Jason Turner

Ms. Bedell

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The Evolution of Financial Markets and the Corresponding Impact on

Modern American Society

In ancient times the modern financial system as we know it did not exist. There was no Wall Street on the ancient streets of Egypt where people could speculate on the costs of grain in the coming year, nor was there an exchange where ancient Macedonians could convert the treasures denominated in all the different currencies from all of the different countries they had conquered. In fact there was no equivalent to the modern commodity markets of merchant banks until the formation of the Dojima Rice Exchange in the Edo period of Japan. Yet in American society today, the terms "Wall Street", the "Federal Reserve", and "Stock" are ubiquitous. Every hour of every day, somewhere within the rapid information dispensary system known as television, economic data is being evaluated and disseminated to an audience of hungry investors looking to make a profit. This system is a relatively new phenomenon and has redefined the modern economy. It has also evolved far beyond what anyone could have predicted one hundred years ago. Financial markets have turned from being simple exchanges where people actually did shout and yell at each other to make deals, to a complex system of computers where millions of dollars can move electronically at the speed of light. The digital age revolutionized the financial trading

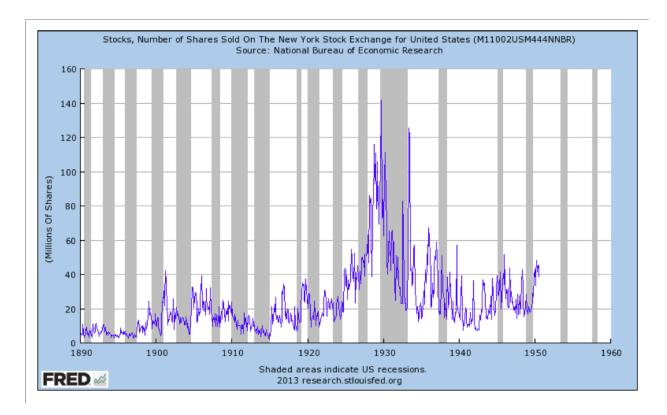
system and allowed it to support increasingly abstract and complicated trades and deals. This shift in financial markets from something that the average person could fully partake in, to a system that is too complex for anyone, except those who have spent years studying its inner workings, to comprehend represents a paradigm shift in how society deals with money, assets, and the banking system. At the beginning of the 20th century, financial markets in the United States were relatively simple, and the general populace could understand the majority of events that impacted the system, but now in modern times, due to the invention of computers and the internet, financial markets and the banking system have adopted practices involving trades and swaps too abstract for the average United States citizen to understand. This informational asymmetry between those in the industry, such as brokers and traders, and those constituting the general populace is the root cause of American society's anger towards the financial system. This anger is best represented by the Occupy Wall Street Movement.

Imagine the United States at the turn of the 20th century. Immigration was high and industrial production was skyrocketing in the midst of the industrial revolution. The nation was still a vast wilderness where the fastest communication between one coast to another was done via telegraph. The system of networks took hours to communicate a simple message one way, in comparison to the instantaneous two way communication we have all grown accustomed to since the invention of the telephone. The average person of the times was uneducated, but more and more Americans were going to high school and college. Real Gross Domestic Product, or the value of all final goods and services purchased within the United States adjusted for inflation was rapidly increasing. This led to the growth of the

middle and upper class and a massive rise in investment by those with extra money. For centuries prior, only nobles could be wealthy, but since the inception of the United States, those willing and able to work hard, take risks, and get lucky had acquired fortunes, great and small. During the industrial revolution, the middle class also exploded in both size and wealth. Many of these business-minded people with their newfound fortunes began to venture into the world of investment. New York City was the hub of this new activity, where those looking to invest money could employ stock brokers on Wall Street to make trade orders at the stock exchange on their behalf. It is important to note that these brokers could make recommendations, but would not be authorized to make trades without prior authorization. In other words, those making investments were directly and actively involved with the creation of their portfolios. In fact, the system strongly encouraged this behavior. The cost of making a trade was very high due to the nature of the system. In order for an investor to buy shares of a company, the investor had to hire their broker to go into the New York Stock Exchange and yell around till he or she (although almost exclusively brokers were male) found people willing to trade with them. This system was very time and labor intensive, and therefore costly to those looking to enter the market. Investors were still attracted to Wall Street, despite the high trading costs, due to the ever rising values of stock.

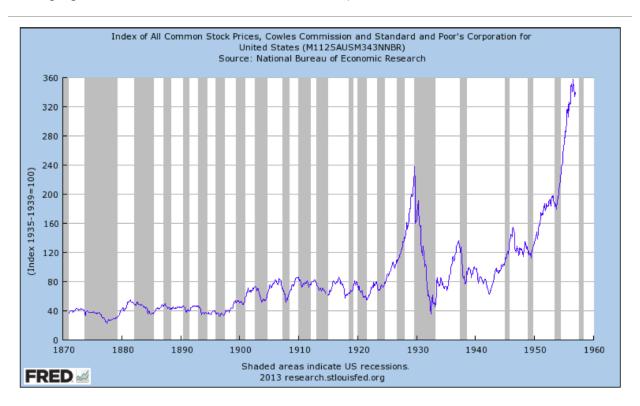
In the decades after the beginning of the 20th century, the overall value of stock prices climbed at an impressive rate. The following graph shows the number of all stocks being traded within the United States on a monthly basis. The number of shares traded, or volume, is representative of the value of the market. If volume of shares traded is climbing,

then the overall value of the stock market is rising.



As the graph shows, up until the turn of the 20th Century, the volume of shares traded was relatively small. In the years immediately before the 1920's however, the volume of stock being traded rose dramatically. It continued to climb upwards until the Great Depression in 1929. Although trading did reduce sharply afterwards, it never sank below pre 1900 levels. This is proof of a societal change in America. It represents the beginning of Wall Street's integration into household finance. Before the 20th Century, if people had excess money, they would either spend it, store it in their homes, or deposit it into a bank. From the 1920's (also known as the Roaring Twenties) and onward however, those with a relatively large amount of disposable income would usually invest a portion of it in the stock market, a commonplace practice that still exists to this day.

Investors after the Great Depression were wise to invest their money in the stock market, because in the aftermath of World War II, stock prices climbed rapidly. The following graph shows the value of a stock index over time. A stock index is a collection of an individual share of a multitude of different stocks. In this case, one share of every stock traded in the United States. The prices at different times are compared via a different type of index, a value index. In the case of this data set, if the value is below 100, then at that time, stock prices were not as high as the average price in the time between 1935 and 1939. If the value is greater than 100, then the index (created by combining one share of every stock for trade) is greater by comparison than the value index (generated by averaging stock values between 1935 and 1939).



Overall, there is a general upward trend in the data, especially during the post-war period in the United States. This large increase in stock prices increased the wealth of the middle class and helped to cement Wall Street's role in household finance. Families were drawn to the market in the hope that they could invest their savings and make money to afford the staples of the modern family such as college educated children, vacations, multiple cars, retirement, and more. These luxuries were a social signal of wealth in the post-war era. The stock market was, and is how middle class families afford the commonplace perks

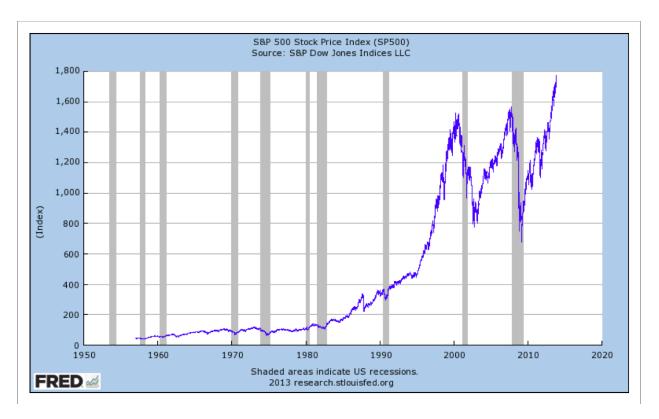
American society associates with a successful middle class family. The rising wealth of the middle class led to greater growth of the economy. As more people became wealthy, and technology developed, the stock market began to evolve in unforeseen ways.

The personal computer revolutionized every financial market, as well as how the average investor participates in the exchanges. Before its invention, people telephoned or wired their trading orders to brokers on Wall Street, but the new personal computer paired with the internet allowed eager investors to not only trade more easily, but also more cheaply. Trading prices plummeted, and the volume of shares traded leapt up. This innovation was not all good news; with the advent of the digital age came a further separation of household investors, from the markets where they shopped. When the stock market first became popular, during the 1920's, investors actively managed their portfolios by hand-picking which stocks they wanted to invest in. Computers completely changed this process. Now to make trades, people go online to one of the few investment sites and simply type in the name of the financial instrument (such as stocks, commodities, mutual funds, etc.) they want to invest in. Rather than hand select stock from various companies to constitute an investment portfolio, household investors rely heavily upon mutual funds.

Mutual funds provide the distinct advantage of removing some of the fear people feel when

investing. After all, these highly diversified funds are worth billions of dollars, and are controlled by a team of experts, it is only logical to believe that they are more safe than investing in individual stocks. This, by the way is true, mutual funds do mitigate the risk of investing in the stock market, but buying a mutual fund is like buying bologna: it may taste good, but do you really know what is inside it?

With a safer although more facile stock market, more and more people went online to join in the mutual fund craze. The market swelled as demand for stock exploded, and the ability to negotiate trades was revolutionized. The market responded to the flood of money poured into it with rapidly rising stock prices. The following graph shows the value of the S&P 500, an index of large companies.



With the popularization of the personal computer in the 90's, the market exploded in value.

This boom was fueled by the influx of "casual" investors, passively investing in mutual funds.

This era was also the birthplace of the exotic derivative. "An exotic derivative is any financial instrument that is more complex than a commonly traded financial instrument," like stock for example (GARP). Their birth and subsequent popularization amongst banks occurred at roughly the same time as the birth of the home computer; however, both of these innovations to the financial marketplace diverged from one another in terms of complexity. The home computer made household investing accessible, cheap and easy; whereas, the birth of the exotic derivative made the movement of markets astronomically more complex. Banks now employ highly specialized mathematicians and analysts to actively guide how they invest their money, but casual online investors spend even less time monitoring their portfolio. This difference has led to relatively few people in financial markets understanding precisely what is happening.

It is human nature to fear that which we do not understand. During the Great Recession, the media, the government, and the people all blamed the crisis on banks taking unnecessary risks and hurting the little guy. They all seemed to ignore the fact that the funds taking those unnecessary risks are primarily owned by small-time investors looking to finance a family trip Disney World. Before, during, and after the Great Recession, casual investors unwittingly purchased the very exotic derivatives they despised as a integral components of a mutual fund. This apparent lack of understanding is caused by the separation of the investor from his or her investment, created by the home computer and the internet. This is the undercurrent of the Occupy Wall Street movement. Its supporters, mostly, call for large scale retaliation against modern banking practices. It is hard to characterize the entire movement, because without central leadership, the

demands being made by a few of the protesters are inherently not characteristic of everyone in the movement. Regardless, a large fraction of the movement, which was able to rally 15,000 protesters at one point, does support a radical change in the financial sector (Picket). The Washington Times published online two of the lists of demands created by protesters in the movement. Most of the demands were quite obviously aimed at personally making the lives of the unemployed, indebted protesters easier, for example, "Demand three: Guaranteed living wage income regardless of employment," as well as, "Demand twelve: Outlaw all credit reporting agencies," (Occupy). But other demands are proof that the protesters do not understand how the modern financial system functions. "Demand eleven: Immediate across the board debt forgiveness for all... And I don't mean debt that is in default, I mean all debt on the entire planet period," (Occupy). Debt is the currency of exotic derivatives, and by extension, the casual investor. Debt is how new businesses form, it is how they innovate, it is how they improve human life. The author of the demand does not grasp this idea. If there is one who does not understand, then there are many just like the author. It is complicated to understand how banks trade and generate profit, and it is easy to say that whenever they make a mistake, they are evil. But this is a generalization, and the anger and frustration created by the general populace during troubles in financial markets is often misplaced. Back in the 1900's, when the most complicated transactions were buying and selling stock, it was easy for the average investor to follow how the financial sector was doing. In modern times this is not so simple, and when there is a downturn, we are all quick to point the finger at those with more than us.

The modern stock market has gone through an evolution. It began its life as a simple

exchange where an increasing number of wealthy individuals invested their money. The consistent returns on investment during the 1920's and the post-war period cemented Wall Street's role in household investment, making it a staple of middle class life. The invention of the computer and internet radically transformed financial markets and how the casual investor interacts with them. The large influx of new investors paired with a separation of investors from what they are buying via increasingly popular mutual funds has directly led to the misplaced anger held by American society, in the aftermath of the Great Recession. As financial markets continue to develop, the informational asymmetry between financial expert and casual investor will continue to grow. All is not bleak; however, hopefully as we look toward the future, the lessons that banks have learned during this recession will help to shape how they will market mutual funds to their online customers, and investors will perform their due diligence before taking on the risks of investing. In an increasingly complex financial marketplace, full of exotic derivatives and rapid computer trading, it is easy for investors to invest their money in ways which they do not fully understand. It is incumbent upon investment firms to educate modern investors on the nature of their portfolios. Understanding of the modern financial system is critical to understanding future recessions, and with any luck, avoiding them.

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