

Bloomberg Finance Fundamentals - Module 3

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Risk and Reward: Fraud in the Financial Markets

How Risky are the Financial Markets?

Welcome to Module 3, where you'll follow Arjun, a recent journalism graduate from Singapore, as he begins his career investigating deceptive business practices. Just as he finished school, a massive financial fraud shook Arjun's city and the global economy. The company involved was Wirecard, a German payment processor often compared to PayPal. Wirecard had a significant presence across Asia and was a major employer in Singapore. In Europe, it was publicly listed on Germany's DAX stock index, similar to the S&P 500 in the US. Less than two years later, its stock collapsed when it was revealed the company had stolen money from investors. Wirecard had lied about its profits, bypassing standard financial reporting requirements that involve internal accountants and external auditors. The company operated as a cover-up for money laundering—moving illicit funds and disguising them as legitimate revenue. Dan McCrum, a journalist at the Financial Times, was tipped off about inconsistencies in Wirecard's financial reports. He investigated the company, exposed the fraud through a series of articles, and followed the money trail despite skepticism and resistance—even from Germany's top financial regulator. During this lesson, you'll help Arjun investigate a similar case of corporate fraud by examining two key questions: How risky are the financial markets? And how can financial markets be manipulated?

Do you remember the various types of financial risk that Ben's company faced in Module 2? We learned about operational risk, which is the risk of loss resulting from inadequate or failed internal processes, people, systems, or harmful external events; reputational risk, which involves anything that could damage a company's public image and lead to a loss of customers and profits; liquidity risk, which refers to the possibility of incurring losses due to an inability to meet payment obligations; and credit risk, which is the chance that borrowed money will not be repaid. Now, let's take a more in-depth look at what happened at Wirecard and the specific operational and reputational risks that the scandal posed.

When Wirecard finally declared itself bankrupt, it owed its stakeholders—including employees, investors, lenders, customers, and shareholders—over 12 billion dollars. Bankruptcy is the legal process that begins when companies or individuals can no longer pay their debts. The bankrupt party must sell off everything it owns, known as its assets, in an effort to raise enough money to repay what is owed. First in line for repayment are the banks that issued loans to the company. After paying those lenders, there is usually little or nothing left for other investors. If anything remains, shareholders—often a large number of them—must divide whatever is left among themselves.

After the scandal, Arjun felt a deep sense of dread as he scrolled through the data on the Bloomberg Terminal, reminded of the suffering endured by his family and friends who—as employees, customers, and investors—had suffered significant losses due to their stakes in Wirecard. This experience inspired Arjun to pursue investigative journalism more seriously as a potential career path. He was driven by anger toward the criminals who destroyed so many lives, and he found the work far more meaningful than the clickbait videos he had previously been making just to earn money. Arjun decided to use his research and storytelling skills to expose scammers and protect ordinary people from becoming victims. He began by creating visual reports to share on social media, and as he uploaded videos that showed the real-world impact of scams like

Wirecard, his following began to grow. As more unsuspecting people continued to fall for financial scams, Arjun realized he could do more to help. He started investigating additional cases to report on—and was shocked by what he discovered.

How can the Financial Markets be Manipulated?

Shortly after Arjun began researching scams and posting about corporate fraud on social media, he was recruited to work at a newspaper called *The Citizen*. The editors appreciated his reporting style and the way he made financial journalism accessible and engaging for people vulnerable to fraud. Today marks Arjun's first day in his new role, and his editor, Hana, has given him his first assignment: to write an article about fraud and scams, including tips to help readers safely navigate the financial markets. Having followed the Wirecard scandal closely, Arjun is already familiar with accounting fraud, but for this new article he begins to wonder what other types of fraud or financial crimes might be occurring right now—and he sets off to begin his research.

Ever wanted to get-rich-quick? Who doesn't! But beware—two of the most common types of fraud, the pyramid scheme and the ponzi scheme, promise exactly that. A pyramid scheme is an illegal financial scam where a so-called “marketing company” offers big profits in exchange for recruiting new participants. Victims are encouraged to bring in more people and receive commissions for doing so. These scams, also known as “franchise fraud,” “multi-level marketing,” or “chain referral schemes,” may appear legitimate at first and even seem profitable to early investors, but their true goal is to grow the number of participants rather than sell actual products or services. Participants are often charged fees, required to buy products, and forced to meet quotas, while little attention is paid to actual sales. Fraudsters promote pyramid schemes via social media, websites, presentations, and calls. Ultimately, all pyramid schemes collapse when recruitment slows, and most participants lose their money. Ponzi schemes work differently: named after Charles Ponzi, who promised 50% returns in the 1920s, this type of fraud involves taking a single upfront investment from each victim with the promise of consistent future returns. Early “profits” are paid using money from new victims, and the system collapses when no new funds come in. A famous example is Bernie Madoff's massive ponzi scheme, which defrauded over five thousand investors out of \$17.5 billion before it unraveled. Both pyramid and ponzi schemes rely on a steady flow of new money and collapse when it dries up, often leaving investors with nothing. These scams frequently target communities—especially religious, ethnic, elderly, or professional groups—by recruiting trusted leaders who then convince others to join. Once those leaders receive high returns, they often promote the scheme further, spreading the scam until it eventually falls apart.

Plenary

In this lesson, you've been introduced to the concept of bankruptcy as well as the characteristics of illegal financial frauds, including pyramid and ponzi schemes. Now it's time to test your knowledge with a round of Financial Jeopardy! Can you match each answer to the correct question? Two options will be incorrect—but one will be right. Let's see how much you remember!

Risk and Reward: The Media and The Financial Markets

Is Social Media a Reliable Place to get Financial Advice?

Arjun is making great progress on his article. He has researched common types of “get-rich-quick” scams and explored how financial fraud is investigated by auditors, regulators, and journalists. While working on his article, he also shares his findings on TikTok to warn his growing audience. His follower count increases daily, and he's excited to see his name appear on a “Top Finfluencers to Follow” list, feeling encouraged that his work is making a positive impact. Curious by nature, Arjun looks into other financial influencers on the list, only to discover that many are promoting questionable advice or pushing financial products and services. From his research, he knows this isn't new—figures like Bernie Madoff have long posed as trustworthy financial advisors. However, with social media and online advertising now deeply embedded in

everyday life, Arjun realizes that the risks posed by bad financial advice are more widespread than ever. It's now easier for anyone to fall victim to a scam. Motivated by these concerns, Arjun decides to dedicate the next phase of his research to social media, aiming to determine just how reliable financial advice from influencers truly is. During this lesson, you'll follow Arjun as he explores two key questions: **Is social media a reliable place to get financial advice?** and **What role does the media play in the global economy?**

Arjun's research takes him directly to the story of GameStop and meme stocks. He examines a graph showing how the stock prices rose and fell dramatically within just a week, and he's amazed by the volatility. How could such extreme price movements happen so quickly? Intrigued, Arjun wants to understand the phenomenon of meme stocks and investigate the role that influencers may have played in driving GameStop's stock price to such extraordinary heights.

First, we need to learn more about the stock market and the factors that determine what a stock (also known as a share) is worth. We also need to consider how various market professionals contribute to the rise and fall of stock prices. Once a company goes public—like in Amina's IPO—it can begin selling shares to the public on a stock exchange. A stock exchange is where buyers (investors) and sellers (companies) meet to trade stocks. As mentioned in Module 2, Ben used a stock exchange to sell shares in Wear It Now to raise funds for new projects or to fix cash flow issues. Historically, stock exchanges were physical spaces where traders would shout deals across the floor, but in the 1990s, these shifted to digital platforms. A company's share price is ultimately determined by supply and demand. If many investors believe a company will perform well, they will want to buy its stock, which increases demand and pushes the price up. On the other hand, if the company's future seems uncertain, investors may rush to sell, which can cause the stock price to fall.

Remember the buy-side institutions we covered in Module 2? These include financial professionals like Pension Fund Managers, Retail Bankers, and Insurers, who buy stocks on behalf of their clients. Among the most prominent buy-side professionals are Hedge Fund Managers, who represent high-net-worth individuals and aim to generate the highest possible returns. To do so, they don't just invest in companies they believe will grow—they also bet against companies they expect to fail. This practice is known as short selling. When hedge funds invest in a company by buying shares, it drives up the price. But if they believe a company is failing, they can borrow shares and sell them, hoping to buy them back later at a lower price and keep the difference. This is a legal but risky practice. If the stock rises instead of falling, short sellers face unlimited losses, as seen in the GameStop saga. To make informed decisions, investors often analyze companies using a bottom-up approach, studying financial statements and fundamentals. Credit rating agencies also play a key role by evaluating a company's ability to repay debt and assigning it a credit score. These scores, accessible on the Bloomberg Terminal via CRPR `GO`, reflect a company's creditworthiness. A downgrade in credit rating can reduce investor confidence and drive down stock prices. However, stock prices are also influenced by broader factors such as market sentiment, company performance, and economic conditions, making price predictions complex and multifaceted.

Until recently, the financial markets were largely dominated by wealthy individuals and institutions represented by finance professionals like Hedge Fund Managers. However, the rise of technology, particularly social media and investment apps, has made it much easier for everyday people—known as retail investors—to actively participate in the stock market. Through online brokerage platforms such as Robinhood or Coinbase, these investors can now buy and sell financial securities like stocks, bonds, and other investment products. The primary function of a brokerage is to act as an intermediary and facilitate these transactions. In addition to this core role, brokerages may also provide services such as investment advice, market analysis, trading platforms, access to financial products, and educational resources. In exchange for these services, brokerages typically charge commissions, fees, or a combination of both. These fees can vary depending on the type of service, the transaction size, and the specific brokerage. Some firms may also charge account maintenance or additional service fees. During the pandemic, zero-fee trading apps like Robinhood not only made day trading more accessible but also gamified the process—leading to a surge in retail investor participation and the use of investment apps as tools for building personal wealth.

Stock market mania, also known as an economic bubble, occurs when an asset such as a stock is bought and

sold at a price that far exceeds its actual value, driven by demand rather than intrinsic worth. Meme stock mania takes this phenomenon to an entirely new level. During the initial pandemic lockdown, as people adjusted to a virtual lifestyle amid uncertainty, a wave of “finfluencers” emerged. One such figure, Roaring Kitty, identified GameStop—a struggling video game retailer—and began promoting it on WallStreetBets, a popular Reddit forum. At the time, GameStop was on the verge of bankruptcy, with hedge funds like Melvin Capital heavily short selling the stock, anticipating its decline. However, when Ryan Cohen, a successful online entrepreneur, appeared poised to rescue and transform the company, Roaring Kitty and Redditors rallied behind him. It was the perfect underdog story. The Reddit community saw an opportunity to challenge Wall Street, and by collectively purchasing shares, they drove GameStop’s price up, triggering what is known as a short squeeze. As the frenzy escalated, everyone was watching—and buying. Retail investors, spurred on by free trading apps like Robinhood and finfluencers promoting the cause, saw GameStop not just as a stock, but as a symbol of resistance. Motivated by the human cost of bankruptcy, economic struggles, and shuttered storefronts, they felt empowered to act. By uniting, they created an online buying frenzy that sent GameStop’s stock price soaring 400% in just one week.

The plan appeared to be working. Many of the investors who had shorted GameStop, betting on its collapse, were instead watching their own positions fall apart as the stock price kept climbing. This surprised everyone in the financial world and the media. Then, unexpectedly, Retail Investors discovered they could no longer purchase GameStop shares through the Robinhood app—the “buy” button was disabled. Without the ability to continue buying, the stock price dropped, sparking panic and a mass sell-off. What went wrong? Running a zero-commission trading platform requires liquidity to fund trades, and at the time, Robinhood was backed by an institution with ties to some of the hedge funds that were losing billions. This led to speculation: was Robinhood pressured by Wall Street insiders, or were they genuinely trying to protect their customers from financial chaos, as they claimed? Meanwhile, it was revealed that Roaring Kitty—the finfluencer who inspired the movement—was not just a casual retail trader but a licensed financial analyst. While he profited significantly, many other investors lost their savings and even their homes. Short sellers were estimated to have lost nearly \$19 billion from the GameStop saga in 2021. As volatility surged, regulatory bodies like the National Securities Clearing Corporation stepped in to introduce risk management measures, aiming to reduce large-scale financial losses across retail and institutional investors. Brokerages followed suit by imposing trading restrictions. While these actions helped stabilize the market, countless investors still suffered major losses. The economic bubble had burst, leaving a path of destruction in its wake.

What Role does the Media Play in the Global Economy?

The meme stock saga taught Arjun a powerful lesson: not everyone in the financial world plays by the same rules. The stakes are high, and it’s easier than ever for inexperienced individuals to get swept up in market hype and lose substantial amounts of money. Feeling newly inspired, Arjun begins scouring social media for the latest trends among finfluencers. He soon discovers a sustainable fashion brand called EDGY, which stands for EmpoweredD Global Youth. EDGY is backed by numerous celebrity influencers and brands and boasts a sleek marketing campaign featuring trendy sustainable designers. Arjun notices that EDGY is collaborating with a major UK retailer called Wear It Now, positioning themselves as united against fast fashion. As he digs deeper, he finds posts hinting that EDGY will soon sponsor a high-profile TV dating show—yet the promotion style reminds him of the infamous Fyre Festival fiasco. EDGY appears to be building a so-called Empowered Global Youth Network, and recent TikTok posts target teens, encouraging them to join an “exclusive VIP influencer” team. To join, participants are asked to make a one-time upfront payment of \$1,000. In return, they receive a custom wardrobe of designer clothes each season, curated by a personal stylist, which they are encouraged to wear while promoting sustainable fashion online. EDGY claims to pay them for this work and frames the entire operation as a 100% sustainable enterprise, with profits supporting a charitable foundation fighting climate change. Curious and skeptical, Arjun reaches out to influencers who have joined the program—and what he discovers is deeply troubling.

Arjun is curious about EDGY’s business model and shares what he has uncovered so far with his editor, Hana. She finds the story intriguing but feels it needs more evidence, so Arjun decides to investigate further by digging into EDGY’s financial data on the Bloomberg Terminal. Something about the company doesn’t

add up, and he's determined to follow the money and uncover the truth.

Plenary

In this lesson, you've learned what a stock exchange is and how the value of a stock is determined, along with the risks and rewards associated with short selling. You've also explored the role of credit rating agencies and how their assessments can influence financial markets. Additionally, the lesson highlighted how social media can contribute to financial fraud and influence investor behavior. Now, let's do a quick recap of the real-life financial frauds you've encountered so far.

Risk and Reward: The Importance of Regulation and Scrutiny

Who Oversees the Financial Markets?

Arjun takes all the evidence he's gathered about EDGY to his editor, Hana, who has access to the Bloomberg Terminal and experience investigating fraud. He explains everything he's uncovered and shares his suspicion that EDGY may be a ponzi scheme. If they want to convince regulators of the fraud, they'll need strong evidence, and Arjun knows it's up to him to find it. During this lesson, you'll follow Arjun as he gathers proof and explores two key questions: **Who oversees the financial markets?** and **How can we prevent frauds, manias, and scams?** Let's get started.

Arjun has learned a great deal about financial market risk through his research into various types of fraud. He understands that regulators play a crucial role in overseeing and maintaining the stability and integrity of the financial markets. From studying the Bernie Madoff case, he also knows that despite regulators conducting formal audits—processes that may appear thorough to the public—it is still possible for fraud to go undetected. He's also aware that even with strong evidence, journalists are not always believed, as seen in the Wirecard scandal. Wanting to ensure he can make a convincing case against EDGY, Arjun turns to his editor for more information about financial regulators.

A regulator acts on behalf of the government to ensure that financial institutions and professionals comply with laws and regulations. Their role is to protect consumers while promoting efficiency, transparency, and fairness in the financial markets. They are like a security firm overseeing a shopping center—monitoring for threats such as theft, vandalism, scams, and unethical trading. Regulators monitor market activity through oversight systems and surveillance, responding to alarms when something goes wrong. Companies that wish to sell to the public must adhere to specific rules set by these authorities. As the eyes and ears of the market, regulators can take enforcement actions if they detect wrongdoing. They may impose fines, press civil charges, or shut down companies. If criminal activity is suspected, regulators coordinate with legal systems to pursue justice. For example, Bernie Madoff was sentenced to 150 years in prison, and the CEO of Wirecard faced up to 15 years. However, while this framework sounds solid in theory, real-life cases reveal that regulators can fail to act in time, and serious frauds can go undetected until the damage is done. That's why the media plays a vital role by asking difficult questions and investigating where companies might not want scrutiny. Whistleblowers also contribute significantly by exposing wrongdoing within organizations or governments. Their efforts help protect the public, draw attention to overlooked issues, and hold powerful institutions accountable. One notable whistleblower is Frances Haugen, a former Facebook employee who leaked internal documents about the company's practices. Ultimately, both media and whistleblowers are essential allies to regulators in uncovering fraud and driving accountability.

How can we Prevent Fraud, Manias, and Scams?

Regulators are responsible for monitoring the daily financial activity of public companies and institutions, primarily through reviewing financial statements—also known as accounts. The accounting process is foundational to the financial system because it applies a consistent set of principles to record all financial transactions over time. For example, a receipt from a store is a simple financial record that shows what was paid, when it was paid, and how the payment was made. Sellers retain these records to track their inflows

(income) and outflows (expenses such as wages, rent, and marketing). These financial records help assess a company's financial health, allowing investors, regulators, and business owners to determine whether the company can repay debt, pay staff, and generate profits for shareholders (also known as equity holders). Accounting thus plays a critical role in ensuring companies remain accountable and trustworthy, which in turn helps attract investment, retain talent, and fuel growth. Accountants work across all industries and play an essential role in maintaining financial integrity. The profession offers versatility and opportunities for advancement. Chartered Accountants, in particular, enjoy strong reputations and competitive salaries. Auditors, a specialized group of accountants, carefully examine financial records to identify risks, mistakes, or fraud. These audits may be internal or external and are sometimes conducted by regulators. Auditors serve as independent evaluators of financial reliability and accuracy. Auditing offers close exposure to a variety of businesses, providing valuable insight into the financial world. For those with an interest in finance, strong math skills, and keen attention to detail, auditing is a highly respected and well-compensated career path with skills that are transferable across many sectors.

Arjun decides to review EDGY's financial statements using the FA ¶GO function on the Bloomberg Terminal. Since the company went public a year ago, he has access to its recent filings. As he digs in, Arjun quickly spots abnormalities and inconsistencies, uncovering several red flags. EDGY has a poor credit rating, and its founder has previously filed for bankruptcy. The company maintains an unusually large number of bank accounts, and their financials have only been audited internally. Arjun also notices that some financial statements are missing, the numbers don't add up, and the company has been aggressively selling stock to raise funds. Curious about the shareholders, he checks their listings and discovers that the British retailer Wear It Now has recently purchased shares. Arjun attempts to contact Wear It Now's Corporate Treasurer, Ben, but receives no response. Determined to follow up, he searches for another point of contact and finds a phone number for the company's Risk Manager.

Risk Managers are professionals who work across various companies and financial institutions to identify, assess, and manage different types of risk. Their role is to minimize the potential impact of these risks by developing strategies to mitigate them, helping ensure a company's long-term success and stability. These managers must be aware of a wide range of risks, many of which were explored in Module 2. It's a high-responsibility role that offers strong job security and is well-suited for individuals who enjoy solving problems and applying their numerical and analytical skills. At Wear It Now, the Risk Manager would have advised Ben on whether or not to invest in EDGY. Unfortunately, several critical risks went unnoticed.

Arjun now has enough evidence to approach the regulator. He contacts them, presents his findings on EDGY, and his research prompts them to launch their own investigation. The news of the regulatory inquiry immediately affects EDGY's stock price, causing it to fall—supply and demand dictate value, and once trust is lost, investors sell. It's unlikely that Redditors or other investors will rally behind a company accused of fraud. As EDGY's stock declines, shareholders like Wear It Now are exposed to fraud risk, facing the possibility of financial losses, reputational damage, and a downgraded credit rating if the company shuts down. Determined to prevent others from falling victim, Arjun takes his investigation public. He poses as a new influencer, joins EDGY's program, and documents the entire registration process on video. He pays the fee, receives his welcome materials, and compares them to the suspicious findings from his research. He posts everything online and interviews other influencers who've had negative experiences. Within a week, the regulator suspends trading in EDGY and delists them from the stock exchange while the investigation continues. The company's owners vanish. Meanwhile, Arjun's content goes viral, with followers using the hashtag #EDGYDODGY. His work garners widespread attention, and he's invited to speak on several financial news platforms. To his surprise, one outlet even offers him a job. Capping off his journey, Arjun is nominated for a Newcomer of the Year award in recognition of his investigative reporting.

Plenary

In this lesson, you've learned about the vital role that financial regulators play in maintaining the integrity of the financial system. You explored how the oversight of regulators, combined with the efforts of whistleblowers and journalists, helps keep investors safe. The lesson also highlighted the importance of Accountants

and Auditors in promoting transparency and ensuring the accuracy of financial reporting. Additionally, you examined how Risk Managers help companies identify and minimize financial risks to support long-term stability and success.

In this module, you've studied some of the key signals, characteristics, and outcomes of financial fraud, along with how stock exchanges operate and the risks and rewards involved in trading within them. You've also explored how various stakeholders—such as regulators and credit rating agencies—work together to uphold the integrity of the financial system. Additionally, you examined the influential role of media and how it can shape investor behavior and decision-making within financial markets.