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Mental Budgeting and Financial Decision-Making: Behavioral Distortions in Wealth Management and Investment Banking

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Method and Sources

This thesis combines two methodological approaches, which unite theoretical analysis with practical case studies. The research investigates how mental budgeting affects financial decision-making in wealth management and investment banking, while developing behavioral strategies to correct these distortions.

The first component consists of a critical literature review, which establishes a conceptual base through the analysis of essential psychological mechanisms, including mental accounting, narrow framing, heuristic-driven segmentation, and loss aversion. The theoretical framework heavily relies on Richard Thaler's work, especially *Misbehaving*, which provides essential knowledge about cognitive biases and economic irrationality. The understanding of decision-making processes by individual investors and financial institutions within psychologically structured frameworks comes from Hersh Shefrin, Meir Statman, Michael Pompian, and Jean Brunel.

The second component consists of two historical case studies that demonstrate the actual effects of mental budgeting in real-world scenarios. The 2008 financial crisis is studied through institutional behavior, by analyzing the Lehman Brothers Bankruptcy Report by Anton R. Valukas, and regulatory assessments of capital misallocation and risk misclassification. The COVID-19 stimulus period serves as a case study to examine how mental budgeting influenced retail investor conduct, through NBER research (e.g., Parker et al., 2022), U.S. Treasury publications, and behavioral studies of household stimulus expenditure patterns. These cases show how psychological segmentation leads to systemic inefficiencies, which intensify financial vulnerabilities when economic stress occurs.

The research question guiding this thesis is: *How does mental budgeting distort financial decision-making in wealth management and investment banking, and what behavioral strategies can be used to overcome these distortions?*

The research question requires a four-chapter structure to answer it. The first chapter examines the psychological and cognitive framework of mental budgeting. The second chapter uses these findings to study high-net-worth investors, by analyzing their portfolio segmentation methods, their investment framing techniques, and retirement planning

actions. The third chapter examines institutional finance, through an analysis of how mental budgeting affects capital structure, product design, and M&A strategies. The fourth chapter assesses these findings through real-world events, while studying how automated investment platforms affect behavioral biases in either positive or negative ways.

The research draws from academic books, peer-reviewed journals, as well as central bank research, industry white papers, and publicly available regulatory documents. The analysis combines economic and behavioral theoretical interpretations, with comprehensive insights about theoretical bases and practical applications.

Introduction: Rethinking Rationality in Financial Behavior

The financial environment's ongoing transformation makes behavioral implications crucial for analyzing economic choices made by individuals and institutions. The psychological framework of mental budgeting represents one of the most prevalent yet often unnoticed cognitive phenomena, which organizes money into symbolic or purpose-driven categories. People, along with organizations, assign mental labels to their funds based on their source, expected use, or perceived risk. The immediate emotional benefits of this approach tend to create financial planning distortions, which extend beyond the short term. Distorted financial planning leads to poor portfolio management and capital misallocation, which results in consistent underperformance — outcomes that are particularly impactful in the high-stakes areas of wealth management and investment banking.

Mental budgeting, a notion rooted in behavioral economics and finance, was thoroughly explored by Richard Thaler through his work, which demonstrated how the rational actor model fails because people make financial decisions through biased thinking patterns. Through his book *Misbehaving: The Making of Behavioral Economics*, Thaler shows how individuals and institutions deviate from fungibility by dividing money into separate mental categories based on its source or intended use, instead of following economic principles. As he explains, “Money should be spent in whatever way best serves the interests of the

organization or household... But we don't. Labels are SIFs[1]." (Thaler, *Misbehaving,* 2015, p. 91). Emotional self-control through mental budgeting leads to suboptimal financial results that include holding onto failing investments for emotional reasons, spending sudden wealth, and failing to relocate funds when it makes financial sense.

The research focuses on the behavioral consequences of mental budgeting, which affect decision-making within the wealth management and investment banking sectors. Wealth management clients, who are high-net-worth individuals, use mental accounting to segment their investment portfolios into "safety," "growth," and "legacy" categories, which they base on emotional preferences. The selection of investments happens based on subjective labels and emotional cues rather than objective measurement results, which generates inefficient financial outcomes. The same behavioral biases emerge within institutional finance because capital is allocated to separate segments that become inflexible risk capital, operational funds, or M&A allocation pools, which results in segmented financial planning and excessive risk exposure. The research examines mental budgeting effects on market stability through an evaluation of two particular past events: the 2008 financial collapse and the COVID-19 stimulus period retail investing surge.

1. The Psychology of Mental Budgeting in Finance

1.1 Introduction to Mental Budgeting

Mental budgeting is the process through which people and organizations split their money into separate groups based on personal labels and intended uses. The practice of mental accounting violates the classical economic principle of fungibility because it treats money differently based on its origin and intended use. Behavioral economists have demonstrated that financial segmentation exists beyond household finance as a common economic phenomenon that affects financial choices throughout the entire economy.

[1] SIFs, or supposedly irrelevant factors, refer to elements that should not influence rational economic decisions but often do due to psychological biases.

Traditional economic theory requires rational agents — so-called “Econs” — to view all money as perfectly fungible. People should handle additional euros received as tax refunds identically to euros obtained through salary or investment income, according to this principle. People, in reality, break this principle through systematic violations. As Richard Thaler points out, “Humans use mental accounting, with the help of envelopes, mason jars, and retirement savings plans, to accomplish the same purpose. Notice that the failure to treat various pots of money as fungible, as Econs would do, is what makes such accounting strategies feasible” (Thaler, *Misbehaving*, 2015, p. 123). Mental budgeting functions as a cognitive tool because it enables people to monitor and manage their expenses through artificial structures that have psychological significance.

Mental budgeting is not purely irrational. The system functions as a real-life control mechanism to help people manage their spending. Households with limited financial resources use strict budgeting systems, which include the envelope method, to divide their cash into separate categories for rent, groceries, and transportation expenses. The practice of creating spending categories exists as learned behavior that people acquire from their ancestors. People use predefined spending rules to minimize their mental work when they need to make daily financial decisions. Organizations use formal accounting systems to establish departmental budget separation and implement spending regulations. The theoretical inefficiency of these mental and formal accounting systems does not prevent them from providing organizational structure and stopping impulsive financial behavior.

On the other hand, the same mechanisms that provide psychological control introduce systematic biases and inefficiencies. Mental budgeting causes people to handle equal amounts of money differently because of how they are labeled or where they come from.

A person might use their holiday bonus without hesitation but would never use their emergency savings, even though it would be the more logical financial decision. A household maintains unused funds within their “utilities” budget because of a light winter season, yet they avoid moving these funds to essential child-related expenses. The reluctance stems from the cognitive framing effect, which allows emotional associations to take precedence over logical decision processes.

Mental budgeting manifests at the institutional level through budget silos and capital allocation frameworks, which maintain operational funds as separate entities from risk

capital and liquidity buffers. Firms demonstrate similar behavior to individuals by avoiding capital reallocations between departments, even though such moves would optimize organizational value. The strict budgeting systems that aim to maintain discipline actually result in both lost opportunities and suboptimal resource utilization.

Mental budgeting exists where psychological principles meet economic principles because it helps people handle complex situations while giving them control, yet this approach sometimes leads to suboptimal financial outcomes. Thaler demonstrates through his research that this segmentation represents a fundamental cognitive approach, which explains why both knowledgeable individuals and institutions make irrational financial choices. The following section will analyze the behavioral processes behind mental budgeting, together with the psychological factors that maintain this practice.

1.2 Behavioral Mechanisms

Mental budgeting continues to exist because it receives support from multiple behavioral mechanisms which make complex financial choices easier to handle. The mechanisms of framing, heuristics, narrow bracketing, and emotional biases enable people to create structure while maintaining self-control and decreasing mental effort. These mechanisms create financial behavior distortions which result in suboptimal outcomes for consumption, saving, and investment decisions.

The core mechanism of *framing* shapes how people understand and judge money through their perception of context and labeling. People give distinct meanings to their money based on where the money comes from and what they plan to do with it. Thaler provides a clear illustration: “Wealth, too, is often separated into various mental accounts. At the bottom of this hierarchy sits the money that is easiest to spend: cash. [...] Money in a checking account is slightly more out of reach than cash, but if there is money in an account labeled ‘savings,’ people are more reluctant to draw that money down” (Thaler, *Misbehaving*, 2015, p. 93). The process of assigning mental labels to money creates psychological barriers which break the fungibility principle and lead to inefficient decision-making. People tend to use their holiday bonus for discretionary spending as "fun money" while keeping their regular income for essential needs, even though the money has no financial difference.

The human brain uses *heuristics* as mental shortcuts to reduce decision fatigue while reinforcing these behaviors. People commonly depend on instinctual yet incorrect mental rules, which include saving money only for emergencies, spending windfalls on luxury items, and avoiding all contact with savings. The mental habits that create discipline receive support from *framing* and personal experience, but they sometimes result in inefficient financial choices. As Belsky and Gilovich explain, “mental accounting refers to the inclination to categorize and treat money differently depending on where it comes from, where it is kept, or how it is spent” (Belsky & Gilovich, *Why Smart People Make Big Money Mistakes*, 2000, p. 33). A person might demonstrate psychological comfort through behaviors like maintaining an emergency fund hoard while carrying high-interest debt, even though this behavior does not follow financial logic.

Financial pressure tends to cause these rules to become more rigid. As Thaler notes, “Just how explicit the budgeting rules are will often depend on how much slack is in the budget” (Thaler, *Misbehaving*, 2015, p. 92). During times of limited resources, mental budgeting becomes more strict because each category receives closer monitoring, and spending rules become more stringent. Lower-income households demonstrate this pattern because their budgeting systems function both as mental tools and emotional defenses against financial uncertainty.

The second mechanism is *narrow bracketing* — the tendency to treat each decision or account as if it were a separate entity. People often manage particular mental accounts, such as “vacation savings” or “daily expenses,” without considering how decisions fit into their overall financial strategy. A person may be unwilling to reallocate funds from a labeled account to cover urgent needs elsewhere, even when such a shift would optimize their overall financial situation. This siloed thinking undermines holistic financial planning and long-term goal alignment.

The emotional value of perceived good deals, known as *transaction utility*, also depends on mental budgeting practices. A purchase that fits within a mental account's designated purpose (such as spending travel funds on a discounted vacation) will feel more acceptable even though it goes against overall financial goals. The practice of following personal spending rules creates a stronger sense of satisfaction than the evaluation of costs versus benefits and the management of overall wealth.

Loss aversion — the psychological tendency to fear losses more than we value equivalent gains — further entrenches mental budgeting. People are reluctant to withdraw funds from accounts labeled as "untouchable," such as savings or retirement, because doing so feels like a personal loss — even when reallocating those funds would be beneficial. These emotional boundaries make money in one account feel categorically different from money in another, leading to rigidity and underutilization of financial resources.

The combination of behavioral mechanisms establishes a system which determines financial choices through internal rules, labels, and emotional cues rather than pure utility. The absence of behavioral intervention, financial education, and advisory support leaves individuals and institutions vulnerable to their established cognitive patterns, which restrict their capacity to adapt, plan effectively, and optimize outcomes.

1.3 Cognitive Reinforcement and Financial Consequences

Mental budgets function as more than cognitive tools because they receive support from three essential psychological forces, which include *loss aversion*, *the endowment effect*, and emotional attachment. The combination of these psychological forces creates financial decision-making inertia, which prevents people from reallocating their funds even though it would result in superior outcomes.

Loss aversion stands as a major driver because people experience losses more intensely than gains of equal value. The bias appears in mental budgeting when people resist transferring funds between accounts because it creates a feeling of loss, even though their total wealth remains unchanged or improves. As Statman explains, "People whose reference point is their current situation... are shortfall averse" (Statman, *Behavioral Finance: The Second Generation*, 2019, p. 97). People avoid changing their investment strategies because they fear their savings will not meet their targets or they will need to use retirement funds.

People tend to avoid changing their spending habits because they strongly identify with the specific purposes they have assigned to their different accounts. People use mental budgets for both functional and symbolic reasons, which include security needs, identity expression, and aspirational goals. A "college fund" might represent responsibility; a "vacation fund"

signals deserved enjoyment. People create personal spending restrictions because they link their money to emotional objectives. As Statman further observes, “Behavioral life-cycle theory says that we reconcile the conflict between our wants using devices such as framing, mental accounting, and self-control rules that prohibit dips into other than designated mental accounts” (Statman, *Behavioral Finance: The Second Generation*, 2019, p. 120). These rules may protect savings discipline but also inhibit necessary adjustments.

According to Richard Thaler, financial inertia extends beyond loss aversion because people tend to avoid all types of change. He writes, “Loss aversion and status quo bias will often work together as forces that inhibit change” (Thaler, *Misbehaving*, 2015, p. 162). People maintain their current financial systems because changing them creates discomfort, especially when they need to adjust their "sacred" accounts or acknowledge sunk costs.

The psychological reinforcements produce major effects. People choose to hold significant cash reserves in low-yield accounts because they believe these funds are safe, even though they must pay interest on debts that could be avoided. People put off essential costs and investment possibilities because they resist moving their money between different mental accounting groups. Educated investors often hold onto underperforming assets because selling would result in a loss, which goes against their emotional spending limits.

Institutions demonstrate this behavior. Organizations have departments that maintain strict budget lines, which prevent the transfer of unused funds between units. Managers use up their annual budget on unimportant costs instead of facing potential future funding reductions. These practices stem from internalized rules and the same cognitive framing biases that drive household financial decisions.

The structure of mental budgeting in personal and institutional finance creates a paradox because it provides psychological comfort and control but frequently results in rigidity and underperformance. These biases tend to continue unless they are challenged by financial education, behavioral interventions, or skilled advisory support.

The following chapter will analyze how these mental budgeting mechanisms influence wealth management through portfolio segmentation, risk misclassification, and financial framing that emphasizes psychological reassurance over optimal returns.

2. Implications of Mental Budgeting in Wealth Management

2.1 Risk Perception and Asset Allocation

Investors use mental budgeting biases to divide their portfolios into separate sections for safety, income, and growth instead of managing risk across their entire capital base. The way people emotionally handle risk and uncertainty drives this behavior. Investors tend to structure their portfolios based on their perceived needs, comfort levels, and specific goals, which they label psychologically. The practice of segmenting investments provides emotional comfort and clarity, yet it creates an unbalanced risk-return profile, which leads to poor capital distribution.

The *bucket strategy* stands as a widely accepted example that people commonly use for retirement planning. Investors organize their assets into three separate pools, which match their liquidity requirements and risk tolerance levels. The short-term bucket consists of cash or low-risk bonds, which serve to meet immediate expenses while offering maximum security. The medium-term bucket contains dividend-paying equities or fixed-income products, while the long-term bucket holds equities or other growth-oriented investments. The model remains popular because it matches how people naturally organize their financial planning according to time periods and objectives.

The approach of segmenting investments based on intuition produces inefficient results. The emotional decision to prioritize short-term investments in low-yield instruments during inflationary periods actually reduces long-term capital growth. Investors tend to neglect rebalancing their investment buckets when market conditions change because they maintain their preconceived mental categories either through emotional attachment or because of inertia.

This behavior reflects what Meir Statman refers to as the structure of a behavioral portfolio: “Behavioral portfolios resemble layered pyramids, where each layer is a mental account dedicated to satisfying a want” (Statman, *Behavioral Finance: The Second Generation*, 2019, p. 92). These layers are not formed based on market efficiency or quantitative optimization but are instead shaped by human wants such as security, lifestyle stability, and aspirations. The investor faces a dual challenge of wealth growth and emotional preservation of these

mental accounts in each layer. The process of moving funds from a "security" bucket to a "growth" bucket, even when it makes financial sense, can create psychological distress.

Richard Thaler challenges the fundamental beliefs of conventional finance models because they fail to account for these psychological factors. In *Misbehaving*, he notes: “We know from the previous chapters on mental accounting that this assumption [that wealth is fungible] is no more innocuous or accurate than the assumptions about cognitive abilities and willpower” (Thaler, *Misbehaving*, 2015, p. 113). The traditional portfolio theory assumes that investors view all their money equally, but mental accounting practices force them to separate funds based on their source or intended use or personal attachment. The human tendency to break fungibility rules prevents rational portfolio optimization from working effectively in real-world scenarios because of deep-seated behavioral biases rather than information deficits.

For example, an investor who refuses to use inheritance for equity investments because they view it as “untouchable” simultaneously borrows money to fund lifestyle purchases without realizing that both actions impact their net wealth. Mental accounting creates artificial financial boundaries, which alter actual financial realities to support compartmentalized choices that create a sense of safety but typically harm performance.

Michael Pompian explores how this mental accounting bias manifests in real-world advisory contexts: “Mental accounting bias can cause people to imagine that their investments occupy separate ‘buckets,’ or accounts… Envisioning distinct accounts to correspond with financial goals… can lead to suboptimal aggregate portfolio performance” (Pompian, *Behavioral Finance and Wealth Management*, 2006, p. 174). High-net-worth individuals demonstrate this behavior most strongly because they organize their capital into distinct categories, including retirement savings, philanthropic endowments, and generational inheritance funds. The different categories fulfill their intended emotional or strategic functions, yet create a fragmented portfolio, which becomes risk inefficient because assets lack a unified risk-return evaluation framework.

Behavioral finance-informed advising plays a vital role at this point. Wealth managers need to assist their clients in identifying their mental labels while avoiding any dismissal of their emotional value. Advisors should transform mental buckets into transitional tools to help

clients achieve goal-aligned integration[2] instead of dismissing them as irrational. Clients can transition from their fixed "security" bucket to the adaptable "core capital" concept to preserve emotional comfort while adopting improved investment methods.

In this regard, Jean Brunel presents a constructive resolution. He writes: “Individuals do not typically have single goals and single risk profiles: they have multiple goals, each goal usually has a different time horizon, and they have different required probabilities — or levels of certainty — that each goal will be reached” (Brunel, *Goals-Based Wealth Management*, 2015, p. 24). The framework of Brunel suggests accepting segmentation as long as each mental account has a specific, measurable financial goal. The model enables advisors to maintain psychological preferences while using strict asset allocation principles. Mental buckets function as strategic tools instead of obstacles to strategy implementation.

However, the process of implementation demands investors to move away from their traditional account-based mindset and adopt goal-based planning[3]. The process requires teaching clients to evaluate performance through the lens of their changing life goals rather than individual bucket performance. Advisors can demonstrate the actual cost of excessive conservatism or oversegmentation by using integrated dashboards and scenario modeling and long-term risk simulations. Visual representations of inflation effects on short-term funds over ten years tend to be more effective than simply presenting historical returns.

In addition, advisors need to explain how product labels, together with industry conventions, support mental budgeting practices. Marketing categories such as “income fund” or “growth strategy” may appeal to investors’ intuitive mental labels but also perpetuate biases. Investors tend to view “income” products as safe investments even though these funds contain dangerous high-yield instruments. These mismatches accumulate over time to distort expectations and make investors more resistant to rebalancing.

Ultimately, the process of behavioral coaching requires both empathy and education, together with strategic planning. Advisors who understand mental budgeting as a foundation instead of a weakness can assist clients in developing integrated portfolio plans through

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[2] *Goal-aligned integration* refers to the process of merging an investor’s segmented mental accounts (or "buckets") into a cohesive investment strategy that is structured around their real-life financial goals — not arbitrary labels or rigid emotional categories.

[3] *Goal-based planning* is a wealth management strategy that structures a client's portfolio and financial decisions around their specific life goals — rather than targeting generic benchmarks like “maximizing returns” or “beating the market.”

gradual guidance. Risk assessment in this perspective goes beyond volatility because it measures the chances of missing life objectives. The absence of market fluctuations does not constitute safety because it means maintaining purchasing power together with liquidity and sustaining long-term sustainability.

Portfolio design requires both risk perception and mental budgeting to function as inseparable elements. The immediate emotional benefits of segmentation come at the expense of reduced long-term investment performance. Wealth managers who work within their clients' behavioral framework through goal-based planning and performance reframing and education can merge mental accounts into a single investment strategy. The resulting portfolio matches both market conditions and the actual financial situation of the individual.

2.2 Investment Decision Framing

The presentation style of investment products operates as an unseen force that influences how people make their financial choices. Investors tend to use mental shortcuts based on presentation styles instead of making investment decisions through fundamental evaluations. The way investors think about money through framing biases leads them to create artificial categories such as "safe," "growth," and "discretionary," which do not reflect actual financial differences.

Behavioral Portfolio Theory explains how investors build portfolios through multiple mental accounts instead of single unified structures. Shefrin and Statman observe that “investors frame monies into a variety of distinct mental accounts, and attach utility to each mental account in isolation from other mental accounts” (Shefrin & Statman, *Behavioral Portfolio Theory*, 2000, p. 7). The isolation between products and accounts leads to fragmented decision-making because each item is assessed separately through its language or presentation instead of its impact on the entire portfolio.

Financial institutions demonstrate cognitive fragmentation through their presentation of structured products. Financial products such as principal-protected notes and income funds use emotional security language in their marketing, which includes terms like “capital preservation,” “moderate income,” and “retirement stability.” The product names suggest

lower risk exposure although they contain complex features and additional fees with restricted investment returns. As Pompian notes, “Framing contexts are often arbitrary and uncorrelated and therefore shouldn’t impact investors’ judgments … but, they do” (Pompian, *Behavioral Finance and Wealth Management*, 2006, p. 243). The way a product is labeled changes how people see its intended use, which leads investors to make emotionally pleasing but financially inferior investment decisions.

The practical effects of framing can be observed through two identical investment products which consist of 70% equities and 30% bonds with expected returns of 7.5% and annual volatility of 12%. The two investment products share identical performance characteristics, yet investors may behave differently because of their distinct branding, which calls one a “Capital Growth Strategy” and the other a “Balanced Wealth Fund.” The first label draws investors who want growth and capital appreciation, but the second label attracts investors who value stability and income. The example demonstrates how different framing affects investment choices when the underlying assets remain identical.

Shefrin and Statman explain that these framing effects originate from fundamental psychological processes: “Prospect theory begins with the observation that people who face complex problems frame them into simpler subproblems” *(*Shefrin & Statman, *Behavioral Portfolio Theory*, 2000, p. 6). Investors reduce portfolio complexity through the process of assigning different assets to specific roles based on their presentation format. The process of simplification results in suboptimal behavior, especially when products get misclassified because of deceptive or overly reassuring labels.

The process of framing bias includes emotional and expressive connections that people make when selecting investments. According to Statman, “Behavioral portfolios are about expressive and emotional benefits, beyond utilitarian benefits. And they are about risk as falling short of wants, not as variance of portfolio returns” (Statman, *Behavioral Finance: The Second Generation*, 2019, p. 81). The emotional presentation method changes how investors understand risk. Investors base their decisions on how assets match their mental accounts of safety, legacy, and opportunity rather than calculating the chances of portfolio underperformance. The way a product is framed as “preservation-oriented” leads investors to put their money into low-yield assets, which results in lower long-term returns and financial objective misalignment.

The difference between objective analysis and emotional reaction becomes more pronounced when gains and losses are perceived through inconsistent frames. A product loss receives harsher evaluation when it occurs within the mental account "retirement security" than when it belongs to a generic "investment" category. Shefrin and Statman warn that “subjects who choose optimally when problems are framed in a transparent form often choose suboptimally when problems are framed in an opaque form” (Shefrin & Statman, *Behavioral Portfolio Theory*, 2000, p. 6). The process of making sound financial decisions requires clear framing as a fundamental element.

The effects of framing require advisors to use transparent, goal-based communication methods. The use of charts that display cumulative returns, risk distribution, and asset correlation helps investors transform their choices from emotional to strategic decisions. Investors can focus on actual outcomes instead of perceptions when products are classified based on their portfolio diversification functions rather than emotional labels.

The main difficulty of framing consists in its delicate nature. Investors remain unaware that their preferences are being subtly influenced through the selection of words and product names. Behavioral finance demonstrates that simple fund labels between "income-focused" and "capital appreciation-oriented" create mental categories which lead investors to make decisions that conflict with their long-term objectives. Wealth managers who expose these biases to clients while directing them toward comprehensive views will enhance decision quality and minimize emotionally based segmentation.

2.3 High-Net-Worth Individuals (HNWIs) and Wealth Segmentation

High-net-worth individuals (HNWIs)[4] demonstrate strong mental budgeting behavior through their practice of dividing wealth into separate psychological categories that match their perceived needs, time horizons, and emotional priorities. The behavior follows behavioral finance principles by choosing symbolic allocations instead of optimizing portfolios as a whole according to normative financial theory. HNWIs organize their assets into functional “buckets” that match their three main objectives: legacy preservation, long-

[4] *High-net-worth individuals (HNWIs)* are individuals whose investable assets exceed a certain threshold — commonly set at $1 million or more, excluding primary residences.

term returns, and liquidity maintenance[5]. The method creates emotional clarity but leads to inefficient capital use and subpar diversification practices.

Mental budgeting differs from standard economic models because it requires labeling and earmarking capital for particular uses. HNWIs organize their mental budgets into three distinct categories, which include legacy wealth, growth wealth, and liquidity wealth.

The funds allocated for *legacy wealth* serve two purposes: they support family heirs and charitable objectives. The funds are placed into safe investments, which include government bonds, municipal securities, and blue-chip equities[6]. The investment portfolio exists to preserve capital while meeting the investor's obligation to protect future family members' financial security. The emotional driver here is fear — fear of loss, instability, or failure to provide. As Shefrin observes, “Fear causes investors to look at possibilities from the bottom up and ask, How bad can things get?” (Shefrin, *Beyond Greed and Fear*, 2002, Ch. 10, pp. 119–139). This bottom-up thinking causes wealthy investors to place capital-preserving investments in their portfolios, which might limit their overall performance.

The second category of wealth accumulation involves investments that carry higher risks yet generate greater returns. The *growth wealth* category includes venture capital and private equity investments as well as hedge funds and concentrated public equity positions. The primary emotional force behind this investment approach is hope, which drives people to seek wealth growth and new business possibilities. Shefrin notes, “Hope gets investors to look at possibilities from the top down and ask, How good can it get?” (Shefrin, *Beyond Greed and Fear*, 2002, Ch. 10, pp. 119–139). These investments have lower liquidity and higher volatility but are made with the expectation of long-term gains. However, because they are siloed from the rest of the portfolio, growth assets are often evaluated in isolation, ignoring their contribution — or risk correlation — to the aggregate wealth strategy.

The third layer of wealth consists of *liquidity wealth*, which people tend to hold at excessive levels. The capital exists in cash or equivalent forms that exceed the actual liquidity requirements. The main purpose of this capital is psychological because it offers comfort

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[5] *Liquidity maintenance* refers to the practice of preserving a portion of one’s portfolio in cash or near-cash instruments to ensure immediate access to funds for short-term needs, emergencies, or unforeseen opportunities.

[6] *Blue-chip equities* represent the shares of major, established companies that demonstrate financial stability through consistent performance, reliable earnings, and regular dividend distributions. These companies are industry leaders and offer investors a relatively safe long-term investment opportunity.

during times of market volatility. The protection from market shocks through cash holdings comes at the expense of missed investment returns.

Consider a hypothetical high-net-worth investor with €15 million in investable assets to demonstrate the effects of mental budgeting and wealth segmentation. Assume he separates his financial assets into distinct psychological categories that match his various financial objectives. The €5 million portion of his wealth goes into his "Legacy Wealth" segment, which holds long-dated government bonds and dividend-paying blue-chip stocks that generate an average annual yield of 2.5%. This segment represents his goal to maintain capital for future family members or charitable initiatives. The €7 million portion of his assets goes into "Growth Wealth," which invests in private equity funds and high-growth technology stocks to achieve a 10% annual return. The €3 million portion of his wealth exists as "Liquidity Wealth," which consists of cash and money market instruments that produce a 0.5% annual return for immediate financial needs and easy fund access. The mental budgeting approach through segmentation demonstrates how it affects investment decisions while possibly reducing portfolio efficiency.

The 20-year growth potential of this investment strategy can be evaluated against a mean-variance optimized portfolio with equivalent risk tolerance but without strict mental segmentation. The cash bucket produces only €150,000 per year. The annual return would increase from €15,000 at 1% to approximately €105,000 at 7% if €1.5 million from the cash bucket were invested in equities. The cumulative opportunity cost would exceed €1.8 million during a twenty-year period. The practice of overfunding liquidity budgets provides comfort but simultaneously reduces long-term performance.

The practice of separating risky assets into a distinct “growth” budget could lead investors to take excessive risks. Investors who do not consider their entire portfolio as one unit may pursue high-risk investments in these growth-oriented buckets, which creates an unbalanced risk profile. Pompian warns that this leads to a “pyramid” format in which “each tier addresses a particular investment goal independently of any additional investment goals,” often causing investors to neglect how assets interact in the broader portfolio (Pompian, *Behavioral Finance and Wealth Management*, 2006, p. 174). The behavior creates difficulties for tax and estate planning because concentrated assets without coordination work against wealth preservation objectives.

Shefrin uses the *emotional timeline* to explain how investors change their emotional state — from hope to anticipation, to pride, to fear, to anxiety, to regret — as they invest over time. The beginning of the timeline shows hope as the dominant emotion, which drives investors to put their money into growth investments. The approach to key life events or legacy transfers leads to fear and regret, which causes investors to become conservative even though it goes against their long-term performance requirements. “Hope becomes anticipation and is then transformed into pride. Below the line, fear becomes anxiety and is then transformed into regret” (Shefrin, *Beyond Greed and Fear*, 2002, Ch. 10, pp. 119–139). Advisors need to understand these transitions because they must assist clients in rebalancing their portfolios without causing emotional distress.

Mental budgeting functions as a bias, yet it provides adaptive benefits. The practice of wealth categorization by function helps people create better financial goals and emotional connections and maintain stronger dedication to long-term strategies. However, Pompian emphasizes that “people quite often fail to evaluate a potential investment based on its contribution to overall portfolio return and aggregate portfolio risk” (Pompian, *Behavioral Finance and Wealth Management*, 2006, p. 174). The excessive use of this approach becomes most dangerous during market stress because emotional choices start to dominate logical adjustments.

Behavioral advisors use goals-based advisory methods to address these problems by working with mental budgeting while maintaining portfolio coherence. The advisor maintains the client's mental structure by matching asset allocations to each bucket's objective while achieving total portfolio optimization. The growth wealth portion receives international diversification and tax optimization, while liquidity wealth contains short-duration bonds instead of zero-yield cash.

The process of wealth segmentation among HNWIs combines logical financial planning with complex emotional patterns. Advisors who understand the psychological elements of mental budgeting can help clients create efficient portfolios that respect the intuitive framework that gives their financial life purpose. Behavioral finance operates within the existing mental budgeting framework to improve both financial peace of mind and long-term financial results.

2.4 Retirement and Long-Term Investment Behavior

Mental budgeting functions as a key factor that influences how people handle retirement savings by leading them to make cautious and inflexible investment choices. The majority of people mentally divide their retirement funds into a separate "bucket" that they protect from any changes because they consider these funds inviolable. People develop this behavior because they associate retirement with both financial risk and limited income, which activates their fear of loss and preference for maintaining the current situation.

Retirees tend to put most of their money into fixed-income investments, which include government bonds, annuities[7], and money market funds. The risk-reduction approach leads to this shift, but people often make it too early or to an extreme degree. People mentally categorize their retirement funds as safety-oriented investments while choosing to reduce market volatility, even though moderate equity exposure would support long-term financial sustainability. The need to safeguard principal assets leads people to ignore rational investment strategies, which results in poor returns and raises the possibility of exhausting their resources before death.

Thaler and Benartzi demonstrate in their research that people fail to save enough for retirement even though they understand its significance. The authors demonstrate that under-saving results from behavioral mistakes instead of financial constraints, because people tend to procrastinate and lack self-control. “When surveyed about their low savings rates, many households report that they would like to save more but lack the willpower,” they note, emphasizing that the gap between intention and action is not due to ignorance, but to behavioral inertia (Thaler & Benartzi, *Save More Tomorrow*, 2003, p. 4).

The inflexibility of retirement mental budgets becomes more pronounced because people view income reductions as financial losses instead of savings. Employees tend to oppose retirement plan contribution increases when their income remains stable. Thaler and Benartzi explain this in terms of nominal loss aversion: “Households may be reluctant to increase their contributions to the savings plan because they do not want to experience this cut in take-home pay” (Thaler & Benartzi, *Save More Tomorrow*, 2003, p. 7). The study reveals

[7] *Annuities* are financial contracts issued by insurance companies that provide regular payments to the holder, typically used as a source of retirement income.

that people become more receptive to higher contributions when salary increases occur at the same time, because the perceived loss becomes less noticeable due to the simultaneous gain in nominal income.

The *Save More Tomorrow* (SMarT) program structure relies on this understanding because it allows people to set aside parts of their future salary growth for retirement savings in advance. The program avoids procrastination by separating the decision from current consumption while using future defaults to create a positive effect from inertia. The SMarT program led participants to boost their saving rates through enrollment while protecting them from the financial discomfort of reduced disposable income.

Mental budgeting in retirement creates financial distortions, but simultaneously provides emotional clarity and behavioral commitment. The practice of labeling retirement funds makes them less likely to be spent, which safeguards long-term objectives from immediate desires. The main difficulty emerges from maintaining psychological protection against the requirement for optimal diversification and dynamic adjustment.

Behavioral advisors can improve results by understanding mental budgeting behaviors while teaching flexible approaches. Goals-based investing divides portfolios into life goal segments, which advisors combine into a unified investment strategy. Clients can keep their mental retirement "bucket", but advisors will suggest spreading their assets or implementing glide-path strategies[8] that modify risk exposure gradually through time.

Mental budgeting strongly affects retirement planning because it determines how people save money, invest funds, and assess financial risks. The approach provides emotional comfort and purpose-driven structure, yet creates inertia, suboptimal allocation, and resistance to beneficial changes. The SMarT behavioral intervention shows that working with human tendencies instead of fighting them produces superior retirement results.

[8] *Glide-path strategies* refer to investment approaches that systematically adjust the asset allocation of a portfolio — typically by reducing exposure to equities and increasing allocation to fixed-income or lower-risk assets — as an investor approaches a target date such as retirement.

2.5 Behavioral Solutions & Advisory Strategies

Wealth managers serve as essential professionals who assist investors in reducing behavioral biases' inefficiencies, particularly those related to mental budgeting. The most effective advisory strategies work with psychological tendencies instead of trying to eliminate them, to help investors create portfolios that are both coherent, goals-aligned and diversified. The method combines behavioral finance principles with modern portfolio theory and research-based insights about investor choices. The process requires clients to change their thinking while matching their mental budget categories to rational asset distribution, and then moving them toward a complete portfolio perspective that unites risk management with return expectations and investment objectives.

Harry Markowitz introduced *Portfolio Selection*, which transformed how investors evaluate risk versus return in their investment choices. The mean-variance framework established by Markowitz showed that efficient portfolios must “have a greater expected return for the same or smaller variance, or a smaller variance for the same or greater expected return” (Markowitz, *Portfolio Selection*, 1959, p. 140). The principle demands portfolio evaluation through assessment of its risk-adjusted performance contribution rather than individual analysis. The practice of mental budgeting violates this principle, because it promotes investors to divide their capital into specific "buckets" without evaluating the combined effects of these segments.

Behavioral advisors use structured goal-setting and asset alignment to work with the existing mental frameworks of their clients, instead of requiring them to discard their current thinking patterns. As Jean Brunel writes, “Goals-based strategic allocation is unabashedly a bottom-up exercise” (Brunel, *Goals-Based Wealth Management*, 2015, p. 141), where the advisor begins by understanding the client's objectives before constructing investment modules that align with these goals. The method does not force a single optimal portfolio, but instead works with the client's natural segmentation by applying sound investment logic to each "bucket" while maintaining a unified overall structure.

Multiple goals and inconsistent risk tolerances exist among clients. The advisor needs to develop personalized solutions for each client goal, instead of forcing diverse objectives into a single universal strategy. As Brunel notes, “The process must be centered on the client. This requires a very careful effort, up front, to make sure that the advisor understands all of

the client's goals and risks in as much detail as possible." (Brunel, *Goals-Based Wealth Management*, 2015, p. 151).

The framework enables mental budgeting to continue existing as a form, but prevents it from functioning as intended. The mental accounts transform into goal-based portfolios, which operate through rational investment decisions instead of emotional decision-making. Brunel describes a four-part process which includes strategy constraint identification[9], followed by goal-oriented module creation[10], strategy-goal mapping[11] and deviation range establishment[12]. The approach provides clients with psychological reassurance and clear storytelling while maintaining the fundamental investment principles.

Additionally, Brunel acknowledges sub-optimality concerns but believes the trade-off between mean-variance efficiency[13] and behavioral compatibility is justified. "Creating comfortable and thus sustainable allocations that meet the specifics of individual circumstances is theoretically possible, even if it requires one to make a number of minor changes and substitutions to traditional finance." (Brunel, *Goals-Based Wealth Management*, 2015, p. 148). This recognition connects Markowitz's theoretical framework to actual investor financial practices.

The architectural aspect of mental budgeting receives attention through portfolio structuring for goal alignment, yet behavioral nudges tackle both inertia and emotional barriers to change. Richard Thaler and Shlomo Benartzi created the influential *"Save More Tomorrow"* (SMT) program. The SMT program uses pre-commitment to raise retirement savings gradually through time while using inertia as a force for positive change.

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[9] *Strategy constraint identification* refers to the process of determining the limitations and requirements that shape an investor's portfolio — such as liquidity needs, time horizon, tax considerations, legal restrictions, and risk tolerance — before designing goal-specific investment strategies.

[10] *Goal-oriented module creation* involves designing separate investment strategies (modules) for each specific client goal — such as retirement, education, or legacy — so that each module aligns with the financial objective, time frame, and risk level associated with that goal.

[11] *Strategy-goal mapping* is the process of aligning each investment strategy or module with a specific client goal, ensuring that the structure, risk profile, and expected return of the strategy directly support the successful achievement of that goal.

[12] *Deviation range establishment* refers to setting acceptable boundaries for how much an investment module can diverge from its target allocation or performance benchmarks, allowing for flexibility while maintaining alignment with the client's goals and risk tolerance.

[13] *Mean-variance efficiency* refers to a portfolio's ability to achieve the highest possible expected return for a given level of risk, or the lowest possible risk for a given expected return, based on the principles of modern portfolio theory.

The psychological mechanism behind SMT works equally well for wealth management, even though it was created for employer-sponsored plans. People tend to make better commitments about future changes than they do about present-day changes. Wealth managers can use this principle to establish automated reallocations and time-based risk adjustments, which decrease client stress and enhance long-term results. The "set it and forget it" methods maintain client autonomy while guiding their behavior toward positive outcomes.

Risk communication reframing through social norm appeals represents another behavioral strategy. Statman observes that “normal investors desire something more than a portfolio on the mean–variance frontier of investments. One set of investor wants is for palatable portfolios — that is, portfolio asset allocations close to norms, reflected in the portfolios of peers.” (Statman, *Behavioral Finance: The Second Generation*, 2019, p. 86). Advisors can decrease client discomfort about being “wrong and alone” by demonstrating how similar clients distribute their investments. The approach of presenting investment choices through peer behavior helps clients feel more confident while reducing their tendency to stick with the status quo and improving their commitment to long-term plans.

The practice of portfolio rebalancing faces behavioral resistance, which advisors now combat through simulation and visualization methods. The tools provide clients with better comprehension of investment probability and the permanent exchange between investment risk and return. Advisors should present rebalancing as a protective strategy for long-term objectives, instead of viewing it as a disruption to established mental accounts. Visualization tools show the price of not taking action through increased drawdown risk and reduced purchasing power, which makes diversification more understandable. The simulations show clients who separate their funds into cash and fixed-income "buckets" that even conservative portfolios will not meet their longevity needs when they exclude growth assets.

Through scenario analysis and historical stress testing, advisors enable clients to base their decisions on data instead of emotional responses. These tools transform volatility into a controllable element of diversified plans instead of a threatening factor. Clients become more receptive to rebalancing and moderate equity exposure after seeing their essential financial goals remain achievable during unfavorable simulation results. The outcome leads

people to transition from fear-based asset hoarding to goal-oriented investment strategies, which boost their chances of achieving long-term financial success.

The portfolio optimization method developed by Markowitz serves as the primary standard because it depends on investor rationality, along with utility-maximization principles. Clients in reality exhibit irrational decision-making behaviors through bounded rationality and behavioral inconsistencies. The optimization framework remains valid, yet requires additional complexity to handle real-world situations. The first step in portfolio construction requires understanding client psychological preferences and emotional preferences before applying optimization methods throughout the mental structures.

The main difficulty arises from merging behavioral understanding with mathematical analysis. The main difference between classical theory and behavioral finance exists because classical theory maximizes returns at specific risk levels, but behavioral finance works to match financial approaches with personal objectives and comfort levels. A modular approach to portfolio creation enables advisors to develop separate investment strategies for various objectives, which they can later combine while maintaining both analytical precision and personal significance.

Each mental account within an investor's portfolio exists as a distinct unit because it represents either a financial objective or emotional priority. This financial structure may appear less efficient to statistical experts, but it leads to better client involvement and improved goal clarity, together with better emotional stability. Better long-term discipline and financial outcomes result from this approach because investors tend to stick with plans that match their personal goals.

To conclude, the main goal of behavioral advisory strategies consists of turning biases into useful strengths instead of removing them. The implementation of rational decision tools within mental budgeting frameworks allows advisors to develop investment plans that clients find comprehensible and dependable. The research conducted by Brunel, alongside others, proves it possible to create plans that fulfill both technical requirements and goal-based objectives. Portfolio efficiency meets investor psychology through concrete tools, which include pre-commitment strategies, reframing techniques, and modular planning methods. The implementation of these strategies leads to better decisions and improved capital deployment, which results in enhanced long-term outcomes.

3. Mental Budgeting in Investment Banking

3.1 Risk Categorization in Institutional Finance

The internal capital segmentation practices of investment banks demonstrate similarities to behavioral mental budgeting methods. The organization distributes capital through separate categories, which include liquidity reserves, risk capital, client funds, and proprietary trading pools[14]. The categorization system exists to enhance operational clarity and internal mandate compliance, yet it produces inflexible boundaries, which obstruct smooth communication and create inaccurate risk assessments and suboptimal capital distribution throughout the organization.

The Lehman Brothers collapse[15] demonstrates the risks that come from having a fragmented financial system. Lehman Brothers maintained official risk systems and governance structures, yet its business units operated independently from each other, with no centralized risk oversight system. In his congressional testimony, Lehman Bankruptcy Examiner Anton R. Valukas revealed that "Lehman was significantly and persistently in excess of its own risk limits," and, instead of mitigating exposure, "management decided to adjust the risk limits to adapt to business goals" (Valukas, *Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner*, 2010, p. 2). The observed behavior demonstrates an organizational problem that separates risk governance from strategic decision-making processes.

One of the most revealing examples is Lehman's 2007 acquisition of Archstone, a massive real estate transaction that directly violated the firm's internal risk appetite. "It was clear prior to the commitment that the Archstone transaction would put Lehman over its then existing risk limits, but the deal was committed anyway" (Valukas, *Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner*, 2010, p. 3). The internal segmentation at Lehman allowed different units to set their own growth targets, without having to worry about the overall exposure of the firm. This is a behavioral phenomenon —

[14] *Proprietary trading pools* refer to capital allocated by investment banks for trading financial instruments using the firm's own money, rather than on behalf of clients, to generate direct profits.
[15] The Lehman Brothers collapse refers to the bankruptcy of Lehman Brothers Holdings Inc. on September 15, 2008. It was the largest bankruptcy in U.S. history and a key event in the 2008 global financial crisis.

units operated with perceived independence, leading to goal displacement, where short-term business objectives overrode long-term systemic prudence.

Risk compartmentalization resulted in deceptive regulatory disclosures and superficial compliance. The stress testing procedures at Lehman failed to identify crucial vulnerabilities that were supposed to help assess the firm's ability to withstand adverse market conditions. “Lehman did not include many of its riskiest assets in its stress testing… and, at worst, the stress testing was affirmatively misleading” (Valukas, *Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner*, 2010, p. 4). Senior management and regulators gained a misleading sense of security because they deliberately excluded commercial real estate and other high-risk positions.

The Big Short by Michael Lewis presents an alternative viewpoint. The book demonstrates how Wall Street firms, including Lehman, developed an internal culture, which created dangerous departmental coordination failures. In the prologue, Lewis reflects: “These people whose job it was to allocate capital apparently didn’t even know how to manage their own” (Lewis, *The Big Short*, 2010, Prologue, p. 10). The situation went beyond simple negligence, because it resulted from a broken internal system. The trading desks and business units operated independently to achieve their incentive-based targets, while believing that risk management fell to another part of the organization.

The organizational structure at Lehman Brothers made these problems worse. Units were allowed to ignore institutional risk controls, if it would help them reach their revenue targets. As Valukas notes, “Lehman committed to and closed dozens of transactions that were vastly in excess of that business unit’s risk limits” (Valukas, *Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner*, 2010, p. 4). This behavior aligns with a pattern where short-term gains are prioritized within local mental budgets, which results in cumulative risks that threaten the enterprise as a whole.

The firm's bonus culture supported this structural segmentation. The bonus system at the firm paid traders based on their individual or desk performance, which led them to take excessive risks within their designated compartments. The individual units pursued profit maximization, which created a collective action problem that led to dangerous overleveraging and opacity in the firm's overall position.

Both Lewis and Valukas emphasize that the lack of integrated oversight was a fundamental problem. The governance mechanisms that existed in theory were rendered ineffective by the practice of segmentation within the company culture. Risk reports were delivered to senior leadership and the board, but often “not in adequate detail” and “not always timely” (Valukas, *Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner*, 2010, p. 5). The firm's internal communication system did not combine exposure data from different business lines, which resulted in the failure to detect correlated risks until it became too late.

Ultimately, the Lehman Brothers collapse represents more than regulatory or market timing problems. The firm's institutional resilience suffered because of psychological and organizational segmentation, which resulted from the strict capital categorization and decentralized accountability system. The firm's actual weakness remained hidden, because each compartment created an illusion of safety. Modern investment banks need to understand that risk management success depends on both quantitative methods and organizational unity. Organizations need to break down internal barriers, while implementing complete governance systems, which handle capital as one integrated asset, instead of separate financial domains.

3.2 Framing of Investment Products and Derivatives

Investment banks use strategic framing techniques to influence how investors perceive complex financial products. The terms "Capital Protected Notes," "Income Funds," and "Enhanced Yield Strategies" function as psychological tools, which sort financial products into basic categories of safety or growth perception. The framing process enables investors at all levels to place products into familiar categories, which avoid thorough assessments of their underlying structure and risk profile.

The most straightforward example of structured notes exists. The marketing of these financial instruments uses the term “capital protection” to create perceptions of safety and

low volatility. The same notes contain embedded derivatives[16], which expose investors to market-linked risks that they do not understand properly. As Werner De Bondt emphasizes, “decision processes shape decision outcomes. If you want to understand, or predict, or influence decision outcomes, always bear in mind the decision process” (De Bondt, *The Behavioral Revolution in Finance*, 2010, p. 6). The label functions as the process, because investors buy the product based on appearance rather than performing thorough evaluations of its operational structure.

The behavior became most apparent during the 2008 financial crisis. Rating agencies assigned AAA labels[17] to Mortgage-backed securities (MBS)[18], which investors treated as risk-free assets. Institutional investors placed these securities in their most risk-averse investment categories, because they believed the rating indicated minimal risk. The instruments received AAA ratings despite being secured by subprime loans[19] and complex debt structures with uncertain repayment terms. The framing effect masked the actual level of risk exposure. De Bondt and Thaler explain, “people make decisions that depend as much on how a problem is ‘framed’ as on its objective payoffs. This simple fact can lead to a re-evaluation of many economic phenomena” (De Bondt & Thaler, “Financial Decision-Making in Markets and Firms: A Behavioral Perspective,” in *Handbook in Operations Research and Management Science*, Vol. 9, 1995, p. 386). The credit rating of MBS products created a false impression of safety, but their actual payment depended on multiple credit events and worsening lending practices.

The practice of framing biases supports and takes advantage of a general financial pattern, which involves dividing capital into separate mental categories. The thesis examines mental budgeting in depth elsewhere, but it is important to note that framing reinforces these artificial boundaries by assigning product labels that fit emotionally assigned roles within portfolios. De Bondt notes that reality exists through social construction, and finance uses

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[16] *Embedded derivatives* are derivative features included within a larger financial contract (e.g., a bond or note), which alter the cash flows of the host instrument based on changes in variables such as interest rates, equity prices, or other market factors.

[17] *AAA labels* are the highest credit ratings given by rating agencies, meaning the investment is seen as extremely safe and very unlikely to default.

[18] *Mortgage-backed securities (MBS)* are investment products made up of bundles of home loans that are sold to investors. The investors receive payments as homeowners repay their mortgages.

[19] *Subprime loans* are given to borrowers with poor credit histories. They carry higher risk and usually come with higher interest rates to compensate for the greater chance of default.

naming conventions and presentation formats to create the version of reality which investors respond to.

The consequences of modern investment tools become evident through leveraged ETFs[20]. The daily rebalancing and compounding effects of these products create substantial tracking errors and long-term volatility, despite their marketing as return-enhancing vehicles. Investors view them as basic equity alternatives because of their straightforward presentation, yet they fail to recognize the fundamental differences from traditional investments. As De Bondt notes, “the investment portfolios of many people were distorted by false beliefs and unreasonable choices” (De Bondt, *The Behavioral Revolution in Finance*, 2010, p. 1), and framing theory explains why investors avoid past losers and invest in products they do not fully comprehend.

The risk from framing becomes more severe because financial institutions store product categories in their internal systems. A fund manager uses the "moderate income" product name to assume limited downside risk, but the fund contains lower-quality credit tranches and structured securities with embedded options. The name meets internal compliance requirements and risk appetite standards, although the actual structure differs from what was expected.

The way we present problems determines which choices people will make, even though the actual options remain unchanged. The behavioral weakness affects both unsophisticated investors and the most advanced institutions, when risk gets misclassified because of presentation rather than substance.

The classification of investments into categories such as “fixed income” or “alternative investments” leads to incorrect distribution of funds. The products within these categories are expected to have similar characteristics, yet their actual construction methods differ substantially. An “absolute return” fund contains equity shorts, and derivatives, and illiquid holdings[21], yet it can be placed in an allocation model without opposition because of its correct label.

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[20] *Leveraged exchange-traded funds (ETFs)* are financial instruments designed to deliver a multiple (e.g., 2x or 3x) of the daily return of a specified benchmark index. They achieve this through the use of derivatives and borrowing, and are typically suited for short-term trading due to their high volatility and compounding effects.

[21] *Illiquid holdings* are assets that cannot be quickly or easily sold or exchanged for cash without a significant loss in value, often due to a lack of buyers or a limited market.

The practice of framing functions as both a commercial instrument and a behavioral flaw. Investment banks use language to reassure, simplify, and entice their clients. The language used in financial communications produces actual impacts on portfolio construction, and regulatory oversight, and market stability. The financial system becomes exposed to continuous misjudgments when risk categories are established through marketing instead of modeling.

The lesson for behavioral finance demonstrates that how financial products are presented carries equal weight to their actual content. Investors use labels and narratives to interpret financial instruments, instead of evaluating them based on payoff structures. The understanding of framing as a fundamental behavioral mechanism in institutional finance enables better comprehension of product mispricing, and regulatory gaps, and investment decision failures. A more stable financial system will emerge from reframing investment product definitions through both literal and psychological means, rather than their current naming conventions.

3.3 Debt Categorization in Corporate Finance

The financial practice of mental budgeting affects corporate systems for liability classification and management. Companies tend to assign different psychological labels to their debt instead of treating it as a single financial instrument, optimized for cost, maturity, and flexibility. The internal labels firms use to describe their debt types ("strategic," "operational," or "temporary") stem from psychological perspectives rather than financial logic and result in suboptimal capital structure choices.

The most frequent pattern occurs when companies focus on repaying low-interest bank loans while ignoring their higher-cost bond obligations. The bank loan appears urgent because it relates to short-term liquidity needs, but the bond issuance remains a strategic long-term capital component that gets pushed to the side. The internal classification system fails to accurately represent the actual financial expenses and potential business opportunities that the firm could pursue.

Thaler identifies this financial logic gap because classical theory assumes that investors and firms function like the classical model: "... Investors should care neither where money is stashed nor how it is paid out" (Thaler, *Misbehaving*, 2015, p. 169), since funds should be fungible. However, the principle operates differently in actual corporate environments because firms violate it regularly. Organizations mentally separate liabilities through their internal organizational roles, which produces silos that affect their refinancing approaches and repayment order.

The behavioral framing approach results in suboptimal capital allocation decisions. Companies avoid refinancing callable bonds[22] with cheaper alternatives because they believe these instruments should remain unchanged after issuance. The psychological impact of previous decisions makes companies avoid optimal market adjustments, even when market conditions are favorable for refinancing. As Thaler bluntly puts it: "It turns out, all jokes aside, the assumption was equally questionable in corporate finance" (Thaler, *Misbehaving*, 2015, p. 169).

Firms demonstrate another behavioral distortion when they avoid government-backed credit lines and emergency financing programs that became available during the COVID-19 pandemic. The facilities provide attractive terms with low interest rates and extended repayment periods, yet numerous firms stay away because of stigma concerns. The internal perception of financial weakness from accepting support leads firms to avoid this rational course of action, even when they have strong capital. The decision process is based on how the situation affects reputation, rather than cost or flexibility considerations.

The internal department structure of firms leads to underutilization of specific financing types. The Treasury department sees revolving credit lines as short-term liquidity tools, but the corporate strategy team considers bond issuances as funding for long-term investments. The enterprise develops inflexible financial decision-making processes because each unit maintains its own "mental budget." Different liability types receive separate evaluations instead of being considered as part of an integrated capital structure.

Thaler's critique of dividend policy offers a parallel insight. He writes: "Theory tells us that firms should not pay dividends and yet they do. And a behavioral model admittedly best

[22] *Callable bonds* are debt securities that give the issuer the right, but not the obligation, to redeem the bond before its maturity date, usually at a specified call price.

describes the pattern by which they pay them" (Thaler, *Misbehaving*, 2015, p. 171). Just as dividend policy defies classical expectations, so too does debt management when it is influenced by mental frames rather than unified risk-return assessments.

The problem of categorization is further reinforced by status quo bias. Once a debt instrument is classified a certain way within the firm — for instance, as "core funding" — it becomes difficult to challenge that classification. Proposals to restructure or retire such liabilities are met with organizational inertia, not necessarily opposition on financial grounds, but reluctance to disrupt existing mental models. Managers may fear that changing the debt structure will signal instability to stakeholders, even when the proposed shift is demonstrably cost-saving.

Moreover, compartmentalization can lead to misaligned incentives. Business units that operate with their own P&Ls may resist reallocating borrowing capacity or capital access if it means losing control over a liability they've come to regard as "theirs." This dynamic mirrors the way individuals avoid reallocating money between mental accounts — even when doing so, would clearly improve their financial situation.

The observed behavioral patterns produce actual effects in the world. The process of refinancing with suboptimal decisions leads to higher borrowing expenses. The practice of stigmatizing external funding causes businesses to remain undercapitalized when economic conditions deteriorate. The inability to assess liabilities as a whole system limits companies' ability to handle shocks and pursue growth opportunities. High-leverage sectors experience severe financial stability risks because of these distortions.

The process of addressing these inefficiencies starts by changing the internal dialogue about debt. Financial leaders need to understand that debt categories labeled as "strategic" or "tactical" represent mental shortcuts rather than objective facts. The combination of cost-weighted liability maps, cross-departmental capital reviews, and behavioral finance training helps organizations detect and question their internal mental labels. Scenario modeling, which uses goal-based treasury frameworks, demonstrates how debt reframed by purpose instead of legacy results in better decision-making.

Mental debt categorization in firms follows the same behavioral patterns which appear in individual financial management. Organizations use psychological framing, together with internal ownership and perceived reputational consequences, to segment their liabilities.

The frames used in decision-making processes frequently take precedence over financial fundamentals, which results in higher capital costs, reduced flexibility, and misaligned priorities. The behavioral approach both explains corporate inefficiencies and provides operational solutions to improve liability management through structural changes.

3.4 Mental Budgeting in Mergers & Acquisitions (M&A)

Mental budgeting creates significant distortions in corporate M&A strategies, which results in overpriced deals and unsuccessful integration efforts that ultimately harm shareholder value. The main issue arises from treating acquisition capital as a separate financial entity from overall corporate strategy. Companies allocate M&A funds to a special psychological budget, which they justify through strategic language instead of performing thorough financial evaluations. The practice of mental compartmentalization allows executives to avoid performing thorough cost-benefit analyses that they would normally conduct for other corporate expenses.

Richard Thaler writes: “Budget rules can lead to silly outcomes. Anyone who has worked in a large organization has run into the problem where there is not enough money in the assigned budget to take care of some urgent need, and there is no way to dip into money sitting idle in another budget” (Thaler, *Misbehaving*, 2015, p. 91). The organizational rigidity in this case parallels what happens in M&A when firms hold cash for acquisitions and do not use it elsewhere in the business.

The behavioral segmentation receives additional support from CEO overconfidence. According to Malmendier and Tate, “The overestimation of merger synergies induces excessive willingness to acquire other firms” (Malmendier & Tate, *Who Makes Acquisitions?*, 2007, p. 5). The excessive optimism about potential synergies causes firms to provide acquisition premiums that lack proper cash flow analysis and realistic integration planning support. A CEO who believes in their ability to reveal concealed value will view a 30–50% acquisition premium as an appropriate expense for their personal business vision.

Microsoft's $26.2 billion LinkedIn acquisition in 2016 demonstrates how narrative-driven capital allocation works. The acquisition price of LinkedIn was 50% higher than its stock

value at that time, which resulted in a total valuation of 8.5 times forward revenue, despite the industry standard being lower. Microsoft CEO Satya Nadella presented the acquisition as a “strategic synergy” to merge LinkedIn's professional graph with Microsoft's productivity tools, including Outlook, Office, and Dynamics CRM. The company presented a long-term vision for digital transformation through the acquisition but provided minimal details about operational plans. The analysts expressed skepticism about the acquisition because the company failed to present detailed integration plans, and the internal synergies were not clearly defined with specific financial targets.

The entire acquisition received funding through Microsoft's offshore reserves, which eliminated external financing challenges and avoided traditional cost-of-capital evaluation. The company treated offshore liquidity as a dedicated acquisition fund through a process that aligns with mental budgeting distortions. It used a distinct psychological framework to justify the deal by calling it "strategic expansion" instead of applying the hurdle rates[23] used for internal R&D or strategic partnerships.

The acquisition demonstrates how narrative framing, together with mental budgeting, can overcome typical financial discipline. “When evaluating something we like, we tend to minimize its risks and costs and exaggerate its benefits” (Kahneman, Lovallo & Sibony, *Before You Make That Big Decision*, *Harvard Business Review*, 2011, p. 54). The Microsoft–LinkedIn transaction demonstrates this pattern by choosing intuitive appeal over empirical risk analysis because of a compelling story rather than a compelling model.

The situation worsens when companies depend only on their internal funding sources for acquisitions. The ability to access internal capital strengthens mental budgeting biases because external financing constraints such as lender scrutiny and shareholder approval become irrelevant. The gap between merger activity of confident and rational CEOs reaches its peak when the firm possesses plenty of internal funds. The availability of internal slack enables overconfident executives to pursue doubtful deals without sufficient evaluation of their assumptions.

Mental budgeting persists because executives develop emotional bonds with strategic capital allocation decisions. The initial decision to start an acquisition creates a situation where organizations struggle to back down from their commitment even when new data

[23] The *hurdle rate* is the minimum rate of return on a project or investment required by a manager or investor.

shows negative results. People tend to avoid abandoning projects that require significant investment because they feel committed to their work, even though continued involvement will result in financial losses. The sunk cost fallacy occurs frequently after mergers because organizations tend to justify underperformance instead of addressing the actual issues.

The way companies frame their deals leads to biases that negatively affect their post-acquisition integration processes. Acquirers commonly maintain target firms as independent business units because their initial deal framing prevented complete integration. The separation of units hinders synergy realization while slowing down knowledge transfer and creating internal resistance. As Kahneman et al. advise, "Organizations need to realize that a disciplined decision-making process, not individual genius, is the key to a sound strategy" (Kahneman, Lovallo & Sibony, *Before You Make That Big Decision*, *Harvard Business Review*, 2011, p. 60). Without such a process, framing biases dominate strategic choices — from valuation to execution.

The financial effects of these biases can be quantified. Malmendier and Tate show that mergers initiated by overconfident CEOs produce substantially worse market reactions when announced. The market reaction to mergers led by overconfident CEOs resulted in an average return of -0.90% during a three-day period, whereas non-overconfident CEOs led deals with an average return of -0.12% (Malmendier & Tate, *Who Makes Acquisitions?*, 2007, p. 22). The market identifies the risks of inflated synergies, overpayment, and poor post-merger integration through this significant economic and statistical difference.

A hypothetical numerical example helps illustrate the behavioral costs of mental budgeting. Consider a company that maintains €4 billion in cash reserves. The company assesses an internal expansion project which has an expected IRR[24] of 11% while also considering the purchase of a competitor at 40% above market value with an expected return of 8%. The acquisition received approval because it was labeled as "transformational" despite its lower return and increased risk. The decision was based on narrative framing rather than financial logic because the acquisition funds were mentally allocated for strategic growth instead of being evaluated against alternative internal projects.

Behavioral advisors and boards need to establish systematic controls to address these distortions. According to Kahneman, decision-makers should perform a *"pre-mortem"* by

[24] The *internal rate of return (IRR)* is the discount rate that makes the net present value of a project zero.

assuming the worst outcome has occurred to create believable explanations for the failure (Kahneman, Lovallo & Sibony, *Before You Make That Big Decision*, *Harvard Business Review*, 2011, p. 59). The reverse approach compels teams to detect integration risks and synergy shortfalls before they spend capital.

In conclusion, mental budgeting in M&A forces companies to separate acquisition capital from other funds, while they tend to overestimate potential synergies and avoid comparing acquisition costs to alternative capital allocation options. These biases produce market underperformance, poor integration, and overpriced deals when combined with CEO overconfidence and narrative-driven framing. The elimination of these distortions needs behavioral awareness, together with structural governance and a disciplined decision-making process that treats acquisition capital as any other resource rather than a strategic reserve that should be treated as sacred or a scarce accountable resource.

4. Mental Budgeting in Practice and the Future of Financial Decision-Making

4.1 The 2008 Financial Crisis and Risk Misclassification

The 2008 financial crisis emerged from fundamental problems in risk evaluation and financial product development. The fundamental behavioral distortions which existed within large institutions, including UBS and Citigroup, led to these failures. The firms presented themselves to the public with confidence and analytical rigor, yet their internal operations were heavily influenced by cognitive biases, flawed incentives, and poor organizational design. The case of UBS demonstrates how psychological weaknesses within corporate systems led to extreme risk mispricing, which resulted in a complete destruction of their balance sheet.

The financial crisis of 2008 led UBS to report losses exceeding $50 billion from subprime investments, which required the Swiss central bank to provide a $60 billion emergency bailout. The firm's decision-making processes suffered from fundamental behavioral

failures that caused these losses beyond mere market misjudgment. At the core of UBS's failure was what Hersh Shefrin terms a breakdown in "planning, standards, incentives, and information sharing — the organizational loci for behavioral vulnerabilities" (Shefrin, *How Psychological Pitfalls Generated the Global Financial Crisis*, 2009, pp. 2–3).

The internal strategy at UBS focused on competitive positioning rather than prudence. The fixed income business underperformance at UBS in 2005 led the bank to hire McKinsey & Co., which used benchmarking to force the bank into risky subprime exposure without adequate risk management systems. "To close the competitive gap, the consultant recommended that UBS increase its investment in subprime mortgage-backed securities and adjustable-rate mortgage products[25]," even though this advice lacked proper consideration of risk capacity (Shefrin, *How Psychological Pitfalls Generated the Global Financial Crisis*, 2009, p. 6).

UBS failed to establish subprime exposure limits, even though warning signs of growing systemic risk had become evident. The executives displayed an "aversion to a sure loss," which led them to pursue riskier behavior because they felt they were falling behind their competitors. The bank's decision to take riskier options when facing potential losses demonstrates a well-known behavioral pattern that prevented them from adopting conservative measures in uncertain times.

The major issue arose from UBS's incorrect assessment of its exposure to structured products[26], including collateralized debt obligations (CDOs)[27]. The senior positions in these instruments received AAA ratings, which led to their classification as nearly risk-free, even though they contained high-risk subprime loan exposures. "The risk management group did not 'look through' the CDO structure to assess the risks of the underlying collateral," relying instead on ratings and failing to analyze actual market fundamentals such as loan-to-value ratios or documentation quality (Shefrin, *How Psychological Pitfalls Generated the Global*

[25] Adjustable-rate mortgage products (ARMs) are home loans with interest rates that periodically adjust based on a benchmark index, typically after an initial fixed-rate period.
[26] *Structured products* are pre-packaged financial instruments that combine traditional assets (like bonds or equities) with derivatives to offer customized risk-return profiles.
[27] *Collateralized Debt Obligations (CDOs)* are complex financial instruments that pool together various income-generating assets — such as mortgages, bonds, or loans — and repack them into tranches with different levels of risk and return. Investors in senior tranches are paid first and have lower risk, while those in junior tranches absorb losses first but receive higher returns.

Financial Crisis, 2009, p. 8). The excessive dependence on historical data and external ratings created a "risk-free illusion" that would prove fatal when defaults began to surge.

The hedging strategy[28] at UBS proved to be a critical failure point. Risk managers at UBS made an incorrect assumption that super senior tranche[29] exposure in CDOs was fully offset by nominal hedges, which resulted in inaccurate Value-at-Risk (VaR)[30] assessments. "UBS erroneously thought that they had hedged their positions sufficiently, and that the associated VaR was effectively zero" (Shefrin, *How Psychological Pitfalls Generated the Global Financial Crisis*, 2009, p. 8). The failure demonstrates how excessive self-assurance, combined with oversimplified thinking about complex risks, led to the belief that basic insurance approaches could handle these risks effectively.

UBS's bonus system also created major behavioral vulnerabilities for the company. The company based its compensation structure on short-term revenue targets, which ignored both sustainability and risk assessment of those earnings. As Shefrin highlights, "UBS's compensation structure barely took risk issues into consideration... bonuses were based on gross revenue after personnel costs, with no adjustment for quality or sustainability of earnings" (Shefrin, *How Psychological Pitfalls Generated the Global Financial Crisis*, 2009, p. 10). The system created perverse incentives that led traders and managers to focus on visible profits while ignoring potential risks, which resulted in growing positions of illiquid and opaque CDO tranches. The organization's reward system for volume over value created a financial architecture that promoted risk neglect throughout the organization.

The information flow at UBS became distorted because of framing and groupthink. The decision-making processes operated in separate silos, while risk information presented itself in an unclear manner with minimal transparency and no comprehensive integration. "UBS's report criticizes its risk managers for opaquely presenting information about risks... risks were siloed within risk functions without risk managers making any attempt to present

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[28] A *hedging strategy* is a risk management approach used to offset potential losses in an investment by taking an opposite position in a related asset.

[29] A *super senior tranche* is the highest-ranking layer in a structured financial product, such as a CDO. It has priority over all other tranches in receiving principal and interest payments and is therefore considered the least risky.

[30] *Value-at-Risk (VaR)* is a statistical measure used to estimate the maximum expected loss of a portfolio over a given time horizon at a specific confidence level. It is commonly calculated using the formula:

$$\mathrm{VaR} = Z \cdot \sigma \cdot \sqrt{t} \cdot V$$

where Z is the z-score corresponding to the confidence level, σ is the standard deviation of returns, t is the time horizon, and V is the portfolio value.

a holistic picture" (Shefrin, *How Psychological Pitfalls Generated the Global Financial Crisis*, 2009, p. 9). The actual risk profile became hidden because long and short positions were combined, while senior executives did not challenge the assumptions that led to the bank's growing leverage.

The case of Citigroup presents similar issues. The internal risk officers at the firm did not question senior executives about the quality of assets in their Structured Investment Vehicles (SIVs)[31] during 2007. The company had enormous exposure to subprime-linked securities but kept telling shareholders that the losses were "manageable." This misplaced optimism, which Shefrin calls "confirmation bias," led Citigroup to increase risk exposure even after warning signs appeared.

The psychological factors behind these decisions stem from the absence of long-term thinking in compensation and planning processes. Risk-takers who receive rewards for short-term achievements without facing consequences for enduring failures tend to develop overconfidence and confirmation bias, and make incorrect extrapolations. The outcome produces both capital misallocation and system-wide exposure to risk.

UBS's failures stemmed from behavioral issues rather than ignorance or insufficient models. The bank's internal review confirmed this by showing that the CDO desk issued warnings about subprime market deterioration, yet senior management chose to expand exposure because they misjudged the situation and focused on specific aspects.

The implications of these behavioral failures extend beyond 2008. As Shefrin concludes, "The root cause of the financial crisis that erupted in 2008 is psychological… heuristics, biases, and framing effects strongly influenced the judgments and decisions of financial firms, rating agencies, elected officials, government regulators, and institutional investors" (Shefrin, *How Psychological Pitfalls Generated the Global Financial Crisis*, 2009, p. 1). These lessons remain vital for institutions today, as modern financial markets continue to wrestle with complexity, incentive misalignment, and behavioral distortions that technology alone cannot solve.

[31] *Structured Investment Vehicles (SIVs)* are off-balance-sheet entities created by financial institutions to borrow short-term funds at low interest rates (typically by issuing commercial paper) and invest in longer-term, higher-yielding assets such as mortgage-backed securities or other structured products.

4.2 COVID-19 Stimulus and Speculative Budgeting

Households exhibited distinctive behavioral patterns when responding to fiscal transfers during the COVID-19 pandemic. The U.S. stimulus checks, known as Economic Impact Payments (EIPs), received special attention because of their large size, fast delivery, and the emotional responses they caused. Many people treated these payments as optional bonus money rather than regular income or financial requirements. The way recipients managed their stimulus funds depended heavily on their mental budgeting approach, which involved assigning funds to symbolic categories based on their origin or timing.

The stimulus programs from 2001 and 2008 focused on demand stimulation, but the EIPs distributed in 2020 and 2021 served multiple purposes. As Parker et al. note, "The EIPs were not intended to stimulate demand for consumption but rather to provide pandemic insurance" (Parker et al., *Economic Impact Payments and Household Spending During the Pandemic*, NBER, 2022, p. 1). However, the payments spread across many households without regard to their current financial situation, which led to behaviors that deviated from their intended purpose. Households treated these payments as unexpected money by creating distinct mental accounts that they used to spend the funds as they saw fit.

The categorization system influenced how people allocated their money between spending and investing. Research indicates that households allocated only a small amount of their stimulus funds when they received the money. "Ninety-five percent confidence intervals imply that people increased their spending on non-durable goods and services… by between 4.6 and 15.8 percent of their EIP during the three-month CE reference period[32] during which the EIP arrived" (Parker et al., *Economic Impact Payments and Household Spending During the Pandemic*, NBER, 2022, p. 3). The limited immediate spending demonstrates both pandemic-era consumption constraints and the mental separation of EIPs from essential expenses.

Notably, the behavioral response varied across household types. "We do however find larger spending responses both for those households with low levels of ex ante liquid wealth and for those more reliant on earnings from jobs with tasks that could not be done from home"

[32] The *CE reference period* is the three-month window used by the U.S. Consumer Expenditure Survey (CE) to capture household spending data.

(Parker et al., *Economic Impact Payments and Household Spending During the Pandemic*, NBER, 2022, p. 1). The data shows that some people used EIPs to cover actual financial needs, but others treated them as additional money. The stimulus funds served as speculative capital for these households, especially younger recipients with lower fixed expenses who used them to buy meme stocks and cryptocurrencies and engage in high-volatility options trading.

The psychological framing received additional emphasis through media coverage and digital finance platforms. The retail brokerage industry took advantage of the liquidity surge by creating gamified trading platforms while using aggressive promotional strategies to attract the new retail traders who received stimulus money. The platforms presented trading as both entertainment and opportunity, which matched how many users viewed their stimulus funds as money meant for risk-taking instead of saving. The speculative frenzy surrounding GameStop, AMC, and Dogecoin became possible because users detached themselves from traditional financial planning principles.

Financial institutions maintained this mental segregation through their specific product lines. The retail boom led financial institutions to create thematic ETFs, micro-investing tools, and cryptocurrency exposure vehicles, which targeted specifically the stimulus-funded demographics. The new products reinforced the idea that this money was intended for aggressive investment approaches instead of secure long-term investments.

Behaviorally, the second and third rounds of EIPs triggered even less consumption. “Our estimates suggest even less spending on average to the second and third rounds of EIPs… and almost no spending response” (Parker et al., *Economic Impact Payments and Household Spending During the Pandemic*, NBER, 2022, Abstract). The pandemic's progression led to a decrease in both the sense of urgency and newness of the transfers, yet people continued to view them as nonessential funds. The repeated rounds of the program led people to either speculate or save their money, which strengthened their incorrect risk assessment while undermining the original financial policy goals.

The separation between policy design and behavioral reality creates significant implications. As Parker et al. observe, “While these EIPs did not fill an urgent economic need for most households, the first round… did provide timely pandemic insurance to some households who were more exposed to the economic losses” (Parker et al., *Economic Impact Payments*

and Household Spending During the Pandemic, NBER, 2022, Abstract). The psychological framing of the program became more prominent than its intended stabilizing impact for numerous recipients. The inconsistent results demonstrate that policymakers need to evaluate both economic delivery systems and human mental processes that affect how people utilize their money.

In conclusion, the COVID-19 stimulus period demonstrated that mental budgeting techniques transform public policy effects significantly. People change their risk tolerance and spending priorities and investment behavior through the process of labeling funds based on their source and novelty. The EIPs functioned as speculative instruments for numerous people who used them to increase market volatility while reinforcing cognitive biases and demonstrating the weaknesses of rational-agent models in crisis finance. Future interventions need policymakers and financial advisors to understand these psychological dynamics during the design and delivery of aid, rather than after the fact.

4.3 Technology, Behavioral Change, and the Future of Mental Budgeting

Digital finance tools that mediate personal financial decisions have started to affect the mental frameworks people use when budgeting. The way people handle money changes through apps that sort expenses, perform investment automation, and savings goal promotion, which also alters their mental organization of money. These technologies modify mental budgeting practices by changing how users interact with money through interface design, automation, and behavioral defaults.

The structured spending categories of budgeting apps and micro-investment platforms help users follow a specific financial management process. The structured approach helps users develop self-control and discipline, yet it creates psychological barriers that strengthen behavioral biases, including inflexible fund distribution. The way options are presented to users in *“choice architecture”* follows a fundamental principle of behavioral economics, which affects their decision-making processes. As Thaler and Sunstein write, “There’s no such thing as a ‘neutral’ design” (Thaler & Sunstein, *Nudge: The Final Edition*, 2021, p. 18). Even small interface choices can significantly affect how users structure and interpret their finances.

Several consumer-facing platforms already apply these behavioral insights. *Acorns* uses the principle of passive default behavior to build long-term savings by rounding up each purchase to the nearest dollar and investing the difference. *Chime* and *Qapital* enable users to establish rule-based triggers, which convert spending into savings habits. *YNAB* budgeting app enables users to assign jobs to every dollar while maintaining flexible reallocation options through explicit mental compartment representation. *Betterment* and *Wealthfront* operate as leading robo-advisors by using automated investment paths and pre-set options to decrease user decision-making effort, which enables them to maintain diversified portfolios without daily decision-making challenges.

Digital tools implement default features, which include automatic savings amounts and recurring investment options. The features use inertia to guide users toward positive behaviors without restricting their freedom. Thaler and Sunstein define a nudge as "any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives" (Thaler & Sunstein, *Nudge: The Final Edition*, 2021, p. 21). The application of defaults and automation in personal finance functions as a corrective system to address mental budgeting flaws, which include under-saving, under-diversification, and uncomfortable trade-off avoidance.

Though *Nudge* does not directly address digital finance, its core framework provides a useful foundation for fintech applications. The concept of *libertarian paternalism* in the book describes how institutions should guide individual behavior through influence methods that maintain freedom of choice. The approach does not enforce specific outcomes, but instead organizes decisions to guide people toward beneficial choices, such as saving and long-term investments, while preserving their freedom to make different choices. The design of fintech platforms by developers and financial providers should use well-structured interfaces to guide users toward better financial habits, instead of implementing mandates or restrictions.

However, nudges are not universally beneficial. Behavioral steering becomes more effective when nudges and incentives work together. The combination of nudges and incentives creates a conflict when a platform encourages users to save money at the same time it provides rewards or gamified spending incentives that promote overspending, thus potentially increasing bias instead of reducing it. The implementation of fintech systems, which personalize interfaces excessively while mirroring user biases and gamify financial

decisions without proper controls, tends to strengthen mental accounting mistakes instead of minimizing them. Users who mentally divide their money into strict categories will see these divisions reinforced through digital labels and interface cues when platforms enable emotional goal naming and focus on superficial milestones.

The objective should be to transform mental budgeting instead of removing it. Financial tools need to provide users with better capabilities to view different categories, understand cost tradeoffs, and connect their spending choices to future goals. Users can break free from limited financial thinking through prompts that create beneficial obstacles, such as confirmation alerts before saving reallocation and visual simulations of delayed contribution effects.

In conclusion, the responsibility for *choice architecture* now rests with designers and developers because financial behavior depends increasingly on software. The right application of behavioral economics principles by designers enables users to improve their budgeting skills while transforming their financial thinking.

Conclusion: From Buckets to Balance – Beyond Mental Boundaries

This thesis explored the enduring, yet often overlooked, financial decision-making distortion known as mental budgeting. This concept revealed its extensive influence on personal finance and wealth management, and institutional banking, which goes beyond simple category division. Mental accounting creates investment preference changes, while distorting risk perception and preventing rational capital allocation, which results in negative financial outcomes for both personal and organizational entities.

The findings show that mental budgeting continues because it makes complicated choices easier to handle and gives people control over their emotions during uncertain or emotionally charged situations. The cognitive shortcuts that people use to make decisions create systematic biases. Households allocate more funds to their "security" funds while ignoring potential growth possibilities. High-net-worth individuals divide their capital into separate mental accounts, which they use to pursue emotion-based goals such as retirement, legacy, and liquidity needs that frequently oppose optimal portfolio management principles. Investment banks demonstrate similar behavior through their use of internal capital silos, rigid acquisition budgets, and biased product labeling, which hinders effective strategy execution.

The core of this behavior contains a paradox. The structured approach of mental budgeting creates financial discipline and identity, yet its inflexibility produces inefficiencies that grow more significant with time. The Microsoft–LinkedIn acquisition, together with UBS's CDO misjudgments and the speculative use of COVID-19 stimulus checks, represent separate incidents. These incidents demonstrate fundamental behavioral patterns which cause symbolic mental accounts to dominate over actual financial logic.

The research confirms that the classical "rational agent" model has its boundaries. Money is not treated as fungible by investors and firms. Instead, they make decisions based on frames, labels, origin stories, and anticipated emotional reactions. The research by Richard Thaler, Meir Statman, Michael Pompian, Hersh Shefrin, and others shows that financial outcomes cannot be improved by data access or education alone, but require tools and systems that understand how people think.

Behavioral finance needs to diagnose bias while providing solutions to correct it. The most effective interventions for restructuring cognitive segmentation recognize that complete elimination of this phenomenon is impossible. Wealth advisors use goal-based strategies to transform emotional “buckets” into actionable plans. Decision architecture can be aligned with long-term interests through behavioral nudges, which include pre-commitment savings plans and automated rebalancing. Fintech platforms can achieve this approach through visual trade-off displays, flexible budgeting tools, and emotionally engaging yet financially sound guidance systems.

The most significant implication shows that institutional finance remains vulnerable to these biases, which reach their most dangerous point during this stage. Billions of acquisition capital and risk exposure become psychologically distinct from core operations, which leads to systemic consequences. The 2008 crisis and M&A failures show how overconfidence, combined with narrative framing and organizational segmentation, can damage even the most advanced financial systems.

This thesis does not propose to remove mental budgeting from the financial planning process. The research supports the integration of mental budgeting into a comprehensive system which acknowledges human cognitive processes but avoids their weaknesses. Better decision-making in personal finance, wealth management, and investment banking occurs when behavioral insights direct the development of financial tools, strategies, and institutions.

In the end, the development of a more resilient financial system needs more than technical optimization. The behavioral blueprint needs to change the discussion from “How should rational agents behave?” to “How do real people — and real institutions — actually decide?” Only by addressing this question can we start to bridge the theory of finance with real-world money experiences.

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