948; Nagy & Obenburger, 1994; Von Neumann & Morgenstern, 1944). In doing so, one inevitably faces a degree of risk: the greater the probability of risk, the greater the expectations of utility or returns (Warneryd, 1996). Thus, the expectations of a person are crucial in this study as they play a big role in determining the person's behavior, and hence, the outcome of the decisions taken (Merton, 1969). When faced with uncertainty, people make different choices based on the way they perceive the risks they face and also on the weight they give such risks (Black & Scholes, 1973; Tversky &

Kahneman, 1979). Furthermore, in the light of so many investment opportunities, investors make their decision based on a number of variables, and each variable contributes in part to the maximization of expected utility to be derived by the purchase or sale.

Thus, in order to understand the decisions made by investors, one has to necessarily consider a combination of economical, psychological, and behavioral aspects that all together condition the experiences, perceptions, and expectations of the investor (Barber & Odean, 2008; Rabin, 1998).

The author has also considered different case studies to uncover the most inspiring findings relating to those variables that might have an impact on the abovementioned aspects of decision-making. Four particular peer-reviewed journal papers, namely Tversky & Kahneman (1979), Barber and Odean (2011), Cervellati et al. (2014), and Allie et al. (2016) served as focal studies for the propositions of this study.

Backed by the theoretical background and the relative case studies, this author has extracted what, in her opinion, are the most recurring aspects of financial decision-making. Through a mixed approach, the researcher will seek to answer the reseach questions by absorbing the recuring aspects she uncovered into a number of propositions for this study. Purposive sampling is used to conduct self-reporting surveys and interviews. Statistical analysis using means, percentages, and constructs is used to examine the survey results, while a thematic analysis is adopted to evaluate and interpret the replies of the financial advsors. The researcher will then use the evidence obtained from both methods to test, and possibly confirm said propositions on the case of Malta, keeping an open eye for any new aspects of factors arising from the findings.

## Significance of the study

This research provides a movement from the normative view of investor finance (what an investor should do) to a positive view showing what the Maltese investor actually does in this current age and why s/he does so (Cavezzali & Rigoni, 2012; Kourtidis et al., 2011; Toma, 2015). Moreover, the study links investment finance to the investor's participation in the local stock market (Rooji, Lusardi, & Alessie, 2007).

To the author's knowledge, this research is the first in-depth case study of its kind for the Maltese financial market. The findings of this book should help financial advisors, stock brokers, and issuing companies by providing a critical analysis of the main characteristics making up the profile of the Maltese investor. The book shall present evidence on the dominant factors that affect the decisions of Maltese investors trading on the MSE. This evidence could be used by financial advisors, issuing bodies, and regulatory bodies as a tool for effective decision-making. Alternatively, it can be used by the investors themselves as a guide in managing their capital and understanding their risk circumstances better.

Overall, this book should help the reader, understand better the Maltese investor, his/her behavior, choices, preferences, and risk levels. It should also shed light on the investor's expectations and risk tolerance. Understanding the investor's expectations could help issuing companies in anticipating the investor's decisions in terms of risk avoidance and anticipated returns to then hopefully issue adequate investments according to the investor's needs, requirements and risk appetite. Furthermore, through the evidence provided by this research, financial advisers should be in a better position to look out for, and incorporate the most important issues when addressing the concerns of their clients. Government, commercial institutions, and risk managers could also use this book for the development of investments that best reflect the profile, risk appetite, needs, and expectations of Maltese investors and investments that provide better cash management to the same entities. Moreover, results and findings can be used as value analysis in the planning of interest rates, investment terms and longevity of bonds.

On another level, financial advisors and the MFSA, Malta's financial regulating body, would both benefit from this study. Given the perceptions and expectations of the investor as resulting from the evidence of this study, regulatory bodies could review the current financial standards and practices and in the process, determine their level of effectiveness.

Lastly, this research will provide a database upon which to focus future studies, shedding light on various profile aspects and some statistical information as yet unpublished.

## Contents

The first section of this book deals with the rationale, addressing the problem and outlining the approach of this research. Chapter 2 presents the existing literature on the subject matter, while Chapter 3 defines the conceptual and theoretical frameworks adopted in this research. Having studied the literature and analyzed the methods used in the development of relative theories, this author designed her own framework and course of action. Both shall be explained and displayed together with a brief insight on the case of Malta. The chapter shall extend to the methods of data collection and data analysis, with the author explaining the reasons for her choice and describing the various phases of the study. In Chapter 4, the data collected from participants (respondents and interviewees) are examined and the results correlated to the existing literature and to the propositions of this research. In the last chapter, the author gives the conclusions drawn from this research and the recommendations thereon, followed by some ideas for future studies on the matter.