

Chapter 2

Literature Review

Abstract This chapter provides the background for the book. The chapter begins with a brief overview of behavioural finance, covering the aspects of portfolio construction, investor segmentation and securities markets. A section on prospect theory and its relevance to financial theory ends the section on behavioural finance. Further, the key concepts of regulatory focus theory were explored. The chapter concludes with a summary and critical evaluation of studies coupling both regulatory focus theory and financial concepts.

2.1 Behavioural Finance

At present, financial theory is in flux, as previously established models are being challenged and re-evaluated. Even the Markowitz Model (Markowitz 1959), the foundation of classical finance, has been called into question. Simply put, the belief that investors are rational and make cogent decisions is no longer a given, and this has called several well-established theories into question. With the vestigial effects of the subprime crisis and the ongoing European sovereign debt crisis, it is more apparent now than ever that irrational decision-making is the prime mover behind critical economic events.

Whenever the finance industry is portrayed in the media, the image that is construed is of people engaged in activity, busy in the trading room, or in their high-powered offices on Wall Street. This is a stark contrast from standard finance textbooks and early finance journals which seem to be devoid of human activity and interaction. There is much time spent on calculating rates of return, present values as such, and far too few studies on the people who are actually involved in financial markets. We all know that people are the *raison d'être* of financial markets, but why have they been largely ignored? Perhaps almost a century of stock price data on COMPUSTAT is hard to resist, compared to relatively few studies on the behaviour

of individuals. Bluntly, if stock prices can fall 20 % in one day,¹ without any news, can one say with certainty that why people are irrelevant (Thaler 1993)?

Standard finance, also known as Modern Portfolio Theory (MPT) (Markowitz 1952), but not very modern at this point, has four foundational blocks, and posits that investors are rational, markets are efficient, investors should design their portfolios according to the rules of mean–variance portfolio theory and that expected returns are solely a function of risk (Kahneman and Tversky 1979; Statman 2008). Behavioural finance, however, restructures and questions this framework, postulating that markets are inefficient, and that investors are ‘normal’. Rational investors always prefer more wealth to less, but normal ones are affected by cognitive biases and emotions (Statman 2008). Behavioural finance² utilises insights from the field of psychology and applies them to explain stock market anomalies and other financial issues. This may lead some to believe that behavioural finance aims to bring psychology into finance, but psychology has always been a part of finance, albeit unnoticed. Although psychological methods have been utilised to explain financial anomalies, the motivations behind these phenomena have yet to be explored. Regulatory focus theory, a goal-pursuit theory has been put forth to explain the motivations that underlie financial decisions, and will be detailed in Sect. 2.2.

The following sections will explore the various facets of behavioural finance, from portfolio construction to investor optimism, and from IPO market behaviour to dividend policy. These sections summarise the key findings in behavioural finance, to give insight into various market phenomena that exist.

2.1.1 Portfolio Construction

The simplicity of the Mean–Variance (MV) model posited in MPT suggests that it should be a relatively easy task for the average investor to create a reasonably efficient portfolio over a long-term horizon. However, behavioural finance suggests otherwise with the investor performing poorly over a long period. As per MPT, investors are supposed to maximise portfolio expected return for a given amount of risk, or equivalently minimise risk for a given level of expected return (Markowitz 1952), but this rarely occurs in reality. Instead, investors seem to do everything else but that (sentence incomplete). For example, they are more comfortable with focusing their portfolios on the assets, for example, domestic assets and their employer’s stocks, regardless of whether this may increase the overall risk of the investment portfolio (Huberman 2001).

¹On 19 October 1987, the Dow Jones Industrial Average dropped by 508 points to 1738.74, a 22.61 % change.

²Behavioural finance is the use of psychological methods to explain the behaviour of investors and subsequent market effects (Sewell 2010).

The above phenomenon is known as home bias,³ resulting in a focus on domestic securities despite, the possible reduction in risk by international diversification (Tesar and Werner 1995). Investors in more patriotic nations hold smaller amounts of international equities (Morse and Shive 2011), very different from the predictions of asset pricing models, which state that investors should hold the world market portfolio of all countries in proportion to each country's market capitalisation. Home bias is extensive across countries (Chkioua and Abaoub 2012), although varying greatly in effect (Solnik and Zuo 2012), and has fallen in recent years (Foad 2012). Several reasons have been put forward, such as a desire to hedge domestic inflation, but such an explanation does not yield as equities do not hedge inflation in such a way, given the investment horizon of most portfolios. Other explanations, such as investors being more optimistic about local equities than compared to foreign investors (French and Poterba 1991) or the existence of international boundaries resulting in exchange risk, etc. (Ke et al. 2009) have been put forward, but these are hard to model, and thus far not proven conclusively, similar to other investor idiosyncrasies.

Overconfidence is also a key factor in constructing portfolios, wherein investors, whilst aware of the benefits of diversification, hold under-diversified portfolios due to an illusory sense of control which makes them adopt naive diversification strategies (Goetzmann and Kumar 2001). Overconfidence explains much in the area of portfolio selection, such as why portfolio managers trade so much and why pension funds hire active equity managers, all strategies that are inconsistent with notions of rationality (Thaler and Bondt 1995).

2.1.2 Investor Segmentation

Several studies have been conducted in regard to categorising investors into various subgroups, based on financial knowledge, allocation strategies and personality, (Bailard et al. 1986; Gunnarsson and Wahlund 1997; Harrison 1994; Pompian 2012; Waneryd 2001; Wood and Zaichkowsky 2004) instead of treating them as a homogeneous and wholly rational unit, as done by MPT. Keller and Siegrist (2006) divided investors into 'Safe Players', 'Open Books', 'Money Dummies' and 'Risk Seekers', by virtue of their risk attitudes and perceptions toward securities, the stock market and gambling. Age is also found to be a causal factor in risk aversion (Riley and Chow 1992), along with one's occupation, wherein corporate executives and lawyers are found to be more risk averse (Barnewall 1987) and even the Myers-Briggs Type Indicator (MBTI) has been used to segment investors (Filbeck et al. 2005). Gender yields differences as well, with female investors exhibiting more risk aversion than male investors (Barsky et al. 1997). Unlike classical finance,

³Home bias refers to the tendency of investors to invest in a large and disproportionate amount of domestic equities, relative to their overall portfolio.

behavioural finance does not view investors as having the same standardised and rational goals, instead construing the former as unique segments with varying and sometimes opposing aims.

2.1.3 *Securities Markets*

The capstone of capital markets research theorises that it is not possible to consistently achieve above average market returns, given the current information. This is more formally defined as the Efficient Market Hypothesis (EMH), which has three major forms, ‘weak’, ‘semi-strong’ and ‘strong’. This theory, developed in the 1960s (Fama 1965; Samuelson 1965), state that when faced with new information some investors may underreact and others may overreact with an overall random pattern that conforms to a normal distribution. This results in a situation wherein market prices cannot be reliably exploited to make abnormal profits. Some of the classical finance thread espouses the maxim that the best established fact in economics is the efficiency of securities markets (Jensen 1978). However, many feel, especially in the aftermath of the recent financial crisis, that the blind trust in such a framework (Volcker 2011) along with deregulation, such as the Gramm–Leach–Biley Act,⁴ has led to the downward spiral of the global economy. Brusquely put by Shiller (1981), the failure of the efficient market model is so dramatic, that it would seem impossible to attribute the failure to such things as data errors, price index problems or changes in tax laws. Behavioural finance sees the flaws in financial markets as due to cognitive biases and human error, as outlined below.

Investor sentiment, defined as the belief about future cash flows and investment risks that are not justified by the facts available (Baker and Wurgler 2007), is one of the central tenets of behavioural finance. This phenomenon proposes to explain sudden swings in the markets, for example, the rise and fall of internet stocks in the 1990s (Baker and Wurgler 2013). Baker and Wurgler (2007) have shown that it is possible to measure investor sentiment, creating indices of the latter for the global markets and find that it plays a critical role in international market volatility (Baker et al. 2012).

Investors irrationally hold on to losing stocks, known as the disposition effect,⁵ possibly to avoid confronting their incorrect investment decisions (Hirshleifer 2001; Shefrin and Statman 1985). This effect can cause underreaction to news, leading to

⁴The Gramm–Leach–Biley Act repealed part of the Glass–Steagall Act of 1933, removing market barriers among banks, securities and insurance companies that prohibited any one institution from acting as both an investment bank, commercial bank or insurance company. With the Gramm–Leach–Biley Act, consolidation was allowed. Thus, people were then able to invest and save at the same financial institution.

⁵The disposition effect is the tendency of investors to sell shares whose price has increased, while keeping those that have dropped in value.

predictable returns and post-announcement price drift⁶ (Frazzini 2006). The disposition effect is highest in non-professional and low-income investors (Dhar and Zhu 2002), reflecting that investors cannot be thought of a single and rational unit.

There exists the momentum effect, where past winners almost always outperform past losers (Jegadeesh and Titman 2001b). Stocks that perform the best or worst over a 3–12 months period tend to continue to perform well or poorly respectively over the subsequent 3–12 months (Jegadeesh and Titman 1993). Under the EMH, any predictable patterns in return should be swiftly eliminated. However, momentum profits have been found in most major developed markets in the world, excluding Japan (Jegadeesh and Titman 2001a). Whilst returns appear to exhibit momentum in the short–medium run, they tend to revert to fundamentals in the long run (Hong and Stein 1999).

Specifically concerning the internet boom, investor sentiment played a major role in the stock prices of firms. Those that dropped the ‘dotcom’ naming conventions to dissociate themselves from the internet sector after the price crash saw a positive announcement effect (Cooper et al. 2005). It thus appears that the effect of investor sentiment is so severe that it can cause price variations even from manifestations as trite as company name changes.

Research has shown that certain times of the year, in this case, January, predicate certain feelings in stock market investors, with the market performing well overall and smaller stocks out-performing larger ones (Anderson et al. 2007; Keim 1983; Rozeff and Kinney 1976). January is viewed to be one month of renewed optimism, with investors, regardless of their failure in that year, concluding that they can correct their mistakes on the next attempt, resulting in a perpetual January Effect cycle (Ciccone 2011; Polivy and Herman 2002). There is also evidence that it is the risk premium and not the risk itself that is higher in January, perhaps indicating that the January effect is due to higher compensation for risk in that month, rather than due to just risk (Sun and Tong 2010). The fact that disappointed investors never seem to learn, and mitigate that the cycle is testament to their irrationality, running against the grain of the ever-rational investors in the MPT sphere. Recent findings also indicate that the January effect is weakening (Jones and Pomorski 2002), but it is unclear whether this means that investors are becoming more rational, or some other effect is at play.

Notwithstanding monthly effects, even different days of the week predicate varying effects in the market, with the highest returns on Wednesday, and the lowest on Monday (Berument and Kiymaz 2001) and with the highest selling activity on the present day (Abraham and Ikenberry 1994). Also, Friday’s returns are lower when Saturday is a trading day (Keim and Stambaugh 1983), with little reasonable explanation (Gibbons and Hess 1981), and the last trading day before holidays exhibits abnormally high returns (Ariel 1990; Kim and Park 1994). Returns from the May–October period are lower than the remainder of the year,

⁶The post-announcement price drift is the tendency for a stock’s cumulative abnormal returns to move in a direction that will yield results that are higher or lower than analysts’ predictions.

known as the ‘Halloween Indicator’ and are often negative, but no explanation has been posited for this effect thus far (Bouman and Jacobsen 2002).

Even lunar phases have an effect on the stock market, with lower returns on days around a full moon than compared to those around a new moon (Floros and Tan 2013; Yuan et al. 2006). This has been observed for all the major U.S. stock indexes, and several other countries, but with no effects on return volatility or trading volume (Dichev and Janes 2003). Such effects are impossible to reconcile with rational means of price setting, and are clearly in opposition to all forms of the efficient markets hypothesis.

The weather affects markets as well; sunshine is positively correlated with stock returns (Dowling and Lucey 2005; Hirshleifer and Shumway 2003). The weather in New York City has a long history of significant correlation with major stock indexes (Saunders 1993), completely unjustifiable by the MPT. Geomagnetic storms, during their recovery phase, also appear to negatively affect several international stock indices, with a more pronounced effect for smaller capitalisation stocks, perhaps due to the profound effect on people’s moods and that small capitalisation stocks are generally held by individuals, who are likely to be more affected by mood than institutional investors (Krivelyova and Robotti 2003).

Sports results also affect market returns, with losses in international soccer matches having negative effects on global stock markets (Edmans et al. 2007). There also exists the Super Bowl Stock Market Predictor,⁷ which if used as an investment strategy, over the 1967–1988 period, yields higher returns than a buy and hold strategy over the same period, clearly inconsistent with the efficient markets hypothesis (Krueger and Kennedy 1990). The Super Bowl also has other effects, with abnormal buying activity amongst small traders for recognised Super Bowl advertisers’ shares (Fehle et al. 2005).

In relation to stock market data, it is found that despite investors acquiring useful information, they somehow misinterpret it and underperform the market (Barber and Odean 2000; Odean 1999). The type of audience to which the information is presented, is also significant. Unsophisticated investors⁸ assess a firm’s earnings performance to be higher when presented with more positive pro-forma earnings prior to Generally Accepted Accounting Principles (GAAP) earnings, than compared to when only shown GAAP earnings. Sophisticated investors, however, were not affected by the order of presentation or the information presented (Elliot 2006; Victoravich 2010).

In the perfect markets imagined by Miller and Modigliani, dividend policy is inconsequential to a firm’s value, and stockholders should complain if a firm pays

⁷The Super Bowl Stock Market Predictor indicates that, if the Super Bowl is won by a team from the old National Football League, the stock market will finish the year higher than it began (Stovall, 1989). However, if the game is won by a team from the old American Football League, the market will finish lower than it began.

⁸Sophisticated investors are those who possess stock market investment experience, and knowledge acquired through this experience and other practices, such as, completion of finance and accounting courses and certifications.

tax dividends, given that dividends are taxed at a higher rate than capital gains. However, stockholders often do the opposite, complaining when dividends are cut (Thaler and Bondt 1995). This illogical mode of thought may be because investors psychologically resist utilising their capital and view dividends as a separate gain when the stock price rises, and a fall back for price drops (Shefrin and Statman 1984). Repeatedly, the axioms of conventional finance have been challenged by contemporary financial phenomena.

Fashions and fads also affect securities prices, especially since investors are influenced by their social environment and are pressured to conform (Aronson 1991). For example, a downtrend may occur during a financial crisis, when investors irrationally decide to unload their holdings, as per the actions of their neighbour, or when a market guru prescribes the latest stock or investment heuristic. Investors face an uphill task when it comes to selecting securities, given the staggering amounts available. As most investors do not have access to a retail broker to suggest what they should purchase, they end up buying what is discussed in the media, those which have performed unusually well or poorly (Odean 1999).

The above phenomena could be explained by herding,⁹ which may also have led to bank panics, when depositors run on banks, seeing other depositors proceeding as such. Several herding models exist (Brunnermeier 2001), and there are higher levels of herding in small stocks (Wermers 1999). Furthermore, stocks bought by herds have higher returns than those sold by herds (Wermers 1999). Analysts release earnings forecasts that do not vary much from prior expectations, with a tendency to report forecasts similar to those released by other analysts, although their private information may justify differing forecasts (Trueman 1994).

Age also appears to play a part, as younger analysts are more prone to herding than their older contemporaries, with the former forecasting closer to the consensus forecast (Hong et al. 2000). It is observed that the twin stock of multinational companies, with nearly identical cash flows, move more like the markets where they trade most intensively than otherwise expected (Froot and Dabora 1999). This is in opposition to the classical finance paradigm that predicts that an asset's price is unaffected by its trade location.

Although behavioural finance is unable to resolve all the conundrums that exist within finance, it has done an admirable job of attempting to explain some of the ever irrational behaviour of investors, by passing every boom and bust. Whilst trading frequency seems to eliminate some market anomalies (Dhar and Zhu 2002; List 2003), perennial issues such as the Closed-End Fund Puzzle¹⁰ and Equity Premium Puzzle¹¹ (Mehra and Prescott 1985) are still unresolved, although insights

⁹Herding can be defined as behaviour patterns that are correlated across individuals.

¹⁰Since closed-end funds are exchange traded, their prices are different from the net asset value, defined as the closed-end fund puzzle.

¹¹The equity premium puzzle stems from the fact that the demand for government bonds is high, despite the fact that they return less than stocks, and why there is even a demand at all.

have been provided by the mechanisms of behavioural finance (Bernartzi and Thaler 1995; Lee et al. 1991). The overarching aim of behavioural finance is then not to replace the methods that compose classical finance, but to explain market anomalies, and complement existing frameworks that are already in place.

As a whole, behavioural finance explores how investors act in given situations, and attempts to explain market anomalies. However, the means by which one pursues such goals is yet unexplored. Delving into the means of goal pursuit are necessary to understand how and why participants move toward these goals. Without comprehending these means, the market effects observed in behavioural finance will only be observed, never truly understood. Failing to grasp the means and underlying motivations of these behaviours, policies implemented to prevent future financial crises which are unlikely to be effective. Regulatory focus theory, as described in the following section, is put forth to explain the relationship between one's motivations and the associated goal.

2.2 Regulatory Focus Theory

Behavioural finance takes into account the behaviour of investors, in particular their irrationality and biases, but fails to consider the association between one's motivation and the ways in which they achieve various goals. Since financial decisions, represented in this book by asset and portfolio allocation scenarios, are made to achieve goals that are distant in time, these choices are likely to be directed by the processes known as self-regulation (Zhou and Pham 2004). Self-regulation is defined as the process that individuals utilise to set their goals, pick means to accomplish these goals and assess progress toward the latter (Carver and Scheier 1998).

Regulatory focus theory states that self-regulation involves two differing systems, promotion and prevention (Higgins 2000). The promotion system, derived from the regulation of nurturance needs, relies on approach strategies whilst regulating toward desirable ends, whereas the prevention system, derived from the regulation of security needs, relies on avoidance strategies whilst regulating toward desirable ends. The promotion system is thus active under the pursuit of ideals, defined as the pursuit of wishes, dreams and aspirations, whilst the prevention system is active under the pursuit of 'oughts', defined as the fulfilment of responsibilities, obligations and duties (Higgins 2000).

Promotion self-regulation is concerned with approaching matches in a desired state, and prevention self-regulation is concerned with avoiding mismatches in a desired state (Florack et al. 2010). For example, to keep a slim figure, a promotion-focused individual would be more likely to exercise (approach a match), whereas a prevention-focused individual would be more likely to avoid eating fatty

foods (avoid a mismatch) (Florack et al. 2010). In financial context, with goal being to maximise wealth, a promotion-focused individual would be more likely to invest in stock (approach risk), whilst a prevention-focused individual would be more likely to invest in a mutual fund (avoid risk) (Zhou and Pham 2004). Thus, promotion and prevention-focused individuals differ in their strategic inclinations when approaching a desired goal.

In order to comprehend regulatory focus theory, it is necessary to understand regulatory fit theory. Regulatory fit is defined as the increased motivation intensity that results when there is a match between the manner in which a person pursues a goal and their goal orientation (Aaker and Lee 2006). People experience regulatory fit when the manner of their engagement in an activity sustains, instead of disrupting, their current motivational orientation or interests (Higgins 2000). Fit makes people engage more strongly in what they are doing and feel right about it, and individuals can thus pursue the same goal with different orientations and ways (Higgins 2005), as highlighted in the preceding paragraph. Fit influences the strength of value experiences and perceived success (Freitas and Higgins 2002), independent of the pain or pleasure felt with such outcomes. Thus, when people pursue a goal that is in accordance with their orientation, they experience their engagement in that goal pursuit more strongly than if they were to pursue the goal at odds with their orientation, with regulatory fit making one feel right about their reactions to situations (Freitas and Higgins 2002). As such, poor regulatory fit or non-fit would result if the incorrect type or level of means is utilised, for example, vigilance avoidance means for goal pursuit in a promotion focus or low vigilance during goal pursuit in a prevention focus respectively (Higgins 2002). When a situation has a fit with one's regulatory focus, it is often viewed as being more right, regardless of one's mood or the manner of the situation (Camacho et al. 2003).

Chronic regulatory focus is the dominant regulatory focus of a person. Whilst both the promotion and prevention systems are perceived to coexist in every person, one or the other may be made temporarily more accessible (momentary regulatory focus) (Higgins 1998). Momentary regulatory focus is achieved by differing methods such as priming or framing. These are techniques used to make the prevention or promotion systems temporarily more dominant. The promotion system can be made momentarily more accessible by priming a person's ideals (Higgins et al. 1994; Pham and Avnet 2004), or by framing a task in an approach manner (Roney et al. 1995), while the prevention system can be made more accessible by priming a person's oughts, or by framing a task in an avoidance manner. Priming can be achieved by asking participants to describe how their current ideals or oughts changed as they grew up (Higgins et al. 1994; Liberman et al. 1999). For the promotion condition, participants could be asked to list down their current hopes and goals, and how they varied from those during their childhood. For the prevention condition, participants could be asked to write down their current duties and

obligations, and how they differed from those during their childhood (Lin and Shen 2012). Framing is achieved by instructing participants to complete a paper-and-pencil maze, featuring a mouse with either a piece of cheese at the entrance or predatory owl looming over the maze (Friedman and Förster 2001). In the promotion condition, participants were instructed to guide the mouse to the cheese to seek nurturance, and in the prevention condition, to guide the mouse to safety, away from the owl.

People with a promotion focus tend to use eagerness as a means to accomplish promotion-focused outcomes, and those with a prevention focus use vigilance means to achieve prevention-focused outcomes (Higgins 2002). More specifically, those in an eagerness state from a promotion focus should want to achieve ‘hits’ and avoid errors of omission, and those in a state of vigilance from a prevention focus should want to accomplish correct rejections (Crowe and Higgins 1997), thus promotion is interested in gaining additions, and prevention is concerned in preventing subtractions (Roese et al. 1999).

Culture also plays a part, as the promotion system is more chronically accessible for people from individualist cultures, and the prevention system is more accessible for people from collectivist cultures (Lee et al. 2000). This is unsurprising as differences in how the self is defined, how relationships with others are imagined and what values are consistent within an individualism and collectivism framework (Oyserman and Lee 2008), and not less for chronic regulatory focus. Those with strong and accessible ideals, and those with strong and accessible oughts, have greater chronic access to their promotion and prevention systems, respectively (Higgins et al. 1986).

Compared to prevention-focused individuals, promotion-focused individuals tend to be more willing to accept new options and courses of action, more willing to take investment risks and more likely to rely on emotions and existing biases. Prevention-focused individuals tend to prefer status quo options and make investments that are more conservative and are more disbelieving of manipulative persuasion attempts (Kirmani and Zhu 2007). In general, promotion-focused individuals strive for matches to their goals, thus they are in a state of eagerness to include as many options as possible to achieve these goals. Prevention-focused individuals however, concentrate on avoiding mismatches to their goals, leading them to be in a state of vigilance, where they contemplate upon, more restrictively, only clearly apt choices (Zhu and Meyers-Levy 2007). Promotion-focused individuals tend to maximise hits and reduce misses, prevention-focused individuals tend to maximise correct rejections and minimise false alarms. Promotion-focused individuals also emphasise speed over accuracy, with prevention-focused individuals doing the reverse (Pham and Chang 2010). Given its roots in one’s motivation systems, regulatory focus has been applied to a large variety of domains. The paragraphs that follow illustrate how regulatory focus has explained behaviour across various fields.

2.2.1 Creativity

The capacity for creativity has been studied from a regulatory focus perspective. Promotion-focused individuals were able to generate more original ideas and evaluate the originality of their ideas more accurately, than compared to prevention-focused individuals (Friedman and Förster 2001; Herman and Reiter-Palmon 2011; Lam and Chiu 2002). However, while a promotion focus is beneficial for evaluating originality, it is unfavourable for evaluating quality, with the reverse for a prevention focus (Herman and Reiter-Palmon 2011).

2.2.2 Coaching

In a global company, when a coach's coaching orientation matched that of the recipients, there was a more positive effect on the latter (Chan 2012). Even different structures in an organisation have a better fit with tasks of a certain regulatory focus (Dimotakis 2012). Studies also demonstrate that a prevention focus, be it momentary or chronic, compared to a promotion focus, leads one to copy the management behaviour of a role model, regardless of how one felt about this behaviour earlier, as its recipient (Zhang et al. 2011).

2.2.3 Impression Management and Reputation

There also exists a relationship between regulatory focus and exemplification or supplication impression management techniques—the want to regulate how others view us. The prevention focus and exemplification tactics are related, along with the promotion focus and exemplification and supplication (Kacmar and Tucker 2014). Behavioural integrity reinforces the association between the prevention (promotion) focus and exemplification (supplication), but not with the promotion focus and exemplification. There exists a positive association between levels of prevention focus and reputational issues such as those outside the Big Five and perceived stress (Pfattheicher 2015). Prevention-oriented individuals are also more likely to donate money when they are exposed to reputation cues, independent of the Big Five.

2.2.4 Romantic Relationships

Promotion-focused individuals approached their partners more often, observed higher partner responsiveness and more support when discussing less achievable promotion-oriented goals. Low-partner responsiveness with promotion-aligned

goals was associated with higher self-efficacy, for promotion-focused individuals (Winterheld and Simpson 2015). Prevention-focused people observed more responsiveness with less distanced partners, whilst prevention related goals were discussed (Winterheld and Simpson 2015). Thus, it appears that regulatory focus manages the interaction of individuals and their relationship environment with respect to motivational needs.

2.2.5 Coping at Work

Hotel employees who were promotion-focused were more likely to task-cope, whereas prevention-focused employees were less likely to emotion- and avoidance-cope (Jung and Yoon 2015). Thus, it appears that regulatory focus has an important role to play in employee behaviour, much like other factors, such as personality or values.

2.2.6 Information Processing

When people are unmotivated to process information, they tend to rely on their regulatory focus to filter out information that they deem irrelevant. Those who are promotion-focused selectively pay attention to benefits that address nurturance concerns, and prevention-focused individuals selectively pay attention to benefits that address safety and security concerns (Wang and Lee 2006). Information is also recalled better when it is consistent with self-regulatory goals (Aaker and Lee 2001).

Regulatory focus theory is linked to the way messages are perceived (Kirmani and Zhu 2007). When presented with ambiguous ad claims, prevention-focused participants perceive these claims to be more manipulative than promotion-focused participants (Kirmani and Zhu 2007). When individuals' regulatory orientations were compatible with the product attributes emphasised in the ad, the messages in the ad were more persuasive, than when it was not (Latimer et al. 2008; Lin and Shen 2012; Zhao and Pechmann 2007). Promotion-focused individuals found that messages were more persuasive when hedonic¹² attributes were emphasised, and prevention-focused individuals found messages with utilitarian attributes more convincing (Chernev 2004). In regard to brand evaluations, when promotion-focused individuals viewed hedonic attributes framed as gains, and prevention-focused individuals viewed utilitarian attributes framed as losses, results were more favourable (Lin and Shen 2012).

¹²When a product is described as 'hedonic' it means that its purpose is to bring pleasure, fun and excitement to the user, in comparison to a 'utilitarian' product, which is primarily instrumental, and its purchase would be motivated by functional product aspects (Khan et al. 2005).

Concerning deal sites such as Groupon and Living Social, the matching of regulatory focus appears to bolster the persuasiveness of the messages (Pentina and Taylor 2013). Varying mechanisms operate for each foci; prevention-oriented consumers centrally process offers which are representative of either foci, unlike their promotion-focused counterparts. Also, when individuals make judgements for distant persons, they are more influenced by promotion-framed adverts, although no differential framing effects on judgements of proximal entities exists (Park and Morton 2015).

2.2.7 *Decision Making*

2.2.7.1 General Decision Making

Decision makers in a promotion focus will view promotion-focused outcomes as more important in their decision than prevention-focused outcomes, and the same goes for prevention-focused decision makers (Higgins 2002). When people make choices for others or themselves, a different regulatory focus is dominant. In general, those who make decisions for others, or proxy decision makers, they examine and seek out more information than those who make their own choices, or personal decision makers (Jonas et al. 2005; Kray 2000; Polman 2010; Polman and Emich 2011). Among personal decision makers, a prevention focus is activated, and among proxy decision makers, a promotion focus is activated (Polman 2012).

Even the willingness of participants to continue working on tasks is affected by their chronic regulatory focus (Wan et al. 2009). In an experiment, participants were interrupted whilst in the process of describing an abstract figure, then given a choice after the interruption to resume describing the same figure or alternatively, switching to the task of describing a new figure. Those with a promotion focus were more willing to switch to a new description than those with a prevention focus, who were more likely to continue to describe the same figure (Wan et al. 2009). The amount of choices available is also associated with regulatory focus. When there are more choices, the promotion focus leads to increases in choice confidence and likelihood (Som and Lee 2012).

2.2.7.2 Economic Decision Making

The chronic orientation, in tandem with the way a product is chosen, has an effect on the monetary value of the latter (Avnet and Higgins 2006). This may have implications for the way consumers value and select investment products. In an experiment conducted by Avnet and Higgins (2006), where participants were given a choice between two varieties of the same product, chronic promotion-focused participants' use of emotions to make a choice which increased the monetary value of the chosen product, whilst chronic prevention-focused participants' use of

emotions to make a choice having the opposite effect. When prevention-focused participants used reason to make a choice, the monetary value of the product increased, with the reverse effect for promotion-focused participants.

Participants in the feeling-based condition were told to rate for several pre-selected emotions when exposed to the products and those in the reason-based condition were told to rate their evaluation of each product for pre-determined evaluation items. Promotion-focused people who received success feedback experience fit and prevention-focused people experienced non-fit, whereas prevention-focused people who received failure feedback experience fit and promotion-oriented people experienced non-fit (Avnet and Higgins 2006). Regarding retail shopping, the promotion (prevention) focus is positively (negatively) associated with impulsiveness (Das 2015). The promotion (prevention) focus also has a negative (positive) relationship with attitudinal and behavioural loyalty.

2.2.8 Summary

Thus, regulatory focus theory is able to explain behaviour over several domains, indicating its generalisability. In this regard, the next section explores how regulatory focus can be applied to finance. However, solely applying regulatory focus theory to research regarding financial decision-making is inadequate. This book thus applies both regulatory focus theory and existing financial concepts in studying financial decision-making. This will allow the study to advance an unbiased understanding of how one makes financial allocation choices, without overlooking theories that may give insight to the issue at hand.

2.3 Finance and Regulatory Focus Theory

Behavioural finance explores how investors make decisions, the use of regulatory focus theory to further comprehend the processes by which investors make these decisions and the underlying motivations behind these processes is the purported next step in the behavioural finance framework. At present, there has been limited research regarding an amalgam of regulatory focus theory and financial concepts, and this book aims to develop on existing research in this area (Zhou and Pham 2004).

The work by Zhou and Pham (2004) proposes that consumers' investment decisions involve processes of promotion and prevention regulation that are managed by varying mental accounts, with different financial products representative of promotion versus prevention orientations. It is postulated that different risk attitudes are by-products of promotion and prevention in environments where seizing opportunities and achieving gains increases risk and preventing mistakes and

avoiding losses decreases risk. From a regulatory focus standpoint, the book demonstrates that promotion and prevention can be activated by the targets of judgement and decision, not only individual differences or situational factors, as with previous research.

From a financial standpoint, investors' goals may be determined by the investment opportunities underevaluation rather than being independent of these opportunities, and that the returns and risks of each financial product are evaluated separately, rather than jointly, as proposed by classical finance theory. The experiments demonstrate that priming can affect the asset and account allocation process, and that the evaluation of financial products can serve as a prime for unrelated tasks, sensitive to prevention and promotion. Whilst the bidirectional causality between priming by unrelated tasks, asset and account allocation has been highlighted, along with extensions to financial theory, the method by which chronic prevention and promotion-focused individuals approach asset and portfolio allocation is unexplored.

The study by Scholer et al. (2010) explores the self-regulatory mechanisms that underpin risk-seeking behaviour under loss, via stock investment studies. The experiments explored how participants behaved when they had purportedly lost or gained in their investment, and what they would subsequently invest in, from a range of stock options presented. It was also studied whether priming would alter the nature of stock options selected, along with whether those of varying chronic regulatory foci would make differing selections. The results were that prevention-focused individuals, more than promotion-focused ones, chose the riskier stock after an initial loss than when compared to a situation with an initial gain. When participants were primed with either a prevention or a promotion focus, it was found that the prevention-primed individuals were more risk seeking when a risky option offered the only possibility of getting to the original investment amount, but when a conservative option was available, this option was selected. There was no observable effect for a promotion prime. The study was then repeated without the prime, and there were similar results, with chronic prevention-focused participants. Across the experiments, the prevention system, but not the promotion system predicted the extent of risky decision-making. There were no significant results for the promotion focus thus indicating the possibility that the chronic prevention system is stronger in situations that involve financial decision-making. Although stock investments are featured prominently, they seem to be more of a vehicle to explore risk seeking behaviour, rather than asset allocation.

Concepts drawn from both studies would be useful for exploring the regulatory foci supporting investment decisions, as the Zhou and Pham (2004) study fails to explore how chronic regulatory focus interplays with financial choices, and Scholer et al. (2010) do not look into how different financial products and portfolios are affected by regulatory focus. Whilst behavioural finance attempts to explain various anomalies using theories from psychology and the decision sciences, there are still many modes of thought and fields of study that have not been explored, to answer the questions that are posed by finance. Prospect theory makes a distinction

between various pursuing and not pursuing courses of action, but it does not take into account the motivations for goal pursuit (Idson et al. 2011), which is the aim of regulatory focus theory.

Regulatory focus theory has been applied to several fields, as diverse as politics (Boldero and Higgins 2011) and medicine (Klenk et al. 2011), extending the knowledge base in these areas. Whenever people are involved in decision-making processes, it seems that regulatory focus has a part to play, no less in finance. Thus, further study should be embarked upon, with a regulatory focus lens, pushing both areas ahead. The section that follows outlines the theoretical framework that underlies the book, drawn from the extensive literature review conducted.



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