

HISTORIC DELUSIONS ABOUT FREE MARKETS

A Brief History of Bubbles, Boodles, and Bursts

By Robert Porter Lynch

To understand the current Economic Meltdown, it is valuable to get a historic perspective on the factors that have caused debacles like this in the past. As you read about these bubbles, boodles, and bursts, one cannot help but see the pattern¹ – it’s always the same, and we always make the same mistakes. Why? Because everyone wants to make a profit. But more...

Charles McKay wrote in 1841 about the *Madness of Crowds*, that peer pressure can influence people to make ridiculous decisions, stirring up a feeding frenzy that warps even sane minds and lures intelligent, well-meaning people into foolish judgment. This can be kept alive by

Summary Note: to create the “Perfect Storm” Financial Panic, eight things are in common that in each and every one of these economic disasters:

1. **Easy Credit** which artificially increases the supply of money in the economy
2. **Speculative Greed** of Investors which is fueled by easy credit by Banks
3. **D’Alliance** between Investors and a Target Business Sector, which becomes the “Darling of Wall Street Analysts” who hype stock in that sector
4. **Frenzy** to Over-Build/Buy as the bubble increases due to Crowd Contagion
5. **False Sense of Security** that the underlying value of the speculative target is stable and sound
6. **Delusion** that the Financial & Investment community can regulate itself (or that competition will cause it to self regulate)
7. **Lack of Transparency** into what is really happening and who’s really driving the market, thus the collapse comes as a surprise
8. **Failure of Government** to see reality and protect the interests of the common person by regulating the system to ensure fairness, stability, and security

*It’s in the Nature of Speculators and the Finance Community to
“Make Money” (euphemism for Greed)*

The following review is not intended to demonstrate that Capitalism is an “evil” system – in fact it has stimulated tremendous competition to create wealth that has grown a prosperous middle class that is the core of civilization. However, it will easily be seen that Capitalism has a serious Achilles heel that has plagued the system for centuries – unbridled speculation fueled by easy credit.

While greed (inherent in a few who operate within any Capitalistic system) cannot be *cured*, it can *curbed* by sensible policies and legislation. The proper role of government in establishing “fair markets” is to act like a referee in a sports contest – interpreting the rules fairly, enabling competitive performance to be rewarded, and impose stiff penalties for those that play below the belt:

- to prevent the manipulation of markets by the powerful and the greedy,
- to protect the investments of society: the small businesses, the workers, the home owners from manipulation, speculation, and deflation.

ideologues, like free market economists, who believe that the market is an accurate judge of real value. While the market *can* be a judge of value, it is often skewed by greed, corruption, and manipulation that highly distorts *intrinsic* value. Read on to see how and why this happens.

Tulip Bubble of 1636

Tulip Bubble of 1636 started when French and Dutch speculators drove the price of tulip bulbs up to values over 200 times their *intrinsic* value. A “futures” market developed where speculators entered into contracts in the current year (1636) to buy tulip bulbs in the following season (1637). The futures contract could then be sold at a premium if the bulbs continued to increase in price. Some Dutch traders derisively referred to tulip futures contracts as *windhandel* (literally “wind deal or trade”), because in Holland was a global trading center where exchange of tangible goods and real money was the traditional, but since no bulbs were actually changing hands, the amorphous transaction was “written in the wind.”

People throughout Holland and Europe invested enormously in this bubble, hoping to make a killing. Many did while tulip bulbs escalated in value at a ferocious rate. In February of 1637, Dutch authorities voided the futures contracts, buyers stopped buying at inflated prices and the bottom dropped out of the market, ruining those who had bought tulip bulbs at inflated prices. ²

This was not the end, just the beginning of bubbles and busts. In England the South Sea investment scheme and in France the Mississippi Land scheme both burst in 1720-1, with dire consequences. All were highly leveraged with debt promising extraordinary profits based on inflated values.

Panic of 1792

This financial credit crisis was triggered by speculators attempting to drive up the stock price of the Bank of New York. Other speculators sought to push the stock in the other direction. Bank customers, fearing the bank would become insolvent started a run on the bank, withdrawing money by droves. The run expanded to other banks. To curb the panic, the Secretary of the Treasury, Alexander Hamilton, was forced to avert a national crisis by injecting hundreds of thousands of dollars in securities for the troubled banks. ^[1]

While the panic was in full force, the stock market saw a 25% drop in value in just two weeks. Hamilton intervention worked, and in a relatively short period of time, finances returned to normal. ^[2]

Panic of 1797

Britain had been in a war with France in the French Revolutionary Wars for five years. The Bank of England, a private monopoly bank had been formed in 1694, primarily to finance England’s numerous wars. The Bank of England’s charter gave it a monopoly and enabled it to issue paper notes backed by securities which were simply pledges by the Royal Government to pay the loans made to the government. Only a small percentage of the outstanding loans were backed by “hard security” in the form of gold or silver (called “fractional lending”).

A run on the Bank of England forced it to stop paying depositors in hard currency. This caused a depression in prices throughout Europe, and deeply affected prices for goods traded across the Atlantic and Caribbean.

Real estate markets crashed first in the coastal United States and then spread inland. During the 1790's land speculation in the western frontier had driven property values sky high and banks financed the speculation. By 1800 bankruptcies proliferated throughout the land, resulting in numerous American bankers and merchants being sent to debtor's prison. (U.S. Congress passing the Bankruptcy Act of 1800, which basically ended this panic and did away with debtors prisons)

Panic of 1819

Government borrowed heavily to finance the War of 1812, strain on banks' reserves of hard currency (specie) which inevitably resulted in a suspension of specie payments in 1814 during war, driving the economy of the U.S. (which was already straining under a British blockade of our shipping ports) into a deep recession. ^[5] The suspension of the obligation to redeem in hard currency greatly spurred the establishment of new banks and the expansion of more paper bank note issues. This inflation of money encouraged unsustainable investments to take place. It soon became clear the monetary situation was bad.

After the war, the Second Bank of the United States was founded in response to the spread of bank notes across United States from private banks. American bankers and businessmen were issuing false banknotes and expanded credit beyond prudent lending practices. American bankers, who had little experience with corporate charters, promissory notes, bills of exchange, or stocks and bonds, encouraged the speculated boom during the first years of the market revolution. An economic expansion began as the U.S. pushed farther west. Speculation in land and canal building grew. The Panic of 1819 was brought about when hit by bank runs, numerous banks could not make good on their commitment to pay depositors in hard currency, violating contractual rights of depositors. Banks began calling their notes to stave off collapse. Economic expansion halted, as property foreclosures, bank failures, unemployment, price collapses, and a slump in agriculture and manufacturing became widespread.

Businesses went bankrupt when they could not meet their debts, and hundreds of thousands of wage workers lost their jobs. (For example, unemployment reached 75 percent in Philadelphia, and 1,800 workers were imprisoned for debt. In Baltimore, the unemployed set up a city of tents on the outskirts of the city.)

Panic of 1825

The **Panic of 1825** was a stock market crash that started in the Bank of England arising in part out of speculation investments in Latin America including in the fabled imaginary country of Poyais. The crisis was felt most acutely in England where it precipitated the closing of six London banks including Henry Thornton's bank and sixty country banks in England, but was also manifest in the markets of Europe, Latin America, and the United States. An infusion of gold reserves from Banque de France would save the Bank of England from complete collapse.

Panic of 1837

Speculative fever's bubble burst when every New York City bank stopped payment in specie (gold and silver coinage). The Panic was followed by a five-year depression where a quarter of the banks in the U.S. failed and unemployment hit record highs.

President Andrew Jackson, a firm adversary of fractional lending, earlier issued an Executive Order to ensure banks had sufficient specie on hand. Jackson accused banks of acting irresponsibly for fueling rampant speculation and by proliferating paper money, (not backed by gold or silver bullion) which resulted in extreme inflation. Further, he denied the renewal of the charter of the Second Bank of the United States, resulting in the withdrawal of government funds from that bank. Newly elected President Martin Van Buren refused to intervene, being ideologically committed to non-interference into bank regulation.

Speculation brought in foreign money, particularly from Great Britain, thus adding more fuel to the speculative fire. The Bank of England, wary of the accelerated outflow of funds into the U.S. by British investors, increased its deposit rate making it more attractive for British investors to invest domestically. By yanking money away from the U.S., the "credit" bubble burst. The monetary supply dropped by a third.

Within two months the failures in New York alone aggregated nearly \$100,000,000 in value. Of the 850 banks in the United States, 343 were totally wiped out, and 62 partially failed. The Panic ended after six long years, and only the Great Depression of the 1930's compares in severity.

Panic of 1847

While this did not have major impacts in the U.S., it did harm Great Britain when the Railroad Bubble burst, resulting in bank failures and depositor losses. The Bank of England was ready to be taken down with insolvency. Only by the Royal Government suspending the Bank Charter Act ensuring the bank kept sufficient reserves was long-term disaster averted.³

Panic of 1857

The 1849 Gold Rush (a speculative venture if there ever was one) created a boom period as newly mined gold began to pour into the country. The boom lasted eight years.

The Panic began in New York City when the Ohio Life Insurance and Trust Co., a major financial institution, collapsed from widespread embezzlement. Fears mounted that the U.S. Government would default on its obligation to pay specie. British investors were scared, and withdrew funds from U.S. banks, which raised questions about overall U.S. economic soundness. Land speculation, driven by railroad speculation, collapsed simultaneously as the fear spread. The stock market crashed, lowering the investment value of banks and insurance companies.

The grain prices, held up high during the Crimean War, dropped precipitously and economic tragedy spread across the land. More banks failed. And more than 5,000 American businesses collapsed within a year. Unemployment skyrocketed.

The panic spread like a plague to Europe, South America and the Far East. England suffered another run on its banks, causing it to suspend specie payments, triggering more problems in Europe. The Bank of England was forced to loan key banks money to prop them up.

One bank turned around and bought stocks and bonds at bargain basement prices, and profited enormously on the upswing.⁴

Panic of 1873

This panic began in Europe, when, in May of 1873 the Vienna Stock Exchange crashed, under the weight of inflated expansion, bankruptcies, and unscrupulous speculations. This triggered a series of bank failures, first in Vienna, then spreading to Berlin. Railroads, the glamour child of the time, crashed in Germany, as the speculative bubble burst. Overexpansion beyond actual demand in railways, factories, shipping had been accelerated by liberalization of banking and investment laws.

In the United States, following the end of the Civil War, overexpansion was occurring in the same industries.⁵ Railroads were the second only to agriculture as the largest employer in the nation. Railroads required large infusions of capital for their construction and were quite risky ventures because their operating profit could not be predicted as demand for their service was predicated on future growth of a region. It was primed for speculation; investors and banks threw cash at this industry spurring a frenzy of overbuilding in track, dock terminals, factories, and support facilities. Too much capital chased too few projects with predictable returns on investment.

The European Panic spread to Paris and London then later that summer to the United States. At the same time President Grant, fearing over-expansion, began to contract the money supply, which put a major constraint on expansionary growth. In September 1873, a major Philadelphia investment bank failed to sell a highly touted railroad bond issue as rumors flew that the bank's credit was worthless. A powder-keg was ready to blow a hole in the bubble as panic hit Wall Street.

The crisis was extremely severe; leading stocks lost half their value in an hour,⁶ the Stock Exchange was forced to close for ten days. A quarter of the nations railroads were thrown into bankruptcy. Wage cuts and poor working condition set off the Great Railroad Strike of 1877, which had to be quelled by federal troops, after more than 100 people were killed and many more injured. 18,000 businesses failed within the next two years, causing massive unemployment which reached 14% by 1876. The reigning political party was blamed for the crisis and thrown out of office. This was known at the time as the "long depression," which lasted for seven years.

Panic of 1890

The **Panic of 1890** was centered in London. Again, like all previous panics, it was set off after another round of unwarranted speculation, this time in foreign securities in America and poor investments Latin America. The Baring Brothers Bank (which eventually was taken down by a fraud scheme over 100 years later) went into the tank. Banks throughout London were sent into crisis mode, calling in outstanding notes at an astonishing rate. The economy began to collapse, requiring the Bank of England to intercede with a special bailout,⁷ preventing nationwide depression that could have spread throughout Europe.

Panic of 1893

Amnesia is a profound malady in the financial sector. By **1893, the lessons of the panic twenty years earlier had been lost in the euphoria of speculation in the railroad industry;** mergers and acquisitions abounded. Mines linked with rail heads, flooding the market with precious metals. More overbuilding and leveraged financing was the hallmark of the boom cycle during the 1880s and early 1890s. Real estate boomed as the nation pushed west. A run on gold coupled with escalating bank and railroad failures ignited a panic that was the worst economic crisis to hit the nation in its history to that point. Banks suffered a cash run that led to a severe credit crunch. Banks called notes, adding more severity to the crisis, forcing businesses into bankruptcy. Stocks and bonds plummeted. European investors would only take gold as repayment, draining the U.S. gold reserves, thus lowering the value of the dollar; silver was unwanted.

Major railroads failed, followed by 15,000 companies and 500 banks. Unemployment doubled that year then tripled in subsequent years, reaching a peak of over 13% in 1897. Dissatisfied workers, feeling betrayed by the capitalist robber barons, escalated their union organizing. The loss of savings by the middle class plus high unemployment and a contraction of wages drove many middle class families into home foreclosures, leaving many to walk away from their newly constructed Victorian homes, leaving them “haunted.” Falling farm prices catalyzed a march of unemployed farm workers on Washington. Violent labor strikes shut down the railroads and more violence peppered the coal mining industry.⁸

Again, like the prior panic of 1873, the reigning political party was blamed for the crisis and thrown out of office. It took seven years for the economy to return to normal, triggering ten years of rapid growth until.....

Panic of 1907

Otherwise known as the 1907 Bankers' Panic, this financial debacle saw the New York Stock Exchange plummet nearly 50% from its peak the year earlier. The crisis was triggered when speculators tried to corner the market of a copper company. When the scheme failed in October, 1907, the banks that lent the money to the speculators went belly up with a run on those banks sending the banking industry into a death-spiral.

Within a week, the panic had spread, bringing down New York's third-largest trust. Word spread quickly as depositors throughout the land, alert to the problems in earlier decades, began withdrawing deposits from regional banks, who, in turn, withdrew their reserves from New York banks, escalating the severity of the problem.

Only by the personal intercession of financial tycoon J.P. Morgan, who pledged much of his personal fortune, did the tide turn. He personally convinced his cohorts in the New York financial industry.

Much of the problem had been caused by monopolistic companies (trusts) run by powerful moguls, such as Carnegie, Rockefeller, and Schwab, who teamed with big-money financiers to drive smaller competitors out of business, giving the monopolist an open door to fix prices outside of market conditions.

The panic was nipped in time to prevent wide scale recession, but it demonstrated how “trust busting” President Roosevelt's strong enforcement needed further teeth with more

legislation. It also showed the need to establish a Federal Reserve to shore up the banks and manage the money supply. Legislation to prevent “short trading” speculation off the stock exchange (*bucket shops*) made betting on a down market illegal. (This legislation remained in place until 2000, when it was repealed, setting the stage for the 2008 meltdown.)

Crash of 1929 and the Depression

Apparently a decade of Alcoholic Prohibition was not enough to sober Wall Street. After the First World War, another boom was unleashed, again with easy credit and lots of buying on margin. A frenzied flapper generation and an increasingly intertwined global economy drove the U.S. GDP (Gross Domestic Product) up 50% in the eight year period between 1921 and 1929.

The consumer economy of cars, houses, entertainment (movies and radio) appliances, and transportation burgeoned as the United States became the richest country in the world. Mass production, mass marketing, and new technologies accelerated the pace. Highway construction supported the new era of a car for every home. Electrical output nearly quadrupled as America “lit up.” Local governments loaded up debt to pay for the new infrastructure improvements; likewise consumers went into debt counting on a boom that would last forever. When Herbert Hoover was inaugurated in 1928, he declared that the United States, for the first time in history, was conquering poverty.

Wall Street financiers bought massive amounts of European debt to keep their economies soaring, driven in part by their desire for American mass produced goods. Speculation was rampant as the boom looked like it would last forever. A noted economist of the time stated just one week before the crash: “*Stock prices have reached what looks like a permanently high plateau*” and that stock prices still had not caught up with their real value and should go much higher, “security values in most instances were not inflated.”

Sensing easy money, hundreds of thousands of Americans invested deeply in the stock market. By August 1929, brokers were lending small investors up to 90% of the value of stocks (called *buying on margin*). Amazingly, more money was out on loans than the entire amount of currency circulating in the United States.

Escalating stock prices stimulated more investment as people were loath to be left out of the new boom in wealth. Incredibly the S&P (Standard & Poors) average price to earnings (P/E) ratio was 32.6 in September 1929, more than double historical norms, when the market had peaked. Then the market started dropping and by Friday, October 29th, 1929 (Black Friday), the market crashed. News reports across the nation spread panic. The following Monday and Tuesday the crash continued unabated. By mid November, the market had lost an astounding 48% of its September value.

Unquestionably it was the most devastating crash in U.S. history, setting off the events that lead to the Great Depression of the 1930's.

The crash occurred for the traditional reasons: Speculators bought stock on margins of only 10%. Brokerage firms loaned the investors \$9 for every \$1 an investor had deposited to buy the stock. Everything was fine as long as the stock value stayed high. But when market fell, brokers called in their margin loans, which had negative asset value, and thus could not be repaid. Banks failed as debtors defaulted and frightened depositors tried to withdraw their deposits in droves, setting off massive runs on banks.

Government guarantees and Federal Reserve banking regulations to prevent such a panic did not work. While the boom was fueled by an abundance of credit, restoring the monetary supply would not fix it because the market dynamics had changed. Bank failures and business bankruptcies mounted, with the loss of billions of dollars in assets. Businesses pulled back on capital investments and tightened their belts, laying off workers.

Personal incomes held steady for six months, then fell by 20–50% while unemployment climbed to the astronomical rate over 25% affecting 13 million people. Industrial production contracted by 45%, and the national income was sliced by 50%. Consumers, scared about their future, cut back on spending by 10% in early 1930. With debt-to-income & equity levels growing in the wrong direction, consumers got deeper and deeper in trouble.

744 banks failed within the first 10 months (which was just the beginning of an ultimate failure of 9,000 banks). By 1933, depositors had lost \$140 billion in deposits through bank failures. Banks continued to call loans. Foreclosures on homes skyrocketed. As foreclosed homes were dumped back on the market, housing values crashed, causing more deflation as the vicious cycle and downward spiral gained more and more momentum. Home-building dropped by 80% between the years 1929 and 1932. Deflation was rampant.

In the Mid-West, a historic drought-driven Dust Bowl wreaked havoc on farmers, exacerbating economic problems, causing more foreclosures and bank failures in the rural sector.

While the stock market began a slow rally from late 1929 through April 1930, the damage had been done. Business and consumer confidence had been broken, setting off a widespread retraction in investment and spending. Americans had lost faith in the banking system, preferring to hoard cash, thus rendering ineffective the efforts of the Federal Reserve to increase the monetary supply. Banks tightened their lending practices, the economy contracted, and the Great Depression was off to the races.

Countries erected trade barriers to protect their fragile local economies, thus diminishing global trade. U.S. exports dropped by two-thirds over the next several years.

The Roosevelt administration responded with massive government deficit spending and public works programs. Much tighter regulations of the financial and investment sectors, such as the Securities Acts of 1933/34 and the Glass Steagall Act (repealed in 2000, setting the stage for the 2008 meltdown) created a comprehensive regulatory environment. The Federal Deposit Insurance Corporation protected bank deposits.

Recent Bubbles that had Smaller but Significant Impacts

Oil:

There have been numerous speculative games played since the Depression. The Arab Oil Cartel attempted to manipulate prices in the petroleum market beginning in the 1970's.

Then in 2008, speculators succeeded in doubling oil prices in 2008 when oil peaked at \$147 a barrel in July, then plummeted to \$78 per barrel in October.

Silver:

Beginning in the late 1970s, the tycoon Hunt brothers began accumulating large amounts of silver in an attempt to corner the market. Initially they were able to profit

enormously, with estimated speculative windfalls of between \$2 billion to \$4 billion and estimated silver holdings of 100 million oz.

Silver futures were driven skyward, rising from \$11 an ounce in September 1979 to \$50 an ounce in January 1980. Silver prices then collapsed to below \$11 an ounce two months later, ultimately driving the Hunt brothers into bankruptcy.

Robotics:

In the early 1980's Wall Street attempted to make the Robotic market their new darling. Stocks in robotics were hyped, and estimates proliferated that the market would grow at an annualized rate of 40%. Speculators and venture capitalists jumped into the market as stock values rocketed upwards, only to crash later when the demand for robots never materialized.

Real Estate:

Deregulation of the Savings and Loan industry in the 1980s spurred a massive growth in housing throughout the western United States. Ultimately the bubble burst, leaving taxpayers to deal with 747 failed S&Ls, and massive foreclosures. Overbuilding left residential and commercial properties unoccupied in states such as Colorado and Texas, thus depressing home and commercial real estate values. The ultimate cost of the crisis is estimated to have totaled around \$160.1 billion, about \$124.6 billion of which was directly paid for by the U.S. government (really the U.S. taxpayer, either directly or through charges on their savings and loan accounts or through taxes) resulting in large budget deficits. Between 1986 and 1991, the number of new homes constructed per year dropped from 1.8 million to 1 million, the lowest rate since World War II.

Spurred by a lot of hype in the real estate market, New England's Consumer Confidence rose to an astronomical 154 in August, 1988, the highest ever recorded anywhere in the country ever. As banking regulations were relaxed across state boundaries, banks were able to go on an acquisition spree, led by the Bank of New England, that gobbled up numerous local banks. Competition to increase assets was fierce among banks, and loans were easy to come by which generated a massive building boom – far beyond what the market could absorb. Speculators went on a buying spree to ride the wave of fast profits.

Office buildings, homes, hotels, shopping malls and condominiums then went belly up, unable to repay their loans. By 1989, sales stalled, foreclosures began, and the press ran incessant stories about a bust. By August, 1989 New England's regional Consumer Confidence Index has crashed to 30, the lowest ever recorded anywhere in the country, and the fastest drop ever recorded. Foreclosures proliferated. Buildings were dumped on the market daily driving down property values into oblivion. Credit tightened and loans were impossible to find. When the Bank of New England failed, it was the third largest bank failure in history. The Federal Government stepped in to prevent a total bank collapse in the region, exercising its "too big to fail" policy which would avert a rippling effect in an already shaky regional economy.

The impact remained largely regional, but affected New York City, where 40% of the restaurants closed their doors for lack of business. In New England, with a population of

12 million, 750,000 people were left unemployed. By the time it was over the Federal Government laid out over \$2.5 billion just to remedy the Bank of New England debacle.

During this same period, easy credit sent Japan on a wild real estate spree.⁹ Speculators bought everything in sight across the globe. Golf courses in Hawaii, Rockefeller Center, and office buildings everywhere were prey to the aggressive buyers. Postage sized apartments in downtown Tokyo rented for \$10,000 a month. Prime properties were regularly sold at over \$120,000 per square foot! Real estate looked solid; after all, it was a “hard” asset. Banks lent even more. The government over-confidently issues 100 year bonds.

When the bubble began to burst in 1990-1, virtually every bank in Japan was bankrupt. Trillions were wiped out. The Japanese Central Bank lowered its interest rate to nearly zero, but the damage had been done. Ten years later, after poor government intervention, the economy had not fully recovered – the Japanese refer to this era as “the lost decade.”

Junk Bonds

In the mid 1980s, junk bonds (paying low premiums on low performing companies) became Wall Street’s next darling. Michael Milken led the charge, manipulating the market. The collapse of junk bond market helped put the U.S. into a mild recession that cost George Bush the presidency. Milken and Ivan Boesky were jailed for their manipulations.

Internet Hoax

Searching for the next speculative venture, Wall Street latched on to the Internet. Any company with a “.com” attached to its name became the target of an initial public stock offering. Kids with no business experience became instant millionaires as investors flocked to the stock bidding values up to unimaginable rates on companies that had never even made a sale, never mind a profit. P/E (profit to earnings) ratios were no longer considered relevant. Insanity reigned, prudence was laughed at. When the “dot bomb” crash occurred in 2001, over a trillion dollars in value was wiped out in a matter of weeks.

Conclusion:

After seeing what has happened in the past, the current economic crisis is easy to comprehend, but impossible to justify. Yes, time and time again speculative greed, fueled by highly leveraged margin credit, justified by fallacious delusions about free markets has robbed Capitalism of its very essence – hard work, innovation, and competitiveness.

Notes:

¹ Galbraith, John Kenneth, *Money: From Whence It Came and Where it Went*, 1978, *A Short History of Financial Euphoria*, 1994

² -Extraordinary Popular Delusions and the Madness of Crowds, published in 1841 by the Scottish journalist Charles Mackay;

³ -Griffin, G Edward, *Creature from Jekyll Island*, p 182

⁴ -Josephson, Matthew, *The Robber Barons; The Great American Capitalists*, 1934, page 60

⁵ -Abdill, George B. (1958), *This Was Railroading*. Seattle: Superior Publishing Company.

⁶ -Josephson, Matthew, p 170

⁷ -Groseclose, *Money and Man*, pp 195-196

⁸ -Hoffman, Charles. *The Depression of the Nineties: An Economic History*. Westport, CT: Greenwood Publishing, 1970. Page 109..

⁹ See Wikipedia, [Economic bubble](#), [Housing bubble](#), [Lost decade](#), [Economic history of Japan](#)