Principles of Financial Markets – How Markets Really Work

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Abstract

This document outlines key principles for understanding financial markets, emphasizing that while offer and demand are fundamental, they provide an incomplete picture. It stresses the importance of Price and Time as the only constants, cautioning against relying solely on indicators or patterns. Speculation, driven by unpredictable human emotions like fear and greed, shapes market trends, making consistent prediction impossible. The document advocates for a quantitative approach, acknowledging the advantages of sophisticated players but highlighting the potential for strategic individuals to compete. Finally, it emphasizes four critical considerations for investors: Return, Calculated Risk, Liquidity, and Personal Time, urging a balanced approach to maximize success and well-being.

Singularity Partners comprises multiple brands that leverage the growth, liquidity, and momentum of the industries in which they operate, with subsets of assets that are tradable through the most reliable platforms and banks. These companies are operated by customized trading machines specifically designed and tested for their individual segments. Each trading machine is automated, supervised, branded, licensed, and hosted by Singularity Partners, which also provides the legal framework, business expertise, and legal residence for each Singularity brand.

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1 Introduction

Ramón Bastida

We are about to explore the complex world of finance and markets. Our goal is to simplify this challenging subject and present clear, practical insights that will save you time and confusion. This article is a tribute to all the experts and thinkers-writers, scientists, and even family members-who have contributed to our understanding of finance.

We aim to strike a careful balance between practicality and thoroughness. Our purpose is to reveal important financial concepts that are often overlooked or hidden behind complicated language. We hope to share valuable information that is not commonly accessible. This article is dedicated to all curious readers, and I will do my best to make the Principles of Financial Markets easier to understand.

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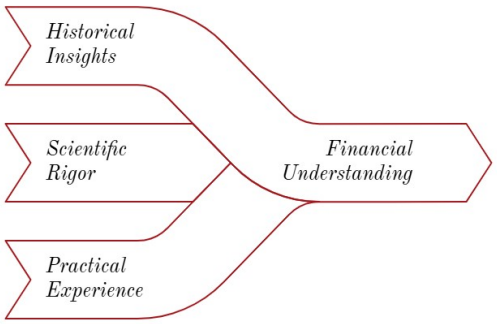
Enjoy the reading.

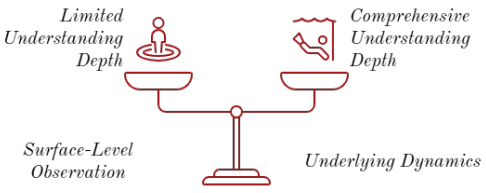
Figure 1: *Purpose of This Paper*



2 Why this paper

Many of us have long sought to understand how financial markets truly operate. The person who possesses a complete understanding of their workings would undoubtedly be the wealthiest individual on Earth. I am not that person, nor do I aspire to be. However, I want to share my perspective after 25 years of studying financial markets. Reading The Economist for a decade, covering everything from the leaders to the obituaries, offers valuable insights, but it doesn't provide a complete picture. Furthermore, it presents a biased view, reflecting how certain entities want you to perceive the economy and markets. Mostly true but an incomplete picture of the reality.

Figure 2: *Why This Paper*



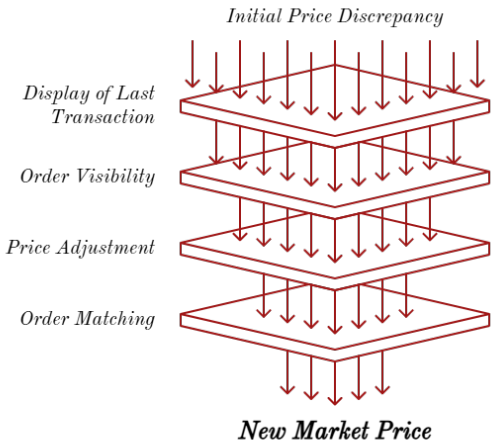
The purpose of this article (see Fig.2) is to offer my perspective on the core principles that drive financial markets, whether you're an experienced trader or an investor concerned about your investments. I've grown weary of reading books that lack focus and fail to explain the financial system in plain English, especially concerning markets and trading. I will try to explain things based on observations I have made. No matter how many charts you've examined or how much time you've spent watching ticker values, you'll never grasp the underlying dynamics. It's like trying to understand fluctuations in the price of a Rolex displayed in a shop window by simply looking at the window. Significant forces and rationales drive those changes, and I believe it's time someone attempted to explain them concisely.

3 Offer And Demand

Many believe that financial markets are simply driven by the principle of offer and demand. While this holds true, it presents an incomplete picture. It's like saying a painting is merely a square surface. Let's first examine offer and demand. The latest price of an asset is determined by the matching of a bid (offer) and an ask (demand), resulting in a transaction. To understand this, consider a less liquid market to facilitate a slower, more detailed analysis. Imagine I want to sell one share of the company "Singularity" for $100. If the sole buyer is only willing to pay $95, no transaction occurs. The ticker displays the last executed transaction price, whatever it may be (let's say $90). As the seller, I see $90, but I want $100. The buyer (you, in this scenario) also sees $90 and might be willing to pay $95. Some brokers or banks provide access to the "Depth of Market," which shows unfulfilled orders like your $95 bid and my $100 ask. If neither of us adjusts our price, no transaction or price movement will happen. If I lower my expectation and decide to sell at $95, and you're still waiting with your $95 order, our orders will match, and the ticker registers the new price as $95. This becomes the market price because it reflects the

latest transaction. If the price remains between $95 and $100 with no transactions occurring, market makers may intervene by lowering the Ask price and raising the Bid price (for example, to $96 and $99). This narrows the gap or spread between supply and demand, encouraging more transactions. See other layers of Price Negotiation in Fig.3.

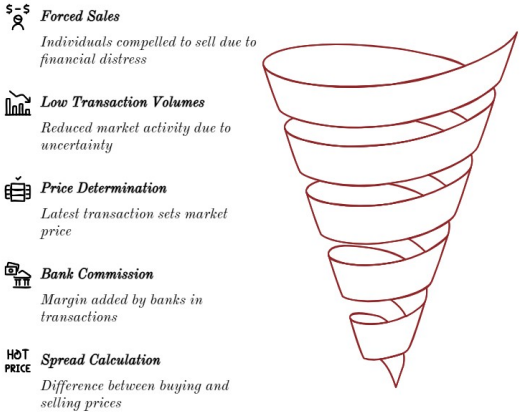
Figure 3: *Price Negotiation*



Now, let's consider the real estate market for a minute. During crises, most people don't want to sell their homes or investments, but some are forced to due to foreclosure, bankruptcy, or other unavoidable circumstances. This typically happens also when transaction volumes are low because in a bear market not many people want to participate. The very few transactions that succeed, no matter how low in price they're agreed will determine that market price and set a precedent or signal to other buyers and sellers (See Fig.4). The market price is always determined by the latest transaction, whether there was one or millions of transactions that day.

In the above explanation, we've simplified things by assuming no fees from your bank or broker, but let's be more accurate. Always remember that a small margin exists between the buyer's and seller's price, which the bank collects. So, if you're asking for a title at $95, the real market value is likely $95.x, where the additional x is the bank's commission. The commission also applies to the seller, let's call it y. The sum of x and y is known as the spread. The higher the spread, the greater the bank's profit. You can observe this at airports when exchanging currencies; the buying and selling rates differ. There's no free lunch in trading and markets either. Tighter spreads indicate a more competitive broker and typically a more liquid asset class. Due to the delay between order placement and execution, increased liquidity or availability of bids and asks leads to different spreads.

Figure 4: *Real Estate Price Dynamics*



3.1 Real World Offer and Demand Examples

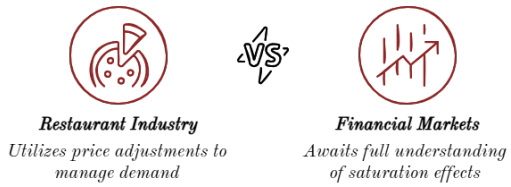
In Summary the principle of supply and demand dictates that the price of an asset is determined by the interaction between buyers (demand) and sellers (offer). A transaction occurs when a buyer's bid (the highest price they are willing to pay) matches a seller's ask (the lowest price they are willing to accept). Here are other real-world examples:

3.1.1 Restaurants

In the restaurant industry, the law of demand is evident. For instance, a consumer might be willing to pay a higher price for the first slice of pizza when hungry because the utility,

or benefit, is high. However, as the consumer eats more slices, the utility derived from each additional slice decreases, making them less willing to pay the same price for subsequent slices. If the restaurant lowers the price of pizza slices, it will have less of an impact on demand as customers become full and satisfied. This perfectly explains the genius behind the "All-You-Can-Eat" business model or the endless free refills at American fast-food joints. That feeling of satiation—where you just can't take another bite or sip—seems to work wonders in those settings. Now, when it comes to financial markets, this same phenomenon is yet to fully reveal itself (See Fig.5). However, supply and demand often hit a saturation point, triggering eerily similar behaviors.

Figure 5: *Pricing and Demand in Different Markets*



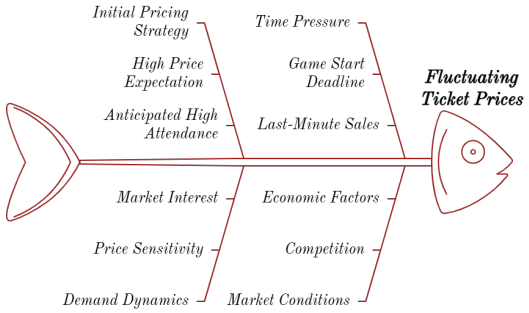
3.1.2 Real Estate

The real estate market is significantly influenced by supply and demand. When demand for houses is high and the supply is low, prices tend to increase, sometimes leading to bidding wars where multiple buyers compete for the same property by offering higher prices. Conversely, if there's an oversupply of apartments, demand decreases, leading to lower values and rents. Several factors can affect supply and demand dynamics in the housing market, including population growth, income levels, interest rates, land availability, construction costs, and zoning regulations. For example, in the early 2000s in the US, an oversupply of houses led to a collapse in housing prices, triggering the Global Financial Crisis. In Austin, Texas, vacancy rates for luxury apartments reached 15% in early 2025, forcing landlords to offer significant incentives such as 2-3 months of free rent on one-year leases.

3.1.3 Concerts And Sporting Events

Consider the secondary market for sporting event tickets where scalpers initially set a high price, say $200, expecting high attendance. If the demand at this price is insufficient, and the scalpers realize attendance will be lower than anticipated, they may drop the ticket price to $50. At this lower price, more people are willing to buy, illustrating how changes in price affect demand. Remarkably, the scalper plays with the factor of time, as the game's start is typically the point at which all tickets must be sold. This dynamic might turn the 5 minutes before the game into a buyer's market (See Fig.6).

Figure 6: *Pricing Dynamics in Secondary Markets*

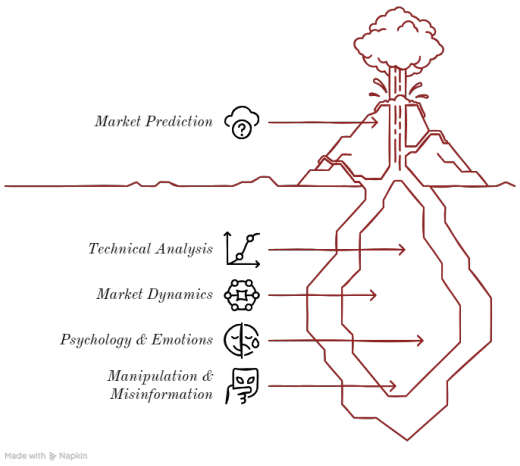


4 What is Real: Price and Time

You've probably dove headfirst into the world of indicators, oscillators, and all those fancy charts traders use to predict the future. Here's the kicker: not a single one works consistently. If they did, we'd all be sipping Mai Tais on our private islands by now. Sure, there are tons of books claiming otherwise, mostly to sell you something, typically the book. But let's ditch the fluff and talk about what's really true in the market. Think of it like soccer. All the psychology, the coach's pep talks, the roaring crowd – it all adds pressure, but only two things truly matter: where the ball is and when it's there. If the ball's in the net after the 90th minute, it doesn't count. No ball in the net during those

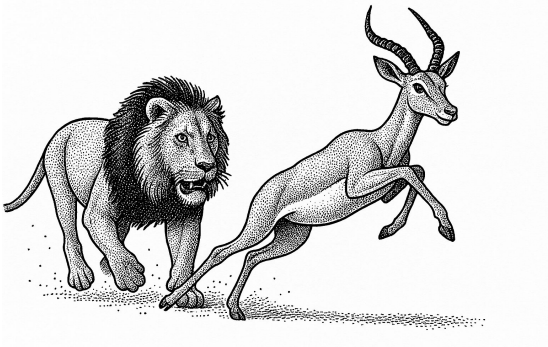
90 minutes? No goal! So, likewise, in the financial world, only Price and Time matter. Price and Time are the only binomial that are always true. No matter how hard speculators try to convince you the market's going up or down (see Fig.7), all that matters is the price of your asset at any given moment.

Figure 7: *What Makes Markets' Truth so confusing*



Our brains have evolved for millennia to predict movement, like when we were hunter-gatherers tracking a deer. Figuring out the path of an animal was our secret sauce! But that worked for animals less clever than us, not when we're competing with each other – especially the ones reading truths like this article! For proof, watch a National Geographic doc and see how antelopes dodge lions (Fig.8). It's their unpredictable changes in direction that fool the big cat! And that same unpredictability will trip up most traders.

Figure 8: *Unpredictable Changes in Direction*



However, the price of your asset at any moment is what truly matters. This idea may be hard to swallow, but trust no one, other than price and time. Humans crave stories, because we seek patterns. We have evolved to see patterns for survival. Crocodiles are living proof of that, they make a good living out of that common sense that water means life. Speculators are like the crocodiles in the water, waiting to feast on the traders that see clear patterns where in reality there is only one thing that matters, the price of your asset at any given moment.

4.1 Price and Time Real Life Examples

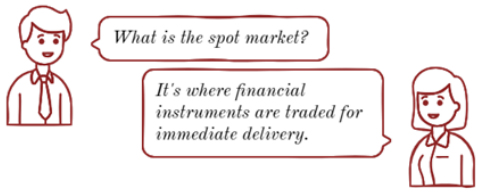
In the financial world, Price and Time are the only factors that truly matter. The price of an asset at any given moment is what's real, regardless of speculation about market direction. Here's a breakdown:

1. **Price:** The current value of an asset.
2. **Time:** The specific moment at which the price is observed.

The concept "Price is Time" suggests significant price movements often occur at specific time intervals. These intervals can be calculated, potentially allowing traders to predict when a stock might experience a surge. Now let me share some real life examples in different industries.

4.1.1 Spot Market Transactions

Figure 9: *Spot Market Transactions Explained*



In the spot market, financial instruments like commodities, currencies, and securities are traded for immediate delivery. For instance,

an online furniture store in Germany might offer a discount to international customers who pay within five business days. A U.S. business could then execute a foreign exchange transaction at the spot price to buy euros for near-immediate delivery, factoring in the exchange rate at that specific time to settle the account and receive the discount1. The price at the time of the spot transaction is crucial (Fig.9).

4.1.2 Forex Trading

Integrating time and price is crucial in forex trading, especially when considering the daily opening price. The daily opening price, particularly at midnight New York time, is a key level to watch. In a bullish market, traders might look for buying opportunities at or below this daily opening price. This timeframe aligns with smart money movements, where large players often accumulate long positions.

4.1.3 Futures Markets

Futures markets enable businesses to manage price risks. For example, a farmer plants soybeans in the spring and anticipates harvesting them in September. Concerned about potential price drops, the farmer can use futures contracts to protect against declining prices. The "time" (September harvest) and the "price" of the futures contract become critical for managing risk.

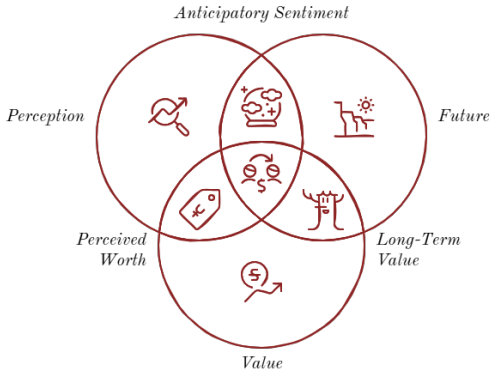
4.1.4 Algorithmic Trading

Algorithmic trading highlights the importance of time and price. Markets are increasingly influenced by algorithms that react to price movements at specific times. Understanding these algorithmic patterns can provide traders with an edge.

5 Perceived Future Value

Those three words—perception, future, and value—individually may influence financial

Figure 10: *The Power of Combined Investor Motivations*

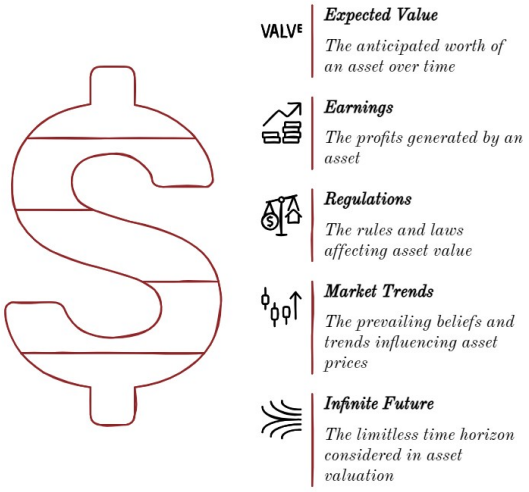


markets, but when combined, they can explain a significant portion of most long-term investors' behavior (See Fig.10). Let us analyze them individually.

Perception is a crucial component, as, regardless of how objective financial statements should be, each investor interprets them differently and, more importantly, with varying degrees of emphasis or significance.

The second word to examine is *Future*. By definition, every asset is priced not on its expected value today, next week, or next year. Its price is based on the asset's timeless future prospects, whether determined by earnings, regulations, or whatever trend Mr. Market believes will prevail. The future horizon of an asset may surprise many investors because it refers to the infinite future (See Fig.11).

Figure 11: *The Timeless Future of Asset Value*

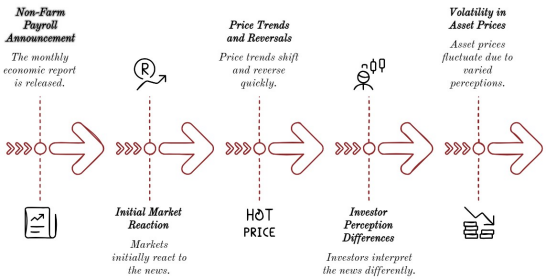


The final word to comprehend is *value*, as it should be the ultimate method for quantifying an asset's price.

When we combine these three words into "Perceived Future Value," we can precisely understand how many investors calculate asset prices, each employing different tools. This concept also helps explain why fluctuations occur and volatility persists in financial markets.

5.1 Perceived Future Value Real Life Examples

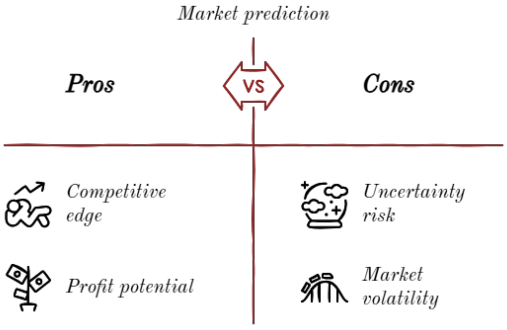
Figure 12: *Market Reaction to Non-Farm Payroll Announcement*



Observe the Non-Farm Payroll announcement and monitor the price behavior of any asset class. This monthly event provides an opportunity to witness live the reaction of various markets within a brief timeframe (See Fig.12). One might assume that positive news would drive a specific asset in a particular direction. However, as discussed in other sections of this article, multiple price trends and reversals occur within seconds for multiple reasons. The underlying cause of this volatility is that, regardless of the apparent strength of future value, each investor's perception differs. Sometimes slightly, other times greatly.

To illustrate the concept of infinite future evaluation of an asset, consider the following example: Suppose you own a property adjacent to Gaudí's Sagrada Familia, and you are aware that plans exist to demolish your building in several years to accommodate the basilica's expansion. How much more might a potential buyer be willing to pay for this property compared to another unaffected by these plans?

Figure 13: *Pros and Cons of Markets Prediction*



A real-world application of Perceived Future Value is evident among those who successfully generate profits in financial markets. Individuals who can accurately gauge how significant market participants perceive the future value of assets gain a competitive advantage in predicting subsequent price movements (See Fig.13).

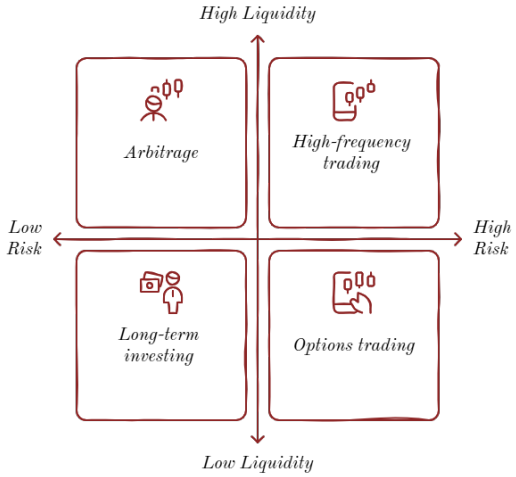
We may just have to examine the language root of "price" and "appreciation" to learn more about the above-explained concepts. These words share a common Latin root: "pretium," meaning "price" or "value." This ancestral term has given birth to several related English words: Price: From Old French "pris," derived from Latin "pretium." Appreciate: From Late Latin "appretiare," meaning "to set a price to." Appraise and Precious: Also descendants of "pretium."

This etymological link reveals that our ancestors closely associated the concepts of price, value, and appreciation. When we perceive positively or "appreciate" something, we're essentially assigning it a high "price" in our minds, be it monetary or emotional value. So all this is just part of a valuation tradition dating back to ancient Rome.

6 Speculation

Speculation in financial markets involves purchasing assets with the aim of profiting from short-term price fluctuations, rather than long-term value appreciation. Speculators take on higher risk, seeking quick gains by predicting

Figure 14: *Speculation in Financial Markets*



market movements and exploiting inefficiencies. This activity adds liquidity to the market by narrowing the gap between bid and ask prices, and can contribute to price discovery. However, excessive speculation can also lead to market instability, economic bubbles, and prices that don't reflect an asset's true value (See Fig.14). Speculators are like the puppet masters of the market, their actions shaping trends and directions. Trying to predict where they'll steer things is as tricky as guessing which way Messi will dart after faking out a defender – his real plan might change on a dime! Diego Maradona once said he decided where to kick the ball during a penalty at the very last second, based on the goalie's move. The truth is, nobody can truly read a speculator's mind, let alone hundreds of them. And if anyone tells you AI will crack the code someday, ask them if AI can predict a simple pendulum's swing with just three variables. Financial markets? They've got thousands! Honestly, if you want my opinion, nobody really knows what tomorrow holds. It's like a self-driving car facing a surprise dog in the road. No system can predict when that pup will appear. The best you can do is react smartly once you see it.

6.1 Speculation Real Life Examples

Several real-world examples demonstrate the effects of speculation in business:

6.1.1 Penny Stocks

Companies listed on the pink sheets, often with stock values below $5 per share, exemplify speculative investments. These companies usually carry significant risk due to limited information and a lack of investor interest. Speculators may trade these stocks hoping for quick gains based on market hype rather than the company's fundamentals.

6.1.2 The Housing Bubble

The early 2000s housing bubble illustrates how speculation can drive prices to unsustainable levels. Real estate investors, anticipating continually rising prices, paid increasingly higher amounts for properties. This speculative demand drove prices up until the bubble burst, leading to a dramatic decline and financial distress for many investors.

6.1.3 Valeant Pharmaceuticals

The Valeant Pharmaceuticals scandal, which began in 2015, demonstrates how speculation on business models can backfire. The company's strategy of acquiring smaller pharmaceutical firms and drastically increasing the prices of their drugs, instead of investing in research and development, led to public outcry and a significant drop in the company's share price.

6.1.4 Hedge Fund Failures (Tiger Funds)

Julian Robertson's Tiger Management failure in 2000 shows how speculative investment strategies can lead to substantial losses. Robertson's approach of short-selling overvalued tech stocks backfired during the tech bull market as these stocks continued to rise despite lacking fundamental value.

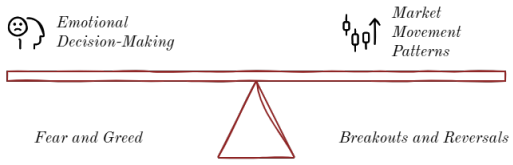
6.1.5 Currency Trading (Forex)

The foreign exchange (forex) market is very popular among speculators because of constant fluctuations in exchange rates between currencies. The high leverage available makes it easy for traders to generate substantial profits using only a small amount of trading capital.

7 Emotions

As if the market wasn't wild enough, let's throw in some human spice: Emotions! You might be riding high on your winning trades, feeling like a Wall Street wizard, but BAM! Your limbic system throws a party in your brain. Suddenly, your amygdala is screaming about survival, hijacking your perfectly planned strategy and turning it into a hot mess of emotional decisions. Fueled by pure Fear of losing your gains or blinding greed to impress your buddies, you start making questionable calls (See Fig.15). No matter how you slice

Figure 15: *Balancing Emotions in Financial Markets*



it, emotions are a player in this game – and not just yours! Every market participant is wrestling with their own inner demons, leading to two seemingly opposite moves: breakouts (charging ahead!) or reversals (panic U-turns!). What drives all this? A cocktail of testosterone, cortisol, emotional state, and whatever else is going on in each trader's day. In short: it's a chaotic circus! But here's the silver lining: just knowing this is possible at any moment gives you a serious edge. It helps you survive another day and ride those gains until the emotional frenzy runs out of steam. So, stay sharp, and recall Richard Feynman when he mentioned how much harder physics would be if electrons had feelings.

7.1 Emotions Real Life Examples

Several real-world examples illustrate how emotions impact financial markets and business decisions:

7.1.1 Irrational Exuberance

Alan Greenspan, former chairman of the Federal Reserve, famously remarked that the American stock market exhibited "irrational exuberance" during its rapid run-up in 1996. This comment highlighted the belief that market increases were driven by excessive investor optimism rather than sound economic fundamentals.

7.1.2 Market Downturns and Fear

During times of uncertainty or market downturns, fear can spread rapidly among investors. This fear triggers panic selling, leading to a cascade of declining prices. The fear of losses, economic crises, or negative news can cloud rational judgment, causing investors to make impulsive decisions driven by emotions rather than careful analysis.

7.1.3 Loss Aversion

Investors tend to be more sensitive to losses than gains. The distress caused by a loss is often more significant than the happiness felt from an equivalent gain. This behavioral trait can lead investors to be overly conservative, choosing asset classes with limited risk, even if it means lower returns.

7.1.4 Influence of Emotional State on Trading

Research has shown that a positive emotional state can predict purchases and overpricing in asset markets. Conversely, fear predicts low prices, price decreases, and selling. Emotions measured in traders' facial expressions have been linked to market behavior, with positive emotions associated with higher prices and larger bubbles.

7.1.5 Greed in Trading

Greed can lead traders to keep a position open even after the expected gain has been achieved, exposing it to market swings. It can also lead to using too much margin at once or trading excessively.

7.1.6 Hope in Trading

Hope can cause traders to hold onto a losing trade, preventing them from cutting further losses.

7.1.7 Anger and Risk-Taking

People who experience intense anger are often willing to take greater risks. In trading, feeling slighted by the markets can lead to anger, causing individuals to seek revenge by taking unnecessary risks.

7.1.8 Real-time Monitoring of Emotional State

Researchers monitoring the heart rate, blood pressure, and skin conductance of professional traders have found that even seasoned traders experience emotional responses during market events such as volatility. Less experienced traders may react emotionally to a broader range of market behaviors.

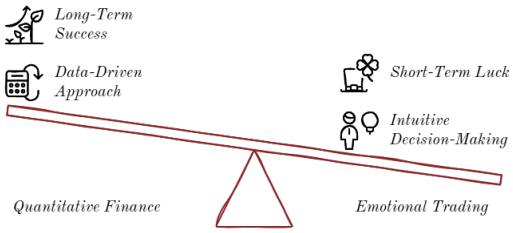
7.1.9 Emotions and Trading Errors

When tired or frustrated, individuals may act hastily or make trading errors due to inattention. During a significant drawdown, it's common to feel depressed and frustrated, potentially leading to abandoning trading altogether.

8 Robots

Turns out, the secret sauce to conquering the emotional rollercoaster of trading is... ditching the emotions altogether! It's true. Statistical learning is a rock-solid foundation for trading success, way more reliable than your gut feeling or lucky socks. Powerhouses like Renaissance and Bridgewater were already building predictive models last century, anticipating market moves based on cold, hard data. This spawned a whole new field called quantitative finance, which explains roughly 80% of long-term trading success (See Fig.16).

Figure 16: *Choose Data over Emotions to Succeed*



Now for the bad news: mere mortals (that's us!) are competing in the same arena as those with supercomputers, brainiacs, and Scrooge McDuck-level capital. They'll always have an advantage. But! Just like a 17-year-old tennis phenom called Alcaraz from Murcia, Spain, can topple Djokovic in a Grand Slam, anyone with a unique approach and smart strategy can be competitive in the financial markets. Remember, in this ultra-competitive game, all you really need to know is: will the market go up or down? And even if you're not right 100% of the time (nobody is, nobody will ever be), you've still got another weapon in your arsenal: risk management! So, keep your wits about you, and as captain Furillo used to say, be careful out there!

8.1 Real Life Robots Examples

The theory posits that statistical learning and quantitative finance, facilitated by "robots" (algorithmic trading systems), provide a more reliable foundation for trading success than emotional decision-making. Here are real-life business examples:

8.1.1 Renaissance Technologies

Founded by Jim Simons in 1982, Renaissance Technologies is a prime example of success in

quantitative investing. Its flagship Medallion Fund has delivered exceptional returns by using machine learning and predictive analytics to uncover hidden market patterns from vast datasets. They employ mathematicians, physicists, and computer scientists to develop and test trading algorithms. Renaissance Technologies utilizes high-frequency trading techniques to capitalize on short-term price movements and engages in statistical arbitrage, profiting from pricing discrepancies between related securities.

8.1.2 Bridgewater Associates

This hedge fund launched a new strategy that uses machine learning as the primary basis for its investment decision-making process. The fund leverages proprietary technology and incorporates models from OpenAI, Anthropic, and Perplexity. Bridgewater's AI-driven approach integrates technologies like large language models, machine learning data models, and reasoning tools to understand causal relationships in markets to generate returns.

8.1.3 Algorithmic Trading Bots

Algorithmic trading bots analyze market data and execute trades based on predefined rules and algorithms. They track market indicators such as price, volume, and order book depth. These bots can be programmed to buy or sell assets when specific criteria are met, removing emotion from trading. Algorithmic trading strategies include arbitrage, which involves buying an asset in one market and selling it in another to profit from price differences.

8.1.4 Robotic Process Automation (RPA) in Banking and Finance

Robotics is used in banking and finance for tasks such as trade finance, trade settlement, credit card reconciliation, fraud detection, and invoicing. Companies like Blue Prism provide banks with digital workforces that perform matching and validation. BNY Mellon uses RPA to automatically settle trades and confirm appropriate allocation. PayPal employs RPA, along with AI and machine learning, to detect suspicious activity. Billtrust's Quantum Payment Cycle Management software automates invoice delivery and other accounts receivable services.

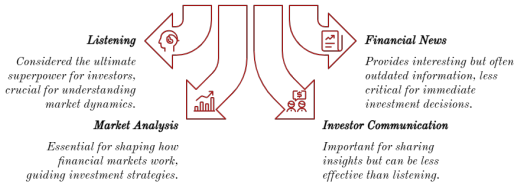
8.1.5 High-Frequency Trading (HFT):

AI enables firms to execute high-frequency trades, capitalizing on minute price discrepancies across markets in milliseconds. HFT algorithms and AI can account for a large percentage of the total turnover in the Forex market. These examples illustrate how quantitative investing and algorithmic trading, driven by data analysis and machine learning, are used by successful firms to identify opportunities, manage risk, and improve returns in financial markets.

9 The 4 Things any investor wants

Heads up, this section might sting a little! Whenever I share this with clients and investors, they usually push back (See Fig.17). They argue about which of the four items is the most important or why the last one isn't a big deal. But hear me out! Let me explain how I arrived at these four golden nuggets (See Fig.18). First and foremost: Listening is your

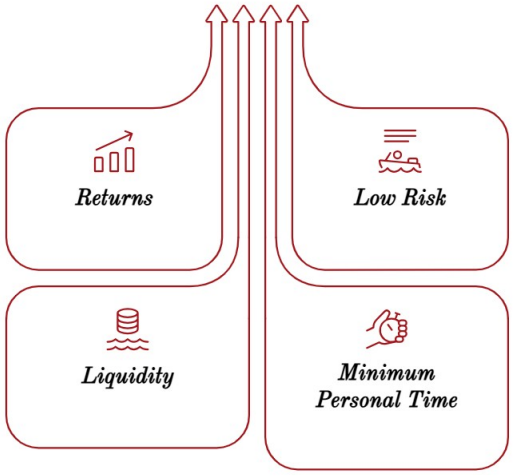
Figure 17: *Sources Influencing an Investor*



ultimate superpower as an investor. Seriously! Investors are often tight-lipped. The ones who love to blab? Not usually the most successful. And that includes the media! Financial news spreads every kind of idea, and while it can be interesting, it's a bit like reading the sports news after the game. As a trader or investor,

you need to pay close attention to these four subjects because they truly shape how financial markets work. So, open your eyes and let's dive in!

Figure 18: *The Investor's Quartet*



9.1 Return

Let's talk about the almighty Return! Everyone loves bragging about their yearly percentage gains – it's the go-to measure of "success." But here's a secret: it's not the most important thing for professional investors. People toss around phrases like "I made X percent this year!" but conveniently forget to mention the level of Risk they took to get there. Talking about Returns without mentioning Risk is like bragging about how fast your car is while conveniently forgetting to mention the brakes are held together with duct tape and wishful thinking. Speed is great, but without reliable brakes, you're just a disaster waiting to happen!

9.2 Calculated Risk

The Risk tied to any investment is, without a doubt, the minimum viable product of the entire game. Whether it's the inherent risk of the asset itself, the shaky reliability of your bank, the political climate of your asset's home country, or the wildness of your investment strategy – risk could be anywhere. A simple way to eyeball risk? Check out the maximum drawdown of that investment over the past five years. You need to understand how risk operates and how to evaluate it before you even think about returns. Only then can you fairly compare investments as the "Return divided by Risk." So, get cozy with risk – it's your most reliable friend.

9.3 Liquidity

You might be raking in amazing Returns while keeping Risk at a respectable low... but if you can't actually get to your money when you need it, that strategy is about as useful as a screen door on a submarine! Real estate is a beloved investment for many, but some often forget how stubbornly illiquid it can be. Imagine a scenario where you need to access your investment fast. The quicker you can get your hands on that cash, the better. After all, what good is a pile of money if you can't use it when you need it most? It's like having a winning lottery ticket... that you can't cash in!

9.4 Personal Time

Let's talk about a factor that often gets tossed aside like yesterday's news: Time! How much of your precious time do you have to sink into an investment? Think about it: How many hours are you spending picking stocks, making trades, burying your nose in research, or debating with fellow investors? That stuff adds up! Most folks work for companies because, on paper, it looks like a sweet deal: a steady salary (great returns!), relatively low risk (you get paid, rain or shine!), and monthly liquidity (not amazing, but hey, could be worse!). But they're forgetting Factor Number Four: they're spending most of their life at work! So, what seems like a smart investment of their time ends up being an investment where they're literally trading away their life. Ouch! Food for thought, right? Maybe it's time to factor in the real cost of "success." Are you investing your time wisely, or is your job investing you?

9.5 Real Life Examples on Return, Risk, Liquidity and Personal Time.

The four things any investor wants are Return, Calculated Risk, Liquidity, and Personal Time. Here are real-life business examples illustrating these concepts:

9.5.1 Return

1. **Investing in Stocks:** Investing $10,000 in a well-established company's stock that increases by 20% in a year yields a $2,000 return, resulting in a 20% ROI (Return On Investment).
2. **Commercial Property Investment:** Angelina invested $100,000 in a commercial property and, after expenses, secured an annual net rental income of $10,000, resulting in a 10% ROI .
3. **Business Investment Account:** Setting up a business investment account achieved a return of 18.25% over 3 years.
4. **ISA Account:** An ISA (Individual Savings Account) returned 4.35% in 1 year.

9.5.2 Calculated Risk

Calculated risk in finance often involves assessing potential drawdowns to make informed investment decisions. Here are some financial examples that illustrate the concept of calculated risk using drawdowns.

1. **Maximum Drawdown Analysis** Maximum drawdown (MDD) is a key metric used to evaluate the risk of an investment strategy. For instance: 1. A $100,000 portfolio that declines to $80,000 represents a 20% drawdown. Investors might use this information to set stop-loss orders or rebalance their portfolios. 2. During the 2008 financial crisis, some portfolios experienced drawdowns exceeding 50%. Investors who understood and prepared for such potential drawdowns were better positioned to weather the storm.
2. **Risk-Adjusted Returns** The Calmar Ratio is a risk-adjusted performance measure that uses maximum drawdown: $CalmarRatio = AnnualReturn/MaximumDrawdown$ A higher Calmar Ratio indicates better risk-adjusted returns. Investors might use this to compare different investment strategies, choosing those with higher ratios as potentially less risky.
3. **Drawdown Duration** The time it takes to recover from a drawdown is crucial for risk assessment: 1. A mutual fund experienced two significant drawdowns over seven years - one of 10% and another of 20%. However, these drawdowns lasted an average of 18 months. 2. An investor planning to cash out in one year might avoid this fund, as the drawdown recovery time exceeds their investment horizon.
4. **Drawdown Thresholds** Some investors set drawdown thresholds to manage risk: 1. A trader might exit a position if it experiences a 20% drawdown, to limit potential losses. 2. For example, if an investor buys Apple (AAPL) stock at $100, and it rises to $110 before falling to $80, the drawdown is 27.3% (($110 - $80) / $110 * 100). If this exceeds the investor's risk tolerance, they might sell the position.
5. **Portfolio Diversification** Investors can use drawdown analysis to create more resilient portfolios: 1. A basic 60/40 balanced portfolio of stocks and bonds showed a maximum drawdown of about 35% during the 2008 financial crisis. 2. By contrast, an all-stock portfolio had a maximum drawdown over 50% during the same period. This information might lead an investor to choose a more balanced portfolio to reduce drawdown risk. By analyzing and preparing for potential drawdowns, investors can take calculated risks that align with their financial goals and risk tolerance. However, it's important to remember that past drawdowns don't guarantee future performance, and all investments carry risk.

9.5.3 Liquidity

1. **Cash and Marketable Securities:** Maintaining a mix of high- and low-liquidity assets like cash, stocks, and bonds helps manage risk and increase potential returns. Cash assets and securities, like stocks and bonds, possess high liquidity due to their ability to be traded quickly in financial markets.
2. **Business Saved by Managing Liquidity:** A small retail business eased its cash flow pressures during the COVID-19 pandemic by renegotiating payment deadlines with suppliers, prioritizing high-demand items, running sales on slow-moving products, and securing a short-term loan. They also used financial modeling software to forecast cash flow and identify liquidity gaps.
3. **Companies with strong liquidity:** A company with strong liquidity might have twice as much cash on hand as current liabilities, e.g., debt payments, and be better positioned to take advantage of new opportunities.

9.5.4 Personal Time

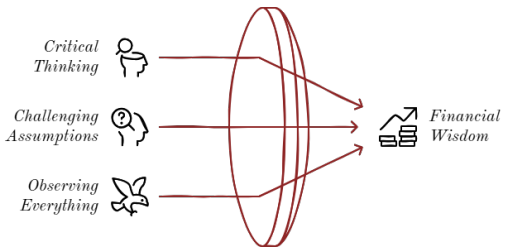
1. **Managed Funds:** Oscar and Jose started a dedicated savings plan for their child's education by investing in a managed fund with a regular savings plan option, understanding the importance of compounding interest over time.
2. **Buy-and-Hold Approach:** Warren Buffett's success with Berkshire Hathaway exemplifies the benefits of owning and holding shares in growing businesses over several decades, allowing them to compound on a before-tax basis.
3. **Diversification and Passive Investing:**An investor who worked for JP Morgan diversified her risk by selling her company stock as it vested and invested in the MSCI World ETF, avoiding complex approaches and high management fees, and achieving a +30% return in her best year.

These examples demonstrate how investors consider return, calculated risk, liquidity, and personal time when making investment decisions in real-world scenarios. We aim to achieve this across all our products (See Table 1) using proprietary technology, as exemplified in the Fig. 20 below, which reflects the principles discussed in this paper. Private Equity at anyone of this Firms can be discussed through our different websites or at SingularityPartners.ch with the guidelines established in Table 2.

10 Final Thought and Conclusion

I hope you found this read helpful and thought-provoking! My goal was to get your gears turning and, most importantly, encourage you to think for yourself. Being a critical thinker is crucial for success in the financial markets. Challenge everything and everyone, including this very article! (See Fig.19) As Marco Aurelius wisely said, "Observe what everything is in itself." Remember, even though some folks

Figure 19: *The Path to Financial Wisdom*



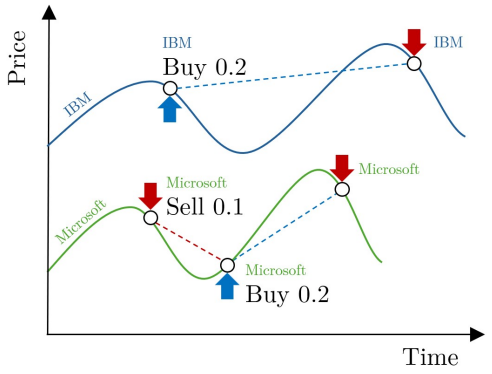
like to believe the financial markets are rigged or run by shadowy conspiracies, the reality is they're governed by a set of mathematical and regulatory rules that are transparent and available for anyone to read and nearly anyone to understand. While those rules might favor the big banks, the mega-investors, and the deep pockets (because, let's face it, they have the best teams, lawyers, and lobbyists), you can still assess whether you can be competitive in this arena. One more analogy before I sign off:

You might see Jon Rahm as one of the highest-paid sports person of 2025, but all he's really doing is using a piece of metal to knock a golf ball into a hole – and you can watch it happen publicly!. Finance, like sports, is a set of rules and behaviors that almost anyone can try their hand at. We have our own proprietary systems and technologies (See Fig.20) deployed in different brands (Table 1) and open to Private Equity (PE) investors as layed out in Table 2. So, go out there, give it your best shot, and remember to think critically!

Table 1: *Singularity PE Firms by Industry*

Brand	Industry	Web Site
	Precious Metals	Goldum.com
	Currency Trading	SwissDollar.com
	Quantum Computing	Quantum.ch
	Protein	AminoFin.com
	Business Aviation	Aviantus.com
	Electricity	VoltaFin.com
	Gaming	GamingMotion.com
	S&P 500	US500Index.com
	Healthcare	MedyFin.com
	Energy	OilFin.com
	Luxury Goods	LuxoFin.com

Figure 20: *Singularity PE Trading Technology*



11 Acknowledgements

I trust you enjoyed the reading. Thank you for your interest and for taking the time to read and learn. I also extend my gratitude to those who encouraged me to compile this white paper, namely Angelina, my family, and friends for their unwavering support, as well as my business partners Mario, Gabriel, Joaquin, and Piero.

Article written with Microsoft Windows® software MiKTeX v.0.6.8, Napkin.ai, Co-Pilot, Perplexity and TexWorks for LaTeX.

Table 2: *Singularity PE Type of Investors*

Investor Type	Minimum Shares	Price Per Share	Performance Units
Partner	10	10,000	0.1 per Share
Early Investor	2	10,000	None
Outside Investor	5	11,000	None

12 Updates on This Work

Further revisions and updates on this document will be available via SingularityPartners.ch/10. Please feel free to provide feedback.

End of the document.

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