Part III

Perennial Economic Narratives

Chapter 9

Recurrence and Mutation

In previous chapters we've focused on the elements of narrative economics, exploring how popular stories go viral, morph into epidemics, and influence economic and political events. We illustrated the discussion with several real-world examples, including Frederick Lewis Allen's insights into the Great Depression, John Maynard Keynes's analysis of the narrative origins of World War II, the Bitcoin narrative, and the Laffer curve narrative.

In this part of the book, we consider nine of the most important narrative constellations. These perennial narratives won't completely go away, and they pop up in many mutated forms. They touch on some of the most important themes in the air today: the idea that machines will replace all workers and cause mass unemployment, that a return to the gold standard would provide greater monetary stability, that real estate and stock markets hold special value, and that businesses or labor unions are evil. These ever-shifting and ever-renewing narratives affect economic behavior by changing the popular understanding of the economy, by altering public perceptions of economic reality, by creating new ideas about what is meaningful and important and moral, or by suggesting new scripts for individual behavior.

The chapters in this part demonstrate these perennial narratives' overarching and ever-shifting influence on society today, explaining how many of the challenges that we tend to attribute to discrete contemporary forces are in fact influenced profoundly by narratives—stories that took root generations and even centuries ago but that reappear in newly configured expressions. Engaging with these examples challenges the way we think about the economy, from large-scale phenomena such as depressions and wars, through major economic forces such as the stock market and real estate, through socially sustaining institutions such as work and technology.

As we've seen, a disease epidemic, such as influenza, measles, or mumps, can recur after a mutation changes its contagiousness. Disease epidemics tend to recur after a mutation overcomes acquired immunity, though sometimes the mutation is a result of a change in environmental conditions that increase the disease's contagion. With influenza, for example, there are regularly recurring epidemics and occasional massive and dangerous epidemics, depending on subtle differences in the viral genome or environmental conditions. Thus the 1918 flu pandemic, often called the Spanish flu, cost more lives than World War I did. The Spanish flu in epidemiology mirrors the trajectory of the Great Depression of the 1930s in economics, except that narratives rather than viruses carried the "disease" of the Great Depression. In both cases, the virulence was especially intense and surprising. So, before we move into the details of perennial economic narratives, it is helpful to detail the ways in which these two essential mechanisms—recurrence and mutation—define and inform economic narratives.

How Economic Narratives Mutate

Just as mutations in influenza may spark a new contagion of a disease with manifestations similar to those of previous outbreaks, so too do economic narratives mutate. But we must be careful in separating the threads of similarity and difference. Typically, when a narrative reappears, say in another country or a few decades later, the mutated narrative tends to have features different from those of the original narrative—a different celebrity, different visual images, a different punch line. For example, in chapter 12 we discuss the gold standard narrative and the bimetallism narrative, which have some deep similarity to the Bitcoin narrative but with William Jennings Bryan substituted for Satoshi Nakamoto. The next new money narrative will have yet another celebrity's name. Just as Bryan is mostly forgotten today, Nakamoto will likely be mostly forgotten in the future. Someone who creates a highly successful new electronic currency in the future will best craft a contagious story about it, as by attaching a popular celebrity's name to it. This variation may be necessary for contagion.

A mutation in a narrative can also occur when some event transpires to change associations of the narrative. For example, some public event may underscore that a narrative is or is not politically correct. People of course hesitate to repeat stories that would now associate them with such a scandalous event.[1]

Mutations in a narrative or in the environment surrounding the narrative may cause it to become an economic narrative by tying it better to economic decisions. A mutation may also occur that increases contagion but twists the story so that it ceases to be the same economic narrative. It may then morph into some different moral or lesson afterward. For example, as we shall see below, a narrative about labor-saving machines replacing jobs (chapter 13) created a sense of fear during the Great Depression of the 1930s, but the same narrative mutated (chapter 14) to create a sense of opportunity during the dot-com boom of the 1990s. These cases can be confusing to those who study a narrative, for some key words in the narrative may come up in searches for a much longer span of time than the period when they had a specific economic interpretation.

Narratives may be relevant to economic events even if the timing of the narrative's appearance does not coincide with the event. When it goes epidemic, a narrative may inspire a latent fear, such as a fear that technology will someday replace one's job, which may result eventually in changes in economic behavior years later when some other narrative or news creates a sense that the feared replacement is imminent.

How Economic Narratives Recur

The mutations that cause the recurrence of narratives can be random accidents, but more likely creative people, including professional marketing experts, politicians, phishers, and just plain social media enthusiasts, have been involved in some element of their design. The creative types know that the older narratives proved their potential by going viral long ago but are no longer contagious. The celebrity attached to the original narrative may be forgotten or discredited. The narrative may have been co-epidemic with another lost narrative. Thus the creative people must try to link it to some extant epidemic.

Recurrent economic narratives tend to have an international scope, partly because people in the news media long ago learned that they should observe the news in foreign countries, for what is viral in one country can often be made contagious in another. But like contagious disease epidemics, at any given time the narrative epidemics tend to be stronger in some countries than in others. In addition, narrative epidemics are more similar in countries that share a language or borders. The examples in this book come mostly from the United States, the country in which I have lived my life and the country about which I have the best intuition and knowledge. Also, the United States has long documented its business cycle history. The National Bureau of Economic Research (NBER) maintains a chronicle of business cycle expansions and contractions back to the year 1854.

Some critics might argue that institutional changes in the United States have been so profound and transformative that there is practically nothing useful to be learned from distant history. However, the events and reactions of 50, 100, and 150 years ago are surprisingly similar to what we see and experience today. In today's narratives, we see the echoes of these historical periods. Remember the story about the huckster who offers a coin toss bet with the words "Heads I win, tails you lose" and the sucker who took the bet? That little gem of a narrative has been in circulation since 1847 (and perhaps earlier). At that time, it was sometimes attached to stories of the Whig Party, Zachary Taylor (twelfth president of the United States), or Richard Cobden, the foremost nineteenth-century advocate of free markets, whom we are unlikely to think about today. In the mid-nineteenth century, people weren't telling exactly the same stories with the same interpretations that we see today, but the themes are surprisingly similar over time.

Big Economic Events, Big Narrative Lessons

The biggest economic events in the United States since 1854 as defined by the NBER include the following. We return to these events frequently in later chapters.

- A depression from 1857 to 1859, followed by the secession of southern states in 1860–61 and the US Civil War (1861–65). The Civil War was the most lethal war in US history, responsible for more US fatalities than all other US wars combined.[2]
- A depression from 1873 to 1879 that led to the publication of the best-selling economics book of all time in the United States, Henry George's *Progress and Poverty* (1879), which accused the unrestrained free-market system of producing worsening inequality.
- A depression in the 1890s comprising two NBER contractions, 1893–94 and 1895–97. The extended depression, during which unemployment always exceeded 8%, ran from 1893 to 1899. This depression coincided with an aggressive phase in US history, with the United States launching the Spanish-American War and the Philippine War.
- A series of three short contractions from 1907 to 1914, starting with the Panic of 1907, which ended only with the heroic advances made by J. P. Morgan and other bankers. These events led to the creation of the Federal Reserve System to prevent such banking crises in the future. These contractions were followed by World War I, which began in 1914.
- A brief but extreme depression from 1920 to 1921 that included the sharpest deflation ever experienced in the United States.
- The Great Depression after the 1929 stock market crash, which morphed into a worldwide depression. In the United States the extended depression ran from 1930 to 1941, with unemployment uniformly exceeding 8%. The Great Depression took its name from the 1934 Lionel Robbins book with that

title. It comprised two NBER contractions, 1929–33 and 1937–38. The worldwide depression immediately preceded World War II.

- A severe recession in 1973–75, associated with a war in the Middle East and an oil embargo. Economist Otto Eckstein called this period the "Great Recession" in his 1978 book with that title, inviting comparison with the Great Depression.
- A severe recession from 1980 to 1982, comprising two NBER contractions, a short contraction within the year 1980 and, soon after, another contraction 1981–82, associated with a war in the Middle East. At the time, this recession was called the "Great Recession," again inviting comparisons with the Great Depression.[3]
- A severe recession from 2007 to 2009, also named the "Great Recession," once again inviting comparisons with the Great Depression, and this time the name really went viral and has stuck to this day.

These recessions and depressions are narratives in themselves, active in producing subsequent events. Thought in any economic downturn tends to emphasize the last large downturn, with attention also paid to the record-holder. In the United States and much of the world the record-holder is, of course, the Great Depression.

Usually, economic historians who attempt to identify the causes of recessions and depressions list events that were contemporary with the downturns: bank failures, strikes, acts of government, gold discoveries, crop failures, stock market events, and so on. Such information is useful, but our goal is to consider these depressions and recessions in terms of the prominent narratives and narrative constellations that likely helped bring them about or increase their severity. Ultimately, however, we can give no final proof of causality because these events are so deeply complicated, and multiple narratives are involved. But the cumulative influence of narratives in the gestation of these very serious economic events is beyond circumstantial.

The first step in our task is organizing and classifying some of the major economic narratives and the mutations that allowed them to recur over long intervals of time. The remaining chapters in this part describe nine perennial economic narratives, along with some of their mutations and recurrences. Most readers will recognize these narratives in their most recent forms but not in their older forms:

1. Panic versus confidence
2. Frugality versus conspicuous consumption
3. Gold standard versus bimetallism
4. Labor-saving machines replace many jobs
5. Automation and artificial intelligence replace almost all jobs
6. Real estate booms and busts
7. Stock market bubbles
8. Boycotts, profiteers, and evil business
9. The wage-price spiral and evil labor unions

Some of these chapters present a pair of opposing narrative constellations (for example, frugality versus conspicuous consumption). These pairs suggest opposite economic actions and opposite moral judgments. At certain times one of the constellations may work toward extinguishing the other, but at other times it may help reinforce the other constellation through the controversy generated.

Note that these chapters are organized thematically, not chronologically, because the themes are relevant beyond the specific historical moment in which they occur. Our main goal is to extract common themes from these narratives that will help us recognize and anticipate the effects of future economic narratives.

Chapter 10

Panic versus Confidence

Since the early nineteenth century, a major class of narratives about confidence has influenced economic fluctuations: people's confidence in banks, in business, in one another, and in the economy. Economically, the most important stories are those about *other people's* confidence and about efforts to promote public confidence.

Among the earliest confidence narratives are those about banking panics—that is, whether we have confidence in the banks to make good on their promises. We mean not only public confidence in the morality of bankers and bank regulators but also confidence in banks' other customers, confidence that they will not all try to withdraw their money at once. Raymond Moley, one of President Franklin Roosevelt's "Brain Trust" experts during the Great Depression, put this idea into a simple narrative:

> A Depression is much like a run on a bank. It's a crisis of confidence. People panic and grab their money. There's a story I like to tell: In my home town, when I was a little boy, an Irishman came up from the quarry where he was working, and went into the bank and said, "If my money's here, I don't want it. If it's not here, I want it."[1]

This and other confidence narratives help us understand major events marking modern history.

Several classes of confidence narratives have characterized the history of the industrialized economies. The first class is a *financial panic narrative* that reflects psychologically based stories about banking crises. The second class is a *business confidence narrative* that attributes slow economic activity not so much to financial crises as to a sort of general pessimism and unwillingness to expand business or to hire. The third is a *consumer confidence narrative* that attributes slow sales to the fears of individual consumers, whose sudden lack of spending can bring about a recession. Figure 10.1 plots the succession of these narratives since 1800. All of these slow-moving narratives have shown growth paths that span lifetimes. Financial panic came first, followed by narratives about crisis in business confidence, followed by narratives of a crisis in consumer confidence.

As narratives spread about the dangers of business losses and decreased consumer confidence, increasing self-censorship of narratives may, and sometimes does, encourage panic. Because people are aware that others self-censor, they increasingly try to read between the lines of public pronouncements to determine the "truth."

Broad public interest in the idea that financial events might be related to psychology began in the early nineteenth century, continued after the panic of 1857 in the run-up to the US Civil War, and then grew over the decades. The phrase *financial panic* peaks on Google Ngrams in 1910, three years after the famous Panic of 1907. The financial panic epidemic was part of a narrative constellation that grew with it. Individual panics ebbed and flowed within the narrative constellation. A particularly strong narrative of the Panic of 1907 involved a celebrity—J. P. Morgan, the most prominent banker in the United States at the time—which made it last for decades. It stands out in Figure 10.1 as the highest point for public attention to financial panics.

Figure 10.2 shows the major US financial panics individually. For example, the panic of 1857 was mostly forgotten within a few years. It later returned as part of a narrative constellation about other panics. During the 1857 financial panic, news reports covered objective events like bankruptcies, bank runs, and suspensions, but they also referred to rumors and emotions. An 1857 newspaper article summarized the panic of that year:

> Brokers and others are highly excited, and circulate monstrous reports. . . . The general disturbance of the public mind makes it impossible to treat the subject coolly, or ascertain the views of the most reliable persons in the business community.[2]

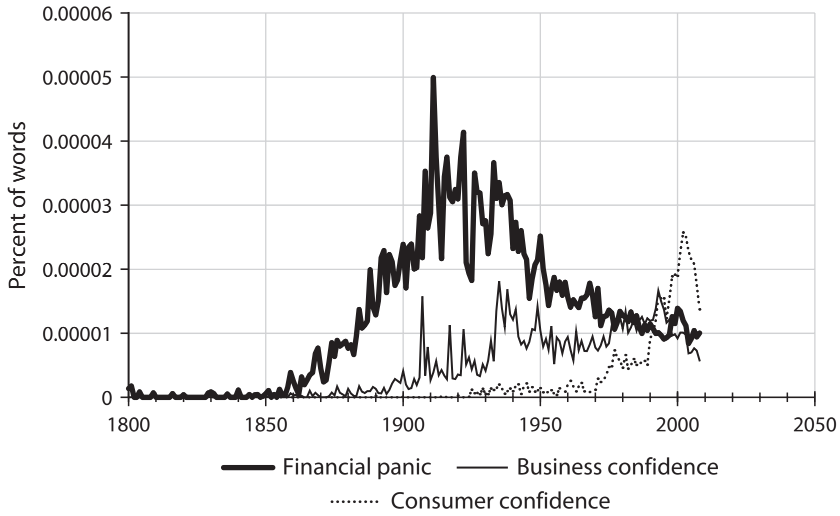

FIGURE 10.1. Frequency of Appearance of *Financial Panic*, *Business Confidence*, and *Consumer Confidence* in Books, 1800–2008
The figure shows three separate recurrences of the confidence narrative, but referring to different sectors, finance, business, and consumer. *Source*: Google Ngrams, no smoothing.

We must reflect on the prevailing nineteenth-century narratives, and associated views of the world, to understand why people and newspapers spoke of "panics" rather than "depressions" (in the modern sense of the word) and why they never spoke of consumer confidence. Contemporary narratives about financial panics mostly were viewed as stories about wealthy, pretentious people who had bank accounts and who perhaps deserved some of the disruption caused by a financial panic and its associated "depression of trade." In the eighteenth and nineteenth centuries, most people did not save at all, except maybe for some coins hidden under a mattress or in a crack in a wall. In economic terms, the Keynesian marginal propensity to consume out of additional income was close to 100%. That is, most people, except for people with high incomes, spent their entire income. So, to the spinners of narratives of these past centuries, there would have been no point in surveying ordinary people about their consumer confidence.

Most people then had no concept of retirement or sending their children to college, so they had no motivation to save toward these goals.[3]

If they became bedridden in old age, they expected to be cared for by family or by a local church or charity. Life expectancy was short, and medical care was not expensive. People tended to see poverty as a symptom of moral degradation and drunkenness or dipsomania (now called alcoholism), not as a condition related to the strength of the economy. So there was practically no thought that consumer confidence should be bolstered. The people saw the authorities as responsible for instilling moral virtues rather than building consumer confidence. The idea that the poor should be taught to save grew gradually over the nineteenth century, the result of propaganda from the savings bank movement. But contemporary thought was miles away from the idea that a depression might be caused by ordinary people heeding the propaganda and trying to save too much.

A few years after use of the term *financial panic* peaked, after the Panic of 1907, the United States passed the Aldrich-Vreeland Act (1908), which created national currency associations as precursors to a central bank, and a successor act, the Federal Reserve Act of 1913, which founded the US central bank, whose purpose was to provide a "cure for business panics."[4]

A powerful narrative at that time was the story of a celebrity, J. P. Morgan, widely considered one of the richest people in America. In the absence of any US central bank during the Panic of 1907, he used his own money for, and he prevailed on other bankers to contribute to, a bailout of the banking system. This saving of the United States from a serious depression was a truly powerful story, and Morgan's celebrity only grew. He later built his central office building at 23 Wall Street. Completed in 1913, it is still there today, though he died before he could occupy it. It was directly opposite the New York Stock Exchange (completed in 1903 and still functioning today) and across the street from Federal Hall, which was built in 1842 and replaced the original home of the Congress of the Confederation. George Washington was sworn in as first president of the United States on the steps of Federal Hall in 1789. Morgan chose to make his building strangely small and modest, befitting his public spirit. Thus Morgan emerged in the narrative as a central and model-worthy hero of America. The recovery of confidence after the Panic of 1907 was

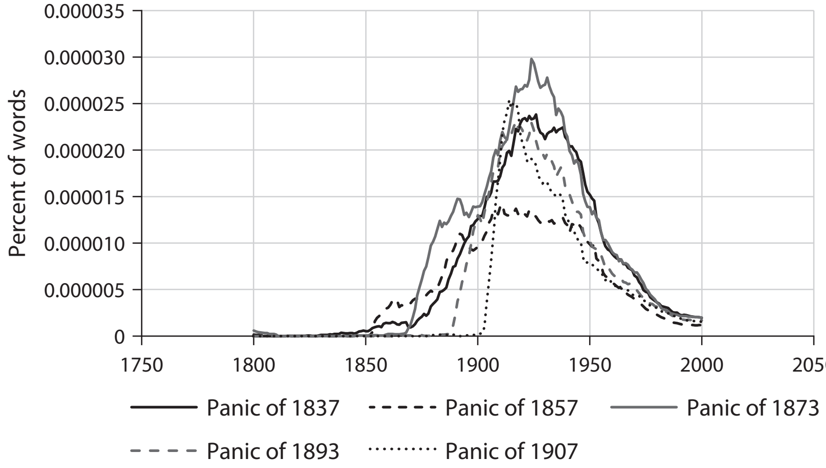

FIGURE 10.2. Frequency of Appearance of Financial Panic Narratives within a Constellation of Panic Narratives through Time, 1800–2000
Each major historical financial panic occurred in a different single year, but the frequency with which each is mentioned follows a multiyear pattern similar to the more general pattern for the phrase "financial panic" in Figure 10.1. *Source*: Google Ngrams (smoothing = 5).

in substantial measure confidence in one man. The Federal Reserve System was modeled after his 1907 consortium of bankers. In accordance with the narrative, the new central bank was technically owned by bankers, though it was created by the federal government. Every Federal Reserve chair since the founding of the Fed fits into the narrative as a J. P. Morgan avatar.

After 1930, the narrative mutated and spread in a different direction. Deficiencies of business confidence, and later consumer confidence, were associated more with despair than with sudden fear. By then, the word *depression* had also taken on another meaning: a psychological state of melancholy or dejection. So the increased use of "depression" to describe an economic contraction reflected a new psychologically based economic narrative of the time.

During the depression of the 1930s, George Gallup, the originator of the Gallup polls and a pioneer in public opinion measurement, became the first social scientist to survey business and consumer confidence using scientific polling methods.[5] Then, in the 1950s, psychologist George Katona at the University of Michigan began constructing an "Index of Consumer Sentiment." The Survey Research Center at the University of Michigan still produces this index, which Katona created in 1952. Later, in 1966, the Conference Board created a Consumer Confidence Index. Both of these indexes are based on questions that consumers answer about their impressions of the strength of the current and near-future economy. None of the questions used to construct these indexes asks respondents about the risk of a banking panic or a sudden stampede of investors, reflecting the changed narrative about business. But the change is not total, and financial panic narratives still have a chance to be rekindled, as we saw, for example, in the United Kingdom with the Northern Rock bank in 2007, the first banking panic there since 1866.

Crowd Psychology Goes Viral

Financial panic narratives have a strong psychological component, and a key concept here is crowd psychology. By the middle of the nineteenth century, Charles Mackay's popular 1841 book *Memoirs of Extraordinary Popular Delusions* began to attract public attention to crowd psychology. Gustave Le Bon popularized the term itself in his best-selling 1895 book, *The Crowd*. Crowd psychology began to become influential around that date and grew in an epidemic-like path, peaking in the early 1930s. The growing number of references to "crowd psychology" appears to have a parallel in the rising level of the booming stock market over the 1920s.

Closely related to the idea of crowd psychology is *suggestibility*, which refers to the idea that individual human behavior is subconsciously imitative of and reactive to others. The word, first seen in the late nineteenth century, appears to be pivotal in narrative constellations and in popular understandings of crowd psychology. *Suggestibility* and its relative *autosuggestion* (which means the practice of suggesting to oneself) follow a fairly standard epidemic curve, peaking around 1920 and mostly declining ever since (Figure 10.3). The concepts likely played a role in the economic exuberance of the 1920s and the depression of the 1930s.

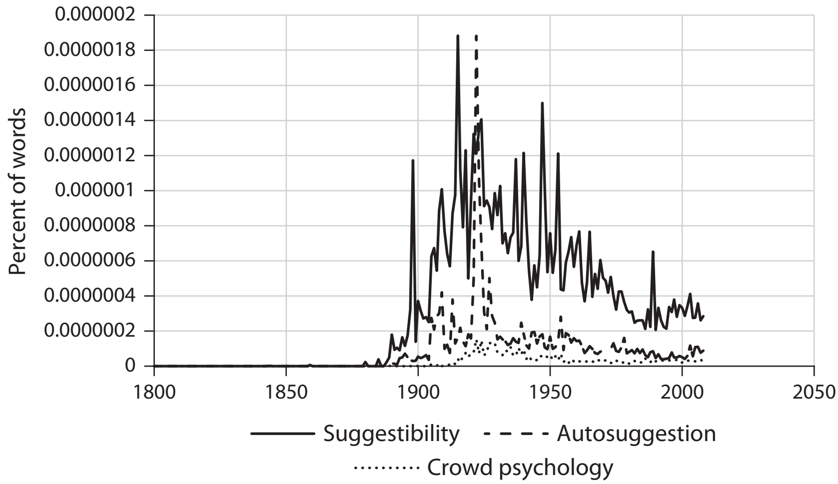

FIGURE 10.3. Frequency of Appearance of *Suggestibility, Autosuggestion,* and *Crowd Psychology* in Books, 1800–2008

This figure shows three recurrences of epidemics of confidence narratives with somewhat different embellishments and contexts. *Source*: Google Ngrams, no smoothing.

The idea that the human mind is suggestible is diametrically opposed to the concept of economic man who is a rational optimizer, who acts as if guided by careful calculations. Suggestibility implies that oftentimes we are acting blind or as in a dream. By 1920, the concept of suggestibility was widely known, indicating that people of that era may have felt that other people are easily influenced by abstract or subtle examples, and are therefore more likely to conduct their economic behavior expecting a highly unstable world. The narrative would lead them to expect herd-like behavior and perhaps to contribute to such behavior. If you think that other people are members of an impressionable herd, you may be more likely to try to anticipate the herd's movements and try to get ahead of them.

We can use the concepts of crowd psychology and suggestibility to understand depressions, such as the Great Depression of the 1930s. In doing so, we should look not only at the direct applications of these concepts but also at the ways in which people *think* that these concepts help explain the depressions. These were their concepts much more than ours.

The Psychology of Suggestion and the Autosuggestion Movement

Close to the beginning of the suggestibility epidemic, in 1898, *The Psychology of Suggestion* was published. The book, written by Boris Sidis, a colleague of psychologist William James, reported on experiments conducted at the Harvard Psychological Laboratory. Sidis defines suggestibility as follows:

> I hold a newspaper in my hands and begin to roll it up; I soon find that my friend sitting opposite me rolled up his in a similar way. This, we say, is a case of suggestion.
>
> My friend Mr. A. is absent-minded; he sits near the table, thinking of some abstruse mathematical problem that baffles all his efforts to solve it. Absorbed in the solution of that intractable problem, he is blind and deaf to what is going on around him. His eyes are directed on the table, but he appears not to see any of the objects there. I put two glasses of water on the table, and at short intervals make passes in the direction of the glasses—passes which he seems not to perceive; then I resolutely stretch out my hand, take one of the glasses and begin to drink. My friend follows suit—dreamily he raises his hand, takes the glass, and begins to sip, awakening fully to consciousness when a good part of the tumbler is emptied.[6]

The term *autosuggestion* came a little later than *suggestibility*, but it led to new expectations that one could manipulate not only oneself but also economic activity. Starting in 1921, the autosuggestion epidemic attracted widespread public interest. Emile Coué, a French psychologist who went on a book tour in the United States in 1922, was the most influential proponent of the autosuggestion movement. The key idea, attractive to so many millions, was that most of us are not successful because we do not believe we can succeed. To achieve success, one must repeatedly suggest to oneself that one will be a success. Coué advised people to recite frequently a key affirmation: "Every day in every way I get better and better." Napoleon Hill, whose varied career included motivational speaking, added to the self-empowerment narrative with his 1925 book, *The Law of*

Success in 16 Lessons and his 1937 best seller, *Think and Grow Rich*. He emphasized channeling the power of the subconscious mind to adopt a positive, wealth-building attitude.

The autosuggestion narrative was a mutation of an earlier hypnosis narrative that went viral over the few decades before the 1920s. That narrative described traveling hypnotists who put people into a trance. Those in a trance then showed immense suggestibility. According to the 1920 book *Success Fundamentals* by Orison Swett Marden:

> One reason why the human race as a whole has not measured up to its possibilities, to its promise; one reason why we see everywhere splendid ability doing the work of mediocrity, is because people do not think half enough of themselves. We do not realize our divinity; that we are part of the great causation principle of the universe. We do not know our strength and not knowing we can not use it. A Sandow could not get out of a chair if a hypnotist could convince him that he could not. He must believe he can rise before he can, for "He can't who thinks he can't," is as true as "He can who thinks he can." [Eugen Sandow, 1867–1925, was a muscleman and bodybuilder who amazed and inspired audiences with his feats.][7]

The autosuggestion movement started to peter out after 1924, but it appears to have had aftereffects. Notably, the highly successful 1935 pro-Nazi film *Triumph of the Will* by Leni Riefenstahl appears to borrow from autosuggestion. Hitler's appeal was based in part on the idea that he would inspire the German nation out of the depression into which it had sunk, despairing and insecure, in the wake of World War I. At the time, it was widely believed that the Depression resulted from a loss of confidence and that Germans needed a leader to restore the nation's confidence. Riefenstahl's movie depicts Hitler, in a speech before the adoring multitudes, saying, "It is our will that this state shall endure for a thousand years. We are happy to know that the future is ours entirely!" Hitler says, "It is our will," as if saying those words will magically turn Germany into the dominant world power.

Behind all this interest in the unseen force of confidence in human affairs was an analogy to the unseen force of air pressure on weather, and the possibility of forecasting both.

Forecasting the Weather, Forecasting Confidence in the Economy

Scientific weather forecasting was a phenomenal new discovery of the mid-nineteenth century. The science advanced shortly after two important inventions of the 1840s: the telegraph, which transmitted information about weather conditions in dispersed locations, and the practical barograph, which created a time-series plot of changes in air pressure. People were impressed by the new weather forecasts, which had (and continue to have) great scientific appeal. For example, in one famous story about the Crimean War, scientists in November 1854 concluded that two apparently separate storms were in fact one storm, enabling them to establish its trajectory and provide a forecast that saved the British and French fleets from destruction.[8]

Weather forecasting stimulated people's imagination as to what modern science could achieve. By the 1890s, newspapers routinely published weather forecasts daily. Such repetition ensures the strong epidemic potential of meteorology narratives. These narratives also suggest an analogy to economic forecasting: changes in public confidence seem analogous to shifting winds or air pressure. Indeed, people will say that recovery, pessimism, or some other inclination "is in the air." It seems natural for people to think that if the meteorologists can forecast the winds, then economists should be able to forecast recessions.

To the extent that the public believes economic forecasts of booms or recessions, there may be an element of self-fulfilling prophecy in the economic forecasts. People hear economists' pronouncements that a recession is imminent and thus postpone activities that might stimulate the economy. Conversely, because these scientists/economists note that past recessions have always ended, people may come to expect any given recession to end. Suppose, by analogy, that weather forecasters everywhere say that they have information to indicate that a certain region is in danger of bad storms, and that the danger from such storms typically lasts six months. People might therefore cancel many activities for six months, and economic activity might fall for six months. With economic forecasts of a recession, people might observe other people decrease their spending after the warning and take that as evidence of a storm of lost confidence.

The idea that economic fluctuations tend to repeat themselves follows an older scientific tradition that has had a prominent place in modern culture. For example, astronomer Edmund Halley noted in the year 1682 that comets sometimes appeared at intervals of 75.3 years. He hypothesized that the same comet was returning again and again, and he predicted it would be visible from Earth again in 1758. Halley was proven right, and to this day Halley's comet returns every 75.3 years, though the comet has faded so much that in its latest arrival in 1985–86 it was almost invisible. The story of Halley's comet is a great one that remains vivid in the popular memory. A constellation of narratives is now built around it, such as the story that Mark Twain, born in a Halley's comet year, predicted his own death 75 years later when Halley's comet returned again.

The earliest ProQuest News & Newspapers mention of the *business cycle* came during the depression of 1858, and it appeared alongside a reference to weather:

> Some, claiming to be learned in meteorology, say the seasons ran in decades: it seems also that there is a sort of business cycle of the same length of time; and it happens very fortunately that the decimal panic comes at the same time with the mildest winter. Whether this is a coincidence or a providence, or whether it is a fact at all, I leave for others to decide.[9]

The idea that business fluctuations are a repetitive cyclical event with a wavelength of a decade, or any other identifiable fixed interval, has become less popular with economists, but the narrative that recessions and drops in confidence are somewhat periodic and forecastable remains entrenched in popular thinking.

Weather forecasting also inspired the idea that there ought to be statistically documented leading indicators of future economic fluctuations. Within a decade after the 1929 stock market crash that preceded the Great Depression, Wesley C. Mitchell and Arthur F. Burns in 1938 pioneered the leading indicators approach to economic forecasting, which encourages people to move into precautionary mode in their economic decision making after a decline in the stock market, thus possibly creating the very recession that was forecast.[10] Leading indicators today include the Department of Commerce's *Business Conditions Developments* (now melded into the *Survey of Current Business*), the Conference Board's *Composite Index of Leading Indicators,* and the OECD's *Composite Leading Indicators*. A ProQuest or Ngrams search for the term *leading indicators* shows that the idea has undergone a long slow epidemic starting around the 1930s and is still going strong.

Confidence as a Barometer for the Economy

Just as we can measure air pressure, we should be able to measure confidence. In addition, unlike air pressure, confidence might be subject to influence, in which case good patriots are morally obligated to support public confidence. Indeed, Calvin Coolidge, the president of the United States from 1923 to 1929, took it upon himself to boost public belief in the economy and in the stock market.

There was great controversy over Coolidge's reassurances, sometimes called the "Coolidge-Mellon bull tips." In a 1928 *Atlantic* article, Ralph Robey identified a pattern: practically every time the stock market declined significantly or the public decried speculators' high level of borrowing to purchase stocks, either President Calvin Coolidge or Treasury Secretary Andrew Mellon made a very optimistic statement about the market or denied any problem with overspeculation.[11] Robey doubted that there was any rational basis for Coolidge's and Mellon's optimism, which he interpreted as an effort to maintain public confidence in the stock market.

The Coolidge-Mellon bull tips may have been part of the administration's attempts to mollify the influentials who feared any disturbance of investor confidence. A 1928 article in the *Wall Street Journal* observed:

> Chief executive of one of our leading industrial corporations was discussing the market with some friends not long ago. "I am bullish on our own stock for the immediate pull," he remarked, "and I would like to take on a line of the stock. I do not speculate, so of course the stock would be put in my name. The trouble is selling it. I have all I want to carry for the future but if I sold any stock the employes would soon hear of it and they are in most instances shareholders and it might not only disturb them but actually give them a hint to get out of their investment holdings. Hence I leave what I know to be a good quick thing alone."[12]

The market crashed in October 1929. Eight months earlier, in February 1929, the Federal Reserve Board had warned that the Federal Reserve would not support banks that loaned into a rising market. It qualified its statement by noting that it "neither assumes the right nor any disposition" to pass judgment on "the merits of a speculation," but the investing public read between the lines and reacted intensely and immediately.[13] The *Washington Post* reported on a "hectic battle between the Federal Reserve and Wall Street," with Wall Street largely of the opinion that the Federal Reserve should mind its own business.[14] On August 9, 1929, just two and a half months before the crash, the Federal Reserve Bank of New York raised its rediscount rate (the rate at which it lends to banks). Never before in the nation's history had there been a government authority with a mission that could be interpreted as stabilizing the stock market. The narrative of the "battle" between Wall Street and the Fed probably added to the contagion of stories that attached great importance to the stock market crash of 1929 in the following months. It also led to a widespread impression that people in the know were sensing overspeculation.

After the crash, disillusionment with prognostications by public officials, businesspeople, and journalists intensified. In 1930, one observer said, "Unfortunately, there appears to be a strong tendency among writers on business subjects to put out nothing but optimistic statements and to avoid all discussion that might be construed as pessimism."[15] In 1931, Alexander Dana Noyes, the financial editor of the *New York Times*, noted, "Men of affairs, when they affix their names to New Year Day prophecies, will seek for a hopeful side and so exclude any disagreeable offsets."[16]

At the same time, no one wanted to be accused of shouting fire in a crowded theater, worsening the public's fears and possibly causing a stampede out of the markets. The original narrative of a fire in a crowded theater goes back to about a half century before the crash, to 1884, as reported in the *New York Times*:

> The curtain rose in a crowded house at the performance of "Storm Beaten" in the Mount Morris Theatre, in Harlem, on Tuesday night. The fire scene was being enacted, when the cry of "Fire!" three times repeated rang through the building. Many blanched faces were visible in the audience but the continuance of the play gave reassurance and a panic, which was imminent, was averted. . . . A youth named Francis McCarron, residing at No. 2,446 Fourth-avenue, was pointed out by Louis Eisler as having caused the alarm, and the Roundsman and Policeman Edmiston took him into custody. . . . Justice Welde sent him to the Island for one month.[17]

The "fire in a crowded theater" narrative did not seem to catch on right away, however. Later, the narrative was mentioned in a 1919 Supreme Court opinion written by then Justice (later Chief Justice) Oliver Wendell Holmes, Jr. It thus became connected with a celebrity. The narrative started to pick up a little in the 1930s, and then went viral after that.

Throughout the 1930s, the idea took root that the Great Depression resulted from an epidemic of "reckless talk" by opinion leaders who were oblivious to its psychological impact.[18] In reality, though, prominent people seem to have been very aware of the possible psychological effects of their talk, which led to the creation of another narrative: thought leaders were now so worried about their talk inciting fear that the public began to assume a general bias toward false optimism. In other words, John Q. Public believed that thought leaders were trying to sound optimistic and that the listener had to correct for that overconfidence. It is easy to see how expectations may have become much more volatile in such an environment.

In keeping with earlier narratives of panic, many people also saw the Great Depression as a stampede or panic. When people saw other people running from the Depression, their fears made them run too. This sense of fear took strong hold on the public imagination. Yale economics professor Irving Fisher wrote in 1930:

> The chief danger, therefore, did not inhere in conditions at all. It was the danger of fear, panicky fear, which might be communicated from the stock market to business. "My only fear is the fear of fear" are the words of a courageous man.[19]

Thomas Mullen, assistant to Mayor James Curley of Boston, made a similar statement in 1931:

> I believe the only thing we need to fear is fear itself.[20]

Later, in 1933, the worst year of the Great Depression, President Franklin Roosevelt said in his inaugural address,

> So, first of all, let me assert my firm belief that the only thing we have to fear is fear itself—nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance.[21]

Thomas Mullen was not a celebrity, but President Roosevelt was. So Roosevelt went viral as the originator of the idea, taking credit for an idea that sounded right because it had already been repeated many times. This articulation of the fear of fear itself may today be Roosevelt's most famous quote,[22] and ProQuest News & Newspapers shows that it was used even more frequently in the first decade of the twenty-first century than it was in the 1930s.

But viral narratives are not easily controlled, and they may have unintended effects. Describing everyone as fearful and emphasizing the need for courage may create some patriotic resolve not to be fearful. At the same time, such exhortations make it doubtful that others will truly cast aside their fear. Thus identifying the problem as one of fear may only worsen the problem.

Other narratives of the 1930s focused on ending up in a poorhouse so overcrowded that one had to open a cot every night to sleep among many others in a common area and to fold up the cot every night to yield the floor space to other activities.[23] There were also narratives of getting sick and having no money to pay a doctor.[24] Even if these narratives were exaggerated, they reduced willingness to spend on anything but the barest necessities. As a result, people neglected routine dental work to conserve money, ultimately leading to painful dental emergencies.

Roosevelt also offered moral reasons to spend. Days after his inauguration in 1933, he took the unusual step of addressing the nation by radio during a massive national bank run that had necessitated shutting down all the banks. In this "fireside chat," he explained the banking crisis and asked people not to continue their demands on banks. He spoke to the nation as a military commander would speak to his troops before a battle, asking for their courage and selflessness. Roosevelt asserted, "You people must have faith. You must not be stampeded by rumors or guesses. Let us unite in banishing fear."[25] The public honored Roosevelt's personal request. The bank run ended, and money flowed into, not out of, the banks when they reopened.

We are still influenced by this narrative constellation. Although the overall narrative has not been powerful enough, or not used well enough, to prevent recessions, it remains in our consciousness and may reassert itself if conditions change. Meanwhile, we are now in the habit of listening to the stock market's closing price at the end of every business day, often interpreting it as an indicator of public confidence. We also follow the various monthly confidence indexes, not because economists urge us to, but because we are still subject to the old narratives suggesting that public confidence can break as suddenly as a shout of fire in a crowded theater.

Narratives Focused on Mass Unemployment

We can look for lists of the causes of the Great Depression created during the Great Depression. These stated or speculated causes tend to correspond to events whose confluence brought on the Depression. For example, Willard Monroe Kiplinger, the founder of today's Kiplinger publications, offered the following list of causes in 1930, early in the Depression:

> The causes of unemployment are loosely stated as follows:
>
> 1. The development of machines which do the work of many men under the direction of a few men; this is the technological aspect.
> 2. The overloading of industrial centres with men attracted or driven by circumstances from farms to cities.
> 3. The entrance of women into jobs formerly held by men.
> 4. Immigration, which is now less of a factor in unemployment than years ago.
> 5. Business depression, which is such a broad subject as to include both causes and effects of unemployment.
>
> These are pretty theories, and there is a large element of truth in each of them, particularly the first, relating to the development of labor-saving machinery. The point needing emphasis is, however, that no one of them supplies an answer, nor even all five, for all have ramifications that have never been studied or explored by qualified authorities.[26]

Only one of Kiplinger's five causes would come to mind today in our current popular narrative of the Great Depression: the business depression, which today most would say is related to loss of confidence. But Kiplinger published his list in 1930, and as the Great Depression wore on, more and more people began to think of it as driven by a loss of confidence.

Kiplinger's list refers to facts, not to narratives, but we can suppose that each of the five causes corresponds to a popular narrative of 1930 and thus is connected to other narrative constellations that are difficult to study. It is worth noting that some or many of these narratives probably had a long-term orientation, implying that the Great Depression would go on forever.

As the 1930s wore on, the Great Depression narrative began to be infected with stories of the environmentally catastrophic Dust Bowl in the central United States, the sequence of storms from 1934 to 1940 that hit Oklahoma, Kansas, Colorado, and Texas, blowing off improperly managed dried topsoil and destroying farms. John Steinbeck's 1939 novel *The Grapes of Wrath*, which chronicled the travails of a family of migrant farm workers, helped to cement the association between the Great Depression and the Dust Bowl. *The Grapes of Wrath* was a best seller, later made into a 1940 movie starring Henry Fonda. The book won the Pulitzer Prize, the National Book Award, and the Nobel Prize in Literature, and it has been assigned to US high school and college students ever since. It is part of the constellation that has driven the Great Depression narrative.

In her photographic record of the Great Depression, Dorothea Lange gave us memorable photos of poverty-stricken people in the Dust Bowl. Along with Lange's stark portraits, photos of drab despondent men standing in a breadline; a man selling five-cent apples, stacked neatly on a small wooden box or table on a city street; people lining up outside banks; and life in a Hooverville (shantytown) provide us with a visual memory of the Depression today.

The 1930s represented a turning point in economic measurement. Until then, no statistics reliably measured unemployment. The national census of the United States had provided numbers of people working and not working, but those not working included the elderly, the sick, those pursuing an education, stay-at-home mothers, and vacationers. By the 1930s, the statistics began to focus on the *unemployment rate*, which measures employment based on the size of the labor force, not on the size of the population. Since the end of the Great Depression, the monthly announcement of the unemployment rate may have encouraged thinking that we may be at risk for a repeat of that event. We can see the rise of the term *unemployment rate* sharply in Google Ngrams, though a significant increase did not occur until after 1960.

It may seem odd that the term *unemployment rate* did not receive more coverage in the 1930s, but the lack of coverage may reflect the public's lack of familiarity with its quantitative representation. They did not yet clearly differentiate between involuntary unemployment and laziness and pauperism. In contrast, today's narratives focus on blameless unemployment, the unemployment of those sincerely trying to find a job.

A Different Narrative of the Great Depression Develops

The narrative of the Great Depression as it stands today would likely mention few of the causes that Kiplinger and others enumerated as it was happening. Instead, people today tend to identify the causes of the Great Depression as fear and a loss of confidence related to bank failures. Bank failures (and shadow-bank failures) were key narratives in the "Great Recession" of 2007–9. In his 1930 list, Kiplinger did not even mention bank failures, most of which happened after 1930.

Some modern theories that seek to explain the extreme length and depth of the Great Depression without relying directly on any of these narratives seem plausible. Harold L. Cole and Lee E. Ohanian (2004) argue that the 1933 National Industrial Recovery Act, which imposed "codes of fair competition" in an effort to combat the Great Depression, actually prolonged the Depression. (The act was in response to another narrative about inadequate purchasing power, described in chapter 13, below.) The act made it easier for businesses to form cartels and more difficult for them to cut wages. Although the Supreme Court declared the act unconstitutional in 1935, Cole and Ohanian argue that the Roosevelt administration managed to keep the codes in effect. In addition, the initial period of high unemployment led to continued high unemployment because the remaining employed labor became "insiders" while those laid off became "outsiders." As Assar Lindbeck and Dennis J. Snower[27] have argued, the insiders tend to band together and ask for higher wages when demand increases, rather than ask for the laid-off "outsiders" to be rehired.

Other theories have merit too. Economic historians Barry Eichengreen and Peter Temin have argued that the length and pain of the Great Depression were related to the unthinking national commitment to the gold standard despite changes in labor markets that made wages more downwardly rigid. They have shown that countries that abandoned the gold standard earlier recovered better.[28]

Milton Friedman and Anna J. Schwartz in their *Monetary History of the United States* had blamed the Great Depression on the Federal

Reserve and its control of the money supply. But Eichengreen and Temin argued that declines in the US money supply were mostly caused by the economy, not the Fed. Declines in the money supply were triggered in part by the bank runs that were caused by the same feedback that created the Great Depression. In effect, Friedman and Schwartz argued that the Fed would have done better if it had offset these declines. Temin also observed that Friedman and Schwartz indicated no substantial correspondence between the bank runs and measures of economic activity.

These economists tell only part of the story of the severity of the Great Depression. The comedian Groucho Marx offered a more entertaining, popular account of the Great Depression. According to his autobiography, published in 1959, Groucho was in his early thirties in the late 1920s, making good money as an actor in popular vaudeville stage shows. He recalls:

> Soon a much hotter business than show business attracted my attention and the attention of the country. It was a little thing called the stock market. I first became acquainted with it around 1926. It was a pleasant surprise to discover that I was a pretty shrewd trader. Or at least so it seemed, for everything I bought went up. . . . My salary in Cocoanuts was around two thousand a week, but this was pin money compared to the dough I was theoretically making in Wall Street. Mind you, I enjoyed doing the show, but I had very little interest in the salary. I took market tips from everybody. It's hard to believe it now, but incidents like the following were commonplace in those days.[29]

Groucho goes on to describe a number of tips that he and his brothers overconfidently bet on: a tip from the elevator man, a Wall Streeter, his theatrical producer, and someone he met on a golf course. He views the whole experience as a great "folly" and struggles to understand his own participation in it. Ideas about the craziness of the Roaring Twenties and the Great Depression became legendary through the persuasive accounts of good storytellers like Groucho Marx, who had much more public influence than economists.

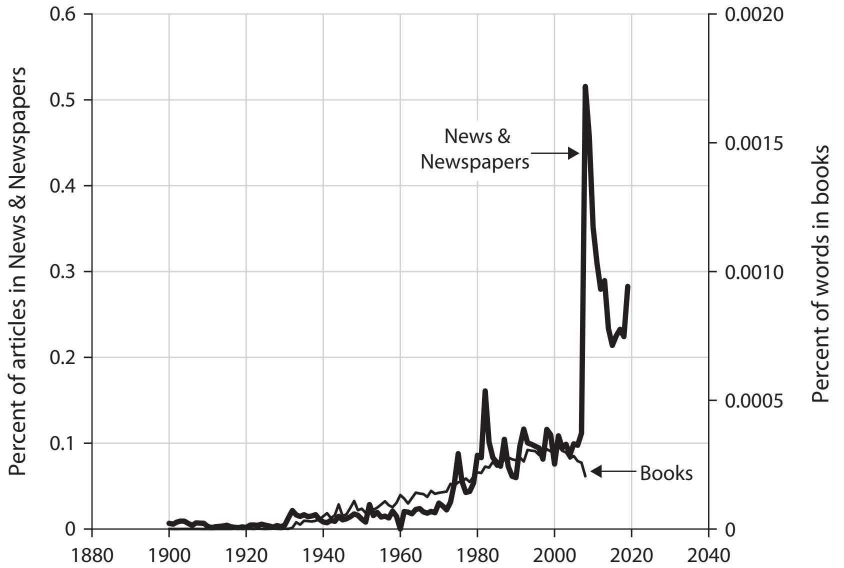

FIGURE 10.4. Frequency of Appearance of *Great Depression* in Books, 1900–2008, and News, 1900–2019

The narrative of the Great Depression has been a long-lasting epidemic that outlasted the Depression itself by many decades. *Sources*: Google Ngrams, no smoothing, and author's calculations from ProQuest News & Newspapers.

In fact, attention to this story has largely kept growing and growing. Figure 10.4 suggests that far more attention was paid to the Great Depression in 2009 than during the Great Depression itself, though we must understand that people hadn't named the economic downturn the "Great Depression" as it was happening. Instead, they called it "hard times." Other Depression-linked narratives of the period were associated with words unusual to that period, such as *breadline*, whose use grew rapidly from 1929 to 1934 and has decayed fairly steadily ever since. The interest in the Great Depression in 2009 is confirmed in Google Trends search counts as well, though not as dramatically as those shown in Figure 10.4.

Ultimately, how do narratives of the Great Depression affect how we think about economic downturns today? Consider a narrative-based chronology of the 2007–9 world financial crisis, which taps into stories about nineteenth-century bank runs that were virtually synonymous with financial crises. After the Great Depression, bank runs were thought to be cured. The Northern Rock bank run in 2007, the first UK bank run since 1866, brought back the old narratives of panicked depositors and angry crowds outside closed banks. The story led to an international skittishness, to the Washington Mutual (WaMu) bank run a year later in the United States, and to the Reserve Prime Fund run a few days after that in 2008. These events then led to the very unconventional US government guarantee of US money market funds for a year. Apparently, governments were aware that they could not allow the old stories of bank runs to feed public anxiety.

In the heart of the 2007–9 recession, the Great Depression narrative may have intertwined with bank run narratives to create this popular perception: "We have passed through a euphoric, speculative, immoral period like the Roaring Twenties. The stock market and banks are collapsing now as they did in 1929, and the entire economy might collapse again, as it did in the 1930s. We might all lose our jobs and crowd around failed banks in a desperate attempt to get our money."

In short, the Great Depression and its causes (after a period of euphoria, loss of confidence) remain a powerful narrative. The Great Depression was a traumatic period in the nation's history that is constantly on people's minds as they listen to other narratives regarding what may happen next. Far less remembered than the confidence and fear constellation of stories is a different constellation that was also prominent in the minds of people who lived during the Great Depression: narratives about modesty, compassion, and simple living. These narratives are mostly in remission and as of this writing have been replaced by success narratives that justify conspicuous consumption, as we discuss in the next chapter.

Chapter 11

Frugality versus Conspicuous Consumption

Frugality and an impulse to maintain a modest lifestyle have roots going back to ancient times. Sumptuary laws in ancient Greece and Rome, as well as China, Japan, and other countries, forbade excess ostentation. Stories about the disgusting flaunting of wealth are one of the longest-running perennial narratives, in many countries and religions. Opposing these frugality narratives are conspicuous consumption narratives: to succeed in life, one must display one's success as an indication of achievement and power. The two narratives are at constant war, with modesty relatively strong during some periods and conspicuous consumption dominant at other times. Both are important economic narratives because they affect how people spend or save, and hence they influence the overall state of the economy. In fact, these narratives can have profound economic consequences that economists and policymakers would not necessarily anticipate.

Frugality and Compassion in the Great Depression

During the Great Depression in the 1930s, frugality narratives were particularly strong amidst the perception of widespread involuntary unemployment. They were also a reaction to the perceived excess of the 1920s, which we can see by the rapid growth then of the phrase *keep up with the Joneses*, generally used to disparage people who think that, to keep up appearances, they have to buy everything that their successful neighbors buy. Indeed, the use of that phrase grew most rapidly during the 1930s. It is difficult to find accounts of depression-induced modesty in the era before the Great Depression.[1] The "new modesty" stayed high during World War II and into the 1950s, and then started to decline.

The new modesty that coincided with the Great Depression and World War II evolved out of the strong narrative that people were suffering through no fault of their own. They lost their jobs because of the Depression, and some lost their lives later because of the war. Maybe your Jones neighbors were doing very well, but your Smith neighbors were having a terribly difficult time, like so many other families during the Depression. A huge constellation of human tragedy narratives prevailed through word of mouth among friends and neighbors, stories of families out on the street after the father lost his job and defaulted on his mortgage and lost the home, through no fault of his own. Under such conditions, the reasonable response even for people who still had a job was to postpone buying a new car, throwing lavish parties, and keeping up with expensive fashions. Such self-imposed austerity helps to explain the severe contraction at the beginning of the Depression as well as the contraction of consumer purchases during World War II.

Depression-Era Narratives in Their Own Words

The talk of the time reflects the dominant narrative. Here is a Depression-era letter to the *Boston Globe*'s "Household Department—Where Women Help Women—Confidential Chat" column, a sort of Twitter, Weibo, or Reddit from another era, where women would write and advise one another under pseudonyms. The following letter appeared in March 1930, six months after the 1929 stock market crash:

> Dear Mikado—In one of your recent letters asking for a budget you said that your savings had been wiped away in the recent financial crash, so I am addressing this letter to you as we surely have something in common, only in my case we not only lost what we had but are deeply in debt as a result.
>
> However, my problem is this: we can pay back this money in about 10 years if we continue to live practically as we are now living, that is, in our present home, by practicing rigid economy. Of course we could

> move to a cheaper house, live on only the bare necessities of life and get out of this debt sooner, but what I would like you, Lanceolata, and any of the other sisters who will write to tell me whether you think it wise to do this. . . .
>
> I am afraid to move, for I fear the moral effect on us. Our standard of living will be lowered and I am afraid to think of the readjustment and the effect of such a move on our spirits, our courage and outlook on life. This may not seem very brave, but unless one has been through such a period it is hard to realize the strain and the worry and hard to keep a calm outlook on life . . . Chryold.[2]

When one has neighbors like Chryold, who are desperately hanging on, showing off with extravagant consumption would be seen as deeply unempathetic. It is noteworthy that the writer introspectively refers to "our spirits," which calls to mind Keynes's idea that depressions are caused by declines in "animal spirits." Her decision whether to sell the house is framed in such psychological terms: she has to manage her family's spirits. Managing people's spirits was an important theme of the era's talk, from the common American to the nation's leadership, from individual heads of households to the president of the United States, Herbert Hoover, who spoke optimistically and encouraged optimistic talk in others.

It seems highly likely that Chryold's family and many other families in a similar (or worse) situation would postpone buying a new car. Realistically, the children in each family would receive almost no signal that the family is in financial trouble if their parents postpone the purchase of new car. However, they *would* notice canceled vacations and canceled trips to the movies.

Indeed, concerns about family morale became a new epidemic after 1929, peaking in 1931 but staying high for the rest of the Great Depression. (There had been an earlier rush of stories about family morale during the 1920–21 depression also.) The rising divorce rate was attributed to the loss of morale, especially the shame of a father who was unable to find a job.[3] People considered this loss of morale as a new long-term problem in the making, a problem that might become increasingly significant in the future. A women's group in 1936 asserted:

> The family is the unit upon which our whole American system of living is built. . . . Any collapse now of its morale or loss of its solvency will have a disastrous effect on posterity.[4]

This narrative justified postponing unnecessary expenditures while maintaining an attitude of normalcy, but in doing so it contributed to prolonging the economic depression. It also offered a reason for families not affected by the Depression to avoid conspicuous consumption, in deference to the perceived suffering of other families and the outlook for more of the same. Newspapers offered suggestions for maintaining the family morale without spending much:

> Frequently, if resources are at a low ebb, much may be done by rearranging the furniture, changing the positions of heavy pieces (always being careful to maintain a perfect balance in the room) and moving pictures into different spaces. Many a woman by dint of some ingenuity along this line, has secured all the benefits of a trip without leaving her own four walls. Her outlook on life has been cleaned and pressed, in a manner of speaking.[5]

Listening to people's stories of the Great Depression in their own words also offers striking insights. In *Only Yesterday* (1931), Frederick Lewis Allen spoke of a more modest countenance and deeper religiosity, of "striking alterations in the national temper and ways of American life. . . . One could hardly walk a block in any American city or town without noticing some of them."[6] Rita Weiman, an author and actress, described the change too, in the *Washington Post* in 1932, comparing the Great Depression with the 1920s:

> During those years of inflation, when we were right on the edge of a precipice all the time, we lost our sense of perspective. We spent fabulous sums for objects and pleasures out of all proportion to the value received. If it cost a great deal of money, we promptly came to the conclusion that they must be good. . . . Take the matter of home entertainment. Many of us had almost forgotten how much fun it can be to gather friends around one's own table. Any number of us suffered from "restaurant digestion."[7]

The Great Depression became a time of reflection about what is important in life beyond spending money. Writing in the United Kingdom in 1931, columnist Winifred Holtby asked:

> In other words, can we not use this period to get rid of a little snobbery and bunkum and live lives dictated by our own tastes instead of our neighbours' supposed notions of "what is done"? With so much to do, and a world so rich in experience, must we shut ourselves up into little genteel compartments in which we all adopt the same arbitrary standards, wear the same things, eat the same things, and produce the same sad monotony of "appearances"? . . . Can we not remember the wisdom of Marie Lloyd's old song, "It's a little of what you fancy does you good!"?—not a little of what you fancy your neighbours will fancy that you ought to fancy. Can we not dare to be poor?[8]

In 1932, near the lowest ebb of the Great Depression, Catherine Hackett, another writer, explained her view of the new morality in the Great Depression:

> In the old Boom era I could buy a jar of bath salts or an extra pair of evening slippers without an uncomfortable consciousness of the poor who lacked the necessities of life. I could always reflect happily on the much-publicized day laborers who wore silk shirts and rode to their work in Fords. Now it was different. The Joneses were considered to be callous to human misery if they continued to give big parties and wear fine clothes.[9]

Despite such narratives, it appears that some dimensions of the "hard times" of the Great Depression were a desirable improvement over the 1920s. Anne O'Hare McCormick, a Pulitzer Prize–winning journalist for the *New York Times*, wrote in 1932:

> There are times when the complacency, the rugged selfishness and the greed for hokum of one's compatriots are hard to bear. This is not one of those times. At the bottom of the market we are much nicer than we are at the top. Main Street in a depression is the most neighborly street in the world. It is a very patient thoroughfare.[10]

In addition, it was noted during the Great Depression that there was no increase in crime despite the high rate of unemployment.[11] Perhaps this phenomenon was related to the increase in "neighborly" and "patient" sentiments that softened the sense of personal failure created by unemployment that might otherwise have led to crime.

Though the streets may have become more neighborly, the human misery was palpable on the street corners. In the early 1930s there was "a perfect epidemic of pan-handling and street begging."[12] In 1932 the *Washington Post* reported, "Panhandlers have become especially active during the depression. They find that people who do not believe in giving to professional beggars are especially soft-hearted at present."[13]

An epidemic of apple sellers, starting in New York City in the fall of 1930, spread nationwide.[14] The sellers were practically admitting that they were beggars, often displaying signs saying "Unemployed" or "Eat an apple and help me keep the wolf away."[15] In effect, they were begging, but selling the apples made them look more reputable and approachable. Newspapers also carried stories of crimes committed by beggars who hadn't received the requested alms, so their presence created an atmosphere of fear, which surely discouraged conspicuous consumption.[16]

Beyond the visible beggars there were narratives about the internal struggle of others not visibly unemployed. Benjamin Roth, a lawyer, wrote in his personal diary on August 9, 1931:

> Most professional men for the past two years have been living on money borrowed on insurance policies, etc. The only work that comes in now are impossible collections on a contingent fee basis. Everybody is digging up old claims and trying to realize on them. Tempers are short and people are distrustful and suspicious. There is nothing to do but work harder for less money and cut expenses to the bone.[17]

But, mostly, the fundamental change was an atmosphere of collective sympathy, like the feeling in the wake of a shared tragedy. This atmosphere explained people's willingness to work for a contingent fee or to buy apples on a street corner even when they were not in the mood for an apple. However, by stopping any conspicuous consumption, they inadvertently worsened the Depression.

Street begging was not limited to the United States. In Germany, where the unemployment rate was even higher than in the United States, there was a striking rise in panhandlers and in unemployed youths involved in crime in the years just before Adolf Hitler came to power. The higher crime and unemployment rates help explain Hitler's appeal to many voters.[18] After his election in 1933, Hitler dealt with the problem by imprisoning German panhandlers and homeless people in concentration camps.[19]

Meanwhile, much of the world had embraced the frugality narrative. Film critic Grace Kingsley noted in 1932 that motion pictures had become less interested in luxury:

> Due to depression and its effect on the public producers are soft-pedaling luxury display in their pictures. Whereas heretofore the heroine appeared to live in the public library building, so vast was her domicile, now smaller rooms are shown and display of wealth is not nearly so lavish. . . . And now the elegant Richard Barthelmess and the exotic Marlene Dietrich are scheduled for roles in simple stories of home life.[20]

These movies offered scripts for living. People may find themselves not ever consciously deciding to consume less but consuming less out of pure subconscious suggestibility.

Church sermons also inveighed against the display of wealth, as reported in a newspaper article in 1932:

> In this time of depression, publicly displayed extravagance is an offense, the Rev. Dr. Minot Simons, pastor, asserted yesterday in his Christmas sermon in All Souls Unitarian Church.

The article further quotes his sermon:

> I hope that any one tempted to splurge in costly rejoicings will get that thought that they would be in bad taste. . . . Such things always stir a profound resentment, and this Winter such resentment must not be stirred.[21]

Note that the argument here is basically moral, not an appeal to self-interest.

As Anne O'Hare McCormick had noted when writing about Main Street, USA, people's attitudes toward one another had changed. They became concerned about managing others' perceptions of them. The *Washington Post* observed that the conclusions one might draw about others' status and human worth from observing their frugality had changed entirely:

> And then the mode turned a handspring, as so often happens, and poverty was chic! "I cannot afford it," was said brazenly, even boastingly—because didn't this imply that one had lost lots of money in stocks and things. Whether one had had any or lost any, of course.[22]

Indeed, during the Great Depression, people took (and still sometimes take even today) a strange pleasure in telling Depression hardship and loss stories about themselves, their relatives, and their friends. The narrative has moral dimensions. Because their poverty was not their fault, there was no shame in it; and there was a dignity in sympathizing with those who suffered. In addition, the "sin" of enjoying riches amidst poverty was more immoral when one had long-unemployed neighbors who were barely getting by.

New Modesty Crazes

The "poverty chic" culture spurred new crazes in the 1930s. The bicycle craze was notable: many people began riding bicycles to work or to go shopping in urban environments. Department stores installed bicycle racks for their patrons.[23]

The bicycle craze arose partially from the desire to postpone buying a new car. Those who already owned a car decided to keep the car going rather longer. Those who did not own a car decided to continue taking public transportation as they always had, or to ride a bike. Why did people postpone their car purchases? Being unemployed was one key reason. Another was thinking that they *might* become unemployed.

A 1931 sound movie, *Six Cylinder Love,* based on a play produced during the depression of 1920–21, shows some of the complexities involved in a man's decision to buy an expensive car. As a result of that decision, his wife and daughter are transformed into extravagant spenders, and the family also attracts sponging friends who believe that they are rich because they own a pricey car. The movie plot itself became part of a narrative constellation about the consequences of extravagant purchases. Seeing your neighbor unemployed, and hearing stories of desperation and struggle, made it obvious to many that you should not buy a new car this year. A 1932 article in the *Wall Street Journal* also noted the anti–conspicuous consumption motive for delaying a car purchase:

> One serious but not easily discernible obstacle is now blocking the exercise of their spending power by those who have it and are capable of using it judiciously in the benefit of industry. This is the widespread fear of being considered ostentatiously extravagant. . . . It is no mere guesswork that asserts such a handicap upon efforts to revive trade. The automobile industry, for one, has proved its reality on an extended scale by gathering conclusive evidence that important numbers of people with money and the actual need of a new car are denying themselves through fear of neighborhood criticism. A new species of sales resistance is among the "psychological" products of depression, namely, the haunting doubt whether or not ownership of a new car may be, or may seem to others, an indecent display of affluence.[24]

The *Wall Street Journal* makes an excellent point. A "visibility index" of consumption categories, created by Ori Heffetz, seeks to measure how much other people notice consumption expenditures. The index ranks automobiles as the second most visible consumption category, out of thirty-one categories, second only to cigarettes.[25] If you no longer want to look rich, skipping a new car might be the best thing to do.

The feedback loop soon became apparent: some people postponed buying a car or other major consumer items, which led to loss of jobs in the auto and consumer-products industries, which led to more postponement, which led to a second round of job loss, and so on for several years. The numbers tell the tale: sales of new cars by Ford Motor

Company, which had adopted many labor-saving mass-production machines, fell 86% from 1929 to 1932.

Why was the feedback loop so severe, and why did it happen when it did? To answer these questions, we have to look more closely at the underlying narratives. In the home, there was trouble with the sudden increase in leisure. One anonymous woman wrote to *Confidential Chat* in 1932:

> Dear Globe Sisters—May I come to this wonderful column with my problem? I have been married six years and have two children. We were married when quite young and unfortunately my husband had no special trade. I worked, too, but when our first baby was born I had to quit. I got him to take a course to advance himself and I paid for this, also all expenses connected with the baby and our living expenses while he was not working. He worked steadily until a year ago and then like so many others he was laid off. Since then he has had only a few days now and then. I could not work last Summer, as my second baby was only a few months old. This Winter we have spent with relations and I have been helping with the work, occasionally at sewing or nursing, but we don't get by and I am worried.
>
> What bothers me most is the attitude of my husband. It doesn't seem to bother him much of any to live like this. I would hate to have it thrown at my children that they were on the town. I feel the way things are now that we are just living on charity, and this can't go on forever.
>
> Is this attitude on the part of my husband my fault for working in the beginning or is it his fault for being so slow to take the responsibility? Don't think that my husband isn't a good man, for he is a fine fellow in many respects, but he seems to entirely lack any money-making ability. When I earn a few dollars he thinks it is all right for me to take it and pay the bills. I feel so ashamed. I can't accustom myself to a man taking money from a woman, even if she is his wife.
>
> Is there anything I can do to bring him to his senses? I could not let my own people know of this situation. I have the promise of a good

job soon myself. If I get it I feel that I shall just pay the children's board and let him shift for himself. Would this do any good, do you think? Please welcome me and advise me.

Lucy Ambler.[26]

Lucy had to be reminded, by one of the "Globe Sisters," that her husband's problems were not her husband's fault:

> Dear Lucy Ambler—Your letter regarding an irresponsible husband certainly aroused my interest. I am married to a man who is like your husband in many respects and I think we have a great deal for which to be thankful. You say he is a good man and a fine fellow. Is he to blame if like millions of others he finds himself with no means of support? If he always worked steadily until a year ago and did his best for his family, can anyone look down upon you if you are in need at the present time? Isn't it a fact that your dissatisfaction is really with the present economic conditions and not with your husband? . . . Catarina[27]

We can imagine the conversations between husband and wife about the making of large expenditures—if they talk about the topic at all. The feelings of hurt, betrayal, and helplessness would be difficult to talk about, not just for Lucy Ambler and her husband, but also for other couples who feared that they might find themselves in the same situation. We can easily imagine that talk about high-priced expenditures might be verboten, along with the expenditures themselves.

When such stories are rampant, and when unemployment is increasingly long-term, any employer who offers a job to a laid-off worker will be regarded as a sort of hero. But there is an offsetting tendency for the employer to worry about hiring someone with little "money-making ability" and few other options. As a Pennsylvania emergency relief board administrator said in 1936:

> Another factor of importance in connection with the unemployment situation, which, of course, is at the basis of relief, is the fact that many men and women who were merely being "carried along" by their

> employers in the pre-depression days, for sentimental or other reasons, will never get back their old jobs.[28]

Employers need to balance morale and productivity. As Truman Bewley found in his interviews of employers during a recession in the 1990s:

> Managers were concerned about morale mainly because of its impact on productivity. They said that when morale is bad, workers distract one another with complaints and that good morale makes workers more willing to do extras, to stay late until a job is done, to encourage and help one another, to make suggestions for improvements, and to speak well of the company to outsiders.[29]

It seems safe to conclude that employers are particularly concerned about worker morale during hard times. They often try to boost their employees' morale by helping them feel successful in their jobs and by using a nondifferentiation wage policy, paying high performers the same as low performers, despite the negative effects on incentives to work hard.[30] In addition, employers often continue to employ weak employees for sentimental reasons or to maintain workplace morale.

But there is a darker side to the story. The worst days of the Depression gave employers a plausible excuse for laying off weaker employees without generating stories of their inhumanity. When times are a little better, they would rather not rehire the weak employees, which can lead to long-term unemployment for those who have been laid off.

Modesty Fashions: Blue Jeans and Jigsaw Puzzles

Blue denim fabric, formerly considered appropriate only for work clothes, started to become more fashionable during the Great Depression, though earlier celebrities had made denim fashion statements. For example, James D. Williams, governor of Indiana from 1877 to 1880, was nicknamed "Blue Jeans Bill" because of his insistence on wearing them even to formal occasions. According to one observer, for Williams the coarse blue fabric was "a symbol of equality and democracy."[31] But it was not until the

1930s that the material gained popularity. In 1934, the Levi Strauss Company created its first blue jeans for women, naming them "Lady Levi's."[32] Then, in 1936, Levi Strauss put the first fashion logo on the back pocket of its blue jeans. *Vogue* magazine featured its first blue jeans–clad cover model in the 1930s, and women started deliberately damaging their new jeans to make them look worn, putting "an intentional rip here and there."[33]

We can trace blue jeans' associations with different cultures over the decades. In the 1920s and 1930s, blue jeans culture fit in with the poverty-chic culture, the cowboy story culture, and the dude ranch culture. Starting in the 1940s, blue jeans became associated with altogether different cultures, first with Rosie the Riveter during World War II, and then with high school, youthful rebellion, and women's liberation.[34] The blue jeans fashion truly exploded in the 1950s,[35] propelled to new heights by the hit 1955 movie *Rebel Without a Cause* and its handsome star James Dean, who died at age twenty-four, a month before the movie was released, while driving his sports car recklessly. The death was perfect, if ghoulish, publicity for the movie. Some fans of the film went to extremes; for example, Douglas Goodall, a London mail truck driver, not only wore blue jeans but also by 1958 had watched the movie four hundred times and legally changed his name to James Dean.[36] But by this time, the blue jeans narrative was losing its connection with sympathy for poverty, and it may have lost its status as an economic narrative. Nonetheless, the ubiquity of blue jeans (based on their cheapness, practicality, long life, and others' fashion decisions) has allowed the blue jeans epidemic to continue spreading to this day.

Also connected to poverty chic was the jigsaw puzzle craze. To occupy themselves during a quiet, stay-at-home evening, some people bought one of the new cheap cardboard jigsaw puzzles (instead of the more expensive traditional wooden puzzles) at newsstands with the evening newspaper on their way home from work. Jigsaw puzzles were suddenly on sale everywhere, and people wondered, "What psychological quirk lies buried in the human brain to spring to radiant life at the rattle of odd pieces of material in a cardboard box?"[37]

Bicycles, blue jeans, and cardboard jigsaw puzzles might be nothing more than logical, rational responses to the bad economic conditions of the Depression. They were inexpensive. But the enthusiasm for these products, the craze nature of the phenomena, suggests that their narratives help to explain why people stopped buying expensive consumer goods during the Depression—which, by extension, helps to explain the length and severity of the Depression. Perhaps people would never have ridden a bicycle to work in the 1920s not because they were rich but because doing so would have seemed odd. Only after one heard the narrative describing others who rode a bike to work or stayed home assembling jigsaw puzzles in the evening would one be comfortable doing the same things. And then one might continue doing them for many years, weakening the market for more expensive forms of transportation and entertainment, and thus slowing recovery from the Depression. Likewise, if building a beautiful new house is considered to be in bad taste and stirs profound resentment, then those are pretty good reasons not to build the house, thus helping to explain why housing construction virtually stopped during the Depression.

We see here that economic dynamics—the change in demand for goods and services through time—depend on subtle changes in narratives. Over the course of the Great Depression, people started to move beyond poverty chic, perhaps because of changing narratives about what people's apparent poverty implied about them. As the *Washington Post* noted in 1932:

> But now another handspring has been turned. Now it is no longer chic to imply poverty. If one had lost money in unwise speculations or stocks he has had plenty of time to recover from the world-wide upheaval. If he still claims poverty—well, the implication is that perhaps after all he never did have anything![38]

What conclusions can we draw? The modest economic recovery that started at the bottom of the Great Depression in 1933 occurred, at least in part, because people were spending more because poverty was no longer so chic! All of these narratives imply that the causes and effects of the Great Depression extend beyond economists' simple story of multiple rounds of expenditure and the effects of interest rates on rational investing behavior.

The decline in modesty and compassion narratives since the Great Depression may help to explain many economic trends. The modesty decline is likely related to the rise in inequality, in the share of national income earned by the top 1%, documented by Thomas Piketty in his 2014 book *Capital in the Twenty-First Century*.[39] It also is likely related to the long-term decline in managers' feeling of loyalty to their employees, documented by Louis Uchitelle in his 2006 book *The Disposable American*.[40] A narrative downplaying modesty and compassion was supported by Donald Trump in his 2007 book, *Think Big and Kick Ass in Business and Life,* coauthored with Bill Zanker.[41]

The frugality narrative was repeated in Japan after 1990, with different stories and personalities. The high-flying Japanese economy of the 1980s had given way to the "lost decades" of the 1990s and beyond and to stories similar to the modesty and compassion stories in the United States. The *Washington Post* summed these narratives up in 1993:

> Tokyo—The once free-spending Japanese consumers have a new model citizen: Ryokan, an 18th century hermit monk who gave up his worldly goods to seek the pure life.
>
> Ryokan was featured recently in a prime-time television drama and a magazine cover story. A book about him and other ascetics, *The Philosophy of Honest Poverty,* has sold 350,000 copies since September.
>
> These days Japanese consumers seem to be trying to emulate the virtuous Ryokan. Consumers have sobered up and tightened their purse strings after a half-decade spending binge fueled by a roaring economy and soaring financial markets.[42]

Ryōkan (1738–1831) is remembered in many stories for his kindness and generosity to the less fortunate. He let mosquitoes and lice bite him out of sympathy for insects, and he once offered his clothes to a would-be thief who discovered he had nothing to steal.[43] Most Japanese did not go so far, but the new virtue lasted throughout the lost decades in Japan.

"American Dream" and Analogous Narratives Displace the Frugality Narrative

James Truslow Adams coined the phrase *American Dream* in the first edition of his *New York Times* best-selling book *The Epic of America* (1931). The term is virtually never found on ProQuest News & Newspapers before 1931, except for mentions of a bedspring that promised good sleep, marketed in 1929 and 1930 as "The American Dream." As Figure 11.1 shows, Adams's *American Dream* went viral, vastly outpacing similar terms going back centuries, such as *American character*, *American principles,* and *American credo*. The "American Dream" was a long slow epidemic that is still growing today, almost a century after Adams coined the term. Adams, who died in 1949, saw only the very beginning of the epidemic.

Adams defined the American Dream as follows:

> The *American dream,* that dream of a land in which life should be better and richer and fuller for every man, with opportunity for each according to his ability or achievement . . . It is not a dream of motor cars and high wages merely, but a dream of a social order in which each man and each woman shall be able to attain to the fullest stature of which they are innately capable, and recognized by others for what they are, regardless of the fortuitous circumstances of birth or position.[44]

Some might say that Adams's account is a somewhat bland description of any country's dream, not a fiery manifesto that we'd expect to go viral. Indeed, it sounds similar to the China Dream, espoused by Chinese premier Xi Jinping; to the French Dream, espoused by former French president François Hollande; and to the Canadian "National Dream," all modeled after Adams. But there must have been something appealing and original about this idea that made it slowly and consistently contagious.

The phrase *American Dream* has a ring of truth to it as a statement of American values. The United States is a proud country that has no aristocracy, allows no titles or royalty, announces in its Declaration of Independence that "all men are created equal," and allows free enterprise to proceed with little government interference. However, it is also a

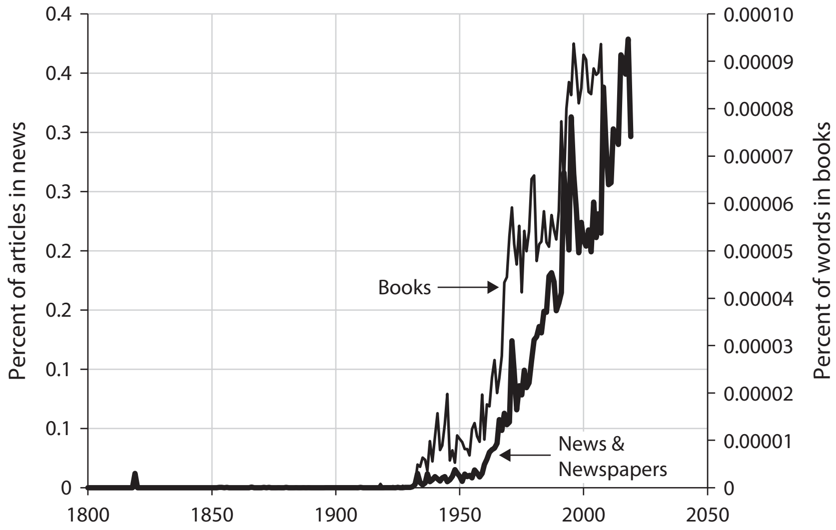

FIGURE 11.1. Frequency of Appearance of *American Dream* in Books, 1800–2008, and News, 1800–2016

The epidemic had hardly begun during the lifetime of its author, James Truslow Adams. *Sources*: Google Ngrams, no smoothing, and author's calculations from ProQuest News & Newspapers.

country that permitted slavery until 1863. Long before Adams defined the American Dream in 1931, slavery was seen as an abomination and an embarrassment inconsistent with the nation's stated commitment to equality. And American blacks have not received equal treatment even long after the abolition of slavery. But by coupling "American" with "Dream," the phrase might have defined a *trend* toward a better social order "in which each man and each woman shall be able to attain to the fullest stature of which they are innately capable." That's what a dream is: the sense of an ideal future, a deep-seated and fervently desired wish that is partly fulfilled today and might become completely fulfilled in the future. When Adams says that the American Dream "is not a dream of motor cars and high wages merely," he seems to assert that the American Dream is *in part* a dream of these material things. Of course people want to provide for their family and they want a good standard of living, but they want everyone to have a chance to achieve the same goals.

The original discussion of the American Dream in the 1930s, before the term went viral, was primarily intellectual. For example, George O'Neil's 1933 intellectual play *American Dream* examined whether American society truly embodied this dream. Later, in 1960, another intellectual play by Edward Albee, similarly titled *The American Dream*, was more critical of consumerism. The phrase *American Dream* cropped up repeatedly in honest discussions about America. Some intellectuals who were critical of the popular notions of economic success in the United States used the term ironically, but other intellectuals thought it measured some real aspect of American character.

For example, civil rights leader Martin Luther King, Jr., used the phrase in his legendary "I Have a Dream" speech, which he delivered during the civil rights march on Washington, DC, to a large crowd stretching between the Washington Monument and the Lincoln Memorial. In that speech on August 28, 1963, he looked confidently forward to a day when "this nation will rise up, live out the true meaning of its creed: We hold these truths to be self-evident, that all men are created equal."

Congress made King's birthday a US national holiday in 1983. When President Ronald Reagan signed the Act of Congress into law, he referred to the "I Have a Dream" speech. Later that year, King's widow, Coretta Scott King, said, "Help us to make Martin's dream—the American Dream—a reality."[45] We see how seemingly small and unpredictable moments in history—the publication of Adams's book and a single speech by King—can develop gradually into the backbone of a powerful narrative that continues to grow by contagion for decades afterward.

The celebrity aspect of narratives, so frequently discussed in these pages, is at work in the American Dream narrative. Martin Luther King, Jr., an inspirational figure who was assassinated as he fought for the American Dream, made for a far better narrative, and he pushed aside James Truslow Adams in the American collective consciousness, giving the American Dream narrative the human interest it needed to achieve enormous contagion. In fact, Adams wasn't enough of a celebrity to have his name attached to the narrative. Less than one-tenth of 1% of ProQuest News & Newspapers hits for *American Dream* since King's "I Have a

Dream" speech mention James Truslow Adams, but 3% mention Martin Luther King, Jr.

Ultimately, the generally accepted narrative of the American Dream includes a wish for prosperity for everyone, framing it in a way that makes it seem not commercial or selfish. It turns upside down Thorstein Veblen's idea of conspicuous consumption undertaken solely to prove one's superiority. As a result, the American Dream became extremely useful in pitches for consumer products that encourage potential purchasers to feel better about their purchases, such as a new home or a second car. In fact, ProQuest News & Newspapers shows that more than half the use of the phrase *American Dream* has occurred in advertisements rather than articles.

The Mutating American Dream: Homeownership

In the 1930s and 1940s, most of the ads using the phrase *American Dream* promoted intellectual products: books, plays, sermons. But as time wore on, and as the epidemic strengthened, the phrase took on a different dimension. The American Dream turned into owning a home, with the underlying sense that owning a home implies patriotism and commitment to the community. While advertisements have used the phrase less in recent decades, they continue the presumption that the American Dream justifies generous expenditures on homeownership. Over two-thirds of ProQuest News & Newspapers hits for *American Dream* since 1931 also include the word *house* or *home*.

The American Dream has been used to justify government actions supporting the housing bubble that eventually collapsed during the world financial crisis of 2007–9. In 2003, near the height of the bubble, Fannie Mae, the government-sponsored mortgage giant, adopted the following slogan for its advertisements: "As the American Dream Goes, So Do We." That same year, the US Congress passed, and President George W. Bush signed, the American Dream Downpayment Assistance Act, which subsidized home down payments. Since 1973, 265 bills and resolutions introduced in the US Congress have included the words "American Dream."

President George W. Bush heavily used the slogan "Ownership Society" during his 2004 reelection campaign. The slogan was a variation on the American Dream theme; Bush was calling attention to a society that respects ownership and in which people "take ownership"—that is, take responsibility for themselves. He said in 2002, "Right here in America if you own your own home, you're realizing the American Dream." He spoke of the good feelings homeownership lent: "All you've got to do is shake their hand and listen to their stories and watch the pride that they exhibit when they show you the kitchen and the stairs."[46]

Controlled experiments have shown that marketing of consumer products may be enhanced by appeals to patriotism.[47] By attaching the term *American Dream* to moral rectitude and to patriotism, this narrative epidemic probably raised the homeownership rate in the United States, as well as stimulating business in general.

The results have been both positive and negative. On the one hand, the American Dream narrative justifies people's desire to purchase expensive cars, extravagant homes, and other lavish consumer products and services. The narrative has probably boosted the real estate sector, both directly through consumer demand and indirectly via government support, or expected future government support, should anything go wrong in that market. On the other hand, the American Dream as embodied in the desire for homeownership played a strong role in the US housing boom before the 2007–9 world financial crisis and thus added to the severity of the crisis.

Today, the American Dream narrative justifies conspicuous consumption and the ownership of a pretentious house, in stark contradiction to the frugality narrative that was popular during the Great Depression. The American Dream narrative offers a justification for feeling proud of one's accomplishments, a sense of moral rectitude. The gold standard narrative, to which we turn in the next chapter, has a similar moral theme.

Chapter 12

The Gold Standard versus Bimetallism

Especially prominent among perennial economic narratives, the gold standard narrative dating back over a century remains somewhat active today. For example, President Donald Trump has repeatedly advocated a return to the gold standard in the United States. In a 2017 interview, he said:

> We used to have a very, very solid country because it was based on a gold standard. . . . Bringing back the gold standard would be very hard to do, but boy, would it be wonderful. We'd have a standard on which to base our money.[1]

Stated simply, bringing back a gold standard means defining the nation's currency in terms of a fixed unchanging amount of gold, and the government promising to redeem currency in gold or to do the reverse, on demand, so that the currency is perfectly interchangeable with gold. The world solidly abandoned the gold standard in 1971. Since then, countries have used fiat money—that is, money not backed by anything.

Central banks (with the notable exception of the Bank of Canada)[2] still own gold, though gold no longer backs their currency. According to the World Gold Council, central banks and finance ministries around the world own a total of 33,000 metric tons of gold, worth approximately $1.4 trillion US dollars.[3] But gold doesn't back the currency, so why do central banks hold it?

US Congressman Ron Paul asked the US chairman of the Federal Reserve, Ben Bernanke, why the Fed holds gold and not diamonds.

Bernanke gave a candid answer: "Well it's tradition—long-term tradition."[4] Bernanke was apparently referring to narratives and to the idea that central banks are apparently worried about stories that upset the public if a central bank rids itself of its gold holdings. Some people even think the United States is still on the gold standard, or at least have no clarity that it is not.

We shall see in this chapter that narratives about gold and money have a peculiar emotional tone, analogous to the emotions we see in cryptocurrency narratives today. There is a mystique about gold and money and innovations, and a mystique about pretentious theories on these topics. This mystique is difficult to explain.

The stories of gold and the gold standard are not simple. In fact, in history the gold standard has long been associated with prolonged deflation and other economic problems. In addition, the narratives about the gold standard have historically been sharply divisive and acrimonious, much like the cryptocurrency narratives in recent years. Let us look first at this long tradition, at the nineteenth-century excitement about gold, and see how it persists today and how it has recurred in mutated form with the cryptocurrencies.

The Crime of 1873 and the Emotional Divide

The United States effectively went onto the gold standard, attaching the US dollar exclusively to gold, with the Coinage Act of 1873 signed by President Ulysses S. Grant. (The Gold Standard Act of 1900 further clarified the standard.) Prior to 1873, the United States had been under a bimetallic standard (in effect, without calling it that), and the Coinage Act of 1834 specified the ratio of silver to gold at sixteen to one. The 1873 move was part of an international standardization of currencies around the gold standard.[5] The 1873 act was followed in the next two decades by persistent deflation (that is, falling consumer prices). Some observers labeled the 1873 Coinage Act "a crime" because the deflation impoverished debtors, especially farmers who bought their farms with a mortgage, by lowering the price at which they could sell their crops and raising the real value of their debts. Also, people who'd made major purchases were dismayed to see that they could have bought them for less if only they'd waited. The talk at that time, notably by farmers, encouraged moral outrage and public support for a return to bimetallism.

The bimetallism proposal, which was discussed internationally in the late nineteenth century and which gained enormous traction in the United States, advocated a return to having two metals backing the currency, enabling people who owed money denominated in dollars in effect to choose which metal to pay in. Under the gold standard as defined in the United States, a contract specifying payment of one dollar was a contract to deliver 1/20.67 of an ounce of gold. Under a bimetallic standard with a 16-to-1 ratio, the contract would have been interpreted as an agreement to deliver either this amount of gold or 16 times as many ounces of silver. Advocates of bimetallism became known as "Silverites," almost as if they were a political party, though in the United States in fact they were allied with the Democratic Party. The Silverites never succeeded in moving the United States to bimetallism, but by the 1890s the Silverites' proposal suddenly gained popularity.

However, by the 1890s the actual market prices of the two metals in world commerce implied a ratio of around 30 to 1. Thus the bimetallism proposal would have allowed debtors to cut their debts roughly in half by choosing to repay them in silver rather than gold. In effect, the result would have been a default on about half the value of all debts denominated in US dollars. Supporters of the gold standard therefore thought of themselves as upholding truth and honesty.

As Figure 12.1 shows, the term *gold standard* has not appeared very often in English-language books, newspapers, or magazines except in two decades: the 1890s and the 1930s. (There is also an uptrend in use of the term after the year 2000, but with "the gold standard" usually meaning just "the best.") Those two decades, the 1890s and the 1930s, were precisely the decades of the two biggest US depressions as measured by the unemployment rate. Because the gold standard was talked about very much during those depressions, we ought to consider how the gold standard narratives relate to the potential for severe depression. In both cases, the 1890s and the 1930s, the talk was of debauching the gold

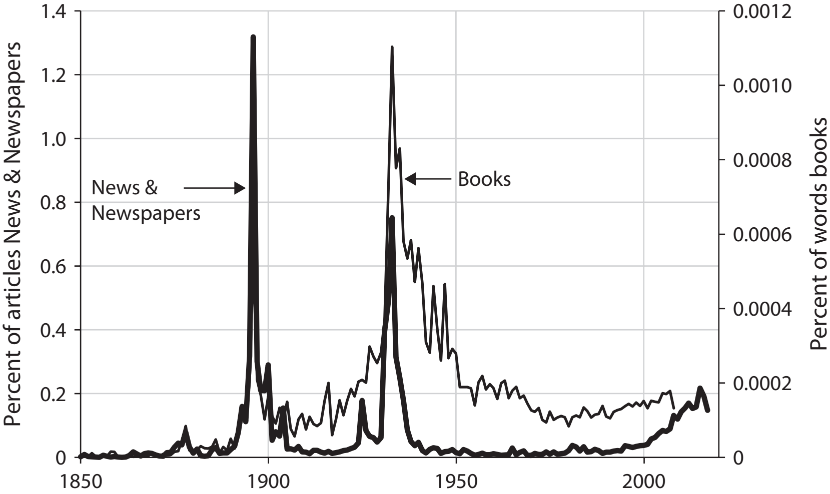

FIGURE 12.1. Frequency of Appearance of *Gold Standard* in Books, 1850–2008, and News, 1850–2019

The term has had two separate epidemics decades apart, both associated with major depressions. *Sources*: Google Ngrams, no smoothing, and author's calculations using data from ProQuest News & Newspapers.

standard, allowing debt to be paid with less gold, and complaining that ending the gold standard meant ending something traditional and honest. People seem to have a natural respect for ideas that they perceive as coming from the wisdom of the past and that reflect true or important values.

The term *devaluation* entered the English language in 1914, referring to the decline in a currency's value, and it started to become popular in the 1930s. There was no such word in the 1890s, during the first severe depression. However, that decade saw a resurgence of Silverite narratives. Their opponents in the 1890s thought that bimetallism was a dishonest attempt to avoid national shame for default.

In April 1895, the *Atlanta Constitution* reported on the idea of returning to bimetallism at 16 to 1, an idea that had started going viral:

> Representative Hepburn is in town, having spent a month or so traveling in Iowa since the adjournment of congress. He says that he has visited every county in his district, and various other sections of the

> state, and has found that everybody is crazy on the silver question. It is the only topic they will talk about. Whenever two men get together, whether it is at the postoffice or at the street corner, in the railway station, or the corner grocery, or while riding on the cars, they discuss nothing else, and the sentiment is almost unanimous in both parties that the United States government should immediately declare in favor of the free and unlimited coinage of silver regardless of the policy of the European nations.[6]

Belief in bimetallism took on strong geographic and social-class dimensions. Eastern intellectuals favored the gold standard, while westerners, who were more likely to be farmers, favored bimetallism. Supporters of the gold standard tended to appreciate symphony performances, while Silverites liked to watch boxing matches. By some accounts, Silverites tended to be hypermasculine and warmongering. In 1897 the *New York Times* asked, "Is there something in the silver creed that brings out the natural savagery of its sectaries and makes them delight in the barbarous principles and rough ways of early man?"[7]

The debate began to take on strong emotional significance. One observer begged the easterners not to ridicule the Silverites out west:

> Some of the Eastern people either misunderstand the character and force of the silver sentiment in the West, or purposely deceive themselves about it. Such epithets as "Western lunatics," "Knaves of the prairies," "lazy shifters," "mining camp robbers," "deadbeats," "repudiationists," and "anarchists," have no other effect than to cause irritation and anger.[8]

This same observer was amazed by the strong differences in ideas, given that most of the westerners had migrated there from the East. He went on to describe the emotionally charged constellation of ideas that the western Silverites seemed to share, particularly their resentment of the monetary experts who believed that any change in the US monetary standard would require delicate international negotiation. Ultimately, he underestimated the power of geographically local idea epidemics.

The contagion of the bimetallism concept was not confined to the United States. The International Bimetallism Conference in London in

1894 noted that a long slow deflation caused by the gold standard had produced depression in agriculture across much of the world.[9] The conference report said that the United States suffered more than other countries, and no other major country saw such a swelling of popular support for bimetallism.

The condescending attitude of eastern intellectuals in the United States was surely noted, and resented, at the height of the bimetallist controversy. We can see how other narratives played on this resentment. *Coin's Financial School*, by lawyer William Hope Harvey, was published in 1894, in the middle of the 1890s depression. It presented an argument in favor of bimetallism. One wonders how a book on such an arcane and technical issue could have become a best seller in the United States. It is widely reputed to have sold a million copies when the US population was only a little over 20% of today's population. But the book is presented in an engaging way, in the form of a fictional dialogue with numerous pictures. The story follows a young man (perhaps in his early teens, based on the pictures) named Coin, a "little financier" lecturing in favor of bimetallism to an audience of argumentative men, including newspaper reporters. They report Coin's first lecture in newspapers, and his insolence angers establishment men, professors, and bankers, who show up for his second lecture in numbers. A "Professor Laughlin, head of the school of political economy in the Chicago University," a real person with fictional lines in the book, tries to embarrass young Coin by questioning him about the facts of the gold standard, but young Coin proves that he knows the facts even better than Professor Laughlin does.[10] In Harvey's book, we see one of the key elements in the contagion of the bimetallism narrative: a good story about an intelligent young man who gets the better of snooty intellectuals and professionals.

Bimetallism and Bitcoin

The enthusiasm for bimetallism in the nineteenth century seems similar to the excitement for Bitcoin we have seen in recent years. Among my students at Yale, some seem passionate about Bitcoin, and others appear extremely intrigued when I bring up Bitcoin. Maybe part of the appeal is that understanding Bitcoin requires some effort and talent. There is an air of mystery around Bitcoin, just as there is with conventional money. Few people understand how paper money gets its value and sustains it either.

As we noted in chapter 1, there is a detective-story-like mystery about Bitcoin, aided by the narrative that it was invented by Satoshi Nakamoto, who might be a multibillionaire as a result of his Bitcoin holdings. However, no one has ever found him or confirmed his existence. Indeed, the Bitcoin narrative is associated with secret codes, like the codes that are still talked about in popular World War II narratives. The idea that savvy young people understand Bitcoin, but that old fogies never will, appeals to many.

It is no coincidence that, a century ago, William Hope Harvey made Coin a young man. In the 1890s, the monetary standard offered some of the same mystery that Bitcoin does today. Young people in the 1890s wondered: What exactly is this money we have, and why does it have value? They might then have asked: How can we be on the gold standard when I almost never see a gold coin, only paper money, copper pennies, and silver dimes? What would happen if I walked into a bank and tried to demand my gold? Most people in the 1890s never tried to do that, and they might have been rebuffed if they did, because banks satisfied their obligations when they gave depositors paper dollars. So, even in the 1890s, the gold standard was a tantalizing mystery.

Silverites and Gold Bugs

In many ways the Silverites of the 1890s anticipated the supporters of Donald J. Trump in the 2016 US presidential election, both in their sympathies and in the contempt that many intellectuals held for them. A *Washington Post* reporter visiting Seattle in July 1896 wrote:

> A spirit of ardent Americanism pervades the entire population. They believe in a nation with a big N, and think America is strong enough to whip the rest of the world, if need be, and surely to put into force any legislation it may undertake without the consent or cooperation

of any other government. They are wide-awake, hospitable, and honorable. "Sunset" Cox, after a trip among them, aptly described the Westerners as "the cream of Eastern young enterprise."

Thousands of them regularly read the Eastern papers from their old homes. For the first time in their lives they now discover in these same papers that they are "idiots" and "anarchists." While editor Dana, of *The New York Sun,* is exhausting the adjectives of abuse for Western people in general, his own nephew and adopted son, John K. Dana, is quietly and industriously earning a living on a wheat and stock farm four miles west of Oakesdale, this State, and is a free silver man of the Populist variety.[11]

The notion that bimetallism is the only route to prosperity became strong among Silverites, who suggested that the 1890s depression would go on forever if the gold standard were allowed to stand. This idea was misguided, for the gold standard had been around for decades and depression had not been permanent. But the idea became ego-involving for Silverites, a core truth that they'd discovered that was nonetheless opposed by pretentious eastern intellectuals. During the presidential election campaign of 1896, William McKinley said that sound money is the route to general prosperity:

> Read the history of the great financial depressions and panics of 1817, 1825, 1837, 1841, 1857, 1873, 1893, and 1896, and see if this is not true. The triumph of sound money and protection at the polls in November will, in my judgment, restore confidence and thereby help every species of business, and when that is done your business will share in the general advancement and profit by the general prosperity.[12]

The implication was that the Silverites, typically rural and ignorant farming people, did not read history. But the idea that the depression would last forever spread among them nonetheless, and the idea itself worked against prosperity, for it discouraged spending and investing.

Meanwhile, those who were fiery in their support of the gold standard became known as *gold bugs*. Rare in 1874, the term took off on what appears to be a hump-shaped infective curve, peaking in 1896 during the depths of the great depression of the 1890s. After McKinley defeated William Jennings Bryan in the 1896 presidential election, a joke went viral. A Silverite would ask a gold bug, "Have you seen the General?" The other would invariably respond, "General who?" The answer was "general prosperity," referring to McKinley's words during the campaign. The joke faded in 1897 around a year after the election; it lost its effect when the economy began showing signs of improvement.[13]

Narratives Trigger the 1893 Bank Runs

The 1893–99 depression in the United States started quite suddenly in the spring of 1893 with a string of bank runs. Depositors rushed to pull their money out of banks, thereby fueling the bank failures that they feared. But what triggered the bank run?

One trigger was a rumor that began on April 17, 1893: the US subtreasury offices would no longer redeem Treasury notes in gold but would provide only silver, in amounts worth about half as much as the notes. There was no basis for this rumor except the news that Treasury reserves were falling. Newspapers had made big news out of the fact that Treasury reserves had fallen below $100 million, just because it was a round number. But the run was on the commercial banks, not on the Treasury. Alexander Dana Noyes, later the financial editor of the *New York Times*, commented in 1898:

> Panic is in its nature unreasoning; therefore, although the financial fright of 1893 arose from fear of depreciation of the legal tenders [federal-government-issued paper money], the first act of frightened bank depositors was to withdraw these very legal tenders from their banks.[14]

Noyes believed that depositors withdrew their money from commercial banks, which had nothing to do with redeeming legal tenders with gold, because the paper money was "the only form of money they were in the habit of using" and because withdrawing from the local bank is what people did in the popular narratives about past times of financial distress. In other words, they were playing by a script that they had seen or heard about many times before. They were used to going to the commercial banks but not to the subtreasury offices where they could demand gold in exchange for notes.[15] So the initial panic of spring 1893 seems to have been the result of the high contagion of stories of bank failures. But this story is not enough to explain the extended depression of 1893 to 1899.

In reading accounts of the gold standard in the 1890s, we see an almost religious attachment to the idea among a large fraction of the US population, largely easterners and the educated. The support for the gold standard was based on the idea that contracts were written with the gold standard as an assumption. Therefore, monkeying with the gold standard could amount to reneging on a contract.

Beyond its business significance, gold has an enormous spiritual significance that economists usually do not consider. Wedding rings are made from it. The word *gold* appears 419 times in the King James version of the Bible. Paintings of saints depict a gold-colored nimbus radiating from their heads. In Christian tradition, these saints were often among the lowly and despised in society, but the nimbus reveals their true worth. In his 1860 poem to his readers "To You, Whoever You Are," Walt Whitman wanted to show that he values every one of his readers:

> But I paint myriads of heads, but paint no head without its
>   nimbus of gold-colored light
> From my hand, from the brain of every man and woman it
> streams, effulgently flowing forever.

The narrative in favor of the gold standard took on strong principle-based symbolic dimensions. In 1874, amidst controversy over the Coinage Act, which demonetized silver and put the United States squarely on a gold standard, US senator John P. Jones of Nevada stated (as recorded in *The Congressional Globe*):

> Gold is the articulation of commerce. It is the most potent agent of civilization. It is gold that has lifted the nation from barbarism. It has done more to organize society, to promote industry and insure its rewards, to inspire progress, to encourage science and the arts than gunpowder, steam or electricity.[16]

In the same debate in 1874, Senator William Morris Stewart, also of Nevada, a gold- and silver-mining state, said:

> You may fix up all the propositions you please, but the real thing is when you come down to it finally, I don't care how much you discuss it or how many resolutions you pass, they don't make any difference; you must come to the same conclusion that other people have, that gold is recognized as the universal standard of value.[17]

These statements, which had political goals, oversimplify history. Indeed, there has not been a gold standard through much of history. The "standard model"—a single gold coin representing legal tender, subsidiary coinage of base metal, and paper money with value based on the government's unqualified willingness to exchange it for legal tender—first came about during the eighteenth century in the United Kingdom. The standard model was not fully adopted in the United States until 1879.[18] Talk about the gold standard began in 1874, but it grew in a nice epidemic curve.

Cross of Gold

The narrative of those opposing the gold standard strongly emphasized unjust inequality. In his 1895 book *The American Plutocracy*, Milford Wriarson Howard wrote of America divided into two classes, the plutocracy and the "toilers of the nation": "The greatest struggle of all the ages is the one now going on between these two classes."[19] He saw the moral value attached to the gold standard as a canard promulgated by a conspiracy of established leaders to justify simple robbery of working people: "This is modern brigandage, upheld by the law and made respectable by society and the plutocratic churches."[20]

That side of the story was contagious in certain quarters, producing a constellation of stories that fed on that contagion, stories of arrogant and grasping business managers who tricked and manipulated innocent people. But it wasn't the only story. On the other side was a story about the stupid masses swept into a dangerous "populist" movement, a movement associated at the time with the Democratic Party but running contrary to that party's traditional values. Henry L. Davis of the California Optical Company said in 1896:

> The riff-raff is a very large proportion of the voters, and there is danger of their gaining control. Our hope lies in educating them to a greater intelligence, to change their views. Their success would destroy confidence, the unrest would be continued and business would continue to suffer.[21]

A constellation of narratives arose to reinforce the idea that Silverites are stupid and that economic disaster was imminent. Charles Merrill of Holbrook, Merrill, and Stetson, a retailer of kitchen appliances and plumbers' supplies, said in 1896:

> I have made this thing a deep study, since it is a matter which interests all citizens—merchants and workingmen alike. I believe that if Bryan is elected and the Democratic platform is carried out it will be the most disastrous thing that could happen to this country. Business is bad enough now, but it would be simply ruined in case of Democratic success, and all classes of people would feel the effect of it equally. If the principles of the Democratic platform were embodied into laws, I might as well go out of business. . . . It would be worse than a civil war. During the late war we managed to maintain our credit but we could not do so if the Democratic platform were put into effect.[22]

Nonetheless, the Democrats understood the power of gold and used it in their narratives. William Jennings Bryan's "Cross of Gold" speech at the July 1896 Democratic National Convention is considered one of the most inspiring American political speeches of all time. It interwove talk of the gold standard with talk of Christian morality. Even today, millions of people remember the concluding lines of the speech:

> Having behind us the commercial interests and the laboring interests and all the toiling masses, we shall answer their demands for a gold standard by saying to them, you shall not press down upon the brow of labor this crown of thorns. You shall not crucify mankind upon a cross of gold.[23]

As Bryan spoke these words, he stretched his arms out as if he were on a cross, to a cheering throng. The reaction was immediate, not only on the convention floor but also nationwide, sometimes to the point of near hysteria, as if a revolution were at hand and the working class would finally prevail.

Why are Bryan's concluding lines so powerful? Likely the working classes connected their economic suffering with the imagery of Jesus's suffering a brutal execution at the hands of the powerful Romans—one of the narratives that helped propel the Christian church through the centuries. Although Bryan spoke the words, he did not write the lines. As many newspapers later reported, a talk by US representative Samuel W. McCall in January 1896, reprinted in the *Congressional Record*, used almost the same words about a crown of thorns and a cross of gold. Bryan had attended McCall's talk, and he'd gauged the audience reaction to those lines. He was doing what great demagogues have always done, observing audiences, experimenting, and searching for something that will take.[24] As the *New York Times* commented:

> Full many a gem of purest ray serene the dark unfathomed files of The Congressional Record may bear. But until the gem has been mined, or rather, until the vein has been worked, by the patient toilers among the back numbers and then issued with an authoritative stamp, it remains useless to man.[25]

The authoritative stamp that Bryan, a celebrity, put on McCall's ruminations was exactly what this story needed to go viral. McCall's words were not a story until a presidential candidate said them in a public forum.

The effect of these conflicting narratives was to leave people unusually uncertain about the value of money and business activity in the near future. Louis Sloss of the Alaska Commercial Company was one of many businessmen who described in 1896 their unwillingness to sign contracts or commit resources at a time when they feared a major devaluation of the money supply and abrogation of contracts:

> Business is very dull, almost at a standstill. Capital is timid and confidence is shaken. Nobody wants to invest in any enterprise, no matter

> how alluring the proposition, until this scare of unsound money is over. I know of an instance which illustrates to what extent business suffers from this unrest and agitation and the uncertainty of our financial basis. One of my relatives and a member of this firm contemplated erecting two magnificent houses to cost at least $50,000. The plans were drawn, the bids had been submitted and all was ready, except the signing of the contracts. The prospective builder refused to sign or undertake the building until after the election, when the financial question of the country will be settled. There are undoubtedly many similar instances, and they are the things that stagnate the course of trade.[26]

Among economists and other intellectuals, it was widely thought that moving to a bimetallic standard might double the price level, because the market price of gold meant the ratio should have been 30 to 1. According to classical economics and Gresham's Law ("Bad money drives out good"), silver would drive out gold, putting the United States onto a de facto silver standard.[27] To return to the houses that Sloss wrote about: bimetallism would mean, in effect, that each $50,000 house should sell for $100,000. With that expected sales price, the buyer would be eager to sign at $50,000, while the builder would want $100,000. But expectations were muddy because the politics of bimetallism were uncertain and unprecedented. It is easy to see how the buyer and the builder might find it difficult to come to an agreement.

An 1893 article from the *Chicago Daily Tribune* illustrates how dramatic bimetallism's effects might be:

> If we continue the purchase of silver or make the coinage free at the ratio of 16 to 1 or 20 to 1, we shall practically demonetize gold and drive it out of the country and sink to a silver basis. This would mean to every wage-worker the loss of nearly one-half the purchasing power of his wages—to every bank depositor the loss of nearly one-half the value of his deposit. Free coinage of silver in this country would be the most gigantic fraud and robbery ever perpetrated on a people.[28]

How, then, is it possible that William Jennings Bryan came close to being elected president of the United States and committing that "fraud and robbery"? Bryan's popularity came from a sequence of popular narratives about bimetallism that went viral because they seemed to justify, at least to some voters, that bimetallism was legitimate, or, more precisely, that bimetallism at a 16:1 or 20:1 ratio with gold was legit.

We mustn't assume that the typical American had a deep, or even any, understanding of the monetary system. In the 1890s, most people in the United States were fundamentally confused about bimetallism and the existing monometallic (gold) standard. The confusion came because there were both gold and silver coins in circulation that were freely accepted as of equivalent value even though the gold content of a gold coin was worth in the metals market about twice the market value of a silver dollar. Also, there were paper dollars, the silver certificates, that had inscribed on them, "one silver dollar" and "payable to the bearer on demand." Isn't that a silver standard? In fact, however, if one brought 100 silver dollars or $100 worth of silver certificates to a US subtreasury office, then they would freely give 100 gold dollar coins in exchange. They would do this since failing to do so would disrupt the free convertibility of the gold and silver dollars. The key point that many people did not understand is that the US Treasury would not give gold dollars in exchange for metallic silver. If they did *that*, then the US Treasury would see a vast amount of silver presented for conversion in gold. Anyone could then have done this repeatedly: buy metallic silver on the market, exchange it for gold at the subtreasury, using the gold to buy more silver on the metals market, and repeat the process every day, which would allow one eventually to amass a huge fortune. But the supply of US silver dollars was limited by the US government.

Practically no one paid any attention then to the type of currency they received or spent. In fact, most people didn't even know how to convert their cash into gold if they wanted to.

Why, then, did narratives of unsound money circulate so strongly? Why did the call for a bimetallic standard become so vehement in the last decade of the nineteenth century? One reason is obvious: the idea was promoted that debtors would see their burden cut in half if they could pay in silver at 16 to 1. That idea must have seemed like a form of salvation to them, and any story suggesting the possibility of such a change would certainly be appealing. Recall, too, that the bimetallism narrative often was framed as revenge for the "Crime of 1873" through which an act of Congress ended the bimetallic standard.

Put these together: Bimetallism was a proposal to make a seemingly subtle and clever change in the backing of the currency that most uninformed people wouldn't even grasp, like the cryptography behind Bitcoin that very few understand today. So bimetallism was a cool idea, or a "capital idea" as they would say in the 1890s. On top of that, bimetallism might compensate for perceived injustice, the source of much anger. The two together gave bimetallism intense contagion.

The Yellow Brick Road

The peculiar contagion of gold and silver narratives is exemplified by the appearance of a social epidemic surrounding a children's book by then-obscure author L. Frank Baum. *The Wonderful Wizard of Oz* was published in May 1900, at the start of the second presidential election campaign between McKinley and Bryan, when bimetallism was again an issue. The book is a children's story about a young girl named Dorothy, who, with her little dog Toto, is transported to the mysterious Land of Oz. The story is a sort of odyssey, as Dorothy, wearing magical silver slippers and pursued by a witch, follows a yellow brick road to meet the Wizard of Oz. Accompanying her are Toto and three newfound friends: a scarecrow, a tin man, and a lion. In the end, the Wizard of Oz is shown to be a weak little man who is a phony.

Some people read the book as a parable: the yellow brick road is the gold standard, the silver slippers are the Free Silver movement, the Wizard of Oz is President McKinley, and the Cowardly Lion is William Jennings Bryan. Oz itself is the abbreviation for ounce, the usual unit of measurement for gold or silver.

The book did not garner critical acclaim, but it was a best seller, and became contagious. By 1902 it was a "musical extravaganza" onstage. Its success went meteoric with the release of the movie *The Wizard of Oz*, starring Judy Garland, in 1939. (The film version changed the silver slippers into ruby slippers to take full advantage of the relatively new color film.) Interest was renewed again in 1972 with an animated *Journey Back to Oz* with the voice of Garland's daughter, Liza Minnelli. The best-selling 1995 novel *Wicked: The Life and Times of the Wicked Witch of the West* by Gregory Maguire led to a Broadway musical, *Wicked: The Untold Story of the Witches of Oz*, which has been running continuously on Broadway since 2003, as of 2018 the sixth-longest-running Broadway musical ever.[29] There are other examples too, including a 2013 movie *Oz: The Great and Powerful* and a future Oz TV series under development in 2019 by Legendary Entertainment. The success of the Oz constellation might be a vestige, barely recognizable, of a gold-silver narrative that went viral over a century ago.

The End of the Gold Standard

The Bryan proposal to lower the precious-metal value of the US dollar was an extremely emotional issue in the 1890s. It was so because of a narrative that economic historians Barry Eichengreen and Peter Temin call the "mentality of the gold standard" and the "rhetoric of morality and rectitude" that the gold standard represented.[30]

By the 1930s, with the help of John Maynard Keynes, the narrative had changed owing to the sense that unemployment was at catastrophic levels. An article by Mark Sullivan in the *Hartford Courant* in November 1933, around the time of the devaluation of the US dollar from 1/20.67 ounce of gold to 1/35 ounce of gold and the suspension of convertibility, explained how the new narrative about the gold standard in the 1930s differed from that of earlier years. The difference was partly a matter of new words. Sullivan quotes Talleyrand, Napoleon's chief diplomat, that "the business of statesmanship is to invent new terms for institutions which under their old names have become odious to the public."[31] The supporters of the devaluation apparently understood this. By the 1930s, the new word *devaluation* had massively replaced the negative-sounding *debasement* and *inflation*. *Devaluation* refers to a constructive action of enlightened governments, while *debasement* and *inflation* connote a moral failing.

Other countries had already suspended convertibility of currency to gold coin before the United States did so in a series of steps in 1933–34. On the advice of eminent economists such as Keynes, the United Kingdom had suspended the gold standard in 1931. The final end of the gold standard occurred in 1971 in the United States under President Richard Nixon, with the switch to a floating dollar. The public accepted the end of the gold standard, and economic dislocations were few.

The gold standard narrative is certainly not prominent today. President Trump tested the waters by advocating for it, but the public reaction was largely neutral. However, the fascination with narratives about money certainly lives on, as our running Bitcoin example illustrates. It seems likely that the future will bring new mutations of the money narratives, which will arouse a segment of the public, and which will affect future economic developments.

In these first three chapters describing perennial narratives, we have seen how narratives can affect confidence in others' confidence, the desire to engage in conspicuous consumption, and beliefs about monetary institutions. In the next two chapters we consider recurring narratives about the advance of dramatic new technologies that had the potential make human skills obsolete and that forced people to think about fundamentally changing standards of living and working.

Chapter 13

Labor-Saving Machines Replace Many Jobs

Concerns that inventions of new machines that are powered by water, wind, horse, or steam, or that use human power more efficiently, might replace workers and cause massive unemployment have an extremely long history. These perennial narratives are reappearing with modification in the twenty-first century and could become important problems damaging confidence, as they did in the past.

In this chapter, we consider a number of technology narratives, often using the terms *labor-saving machinery* or *technological unemployment*, that went epidemic and then faded (Figure 13.1), including the Luddite event in 1811, the Swing Riots in 1830, the depression scare of 1873–79, the depression of 1893–97, and the extended Great Depression of 1930–41.

From Ancient Times to the Swing Riots

Talk of automatic machinery replacing human muscle power goes back to the ancient world. The *Iliad*, Homer's eighth-century BCE epic, describes a driverless vehicle, the tripod of Hephaestus, that navigates on its own. Homer refers to the vehicle as "automatic."[1] Aristotle, around 350 BCE, raised the possibility of machines replacing humans:

> For if every instrument could accomplish its own work, obeying or anticipating the will of others, like the statues of Daedalus, or the tripods of Hephaestus, which, says the poet, "of their own accord

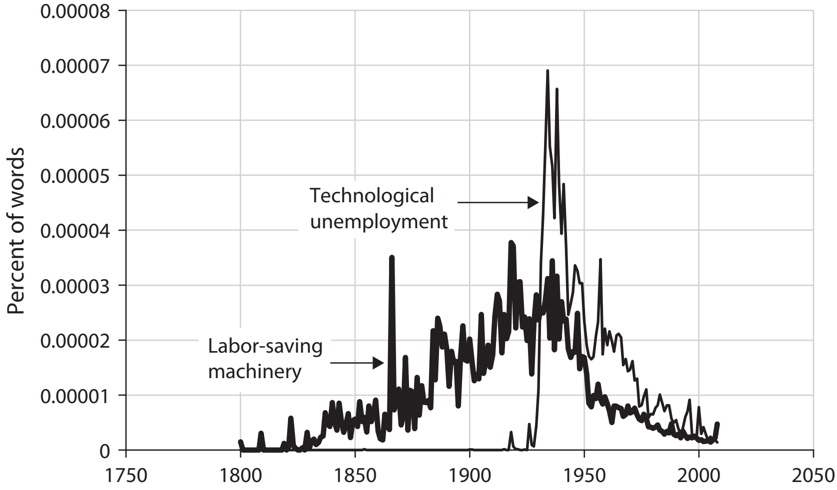

FIGURE 13.1. Frequency of Appearance of *Labor-Saving Machinery* and *Technological Unemployment* in Books, 1800–2008
Narratives of losing one's job to a machine have a long history, with mutations creating different epidemics. *Source*: Google Ngrams, no smoothing.

> entered the assembly of the Gods"; if, in like manner, the shuttle would weave and the plectrum touch the lyre without a hand to guide them, chief workmen would not want servants, nor masters slaves.[2]

The statues of Daedalus were said to be able to walk or run, like modern-day robots. Hero of Alexandria in the first century BCE wrote a book, *Automata*, describing how to make a programmable tripod of Hephaestus, as well as a coin-operated vending machine and other remarkable devices. Water-powered mills began grinding grain into flour by the first century BCE. So the idea of machines replacing jobs was in place long before the start of the Common Era, along with fears of unemployment.

Searching eighteenth-century newspapers, we find evidence of great interest in how technological advances are changing the economy, but without much alarm about technology's effects on jobs. The term *industrial revolution* does not come up at all in a search of eighteenth-century newspapers—historians introduced that term later on. But by the nineteenth century, concerns about technology-based unemployment took center stage. The narrative was particularly contagious during economic depressions when many were unemployed.

The defining event was a protest in 1811 in the United Kingdom by a group that claimed a mythical man, Ludd, as their spiritual leader. The mutation that renewed the old narrative and made it so virulent in 1811 was a new kind of power loom that was eliminating weavers' jobs. The word *Luddite* continued to appear regularly in newspapers in following years and today remains a synonym for a person who resists technological progress.

In 1830, the Swing Riots in Britain were a response to the loss of farm jobs that occurred when the new mechanical thresher entered widespread use. The rioters' spiritual leader was the imaginary "Captain Swing," and again rioters destroyed the machinery. Certainly the decline in agricultural employment due to mechanization was widely noted. It was a frightening change for the people in the advanced countries undergoing the fastest mechanization. Living on and working the land was an ancient tradition, and now workers had to do something entirely new to earn their keep, and the new jobs probably required moving to crowded urban areas. In describing their fears, they did not use the words *technological unemployment*, *computers*, or *artificial intelligence*, but they did have their own terms for the phenomenon, including *labor-saving*, as in labor-saving appliances, labor-saving devices, labor-saving inventions, labor-saving machines, and labor-saving processes.

Depression Narratives of the 1870s

In the depression of 1873–79, a particularly strong depression in the United States and Europe, concern that labor-saving inventions were at least partly to blame for high unemployment took center stage in the popular consciousness, likely worsening the depression. In the United States, this depression is typically attributed to financial speculation leading to the banking panic of 1873, but the fear-inducing narrative about a long-term loss of jobs and job prospects due to labor-saving inventions may help to explain why the depression went global. Certainly the depression of the 1870s was accompanied by farmers' accelerated adoption of labor-saving machinery, along with more workers destroying machines and hired farm laborers threatening violence.[3] Underneath the violence was widespread concern about the outlook for the common laborer.

In the middle of that depression, the famous 1876 Centennial Exhibition in Philadelphia, a celebration of one hundred years of US independence, turned out to be more a testimony to labor-saving machinery than a remembrance of the American Revolution. The exhibition did display some of George Washington's personal items, but not much more about history. Instead, it presented examples of modern industry from twenty countries. The visitor's guide describes one of the most dramatic exhibits in the gigantic Machinery Hall:

> In the centre of this building is located a 1400 horse-power Corliss engine, capable of driving (if required) the entire shafting necessary to run all the machinery exhibits. This engine has a 40-inch cylinder with 120-inch stroke, and was constructed for this especial service. It will be run when required, but it is expected that the engines on exhibition will do a portion of the work of driving the shafting. The main lines of shafting are at a height of 18 feet above the floor, and extend almost the entire length of the building; countershafts extend from the aisles into the avenues at necessary points.[4]

The exhibition also gave reason for alarm regarding jobs in agriculture:

> Among the most extensive and interesting exhibits will be the agricultural machines in active operation, comprising everything used on the farm or plantation, in tillage, harvesting, or preparation for market; manufactured foods of all kinds, and all varieties of fish, with the improved appliances for fish-culture.[5]

Though impressive, the Centennial Exhibition's technological exhibits led to fears about jobs and about the horrible human effects of unemployment. The *Philadelphia Inquirer* in 1876 wrote:

> Want of employment leads to discouragement, hopelessness and despair. It overflows almshouses, charitable institutions, prison houses and penitentiaries. It degrades manhood. It ruins families. Misery,

> crime and suicide follow in its wake. It supplies ready victims for the gallows. . . . To-day one man does what would have been the work of a hundred, fifty years ago. The steam-power of seven tons of coal is sufficient to make 33,000 miles of cotton thread in ten hours, while, without machinery, this would equal the hand labor of 70,000 women! Consumption does not keep pace with the production by machinery. Markets become glutted.[6]

As a result of these fears, in 1879 Senator George Frisbie Hoar of Massachusetts set up a committee to "enquire and report as to the extent to which labor-saving processes have entered into production and distribution of products to the displacement of manual labor."[7]

However, by 1879, a counternarrative had already developed: labor-saving processes will increase the number of jobs, not decrease them. One editorial in the *Daily American*, dismissing the worries about replacement of labor by machines, noted,

> The whole tendency of labor-saving processes is towards the elevation of the laboring classes, and if the change is accompanied by some hardship, so is every step in the progress of the human race.[8]

This editorial sounds very much like arguments made today to reassure workers regarding their fear of job loss, but the overall discussion of labor-saving machinery during the depression of the 1870s suggests that such arguments were not persuasive.

Henry George's 1879 best seller, *Progress and Poverty*, faced these issues head on. The book held that the immense technological advances of the time were creating inequality and increasing the number of people who lived in poverty. The book asserted:

> For, if labor-saving inventions went on until perfection was attained, and the necessity of labor in the production of wealth was entirely done away with, then everything that the earth could yield could be obtained without labor, and the margin of cultivation would be extended to zero. Wages would be nothing, and interest would be nothing, while rent would take everything. For the owners of land, being enabled without labor to obtain all the wealth that could be procured

> from nature, there would be no use for either labor or capital, and no possible way in which either could compel any share of wealth produced. And no matter how small population might be, if any body [*sic*] but the land owners continued to exist, it would be at the whim or by the mercy of the land owners—they would be maintained either for the amusement of land owners, or, as paupers, by their bounty.[9]

At this time, the phrase *push a button* arose to indicate a mechanical actuation that completes an electrical circuit. For example, in 1879, the news described an invention in France that would allow a horse's rider to push a button to deliver an electrical shock to the horse, a system that could be used to discipline a misbehaving horse.[10]

Labor-Saving Inventions and the Depression of the 1890s

Such inventions only exacerbated fears of unemployment. An 1894 editorial in the *Los Angeles Times* blamed the severity of the 1890s depression on labor-saving inventions:

> There is no doubt that the introduction of labor-saving machinery and the consequent increase of production has had more than a little to do with the present depression in business. . . . It is true that during the past few years the increase in the invention and adoption of labor-saving machinery has been so great that the community has scarcely been able to keep up with it.[11]

The article then went on to list recent examples of labor-saving innovations:

> In the manufacture of hats machinery has multiplied the productive power of labor nearly nine times. Manifestly we can't wear nine times as many hats as formerly.
>
> By the adoption of improved processes the labor involved in the production of flour has been reduced 80 percent, yet we can each eat no more flour.[12]

That same year, the *San Francisco Chronicle* chimed in with an editorial about labor-saving machinery. The editorial was entitled "The Great Problem":

> The rich have grown richer and the poor have grown poorer. Side by side with the growth of enormous fortunes the hovels of the struggling laborers have become more dilapidated. . . . And to further emphasize the seriousness of these considerations it may be said that this problem must soon be solved or there will come a cataclysm which will destroy modern civilization.[13]

In 1895 a new dumbwaiter system was installed in US kitchens in multifloor buildings. The dumbwaiter had an array of buttons, one for each floor of the building. Press the number of the floor, and the elevator would automatically ascend to that floor and stop there, to return if a button was then pressed from that floor.

In "Stores Are Merely Labor-Saving Machines," an 1897 letter to the editor of the *Chicago Daily Tribune*, the letter writer adds to the growing list of labor-saving innovations. He refers to the department store movement, the movement to build gigantic stores that sold everything imaginable under one roof. The movement had started in 1838 with the Bon Marché department store in Paris. By the 1890s, department stores were an accelerating international epidemic, with continued expansions, glamorizing, and advertising over succeeding decades. The letter writer notes that even further expansion of department stores could yet "do away with so many people employed to distribute where one-third of them could do as well."[14]

In Chicago, Marshall Field & Co., established in 1881, built a seven-story department store in downtown Chicago in 1887. It then built an even more glamorous nine-story store in 1893, to coincide with the large crowds expected to attend the international fair, the 1893 Columbian Exposition. In 1897, Chicago's elevated street railway, called "The Loop," was completed, connecting many more people to Marshall Field's, marking an innovation in efficient retailing that may have prompted this letter writer.

Particularly striking during the 1893–99 depression was a spike in public anger about trusts, combinations of companies that fixed prices at a high level. In an 1899 talk in New York, John C. Chase, mayor of Haverhill, Massachusetts, and former trade unionist, said, "The trust is, in my opinion, a labor saving machine," apparently meaning that the modern trust adopts such machines in its inhuman effort to dispense with labor.[15]

Machines, Robots, and Future Technological Unemployment

The notion of a world without labor became more vivid with E. M. Forster, the English novelist famous for such classics as *A Room with a View*, *A Passage to India*, and *Howards End*. Forster's 1909 science fiction story "The Machine Stops" described a future in which machines do everything:

> Then she generated the light, and the sight of her room, flooded with radiance and studded with electric buttons, revived her. There were buttons and switches everywhere—buttons to call for food, for music, for clothing. There was the hot-bath button, by pressure of which a basin of (imitation) marble rose out of the floor, filled to the brim with a warm deodorized liquid. There was the cold-bath button. There was the button that produced literature, and there were of course the buttons by which she communicated with her friends. The room, though it contained nothing, was in touch with all that she cared for in the world.[16]

Forster's story ends when the machine unexpectedly malfunctions, bringing death and destruction to a world that has grown too dependent on it.

A little more than a decade later, during the 1920–21 depression, the labor-saving machine narrative mutated again, leading to the idea of robots. A 1921 Czech play, *R.U.R.: Rossum's Universal Robots,* by Karel Čapek, coined the word *robot,* from the Czech word for *worker,* to replace the earlier terms *labor-saving invention* and *automaton.* The play first appeared in English translation in New York in October 1922, to strong reviews. The play was not a big immediate success, and it was not made into a movie until 1948. But it started a narrative epidemic.

The play and its ideas went viral enough to cause the word *robot* to enter most of the world's languages. The play tells the story of the scientist Rossum, who invents a robot, and the businessman Domin, who starts manufacturing robots and who ultimately faces a revolt of the robots, who have developed minds of their own. The idea of a mechanical man who walks, talks, and fights might seem to be more inherently contagious than stories of push-button devices, but Čapek's initial story reached only a small base of people, and so the robot epidemic was gradual. Perhaps the recovery rate was also low because of the constant reminders of technological innovations in the following decades. Very few newspapers mentioned robots in the 1920s, but use of the term grew over the decades. To become more contagious, the idea of a robot may have needed further development by creative people.

Before 1930: Increasingly Vivid Narratives of Machines Replacing People

The story of an automated future was growing more and more vivid, but the stories still seemed mostly remote. The word *robot* did not become common in newspapers and books until the 1930s, though there were some dramatic exceptions, such as a traffic light, described in the *Los Angeles Times* in July 1929, that replaced policemen who had been directing traffic at an intersection in Medford, Massachusetts:

> The robot, which is made up in the usual form of red, yellow and green-light traffic tower, is operated automatically by the automobiles themselves as they pass over sensitive plates set in the street surface. No car is required to wait when there is no opposing traffic. When the car reaches an intersection and the way is clear the control from the plate in the pavement will give it a green light. If a car is waiting to cross an intersection and the opposing traffic is heavy the light permitting the car to cross will automatically set in its favor whenever there is a

> gap and will immediately return in favor of the heavy traffic once the car is clear. The robot handles multiple numbers of machines on the same principle, the streets containing the greatest amount of traffic being emptied or partially emptied first, thus using a smooth even flow of traffic through all parts of the complicated square here.[17]

Reading this paragraph today, almost a century later, we may wonder why we still find ourselves occasionally waiting in our cars at a red light when there is no opposing traffic. There must have been problems with this particular robot, problems that still do not have an inexpensive and practical solution. But this 1929 story was beginning to have an impact.

A decade earlier, a new phrase had appeared in the English language to describe the effects of labor-saving inventions. The phrase was *technological unemployment*. This phrase appeared first in 1917, but it started its epidemic upswing in 1928. The count for *technological unemployment* skyrockets in the 1930s in Google Ngrams into an epidemic curve much like the Ebola epidemic curve in Figure 3.1. The *technological unemployment* curve peaked in 1933, the worst year of the Great Depression. A parallel epidemic occurred with the term *power age*, which is now mostly gone. The power age referred to the perception that activities once done by muscle are now done by powerful machines. During the 1870s depression, about half the US labor force worked in agriculture, and the labor-saving machinery of that decade tended to be agricultural equipment, pulled by horses. By 1880, only a fifth of the US labor force worked in agriculture, and the narratives focused instead on new fuel-powered and electronic machines, threatening the jobs to which agricultural people fled from the farms. (Less than 2% of the US workforce is in agriculture today.) Technological unemployment became a new and persistent worry.

It is curious that the narrative epidemic of technological unemployment began in 1928, a time of prosperity well before the Great Depression. Still, 1928 was a time of heightened concern about unemployment, which was blamed entirely on technological unemployment and not connected in public talk to any weakness in the US economy. Philip Snowden, former and future chancellor of the Exchequer in the United

Kingdom, wrote in the *New York Times* in 1928 that the United States, then the leader in developing labor-saving devices, had a unique problem of technological unemployment:

> But if other countries are compelled to follow America in specialization and in the displacement of human labor, the problem of unemployment in these countries will assume the feature of the existing unemployment problem in America.
>
> This, indeed, is the great problem which every industrial nation must face, namely, to avoid the present hardship which mechanical and scientific advance inflicts upon a mass of the wage-earning class. In other words, the problem is to free the human being from slavery to the iron man.[18]

By the 1920s, there was much talk about "efficiency experts" whose "time and motion studies" treated workers as if they were machines. The experts' goals were to eliminate any unnecessary motions, thereby saving time and labor cost. Like other narratives that took form in the late 1920s and went viral in the Great Depression of the 1930s, efficiency was associated with technological unemployment.

How did the epidemic of technological unemployment fears start? In March 1928, US senator Robert Wagner stated his belief that unemployment was much higher than recognized, and he asked the Department of Labor to do a study of unemployment. Later that month, the department delivered the study that produced the first official unemployment rates published by the US government. The study estimated that there were 1,874,030 unemployed people in the United States and 23,348,602 wage earners, implying an unemployment rate of 7.4%.[19] This high estimated unemployment rate came at a time of great prosperity, and it led people to question what would cause such high unemployment amidst abundance.

In April 1928, a month later, the *Baltimore Sun* ran an article referring to the theories of Sumner H. Slichter, who later became a prominent labor economist in the 1940s and 1950s. In the article, readers are told that Slichter noted several causes of unemployment but pointed out that "at present the most serious is technological unemployment." Specifically, "The reason we have this unemployment is because we are eliminating jobs through labor-saving methods faster than we are creating them."[20] These words, alongside the new official reporting of unemployment statistics, created a contagion of the idea that a new era of technological unemployment had arrived, and the Luddites' fears were renewed. The earlier agricultural depression, with its associated fears of labor-saving machinery, began to look like a model for an industrial depression to follow.

Stuart Chase, who later coined the term the "New Deal" in the title of a 1932 book, published *Men and Machines* in May 1929, during a period of rapidly rising stock prices. The real, inflation-corrected, US stock market, as measured by the S&P Composite Index, rose a final 20% in the five months after the book's publication, before the infamous October 1929 crash. But concerns about rising unemployment were apparent even during the boom period. According to Chase, we were approaching the "zero hour of accelerating unemployment":[21]

> Machinery saves labour in a given process; one man replaces ten. A certain number of these men are needed to build and service a new machine, but some of them are permanently displaced. . . . If purchasing power has reached its limits of expansion because mechanization is progressing at an unheard of rate, only unemployment can result. In other words, from now on, the better able we are to produce, the worse we shall be off. Even if the accelerating factor has not arrived, the misery of normal unemployment continues unabated.
>
> This is the economy of the madhouse.[22]

The book conveyed a sense that the beginnings of the catastrophe were imminent: "Accelerating unemployment . . . if not already here, may conceivably arrive at any moment."[23] This is significant: the narrative of out-of-control unemployment was already starting to go viral before there was any sign of the stock market crash of 1929.

During the days of sharp US stock market drops the week before the October 28–29, 1929, stock market crash, a nationally reported National Business Show was running in New York, October 21–26, in a convention center (since demolished) adjacent to Grand Central Station that many Wall Street people passed through to and from work. The show emphasized immense progress in robot technology in the office workplace. It was described after the show moved to Chicago in November thus:

> Exhibits in the national business show yesterday revealed that the business office of the future will be a factory in which machines will replace the human element, when the robot—the mechanical man—will be the principal office worker. . . .
>
> There were addressers, autographers, billers, calculators, cancelers, binders, coin changers, form printers, duplicators, envelope sealers and openers, folders, labelers, mail meters, pay roll machines, tabulators, transcribers, and other mechanical marvels. . . .
>
> A typewriting machine pounded out letters in forty different languages. A portable computing machine which could be carried by a traveling salesman was on exhibit.[24]

The 1930s: A New Form of Luddism Prevails

Soon after the 1929 stock market crash, by 1930, the crash itself was often attributed to the surplus of goods made possible by new technology:

> When the climax was reached in the last months of 1929 a period of adversity was inevitable because the people did not have enough money to buy the surplus goods which they had produced.[25]

As noted above, fear of robots was not strong in most of the 1920s, when the word *robot* was coined. The big wave of fear had to wait until the 1930s. Historian Amy Sue Bix (2000) offers a theory to explain why the 1920s were fearless: the kinds of innovations that received popular acclaim in the 1920s didn't obviously replace jobs. If asked to describe new technology, people in most of the 1920s would perhaps think first of the Model T Ford, whose sales had burgeoned to 1.5 million cars a year by the early part of the decade. Radio stations, which first appeared around 1920, provided an exciting new form of information and entertainment, but they did not obviously replace many existing jobs. More and more homes were getting wired for electricity, with many possibilities for new gadgets that required electricity. Labor unions in the 1920s tried to sound alarms about machines replacing jobs—and they sounded those alarms with increasing force as the 1920s proceeded—but the public didn't react much. The labor unions' alarms were not contagious because people had not heard many stories about inventions replacing jobs.

By the 1930s, Bix notes, the news had replaced stories of exciting new consumer products with stories of job-replacing innovations. Dial telephones replaced switchboard operators. Mammoth continuous-strip steel mills replaced steel workers. New loading equipment replaced coal workers. Breakfast cereal producers bought machines that automatically filled cereal boxes. Telegraphs became automatic. Armies of linotype machines in multiple cities allowed one central operator to set type for printing newspapers by remote control. New machines dug ditches. Airplanes had robot copilots. Concrete mixers laid and spread new roads. Tractors and reaper-thresher combines created a new agricultural revolution. Sound movies began to replace the orchestras that played at movie theaters. And of course the decade of the 1930s saw massive actual unemployment in the United States, with the unemployment rate reaching an estimated 25% in 1933.

It is difficult to know which came first, the chicken or the egg. Were all these stories of job-threatening innovations spurred by the exceptional pace of such innovations? Or did the stories reflect a change in the news media's interest in such innovations because of public concern about technological unemployment? The likely answer is "a little of both."

Underconsumption, Overproduction, and the Purchasing Power Theory of Wages

Unlike the technological unemployment narrative, the labor-saving machines narrative was strongly connected to an underconsumption or overproduction theory: the idea that people couldn't possibly consume all of the output produced by machines, with chronic unemployment the inevitable result. This theory's origins date back to the mercantilists in the 1600s, but popular use of the terms *underconsumption* and *overproduction* first appears in ProQuest and Google Ngrams around the time of the depression of the 1870s. Henry George described the overproduction theory in his 1879 book *Progress and Poverty*, during the depression of the 1870s, concluding it was an "absurdity."[26]

The theory of overproduction or underconsumption picked up steam in the 1920s. It was mentioned within days of the stock market crash of October 28–29 1929, in interpreting the crash.[27]

The real peak of these narratives was in the 1930s. Underconsumption narratives appeared five times as often in ProQuest News & Newspapers in the 1930s as compared with any other decade. The narrative has virtually disappeared from public discourse, and the topic now appears largely in articles about the history of economic thought. But it is worth considering why it had such a strong hold on the popular imagination during the Great Depression, why the narrative epidemic could recur, and the appropriate mutations or environmental changes that would increase contagion. Today, *underconsumption* sounds like a bland technical phrase, but it had considerable emotional charge during the Great Depression, as it symbolized a deep injustice and collective folly. At the time, it was mostly a popular theory, not an academic theory.

Despite the obvious reality that deflation necessitates wage cuts, an opposing "purchasing power theory of wages" became popular in the 1930s. This theory said that "excessive competition" had forced down wages to such an unfair low level that workers could not afford to consume the output. Thus the Depression could be cured by forcing all employers to raise wages. The economist Gustav Cassel in 1935 called these ideas "charlatan teachings" that "have recently taken a conspicuous place in popular discussion of social economy as well as in political agitation."[28]

But the public did not dismiss such charlatan teachings. In the 1932 presidential campaign, Franklin Roosevelt ran against incumbent Herbert Hoover, who had been unsuccessful with deficit spending to restore the economy. Roosevelt gave a speech in which he articulated the already-popular theory of underconsumption. His masterstroke was putting it in the form of a story inspired by Lewis Carroll's famous children's book

Alice's Adventures in Wonderland. In that book, a bright and inquisitive little girl named Alice meets many strange creatures that talk in nonsense and self-contradictions. Roosevelt's version of this story replaced his opponent Hoover with the Jabberwock, a speaker of nonsense:

> A puzzled, somewhat skeptical Alice asked the Republican leadership some simple questions.
>
> Will not the printing and selling of more stocks and bonds, the building of new plants and the increase of efficiency produce more goods than we can buy? No, shouted the Jabberwock, the more we produce the more we can buy.
>
> What if we produce a surplus? Oh, we can sell it to foreign consumers.
>
> How can the foreigners buy it? Why we will lend them the money.
>
> Of course, these foreigners will pay us back by sending us their goods? Oh, not at all, says Humpty Dumpty. We sit on a high wall of a Hawley-Smoot Tariff.
>
> How will the foreigners pay off these loans? That is easy. Did you ever hear of a moratorium?[29]

Roosevelt used this story to point out the folly of Republican policy, with its attempts at economic stimulus, but his campaign did not suggest any solution to the problem. Instead, in his "Alice" speech, he proposed to install investor protections. He also promised not to make the overly optimistic statements that President Hoover had, and he noted that he would not encourage more stock market speculation. Elected in 1932, Roosevelt signed in 1933 the National Industrial Recovery Act, creating the National Recovery Administration, which attempted to enforce fair wages. We discuss the outcome of this experiment in chapter 17.

On the face of it, underconsumption seemed to explain the high unemployment of the Great Depression, but academic economists never seriously embraced the theory, which had never been soundly explained. Often the theory was presented as an adjunct to technological unemployment: underconsumption suddenly became a problem in the 1930s because of the nation's newfound ability to produce more than it needed. But other accounts of underconsumption make no mention of technology. For example, in 1934, Chester C. Davis, administrator of the Agricultural Adjustment Administration, described how his agency was "redistributing purchasing power to the masses" so as to help them spend more and thereby deal with underconsumption. He explained why he thought technological unemployment had suddenly become so important:

> Why does our nation seem to need this supplement to the market mechanism, after 158 years? You have the answer if you will go back into history and consider the gradual concentration of business into great corporations, of farmers into marketing cooperatives, of labor into collective bargaining associations. These have reduced the area of the free market and have increased the power of individuals controlling these concentrations.[30]

In other words, Davis saw the concentration of business as amplifying the problem of technological unemployment.

The massive unemployment set off serious social problems. For example, in the United States it caused the forced deportation (then called *repatriation*) of a million workers of Mexican origin. The goal was to free up jobs for "real" Americans.[31] The popular narrative supported these deportations, and there was little public protest. Newspaper reports showed photos of happy Mexican Americans waving goodbye at the train station on their way back to their original home to help the Mexican nation.

The dial telephone also played an important part in narratives about unemployment and the associated underconsumption. The older telephone, which had no dial, required a caller to pick up the phone receiver and connect to a telephone operator, who said, "Number please?" The caller had to tell the operator to make the connection. The dial telephone, which required no contact with an operator, was not invented during the Great Depression; in fact, the first patent for a dial telephone dates to 1892. The transition from the non-dial telephone to the dial telephone took many decades. However, during the Great Depression, there rose a narrative focus on the loss of telephone operators' jobs, and the transition to dial telephones was troubled by moral qualms that by adopting the dial phone one was complicit in destroying a job. For example, the US Senate in Washington, DC, replaced its non-dial phones with dial telephones in 1930, the first year of the Great Depression. Three weeks after their installation, Senator Carter Glass introduced a resolution to have them torn out and replaced with the older phones. Noting that operators' jobs would be lost, he expressed true moral indignation against the new phones:

> I ask unanimous consent to take from the table Senate resolution 74 directing the sergeant at arms to have these abominable dial telephones taken out on the Senate side . . . I object to being transformed into one of the employes of the telephone company without compensation.[32]

His resolution passed, and the dial phones were removed. It is hard to imagine that such a resolution would have passed if the nation had not been experiencing high unemployment. This story fed a contagious economic narrative that helped augment the atmosphere of fear associated with the contraction in aggregate demand during the Great Depression.

The loss of jobs to robots (that is, automation) became a major explanation of the Great Depression, and, hence, a perceived major cause of it. An article in the *Los Angeles Times* in 1931 was one of many that explained this idea:

> Whenever a man is replaced by a machine a consumer is lost; for the man is deprived of the means of paying for what he consumes. The greater the number of Robots employed, the less is the demand for what they produce for men cannot consume what they cannot pay for.
>
> This condition is inescapable. No political panaceas can alleviate this purely human distress.[33]

Even if the man hasn't lost his job yet, he will consume less owing to the prospect or possibility of losing his job. The US presidential candidate who lost to Herbert Hoover in 1928, Al Smith, wrote in the *Boston Globe* in 1931:

> We know now that much unemployment can be directly traced to the growing use of machinery intended to replace man power. . . . The

> human psychology of it is simple and understandable to everybody. A man who is not sure of his job will not spend his money. He will rather hoard it and it is difficult to blame him for so doing as against the day of want.[34]

Albert Einstein, the world's most celebrated physicist, believed this narrative in 1933, at the very bottom of the Great Depression, saying the Great Depression was the result of technical progress:

> According to my conviction it cannot be doubted that the severe economic depression is to be traced back for the most part to internal economic causes; the improvement in the apparatus of production through technical invention and organization has decreased the need for human labor, and thereby caused the elimination of a part of labor from the economic circuit, and thereby caused a progressive decrease in the purchasing power of the consumers.[35]

By that time, people had begun to label labor-saving inventions as "robots," even if there were no mechanical men to be seen. One article in the *Los Angeles Times* in early 1931, about a year into the Great Depression, said that robots then were already the "equivalent of 80 million hand-workers in the United States alone," while the male labor force was only 40 million.[36]

A Word Is Born: *Technocracy*

By 1932, the bottom of the stock market decline, the US stock market had lost over 80% of its 1929 value in less than three years. We have to ask: Why did people value the market at such a low level? A big part of the answer was a narrative that went viral: modern industry could now produce more goods than people would ever want to buy, leading to an inevitable and persistent surplus.

This new narrative became associated with two new words that left ordinary people out of the economic picture: *technocracy*, a society that is commanded by technicians, and *technocrat*, one of these now-powerful technicians. These words weren't new to the 1930s. They had been used occasionally in the 1920s to refer to a theory that the government should be run by scientists who could assure world peace. Thorstein Veblen had written a book, *The Engineers and the Price System*, during the previous depression, 1920–21, that envisioned a world run by a "soviet of technicians." But the words took on a new meaning with the explosion and duration of unemployment by the early 1930s. A Columbia University group with revolutionary pretensions called itself "Technocracy." Led by engineer Howard Scott, it was composed of scientists from across the United States. By 1933, Scott was as famous as movie stars of that day.

The technocracy movement created its own jargon and proposed a new kind of money, electric dollars. As explained in a 1933 book, *The A B C of Technocracy*, written under the supervision of Howard Scott and published under the pseudonym Frank Arkright, electric dollars represented units of energy. The name Arkright appears to have been inspired by the life of Richard Arkwright, the inventor of the spinning frame, a water-powered spinning machine that displaced jobs and resulted in antimachinery riots in 1779. The Arkright book and its ideas went viral, particularly with the idea that modern science would soon transform the economy, even eliminating money as we know it. The story has many similarities to the Bitcoin story, right down to the use of a pseudonym, Frank Arkright, like Satoshi Nakamoto.

According to *The A B C of Technocracy*, the US economy had an installed capacity of a billion horsepower. It also stated that one horsepower equals ten men's labor and that running the machinery for the ten laborers required only two eight-hour days a week. Thus the book gave credence to the idea that the rising unemployment of the Great Depression was the beginning of an alarming new permanent condition. The conclusions reached by one report were disturbing indeed:

> The situation we are now facing is entirely without precedent in human history, because up to less than 100 years ago the human body was the most efficient machine for energy conversion on earth. The advent of technology makes all findings based on human labor irrelevant because the rate of energy conversion of the modern machine is many thousand times that of man. Up to the year 1890 the movement of the

> social body in terms of energy production might be compared to the progress of an ox cart. Since 1890, by comparison, it has attained the speed of an aeroplane and is constantly accelerating.[37]

The idea that the world would now belong to the technicians who designed and ran the machinery was naturally frightening to those who did not deem themselves capable of becoming scientists—that is, most people—and it must have resulted in a hesitation to spend, invest, and hire, which worsened and prolonged the Great Depression.

The *New York Times* in 1933 described some amazement at the strength of the technocracy fad:

> The sensational nature of the technocratic case caused a mass movement that was almost hysterical. Many of those who read Scott's prediction that there would be 20,000,000 unemployed within two years unless something were done along lines set forth by him, vague as these were, looked to the imminent collapse of our industrial and economic system. Business contracts were even held up because of the fear engendered by technocracy.[38]

The technological unemployment narrative appears to have saturated the population by sometime in the 1930s. Afterward, references to it did not need to use the phrase *technological unemployment* because everyone understood the concept. For example, a long 1936 *New York Times* article deploring the tragic effects of long-term unemployment on the human spirit and on family relations did not refer to any theory of unemployment beyond stating that the unemployed people described "have been superannuated less by age than by newly invented machines."[39]

The Narrative Turns to World War II

Though the technological unemployment narrative faded after 1935 (as revealed by Google Ngrams), it did not go away completely. Instead, it continued to exert some influence in the run-up to World War II, until new narrative constellations about the war became contagious.

Many historians point to massive unemployment in Germany to explain the accession to power of the Nazi Party and Adolf Hitler in the election of 1933, the worst year of the Depression. But rarely mentioned today is the fact that a Nazi Party official promised that year to make it illegal in Germany to replace men with machines.[40]

Charlie Chaplin's 1936 movie *Modern Times* marks a narrative that was so powerful that it remains in collective memory today. The movie contained a hilarious scene[41] in which a company adopts a new technology that allows it to streamline the workers' lunch hour by having robotic hands feed the employee his lunch. When Charlie Chaplin is fed his lunch, the machine malfunctions and speeds up to such a rate that it creates a terrible mess. Not coincidentally, the story was contagious at a time of high concern with labor-saving machines.

Searching for mention of robots in the news during World War II, we find some examples. Early in the war a Yale scientist, Clark Hull, was working toward eventually developing armies of robot soldiers.[42] But the account of his efforts sounded far-off and far-fetched. The "robot bombs" and "robot planes" used by the Nazis later in the war were reported to be ineffective.[43] Instead, the news was filled with narratives of great heroism by real human soldiers.

To go viral again, the labor-saving machines narrative needed a new twist after World War II, a twist that could seem to reinforce the newly rediscovered appreciation of human intelligence, and, ultimately, of the human brain. The narrative turned to the new "electronic brains"—that is, computers. The phrase *electronic brain* has a beautiful epidemic curve peaking around 1960, which is indicative of a constellation of machines narratives then that we explore in the next chapter.

Chapter 14

Automation and Artificial Intelligence Replace Almost All Jobs

The narrative of technological unemployment as causing a problem for the indefinite future did not disappear with World War II. In fact, it repeatedly mutated and took on a different sort of virulence, often associated with the terms *automation* or *artificial intelligence*, as Figure 14.1 shows. There were at least four post–World War II narratives about artificial intelligence, peaking, respectively, in the 1960s, 1980s and 1990s, and 2010s. As of this writing, the artificial intelligence narrative of the 2010s looks to be heading even higher.

Each time, the narrative suggested that the world was only just now reaching a frightening major turning point when the machines take over. Because Rossum's Universal Robots (described in the preceding chapter) could talk, they represented a form of artificial intelligence, but there was no story regarding how such intelligence might be achieved. The robots were like the talking animals in children's stories. But the idea of automation and artificial intelligence repeatedly gained new epidemic proportions as the ideas took on new concreteness.

Fears of automation were likely associated with fears of an impending depression. A year-end 1945 *Fortune* public opinion survey conducted by Elmo Roper asked the US public:

> Do you expect we probably will have a widespread depression within ten years or so after the war is over or do you think we probably will be able to avoid it?

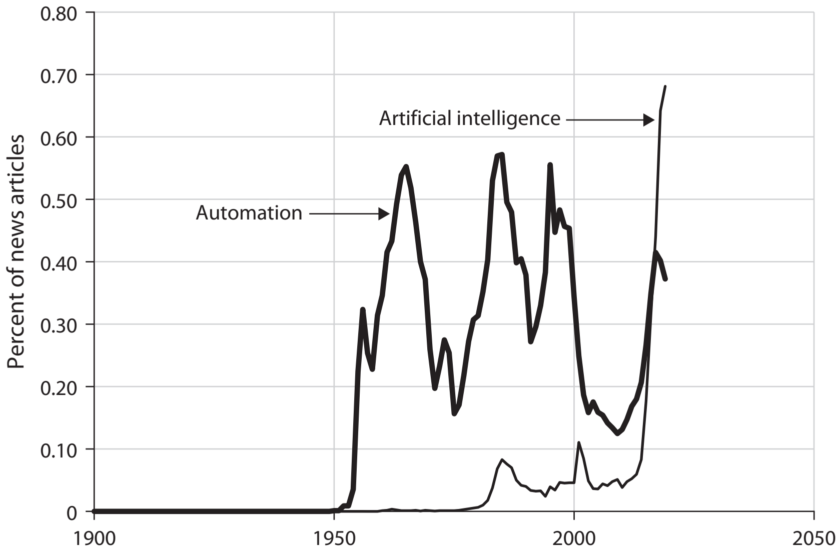

FIGURE 14.1. Percentage of Articles Containing the Words *Automation* and *Artificial Intelligence* in News and Newspapers, 1900–2019
The automation and artificial intelligence narratives have recurred several times, with variations in the story each time. *Source*: Author's calculations from ProQuest News & Newspapers.

The results:
Per cent
Have a depression 48.9
Probably avoid it 40.9
Don't know ....10.2[1]

So about half the US population "expected" a depression after World War II. Most likely, their answers reflected their still-strong memories of the Great Depression and post–World War I narratives that we have discussed rather than any clear forecast.

Fortunately, these expectations were wrong; there was no recurrence of depression. Yes, there was a fatalistic fear of a returned depression, but the angry narratives of the recent depressions had faded, including the angry narrative of profiteering that contributed to the post–World War I depression. That narrative just did not restart. In addition, the idea that prices should fall to 1913 levels no longer seemed realistic. The end of World War II was also a distraction that temporarily reduced attention to technological unemployment. Instead, a constellation of economic narratives after World War II began to suggest that it was all right to spend money now that the war was over. (We discuss profiteering and the expectation of lower prices in more detail in chapter 17.)

Among these narratives was the story of the many expensive vacations that Americans were taking right after the war, which offset the frugality narratives of the Great Depression. "The greatest surge in travel in the history of the Americas" was on, and 1946, the year after the end of the war, was dubbed the "Victory Vacation Year."[2] Even a couple years before the war ended, travel agents and vacation resorts in the Western hemisphere had begun promoting the extravagant traveling victory vacation as a way for consumers to spend some of the wealth they'd socked away in government war bonds.

When the vacations actually happened in 1946, the vacationers duly recorded them on new Ready-Mounts (35mm color slides) and stored those slides in a new case that complemented last year's Christmas present, a slide projector.[3] Also, consumers used home movie cameras (which had been mostly unavailable until the years after World War I) to create extensive travelogues. These slides and movies of the vacation, as well as of the new baby (that's me, born in 1946), were shown to friends and relatives back home, spreading the sense of happy times and a patriotic feeling about the shared experience of spending extravagance.

People also began to see their new optimism bolstered by their perceptions of others' optimism. The baby boom, first noted in 1946, marked a big difference from the end of World War I, which was followed by a deadly influenza epidemic instead of a baby boom. The new optimistic stories after 1948 became a self-fulfilling prophecy, a term coined in 1948 by Robert K. Merton. A 1950 newspaper article asserted:

> With such an optimistic consensus as has developed at this year end, the forecasting itself can have the effect of helping to promote high activity.[4]

But the question we must ask is this: Why did so many people in 1945, at the end of World War II, expect a postwar depression? And why did the intermittent recessions in the 1950s and 1960s interrupt the overall optimism? The answer must lie in good part in a Great Depression narrative that still had intermittent power in the postwar period: the same technological unemployment narrative but in mutated form.

The Automation Recession Narrative

The same "zero hour" for the labor-saving machinery economic narrative that appeared in 1929 reappeared late in the second half of the twentieth century, but in mutated forms.

The term *singularity* began to be used after Einstein published his general theory of relativity in 1915. The word denotes a situation in which some terms in the equations became infinite, and it was used to describe the astronomical phenomenon of what came to be called the black hole: a "singularity in space-time." But later the glamorous term *singularity* came to be defined as the time when machines are finally smarter than people in all dimensions.

Such mutations in the economic narrative shifted attention from the muscles being replaced by electrical machines to the brain being replaced by artificial intelligence. The basic technological unemployment narrative is the same, but the examples have a wider scope. First, giant locomotives and electrical power equipment economized on human muscle power. After the mutation, the narrative focused on computers replacing human thinking. This mutation refreshed the narrative.

The term *automation* differs from *labor-saving* in that *automation* suggests no one is near the production process, except perhaps for a technician in a distant control room who presses buttons to start the process. Automation was then described starting in the 1950s not just as machines, but rather as "machines running machines."[5] It suggests a process that runs by itself with no one even paying attention.

Around 1955, the word *automation* suddenly launched into an epidemic. There was considerable public worry that jobs would be replaced.

Notably, electronic data processing began to run whole business operations. The new narrative was of a more wholesale replacement of human involvement in production than in the technological unemployment narrative of the 1920s and 1930s. The year 1956 saw the first "automation strike . . . fomented by fear of the push-button age."[6] Stories were told of an unimaginable leap forward in automation. This from 1956:

> Visitors to an Eastern manufacturing plant stared in amazement recently as they viewed a new type of factory in operation. While they watched, enormous sheets of steel were fed into a conveyor system. Then the steel traveled along 27 miles of conveyors, was worked over by 2,613 machines and tools, and emerged as brand-new refrigerators—packed, crated, and ready for shipment.
>
> What amazed the visitors was the fact that no human hands touched the machines or steel while two gleaming-white refrigerators were being produced each minute.
>
> They were seeing automation in action.[7]

Automation was also seen as foretelling the imminent end of labor unions, which had stood up for workers' rights in the past. It is impossible for labor to organize the machines.[8]

Surveys of workers show a sudden shift around the time of the 1957–58 and 1960–61 twin recessions. Public opinion analyst Samuel Lubell, famous for his success at predicting election outcomes, wrote during the slow economy in 1959 between the two recessions:

> In the Spring of 1958 when I conducted a survey of how the public felt about the recession relatively few persons talked of automation, even as a cause of unemployment.
>
> Currently every third or fourth worker one interviews is likely to cite some case history, drawn from personal experience, of workers displaced by machinery.
>
> Often the tag line to these stories is the rueful comment, "Some men will never get back their jobs." Some say, "It's only the beginning."

> The same gloomy prediction, "in two years a machine will be doing my job," was voiced by an elevator operator on Staten Island, an accountant in Cleveland, a switchman in Youngstown and a railway clerk in Detroit.[9]

The twin recessions, the severest since the Great Depression, may have been caused by reduced spending attendant on public fears about the future amidst the automation scare. The 1957–58 recession was then dubbed "the automation recession."[10]

The 1957 motion picture *The Desk Set*,[11] starring legendary actors Katharine Hepburn and Spencer Tracy, is set at a company about to acquire an IBM mainframe computer called Emerac. Hepburn plays the role of Bunny Watson, a super-knowledgeable reference librarian for the company. Tracy plays Richard Sumner, a computer engineer who is working on plans for the new computer. In the course of the movie Richard falls in love with Bunny and proposes to her, amidst tensions that he is working to destroy her livelihood. The movie notes that an earlier computer has already automated payroll and eliminated many jobs in the payroll department. Tension builds in the film when Emerac malfunctions and sends out pink slips firing not only Bunny but also everyone in the whole company. The mistake is later corrected.

The film shows the computer taking over some of the functions of the company's reference library by answering questions typed on a console. For example, Emerac is asked, "What is the total weight of the earth?" Emerac answers, "With or without people?" (I recently asked the voice-activated Google Assistant, OK Google, the same question, and it answered matter-of-factly: 5.972×10^{24} kg.) Bunny then asks Emerac, "Should Bunny Watson marry Richard Sumner?" Emerac answers, "No," perhaps suggesting that the computer was romantically involved with her creator. (I asked OK Google the same question, and it responded by directing me to a 2011 *New Yorker* article, "Is I-Pad the New Emerac?")

Extensive concern about the dangers of automation continued into the 1960s. In 1962, the Center for the Study of Democratic Institutions issued a report on cybernation (a word that started to take off as a synonym for automation but fizzled after the 1960s). The report concluded that:

> Cybernation presages changes in the social system so vast and so different from those with which we have traditionally wrestled that it will challenge to their roots our current perceptions about the viability of our way of life. If our democratic system has a chance to survive at all, we shall need far more understanding of the consequences of cybernation.[12]

In 1963, labor leader George Meany tied a demand for a thirty-five-hour workweek to concerns about automation. In 1964, US president Lyndon Johnson signed into law during the presidential election a bill creating the National Commission on Technology, Automation, and Economic Progress. The commission's report[13] was delayed until 1966, when the scare was mostly over.

The 1957–66 automation scare seemed to dissipate rather quickly, and for a number of years. In 1965, the *Wall Street Journal* ran a story by Alfred L. Malabre, Jr., titled "Automation Alarm Is Proving False." The article noted that people in 1965 seemed just to have forgotten about automation. Malabre found it interesting that automation wasn't even mentioned at a major United Auto Workers labor convention in 1965. The article concluded, "The degree to which this pessimism pervaded the leading councils of labor, the campus, the Government and even management was, to say the least, extensive."[14]

Star Wars Stories

The automation scare came roaring back to life in the 1980s. We've seen that narratives often recur in mutated forms. Sometimes the new narratives make use of new words, but sometimes an old word comes back. Figure 14.1 shows an enormous spike of *automation* in the early 1980s. Use of the word *robot*, coined in the 1920s, also shows an enormous spike in the early 1980s. One possible explanation: the contagiousness of robot stories was encouraged by the phenomenal success of home computer manufacturers Atari and Apple, which led people to believe that technical progress was accelerating. A company called The Robot Store began manufacturing and selling humanoid robots in 1983. These robots looked like people, and the company's president predicted that between 10% and 20% of American households would own robots within two years.[15] In fact, these devices were practically useless, and the product line flopped.

Consistent with this observed spike of the word *robot* around 1980, we observe a sequence of very successful robot movies around the same time, showing how contagion can change over time and bring new viral stories with it. George Lucas's *Star Wars* trilogy, a sequence of three movies that appeared between 1977 and 1983, featured the world's most famous (to date) robots, R2-D2 and C-3PO. The American television cartoon feature *The Transformers,* which focused on the adventures of gigantic robots with the ability to transform themselves into vehicles and weaponry, aired from 1984 to 1987. Both of these series were accompanied by massive sales of children's toy figures. *Blade Runner* (1982) and *The Terminator* (1984) were other successful robot films of that time.

Of course, robots had appeared in movies long before the 1970s, and they continue to do so today. In fact, robots in movies precede even the word *robot* coined by Čapek, the Czech playwright, which started to go viral in 1922. Notably, film robots (or automatons) were called *dummies* (as in *The Dummy,* 1917) or *mechanical men* (as in *L'uomo meccanico,* 1921). Many more robots appeared in movies after 1922, notably Futura in Fritz Lang's 1927 *Metropolis,* which called a robot a Machinen-Mensch, or Machine-Man. However, most films featuring robots were B-grade horror movies with wildly implausible and juvenile themes, analogous to space-aliens-destroy-the-world films that have had relatively little impact on public thinking.[16] These mostly silly movies probably did not have much impact on economic activity except where they may have lent emotional color to fears about the automated future.

Another spike in successful robot movies preceded the automation scare, 1957–64. Film robots of that era included Ro-Man in *The Robot Monster* (1953), Tobor (robot spelled backward) in *Tobor the Great* (1954), Chani in *Devil Girl from Mars* (1954), the Venusian Robots in *Target Earth* (1954), Robby the Robot in *Forbidden Planet* (1956), Kronos in *Kronos: Destroyer of the Universe* (1957), the Colossus in *The Colossus of New York* (1957), and M.O.G.U.E.R.A. in *The Mysterians* (1957).

A significantly mutated form of the automation narrative came back with the twin recessions of 1980 and 1981–82, when the unemployment rate reached into the double digits. The unemployment encouraged the thought that automation might again be responsible for the loss of jobs, an idea that must have fed back into reduced aggregate demand and even higher unemployment. In 1982, Andrew Pollack of the *New York Times* discerned a "new automation," exemplified by the now very visible beginnings of automation of offices:

> Those affected so far by office automation have been mainly secretaries—who are still in short supply—and other clerical workers, whose tasks can be speeded by replacing typewriters with electronic word processors and filing cabinets with computerized storage systems. But new office automation systems are affecting management as well, because they give managers the ability to call up information out of the company computers and analyze it themselves, a function that once required a staff of subordinates and middle-level management.[17]

Once again, a narrative went viral that we had reached a singularity that made all past experience with labor-saving machinery irrelevant, that might just now be producing a huge army of unemployed. "I don't see where we can run to this time,"[18] Pollack says. This viral narrative may well be the real reason that these twin 1980s recessions were so damaging.

As Figure 14.1 shows, there was a third spike in *automation* around 1995. Once again, narratives surged that a singularity was at hand that made all past experience with labor-saving devices obsolete. In 1995 at the very beginning of the Internet boom, there was a narrative about the advent of computer networks:

> Most economists think the ill-effects of automation are transitory, but a growing minority of their colleagues and many technologists think the current surge of technological change differs from anything seen before, for two reasons.
>
> First, tractors put only farmers out of work, and machine-tool automation only factory workers, but smart devices and computer networks can invade almost every job category involving computing, communicating or simple deduction. They can fill out and check mortgage-loan forms and transfer phone calls, and even allow cows to milk themselves without human assistance at microcontrolled milkers. No technology has ever been as protean, so unrestrained by physical limits, so capable of cutting huge swaths through unrelated industries such as banking, power utilities, insurance and telecommunications.
>
> Second, the power of devices and networks run by microprocessors and software is increasing at a rate never seen before, roughly doubling in performance every 18 months or so. Among other things, this trend leads to unprecedented reductions in the cost of microchip-based technology, allowing it to be used much more widely and rapidly.[19]

This new twist in the fear-of-automation narrative around 1995 did not immediately produce a recession. Most people were not moved to curtail spending because of it, and the world economy boomed. The dominant narratives in the 1990s seemed to be focused on the wonderful business opportunities brought by the coming new millennium. The automation narratives trailed off again in the 2000s, with the distractions of the dot-com boom, the real estate boom, and the world financial crisis of 2007–9. But the automation narratives are still with us, described by new catchphrases.

The Dot-Com or Millennium Boom in the Stock Markets

The Internet, first available to the public around 1994, launched a narrative of the amazing power of computers. Before the turn of the century, the Internet Age appeared to coincide with the coming of the new millennium in 2000, much talked about when it was an imminent future event. Dot-com stocks were the primary beneficiaries in the years leading up to 2000. During the market expansion from 1974 to 2000, stock prices rose more than twentyfold.[20] The period marked the biggest stock market expansion in US history, and descriptions of the expansion suggested exactly that. (This story is beginning to be forgotten now, as it is being replaced by the narratives surrounding the mere threefold expansion following the world financial crisis of 2007–9, which are more contagious at the time of this writing.)

Discussions of the stock market expansion in the last quarter of the twentieth century did not stress fears of being replaced by machines as a motive to buy dot-com stocks. Why? People tend to speak more of the opportunity provided by investments in information-age inventions than of their personal feelings of inadequacy in the face of technological progress. But it appears that such feelings may have driven people's motivation to be part of the dot-com phenomenon as the stockholders of tech companies.

Fears of the Singularity Gain Strength after the 2007–9 World Financial Crisis

According to Google Trends, the latest wave of automation/technology-based fears began around 2016 and continues unabated at the time of this writing.

How do we explain this recent surge in automation fears? To answer this question, we must consider the advent of Apple's Siri, the iPhone app launched in 2011 that uses automatic speech recognition (ASR) and natural language understanding (NLU) to (attempt to) answer the questions you've asked it.[21] To many, Siri's ability to talk, understand,

and provide information looked like the advent of that long-awaited singularity when machines become as smart as, or smarter than, people. That same year, IBM presented its talking computer Watson as a competitor on the television quiz show *Jeopardy*, and Watson beat the human champions who played against it. Now these are followed by Amazon Echo's Alexa, Google's "OK Google," and other variations and improvements such as Alibaba's Tmall Genie, LingLong's DingDong, and Yandex's Alice. These inventions were amazing; the time prophesied by *Star Wars*, *The Transformers*, and *The Jetsons* seemed finally to have arrived.

Apple bought Siri from its creator, SRI (Stanford Research Institute) International, which had developed it with government funding from the US Defense Advanced Research Projects Agency (DARPA) between 2003 and 2008. These earlier projects did not go viral; 2011 was the year in which, suddenly, people had a device in their pockets to talk with and to show off to almost-unbelieving admirers. Siri, and its soon-to-follow competitors, seemed to start the process of eliminating the need for human conversation. We might imagine preferring Siri as a conversation partner to a human, because Siri's information is much more comprehensive and reliable. The idea that humans were ultimately replaceable was a scary thought, and it is easy to imagine a resulting loss of humanity's collective self-esteem.

Around the same time, other inventions also attracted great public attention, notably driverless cars, which, despite some worries about safety, are predicted to replace many jobs. Though very few of us had actually seen a driverless car, we all knew that prototypes were already on our highways. These autonomous vehicles can already do things that we assumed were not programmable, like slowing down when the car senses children running around near the street. Human common sense can be reduced to a list of signals to a driverless car, which means that human common sense can be replaced.

Recent talk has stressed machine learning, in which computers are designed to learn for themselves rather than be programmed using human intelligence. A Google Trends search for Web searches for *machine learning* reveals a strong uptrend since 2012, with the Google search index more than quadrupling between 2004 and 2019. The narrative is propelled by recent stories. The highly successful chess computer program AlphaZero is described as working purely through machine learning—that is, without use of any human ideas about how to play chess. This narrative describes a tabula rasa program that plays vast numbers of chess games against itself, given no more information than the rules of the game, and learns from its mistakes.[22] In some ways, the machine learning narrative is more troubling than computers running human-generated programs. Historian Yuval Noah Harari describes this narrative as leading toward a "growing fear of irrelevance" of ourselves and worries about falling into a "new useless class."[23] If they grow into a sizable epidemic, such existential fears certainly have the potential to affect economic confidence and thus the economy.

Of Jobs and Steve Jobs

The story of Steve Jobs is a remarkable narrative that ties into the fear of job loss to mechanization. His story was told in many books that appeared around the time of the 2007–9 world financial crisis. Particularly notable was the 2011 book *Steve Jobs* by Walter Isaacson, which sold 379,000 copies in its first week on sale,[24] became a number-one *New York Times* best seller, and has over 6,500 reviews on Amazon with an average ranking of 4.5 stars out of 5. Isaacson specializes in biographies of geniuses (including Albert Einstein, Benjamin Franklin, and Elon Musk), but his book about Jobs was by far his most successful. Why did his book about Jobs go viral? Part of the answer was the timing: the publisher wisely dropped it into the market just weeks after Jobs's death, allowing the news media narrative of his death to interact with the talk about the book.

Interestingly, the Steve Jobs narrative makes it appear that Jobs, a real human being with quirks that no one would program into a robot, was totally indispensable for Apple Computer. Jobs's own story therefore became appealing to people who worry about their own possible obsolescence. He founded the company but was forced out, the story goes, because drab managerial types could not tolerate his eccentricities.

When Apple began to fail, he was called back and breathed new life into the company, which is today one of the most successful in the world. The Steve Jobs narrative is a fantasy for people who don't quite fit into conventional society, as many people with inflated egos but modest success in life may see themselves.

Economic Consequences of the Narratives about Labor-Saving and Intelligent Machines

We have traced much popular attention over two centuries to narratives about machines that will replace jobs. These narratives certainly affected, and continue to affect, people's willingness to spend on consumption and investments, as well as their eagerness to engage in entrepreneurship and speculation. The economic hardships created by a temporary recession or depression are mistaken for the job-destroying effects of the machines, which creates pessimistic economic responses as self-fulfilling prophecies.

Henry George's solution to the labor-saving machines problem—and the defining proposal of his book *Progress and Poverty*, published during the depression of the 1870s—was to impose a single tax on land, to tax away the labor-saving inventions' benefits to landowners. George's proposal assumed that the sole purpose of the new machines was to work the land, which might be the case if the economy is purely agricultural. This proposal is analogous to the much-discussed "robot tax" that appeared in public discussion during the Great Depression and has reappeared in the last few years. Taxing companies that use robots, the argument goes, will provide revenue to help the government deal with the unemployment consequences of robotics.[25]

George proposed to distribute part of the tax proceeds as a "public benefit."[26] His proposal is essentially the same universal basic income proposal that is talked about so often today:

> In this all would share equally—the weak with the strong, young children and decrepit old men, the maimed, the halt, and the blind, as well as the vigorous.[27]

Other incarnations of the universal basic income proposal were offered by Lady Juliet Rhys-Williams in a 1943 book, *Something to Look Forward To; a Suggestion for a New Social Contract,* and by Robert Theobald in a 1963 book, *Free Men and Free Markets*. The Basic Income European Network (BIEN), an advocacy group, was founded in 1986 and later renamed the Basic Income Earth Network. The narrative that the future will be jobless for many or most people has helped sustain support for a progressive income tax and for an earned income tax credit, though in modern times it has not succeeded in producing a universal basic income in any country.

The mutating technology/unemployment narrative tends to attract public attention when a new story creates the impression that the problems generated by technological unemployment are reaching a crisis point. A celebrated 1932 book by Charles Whiting Baker, *Pathways Back to Prosperity,* sought to explain why the public's concerns about labor-saving machines replacing jobs were wrong until *now,* the early 1930s. Baker emphasized the newness: "The widespread use of automatic machinery and economic transportation is only a thing of yesterday." He stressed that unemployment was a new long-term problem, not going away, ever. Thus Baker advocated something like a universal basic income for all:

> We have got to face the fact that there is one way, and only one, whereby we can make a market for our huge surplus of goods. . . . Increase the purchasing power of the 95 percent of the families of the United States who have only tiny incomes, and they will at once buy more.[28]

Recent years have seen a renewal of this great wave of concern as new redistribution proposals are put forth and discussed. Notably, Google Trends shows a huge uptrend in searches for the term *universal basic income* starting in 2012. ProQuest News & Newspapers reveals essentially the same uptrend. Public attention to inequality has burgeoned, with much attention to the increased share of income by the top 1% or the top one-tenth of 1%. Thomas Piketty's *Capital in the Twenty-First Century,* which described this trend, was a best seller that generated intense discussion. The term “digital divide” has gone viral, describing a sort of inequality related to access to digital computers.

No one can predict the effects of labor-saving and intelligent machines on livelihoods and work in the future, but the narratives themselves have the potential to drive amplified economic booms and recessions, as well as public policy. The narratives at the time of this writing about artificial intelligence and machine learning replacing human intelligence and disintermediating skilled workers lend an instability to expenditure and entrepreneurship patterns. These and other economic narratives may show up in the speculative markets, notably the real estate markets and the stock markets, to which we turn in the next two chapters.

Chapter 15

Real Estate Booms and Busts

Real estate narratives—stories about the often tantalizing increase in value of land, housing, locations, and homes—are among the most prominent economic narratives. A strong example of their influence was the talk leading up to the Great Recession of 2007–9, which disrupted economies all over the world. The 2007–9 Great Recession was fueled by stories communicating inflated ideas of the value of housing.

Real estate narratives have a long history. From ancient times through the Industrial Revolution, real estate talk centered on the price of farms. In modern times, attention shifted first to stories about empty city property suitable for building homes, then to actual homes in metropolitan areas. These shifts are just mutations of a perennial narrative about the scarcity of land and its value.

We might think that the real estate boom and bust narratives would be part of the same constellation of panic or confidence narratives that we discussed in chapter 10. But real estate confidence is very different from confidence in the state of the economy, because people tend to view the two as very different things.[1] Real estate is regarded as a personal asset, which one might have useful opinions about, while the economy is seen as the product of myriad forces. As this chapter reveals, however, real estate is also a socially informed asset, with its value depending on how people compare themselves to their neighbors and beyond.

Speculation and Land Bubbles

For much of history before the twentieth century, popular narratives celebrated land speculation (either of farmland or of vacant city lots in burgeoning or promised cities) rather than home speculation or stock speculation. The following land speculator's narrative, full of human interest, was written in 1840, after the collapse of a US land bubble that had started in 1837:

> His father left him a fine farm free of incumbrance [*sic*]; but speculation became rife, fortunes were made in a twinkling, and D. fancied "one thing could be done as well as another." So he sold his farm, and bought wild lands in the prairies, and corner lots in lithographed cities; and began to dream of wealth worthy of "golden Ind." Work he could not: it had suddenly become degrading. Who could think of tilling or being contented with a hundred acres of land, when thousands of acres in the broad west were waiting for occupants or owners. D. was not the man to do it, and he operated to the extent of his means. At last the land bubble broke; lithographed cities were discovered to be mere bogs; and prairie farms, though the basis of exhaustless wealth, worthless unless rendered productive by labor.[2]

Here we see a perennial narrative of a foolish speculator buying unseen land in a bog, a narrative resurrected in the 1920s Florida land bubble, where a swamp replaced the bog.

The Florida Land Boom of the 1920s

There appears to have been little talk of single-family homes as speculative investments until the second half of the twentieth century. A ProQuest News & Newspapers search for *home price* reveals virtually no reference to the term in a speculative context until then. In fact, the phrase *home price* had a different meaning in past centuries, as in the home price of wheat, meaning the price of wheat in the domestic market as opposed to in foreign markets. When the phrase *home price* with its modern meaning was mentioned, it typically appeared in a story about a rich person spending a lot on a home, as a sign of wealth, but with no sense that the home was appreciating in value. For example, an 1889 article in the *St. Louis Post-Dispatch* exclaimed:

> Senator Sawyer, who has for years lived in the house which Jefferson Davis occupied when he was here in Washington, has stopped paying rent and has built a MAGNIFICENT BROWN STONE MANSION within a stone's throw of Dupont Circle. It is worth at least $80,000 and Sawyer's millions will keep it in fine style. There are fine houses all around it.[3]

There is reference to value as if it is unchanging, but no sense that the senator might be making a speculative investment.

A ProQuest News & Newspapers search for *price per acre* shows a very different pattern. The phrase peaked at the beginning of the twentieth century, when it tended to refer to farmland as a speculative investment. The *Florida land boom* of the mid-1920s gets many hits, but the phrase *home price* almost never appears in those articles. During that widely discussed boom, an associated narrative emphasized that the proliferation of motorcars was making Florida land more easily accessible to northerners looking for winter homes. Given the rise of the automobile, it is not surprising that the allegedly beautiful sites that were selling out so fast were empty lots for building new homes. However, by 1926, the Florida land boom had become a widely covered scandal, reported nationally. Newspapers printed stories that promoters were selling undeveloped land divided into home-size parcels, sight unseen, to northerners who would never in their lifetimes see a town built near their isolated homes. These stories rendered such sales of undeveloped land disreputable.

Land has always been only a small part of a home's value. One estimate, by Morris A. Davis and Jonathan Heathcote, suggests that the land's value averaged only 36% of the home's total value from 1976 to 2006.[4] We do not seem to have data on the percentage of land value in home value for earlier years, except in assessments for property tax, but presumably when the US population was more rural, the percentage was even lower.[5]

In contrast to the Florida narrative, with its emphasis on land, investments in homes historically have been viewed as investments in structures that depreciate through weather and use, that require constant maintenance, and that go out of style and get torn down eventually. We can understand why land itself with no structure on it, at least during the Florida boom, seemed a more exciting investment.

Traditionally, prices of new homes were widely thought to be dominated by construction costs.[6] In fact, it used to be conventional wisdom that home prices closely tracked construction costs. A 1956 National Bureau of Economic Research study noted some short-term movements in US home prices not explained by construction costs between 1890 and 1934, but it concluded:

> With regard to long-term movements, however, the construction cost index conforms closely to the price index, corrected for depreciation. . . . For long-term analysis the margin of error involved in using the cost index as an approximation of a price index cannot be great.[7]

Because their construction cost index included only the prices of wages and materials, but not the price of land, the NBER analysts were viewing investments in homes as nothing more than holdings of depreciating structures, wearing out through time and tending to go out of fashion. With such a narrative, housing bubbles have little chance of getting started.

Enter News, Numbers, and Narratives

Newspapers eventually discovered that readers were interested in stories about home prices in congested inner cities, where the price of land is more connected with home prices because land is much more expensive there. These stories may have gained contagion, leading people to think that their properties far from city centers shared some of the same speculative trend to higher prices.

Another factor adding to contagion was the development of home price indexes for existing homes. The first mention of median prices of existing homes in ProQuest News & Newspapers appeared in 1957 in an Associated Press story referring to a US Senate housing subcommittee report, which concluded that low-income families were being priced out of the housing market partly because of the increased price of land.[8] Newspapers began publishing the National Association of Realtors median price of existing homes in 1974. The Case-Shiller home price index (now the S&P/CoreLogic/Case-Shiller home price index), originally created by Karl Case and me, began to appear in 1991. These indexes allowed news media to regularly announce large movements, thereby lending concreteness to stories about movements in home prices.

Before the advent of statistical measures of home prices, it was relatively hard for the news media to come up with regular stories about speculative movements in that market. Before stock price indexes became popular in the 1930s, writers for the news media were able to quote numbers illustrating big movements in the stock market, usually by quoting the one-day change in a few major stocks, which tended to move in the same direction on big move days. They lost no opportunity to write such stories. But it is not so easy to write about regular news in home prices. A house is almost never resold in just one day. Rather, most house sales occur over long intervals of time, years or even decades. Even changes in the median home price month to month were not newsworthy, because one-month changes could be erratic when different kinds of houses sold from one month to the next. The repeat-sales that Karl Case and I first started publishing in 1991 marked the beginning of a new era, one in which month-to-month changes in aggregate home prices could be inferred from highly disparate houses, each of which sells very infrequently. The indexes led to a futures market for single-family homes at the Chicago Mercantile Exchange that has the potential to reveal day-to-day changes in home prices, though activity on that market mostly dried up after the 2007–9 world financial crisis.

A common assumption in accounts of speculative bubbles in stock and housing markets has been that investors are extrapolating recently successful investment performance, expecting the price increases to continue and thereby eagerly forcing prices up even higher. This process repeats again and again in what may be called a vicious circle or feedback loop. However, narratives matter as well. If we listen to the narrative at such times, investors may seem a lot less calculating than they sometimes appear. Instead, the price increase appears to be driven less by future expectations than by the proliferation of stories and talk that draw attention to the asset that is booming, thereby fueling the bubble.

House Lust and Social Comparison

It is vital to listen to what people are saying during a rapid expansion of prices, to understand just what is animating them. In his 2007 book *House Lust: America's Obsession with Our Homes*, Daniel McGinn sees psychological factors at work. The book was published at the beginning of the world financial crisis of 2007–9, right on the heels of the most rapid increase in house prices during the record-setting US national home-price boom of 1997–2006.

McGinn chose the title *House Lust* because he believed that the emotions displayed in conversations during the boom market just before the 2007–9 world financial crisis and recession reflected a true lust: a lust for status, and maybe power, that sometimes drives people to ruinous actions. During this lustful period in US history, people relished stories of higher and higher home prices, and of the people who benefited from them, a bit too much to be rational.

McGinn defines and explains some impulses and motives that are not in most economists' vocabulary. He describes the "high-five effect," which is the "vicarious thrill of cheering on a winner." Most people enjoy seeing their own recent success with their real estate investments, and, so long as they are invested and not envious, they enjoy their friends' and neighbors' successes too. They are happy to share in their neighbors' victories, giving each other "high fives," the celebratory gesture that athletes give to each other after a big win, in a moment of seeming joy.

McGinn also describes an "Our House *Is* Our Retirement Plan" effect: the story that a house is necessary to successful living because it is a recognizable store of value. The narrative in the recent boom fueled house prices by implying the dictum that one should "stretch" or "reach" to buy a house. Buy the biggest house you can afford, because you will be glad that you did so when the house's value goes even higher. McGinn also describes an "It's So Easy to Peek in the Window" effect, caused by the Internet and social media, that allows housing voyeurs to get information about neighbors' and celebrities' home specs and prices as never before. McGinn observed:

> And in many neighborhoods, if you'd judged the nation's interests by its backyard barbecue conversation—settings where subjects like war, death, and politics are risky conversational gambits—a lot of people find homes to be more compelling than any geopolitical struggle.[9]

The Internet adds force to the narrative in today's housing market. People are naturally curious about the amount of money that others make in their jobs, but they can't find such information on the Internet (except in the case of government jobs), and it is considered vulgar to ask. However, McGinn notes, websites such as Zillow and Trulia, both founded in 2006, allow you to find out right away (for free) what anyone's house is worth.

Social psychologist Leon Festinger described a "social comparison process"[10] as a human universal. People everywhere compare themselves with others of similar social rank, paying much less attention to those who are either far above them or far below them on the social ladder. They want a big house so that they can look like a member of the successful crowd that they see regularly. They stretch when they pick the size of their house because they know the narrative that others are stretching. McGinn's "You Are Where You Live" effect confirms the power of the real estate comparison narrative. As of the early 2000s, when the housing boom was at its peak, there was no other comparable success measure that one could just look up on the Internet.

The History of Homeownership Promotion

In another element of the real estate narrative, history shows a succession of advertising promotions for homeownership itself, not just for the sale of individual properties. In the United States, these promotions began with the "Own Your Own Home" campaign, launched by real estate agent Hill Ferguson in 1914 under the auspices of the National Association of Real Estate Boards (precursor to the National Association of Realtors today). The Own Your Own Home campaign, like the savings and loan association movement that preceded it in the United States and the even earlier building society movement in the United Kingdom and Europe, was an attempt to help people build up some savings.

The Own Your Own Home campaign set out to change the widespread presumptions that borrowing is disreputable or dangerous, that people should never go into debt, and that they should accumulate savings to buy a home with an all-cash offer. In a 1919 display ad placed in numerous newspapers, the campaign stated:

> Don't let the idea of a mortgage scare you. Some people think they're a disgrace. But if they're good enough for the biggest corporations and the United States government they needn't frighten you.[11]

Note that the purchase of a home was not cast as part of the more modern concept of "saving for retirement." A ProQuest News & Newspapers search reveals that retirement was virtually never mentioned in advertisements for homes until the 1920s, and the idea did not take off until the 1940s. In the earliest part of the twentieth century, people didn't think of saving for retirement, as they in many cases did not think they would live long enough to spend much time in retirement. Rather, savings were put aside as a safety measure against illness or other misfortune.

The savings bank movement and the Own Your Own Home movement were a moderate success. The homeownership rate rose, and even today low-income people in the United States and other advanced countries tend to have some savings, mostly in the form of home equity.

Next came the Better Homes in America movement launched in 1922 by Marie Meloney, the editor of a woman's magazine, the *Delineator*. Real estate groups continued to pay for advertisements advocating homeownership throughout the rest of the twentieth century. In the years leading up to the 2007–9 world financial crisis, the National Association of Realtors placed numerous ads including the words "Now is a good time to buy or sell a home." After the financial crisis, it launched a new campaign, "Home Ownership Matters." These campaigns emphasized that homeowners tend to be successful and patriotic people. The campaigns not only helped support patriotic ideals but also created a clearer rationale for buying a home, thus enhancing the narrative.

The desire to impress the neighbors is part of the social fabric, but it comes with a psychic cost. Marketing people often find themselves in the position of trying to help people get past their guilt about showing off, which may involve buying land or ostentatious houses. Before the Great Depression, many ads touted purchasing undeveloped land as investments. For example, a large newspaper display ad from 1900 with the headline "A Princely Spot Is Orangewood" offered five-acre plots near Phoenix, Arizona, that could be used either to build a home or to plant an orange grove. The ad featured recent auction prices of oranges from the region as well as text about how fashionable the area was.[12] In response to complaints about such marketing, the individual states of the United States put into place over the period 1911–33 a series of "blue sky laws" prohibiting the selling of "speculative schemes which have no more basis than so many feet of 'blue sky.'"[13]

Mr. Ponzi and His Other Scheme

In 1926, Charles Ponzi, who is said to have invented the Ponzi scheme in 1920, was released from jail. (Also called a *circulation scheme*, a Ponzi scheme is a fraudulent investment fund that pays off early investors with money raised from later investors, creating a false impression of profits to lure yet more victims.) Soon thereafter, Ponzi went back to jail for violating Florida's blue-sky law. During the Florida land boom, he began selling small parcels of Florida land to investors without disclosing that the land was under water, in a swamp.[14] Ponzi's name, and the story of unwitting investors buying land in a swamp, went viral with his circulation scheme, and it remains famous even today, but his name is not so attached to the swamp narrative.

In reaction to such abuses, the United States imposed stronger laws on the subdivision of land for sale to small investors. State laws defined land sales as securities sales, even if the sale was a simple transfer of property, thus making the sales subject to securities regulation. In addition, regulation of the sale of land was reinforced to prevent such abuses.[15] As a result of the scandals and the ensuing legislation, people began to think that investing in undeveloped land based on prospective future use was irresponsible and disreputable, that land needed to generate real income before reputable brokers could sell it. Thus advertising turned to offering investments in going businesses and owner-occupied homes, which continued to feed the real estate narrative.

As people continued to think of home purchases as investments in land rather than reproducible and depreciating structures, the potential for home price bubbles persisted. At the same time, real estate investment remained the simplest of speculative investments. Most people never find the time to get involved in a risky specialized investment, but many people own a home at some point in their lives, and so they typically do not have to work hard to learn about real estate as a speculative investment.

City Land and Stories

Changing narratives do not explain some major swings in home prices afflicting certain cities and sparing others. There is evidence that booms in some cities but not others can be explained merely in terms of supply constraints. For example, undeveloped land available for building is more available in some cities than in others, and there could be a time when a city that once had plenty of land for building finds that its land has been exhausted.

When a city's population is expanding, even if the city is not particularly attractive and has no particularly favorable narratives, there will be *some* people who want to move there. For example, there are always potential immigrants, often from poor or unstable countries, seeking a foothold in advanced countries, and they may choose cities based on arbitrary factors such as proximity to their home country or the existence of a subpopulation speaking their language in the destination city. If land is readily available for purchase there, new houses will be built, and the immigrants' demand for housing may have minimal impact on prices. But if such land has run out, these immigrants will have to outbid others for existing houses, and home prices will rise. In that case, only the wealthier buyers will be able to live in that city. People who are already living in the city but have no special interest in it have an incentive to sell their houses and take the proceeds to another more affordable house in another city. The supply constraint thus results in higher prices and a wealthier population in that city.[16]

Supply constraints also help to explain the differences in home prices across cities and through time. Economist Albert Saiz used satellite data to construct estimates of the amount of available land around major US cities. He found that cities that are boxed in by bodies of water or steep-sloped terrain (which is less suitable for building) tend to have higher home prices.[17] There is also a tendency for people who already own homes in a city to try to block further construction of homes, particularly of affordable housing. They have an economic incentive to do so, for limiting housing supply boosts home prices. The effects of such an incentive may differ across cities. But beyond such conventional economic explanations, there is also evidence that changing narratives play a role in housing booms.

The years leading up to the 2007–9 world financial crisis saw record-breaking increases in home prices in some countries, notably the United States. According to the S&P/CoreLogic/Case-Shiller home price index, home prices in the United States nationwide rose 75% in real (Consumer-Price-Index inflation-corrected) terms between 1997 and 2005, while the Consumer Price Index for Rent of Primary Residence, corrected for Consumer-Price-Index inflation, rose only 8%. This boom in home prices far exceeded anything that could be attributed to increased unmet demand for housing services. This housing boom in the United States and other countries was a major factor in the world financial crisis of 2007–9. Home prices fell dramatically and defaults on mortgage payments surged, plunging mortgage lenders into serious financial difficulty, a crisis that then spread to the rest of the financial sector and the world. By 2012, in the aftermath of the crisis, real US home prices fell to a level that was only 12% above that of 1997, before taking off again in a new boom that continues as of 2019, though the boom shows some signs of weakening and actual price declines in some US cities. US real home prices were up again 35% from 2012 to 2018, while real rents were up only 13%.

The Rise of Flipping

In trying to understand the housing boom leading up to the Great Recession of 2007–9, looking at the usual suspects, such as interest rates, tax rates, or personal income, is not very helpful. Instead we should examine the shift to a more speculative narrative in which people thought of their homes more as speculative investments in land—a narrative that lenders welcomed.

The seeds of the world financial crisis were planted decades earlier. A new meaning for the word *flipper* went viral in the United States in the 1970s and 1980s. At that time, a flipper was a sharp operator who buys a speculative investment and then "flips" it, selling less than a year after purchase, to make a quick profit. The term then became popular during a different kind of housing boom: a condominium conversion boom. Owing to the very high inflation at that time, the tax advantages of homeownership over renting significantly increased, because one could deduct the interest paid on a mortgage (very high because of the inflation) from gross income but could not deduct rent paid. Though high nominal mortgage interest rates deterred some from homeownership, for many others the expected appreciation in home value due to inflation offset the high interest rate.[18]

To meet the demand, developers began buying apartment buildings, evicting the renters of the individual apartments and selling the apartment units as condominiums. Renters, some of whom had lived in their apartment for many years, complained bitterly. To assuage them, the operators offered renters a contract to buy, at the time of conversion, their own apartment at a discounted price. The contract allowed them to resell the contract to people interested in buying it. Many renters chose to "flip" their contract to speculators, who in turn flipped the contract again. Flippers attracted a lot of public attention, and many admired them as entrepreneurs who saw the opportunity quickly enough to cash in on it.

By the 1990s, the term *flipper* was commonly used to describe people who bought shares in initial public offerings (IPOs) and resold them quickly. People often described the flippers in admiring terms, as people who understood that IPOs were typically underpriced on the offering date. When the share price popped up soon after the IPO, the flippers made a quick profit. A famous 1991 article by Jay Ritter showed that the initial IPO price pop tended to be followed by weak performance over subsequent years, so the optimal strategy appeared to be buying IPOs at the offering and then flipping them.

Then, in the early 2000s, during the enormous home price boom, the term *flipper* became attached to people who bought homes, fixed them up a little or a lot, and sold them quickly. Once again admiring stories were told of their successes. While most people were not enthusiastic enough to actually flip houses, they may have imagined that they were engaged in "long-term flipping" simply by purchasing a primary residence as a long-term investment. Thus they engaged the speculation narrative.

Mansions and Modesty

Exuberant real estate narratives did not stop with the 2007–9 world financial crisis. In October 2012, the *Wall Street Journal* launched a new section in the newspaper. Called "Mansion,"[19] it was a response to a section in the *Financial Times* titled "How to Spend It," but "Mansion" focused on housing. Notably, 2012 was the same year that home prices in the United States started rising sharply again after the 2007–9 world financial crisis. It was also the year in which the police finally cleared the Occupy Wall Street movement, which had started a year earlier, from Zuccotti Park in New York City. The movement had been attracting much attention to the slogan "We Are the 99%," referring to the majority of the population who cannot live extravagantly, in a public assertion that these people matter.

The "Mansion" section seemed to scream that the top 1% mattered even more. It featured lush photo spreads of lavish homes and their pretentious occupants in a tone of gushing admiration. But the section also reported on anxieties about ostentation and about fears of public disgust at such extravagance. For example, a 2017 article in "Mansion," "Tech CEOs: Lie Low or Live Large?" discussed in detail the quandary that heads of technology companies face in deciding how big a home to buy. The article made clear that the choice of a home is part of a delicate balancing of forces in a career-optimization strategy. Hence "Bay Area real-estate agents say their clients are becoming reluctant to buy fancy homes, for fear of spooking investors wary of distracted or high-living founders."[20]

The Donald Trump Narrative and Urban Investors

Offsetting the modesty narrative was the Donald Trump narrative, which led to his election as president of the United States in 2016. The Trump narrative proved that many people are not at all "spooked" by those who "live large." On the contrary, as Trump openly states in his various coauthored books, it pays to let people know that one is rich. Here the housing boom narrative is co-epidemic with the conspicuous consumption narrative discussed in chapter 11. Vast numbers of people have taken interest in the Trump narrative, which encourages the idea that the display of wealth is an amazing, affirmative career strategy—and the polar opposite of Occupy Wall Street idealism. The Trump narrative epidemic contributed to the upward turn in home prices in the United States starting after 2012.

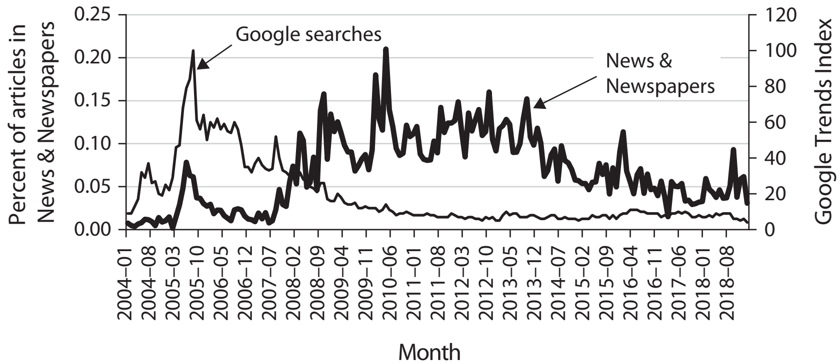

FIGURE 15.1. "Housing Bubble" Google Search Queries, 2004–19
Internet searches shot up just before the world financial crisis of 2007–9; news media response was partly delayed. *Source*: Google Trends.

In 2005, during the housing boom that preceded the 2007–9 financial crisis, Web searches for *housing bubble* increased dramatically. The curve, shown in Figure 15.1, resembles the Ebola epidemic curve (see Figure 3.1). Something very contagious was clearly happening then. Some tried to capitalize on the boom, not just by flipping homes but also by promoting the boom. Enthusiasm for real estate investments infected a significant portion of the population. In 2005, Trump founded a business school, Trump University, saying, "I can turn anyone into a successful real estate investor, including you." Trump's timing was bad—the *Economist* ran a cover story on June 18, 2005, about the prospect of a bursting housing bubble.[21] Trump University went out of business right after the world financial crisis, in 2010, amidst cries of fraud and deceit.

The Housing Market Today

Since 2003, I have collaborated with my late colleague Karl Case and now with Anne Kinsella Thompson to conduct an annual survey of recent homebuyers in four US cities. The survey is conducted under the auspices of the Yale School of Management. One of our questions is "In deciding to buy your property, did you think of the purchase as an investment? 1. Not at all; 2. In part; 3. It was a major consideration." The percentage who answered, "It was a major consideration" peaked at 49% in 2004. The percentage choosing that answer fell to 32% in 2010, just after the world financial crisis, and by 2016 it had risen to 42%.

The survey also asks about the general level of conversation about the housing market. Specifically, we ask, "In conversations with friends and associates over the last few months, conditions in the housing market were discussed (circle the one which best applies): 1. Frequently; 2. Sometimes; 3. Seldom; 4. Never." The percentage who answered, "Frequently" reached a high of 43% in 2005, the end of the 1997–2005 boom. By 2012, the percentage choosing "Frequently" reached a bottom of 28%, significantly below the number during the boom periods. The likely interpretation is that the contagion rate for housing market narratives had decreased, and that indeed the decline in home prices could be viewed as the end of an epidemic.

What were the narratives in spring 2005? ProQuest finds 246 stories with the phrase *housing bubble* from March to May 2005, before the cover stories in the *Economist* and other places. One of these stories included a statement from Alan Greenspan, who said that he saw "a little froth" and an "unsustainable underlying pattern" in the housing market. This statement was then compared with his "irrational exuberance" speech about the stock market in December 1996. Between 2005 and 2007, there were 169 news stories with both *Greenspan* and *froth* in them. It was a colorful, quotable story featuring an economic celebrity. It contributed to a colorful, and quotable, constellation of narratives, among them narratives with the power to change economic behavior and to bring on a financial crisis.

We turn in the next chapter from real estate to the stock market, to chart another powerful narrative, putting the stock market at the center of the economy. We shall see some similarities between the narratives, both contagious in the context of perceived grand opportunities for investors, both intertwined with stories of investor greed and foolishness.

Chapter 16

Stock Market Bubbles

Narratives about stock market bubbles are stories about excitement and risk taking, and about relatively wealthy people who buy and sell securities. Like the real estate narratives discussed in chapter 15, narratives about stock market bubbles are driven by social comparison. Because they are fueled by psychology, and because stock prices are related to general confidence, these narratives also relate to the confidence and panic narratives presented in chapter 10.[1] But the stock market is different from the economy as a whole. Therefore, the narratives that create and sustain stock market bubbles constitute another distinct constellation of narratives, with a different path and different sources of contagion.

A Narrative Is Born

The word *crash* quickly became associated with the one-day stock market drop on October 28, 1929, along with a slightly smaller drop on October 29, 1929, and it became inextricably linked to the Great Depression that followed. *Crash* calls to mind reckless or drunk drivers or race cars pushing their limits, and the crash narrative typically implies that a period of exceptional boom, of crazy optimism and maybe even reckless and immoral behavior, preceded the crash. The narrative of human folly expressed in a stock market boom followed by a horrendous stock market crash is still very much with us today.

The atmosphere of speculation in the 1920s was unsurprisingly associated with a technological advancement: the Trans-Lux Movie Ticker (also called the ticker projector). First mentioned in the news in

1925, and proliferating after that in brokerages, clubs, and bars, the ticker projector was invented amidst the public excitement about the stock market. The projector showed the latest trades in the stock market on a screen large enough to be seen by a substantial audience. Watching the information displayed by the projector was like watching a movie, or, as we would say today, like watching a large flat-screen television. A crowd could gather at one of the tickers, thus encouraging the contagion of stock market stories. According to an Associated Press account in 1928, the movie ticker brought in "wild trading":

> This has whetted the speculative appetite of thousands and created many new ones, the thrill of seeing one's stock quoted at advancing prices on a heavy turn-over being akin to that of the race track devotee who sees the horse on which he has placed his bet come thundering down the home stretch in advance of the field.[2]

The persistence of this narrative helps explain the public fascination in subsequent decades, and even today, with domestic stock price indexes, which the news media display constantly. People widely believe that the stock market is a fundamental indicator of the economy's vitality.

The word *crash* was not commonly attached to stock market movements before 1929, and the new use of the word became a name for a different view of the economy, that economic growth depends heavily on the performance of the overall stock market, so that the stock price indexes are taken as oracles. The phrase *boom and crash* had been popular in the nineteenth century, but it was used most often to refer to cannons firing, storm waves beating upon the shore, or even Richard Wagner's music. After 1929, *boom and crash* went viral and usually described the stock market.

Crash: The Breaking Point between Speculative Excess and Hopelessness

Economists still puzzle over the stock market crash of October 28, 1929, a date on which no sudden important news occurred other than the crash itself. Just as baffling, though less discussed, is the exponential growth of stock values over most of the decade of the 1920s that preceded it. The year 1929 saw the most dramatic upswing ever, with more than a fivefold increase between December 1920 and September 1929. By June 1932, the value of the market had fallen back down to below its December 1920 level.

Earnings per share also increased dramatically over the 1920s, but the puzzle is why the stock market responded so heavily to these earnings increases. It is more normal for the stock market to react hesitantly to such upswings in earnings, which are exceptionally volatile from year to year and could even fall to zero in a single year. But surely the stock market should not fall to zero because of one bad year. Nor, normally, should it rise to match earnings in one spectacular year.

The crash of 1929 is not best thought of as a one- or two-day event, though the narrative usually suggests that it was. The combined October 28–29, 1929, crash brought the Standard & Poor's Composite Index down only 21%, a fraction of the decline over the next couple of years, and this drop was half reversed the next day, October 30, 1929. Overall, the closing S&P Composite Index dropped 86% from its peak close on September 7, 1929, to its trough close on June 1, 1932, over a period of less than three years. The October 1929 one-day drops are talked about most often, but much more noteworthy was the stock market's irregular but relentless decline, day after day, month after month, despite the protestations of businessmen and politicians who said the economy was sound.

This narrative was especially powerful in its suddenness and severity, focusing public attention on a crash as never before in America. Certainly, the October 1929 one-day drops set records, and records always make for good news stories. In addition, there was something about the timing of this story that caused an immediate and lasting public reaction. In his 1955 intellectual history of the 1930s, *Part of Our Time: Some Ruins and Monuments of the Thirties*, Murray Kempton wrote:

> And it is also hard to re-create that storm which passed over America in 1929, which conditioned the real history of the 1930s. . . . The image

> of the American dream was flawed and cracked; its critics had never sounded so persuasive.[3]

That storm was not fully unexpected. In October 1928, during the presidential election campaign and a year before the 1929 crash, Alexander Dana Noyes, financial editor of the *New York Times*, wrote:

> An observant traveler, returning from a recent tour of the United States, remarked that conversation on the trains and in the hotel sitting-rooms, after directing itself in a perfunctory way to the political campaign, would always turn with real animation to the stock market. Another testifies that even the conversation of women which he happened to overhear, would sooner or later be absorbed in discussion of their favorite stocks. Something like this was observed in 1925, in 1920 and particularly in 1901. . . . In one respect, however, the present situation differs strikingly from all the others. On all these previous occasions sober financiers, perhaps believing that some entirely new economic force had upset accepted precedent, kept silence, hesitating to predict collapse of the speculation. In this present season, on the contrary, conservative opinion has frankly and emphatically expressed the unfavorable view. In a succession of utterances by individual financers [*sic*] and at bankers' conferences, the prediction has been publicly made that the end of the speculative infatuation cannot be far off and that an inflated market is riding for a fall.[4]

Clearly, evidence of speculation was available to the public, which read about it in the news and talked about it on train cars. For example, in the year before its 1929 peak, the US stock market's actual volatility was relatively low. But the implied volatility, reflecting interest rates and initial margin demanded by brokers on stock market margin loans, was exceptionally high, suggesting that the brokers who offered margin loans were worried about a big decline in the stock market.[5]

So the evidence of danger was there in 1929 before the market peak, but it was controversial and inconclusive. A high price-earnings ratio for the stock market can predict a higher risk of stock market declines, but

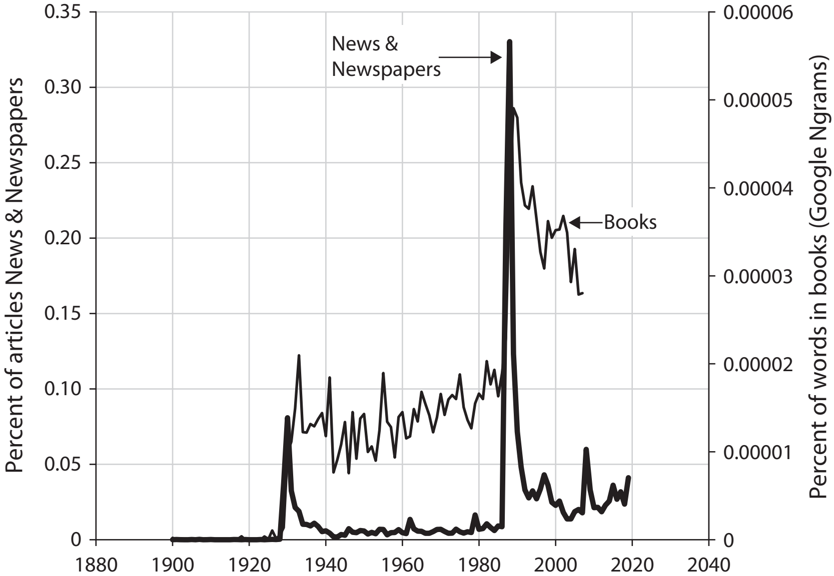

FIGURE 16.1. Frequency of Appearance of *Stock Market Crash* in Books, 1900–2008, and News, 1900–2019

This graph shows extreme short epidemics in 1929 and 1987 in news, with a long-lagged response in books. *Sources*: Google Ngrams, no smoothing, and author's calculations from ProQuest News & Newspapers.

it is not like a professional weather forecast that indicates a dangerous storm is coming in a matter of hours. Most people will heed that kind of storm warning. However, in 1929 a great many people did not heed the warning communicated by the high price-earnings ratio. After the crash, many of them must have remembered the warnings and wondered why they had not listened.

As Figure 16.1 shows, the stock market crash narrative shot up with such strength in 1929 that it persists today, though more in books than in newspapers. The epidemic of *stock market crash*, which even today generally refers to 1929, seems to have begun weakly in 1926, several years before the actual crash of 1929, but it was not taken seriously. In newspapers, there were two fast epidemics, each peaking within a year, implying very strong short-run contagion. The first assumed massive proportions in 1929 with the record 12.8% one-day drop in the Dow

Jones Industrial Average on October 28, 1929, and a further drop the next day. The second started on October 19, 1987, when the Dow experienced a 22.6% drop (almost double the percentage of the October 28, 1929, drop, though falling short of the two-day drop in 1929). Apart from the 1987 drop, no other stock price movement since 1929 has been widely called a *crash*. Why? As we've seen, newspapers are very focused on records, presumably because their readers are, and 1987 was the only record one-day drop after 1929. Folklore suggests that the stock market epidemic generated extremely high contagion in 1929. We know there was high contagion in the days before October 19, 1987, too. Stories involving the news media and investors brought to mind and amplified the story of the 1929 crash.[6]

The 1987 crash appears to be a flashbulb memory event (see chapter 7), like a sudden bombing attack, an automobile accident, or a declaration of war, and thus it is not easily forgotten. But after decades its story no longer seems to fit into any lively narrative constellation, and hence it is no longer virulent.

The 1929 Suicide Narrative

The October 28–29, 1929, crash was another flashbulb memory event, one that may have been stronger than the 1987 event. The 1929 flashbulb memory is magnified partly by the stories of death associated with the crash. That is, stories abounded of businesspeople committing suicide.

There is some question whether the crash really led to these suicides or whether writers learned that blaming business conditions for suicides just got a greater reaction from readers. In his best-selling 1955 book *The Great Crash, 1929*, John Kenneth Galbraith argued that there really weren't many more suicides after the crash.[7] But there really were many narratives about such suicides, with twenty-eight such stories in ProQuest News & Newspapers in November 1929 alone. The principle of psychology called the affect heuristic, discussed in chapter 6, predicts that such narratives make people temporarily more fearful about everything.[8]

The narrative of death at the time of the 1929 crash was reinforced by many stories of people who were financially "ruined" by the crash and therefore had no reason to continue living. Two months after the crash, a newspaper article in the *Louisville Courier-Journal* implored:

> *Don't Shoot Yourself!*
>
> With amazement I read of men who kill themselves at 50. The stock-market crash has ruined them—but only financially.
>
> Have they not the same brains that made the money for them?[9]

In 1970, Studs Terkel published *Hard Times: An Oral History of the Great Depression,* which was based on Terkel's interviews with people who were of retirement age when Terkel was researching the book. The interviews reveal how the 1929 narrative had evolved in the interviewees' memories after forty years. Suicide and 1929 came up frequently, along with embellishments and obvious exaggerations. One interviewee, Arthur A. Robertson, the chairman of the board of a substantial company when Terkel interviewed him, was thirty-one years old in 1929. Robertson said:

> October 29, 1929, yeah. A frenzy. I must have gotten calls from a dozen and a half friends who were desperate. In each case, there was no sense in loaning them the money that they would give the broker. Tomorrow they'd be worse off than yesterday. Suicides, left and right, made a terrific impression on me, of course. People I knew. It was heartbreaking. One day you saw the prices at a hundred, the next day at $20, at $15. On Wall Street, the people walked like zombies.[10]

Knud Andersen, a painter and sculptor, recalled:

> When the shock of losing what you had worked for comes, I found refuge in my art. To stew in a deplorable situation . . . where people were affected . . . some to suicide . . . I lost myself in my art. The pain that came with economic loss, I felt would pass. These things, like the eclipse of the sun. . . . People first observed it and committed suicide . . . not realizing that this would pass.[11]

Julia Walther, the wife of a businessman in 1929, said:

> When the Crash came, the banks withdrew their support, stock held on margin was called in. Fred, unable to meet this in the falling market, lost everything he had. He was completely wiped out. Fred always laughingly said, "The only million dollars in my life I ever saw were those I lost."
>
> I felt the fever period was unreal. And the Depression was so real that *it* became unreal. There was a horror about it, with people jumping out of windows.[12]

The 1987 epidemic in Figure 16.1 looks far stronger than the 1929 epidemic. The 1987 epidemic draws much of its strength from memories of 1929. Suicides were attributed to the 1987 crash too, but these stories do not seem to have formed long-term memories, for a strong narrative did not develop and there was no reinforcing story of depression after 1987. A 50% margin requirement in force in 1987, but not in 1929, meant that in the United States many fewer people were "wiped out" or "ruined" by the 1987 crash than by the 1929 crash.

Moral Narratives about 1929

How did the 1929 crash narrative achieve such strength? Ideas about morality may have played a role. The 1920s had been a time not only of economic superabundance but also of chicanery, selfishness, and sexual liberation. Some critics viewed these aspects of the culture negatively, but they were unable to make a case against this putative immorality until the stock market crashed.

Sermons preached on the Sunday after the crash, November 3, 1929, talked about the crash, attributing it to moral and spiritual transgressions. The sermons helped frame day-of-judgment narratives about the Roaring Twenties. Google Ngrams shows that the term *Roaring Twenties* was rarely used in the 1920s. Use of the term, which sounds a bit judgmental, did not become common until the 1930s, when the broad moral story line in the Great Depression gradually morphed into a national revulsion against the excesses and pathological confidence of the

1920s. Purveyors of morality likened the one-day event on October 28, 1929, to a lightning bolt from heaven.

Murray Kempton describes a narrative that began on the day of the 1929 crash, referring to the "myth" of the 1920s and the "myth" of the 1930s:

> The myth of the twenties had involved the search for individual expression, whether in beauty, laughter, or defiance of convention; all this was judged by the myth of the thirties as selfish and footling and egocentric. It did not seem proper at the time to say that the twenties were not quite so simple, and their values were mixed, some good and some bad.[13]

Thus the stock market crash was viewed as a dividing line between the self-centered, self-deceiving 1920s and the intellectually and morally superior, albeit depressed, 1930s. Even today, the narrative notion that a stock market crash is a kind of divine punishment remains with us.

Celebrities and the Shoeshine Boy Narrative

One example of celebrity attachment to the 1929 crash narrative is the shoeshine boy narrative of the late 1920s. In this narrative, a great man, either John D. Rockefeller or Bernard Baruch or Joseph Kennedy (all of them still celebrities today, Kennedy only because he was the father of John F. Kennedy, who later became president of the United States), decided to sell stocks before the peak in 1929 after a shoeshine boy offered him advice on investing in the stock market. Jody Chudley provided a version of this story in *Business Insider* in 2017:

> In 1929, JFK's father Joseph Kennedy Sr. picked up on one of those subtle signs and didn't just get out at the top, he scored a massive windfall on the way down as well.
>
> Like for virtually anyone invested in the stock market, the 1920s were good to Joseph Kennedy Sr. How could they not be, all you had to do was buy all the stock you could and watch it go up.

> After having made a bundle owning stocks in the roaring bull market of the 1920's, Joe Kennedy Sr. found himself needing to get his shoes polished up.
>
> While sitting in the shoeshine chair, Kennedy Sr. was alarmed to have the shoeshine boy gift him with several tips on which stocks he should own—yes, a shoeshine boy playing the stock market.
>
> This unsolicited advice resulted in a life-changing moment for Kennedy Sr. who promptly went back to his office and started unloading his stock portfolio.
>
> In fact, he didn't just get out of the market, he aggressively shorted it—and got filthy rich because of it during the epic crash that soon followed.
>
> They don't ring bells at the top, but apparently when shoeshine boys start giving stock advice it is time to head for the exits.[14]

I could not, however, find evidence of this story in the ProQuest News & Newspapers database for the 1920s and 1930s. The earliest mention I found of a shoeshine boy giving stock tips to a rich and important man was in Bernard Baruch's 1957 memoirs,[15] but even there the story is not exactly that of an epiphany at the moment the shoeshine boy spoke.

The shoeshine boy story also has variants that mention bootblacks, barbers, or policemen as the stock tipper. For example, a 1915 article in the *Minneapolis Morning Tribune* argued that the advancing market was not about to turn down because:

> We do not hear of the chamber maids and bootblacks who have cleaned up fortunes by lucky plays in the street. These romances usually mark the approach of the culmination of the advance.[16]

This 1915 narrative does not seem to have the moral force of the shoeshine boy narrative, for it is not connected to any catastrophic Armageddon event, it does not moralize as effectively, and it does not effectively tie the story to a celebrity.

Relevance of the Stock Market Crash Narrative Today

Though much time has passed since the 1929 crash, and much of the zeitgeist of the 1930s is lost to us now, the feeling lingers that the United States *might* experience another stock market crash. This continuing economic narrative is a lasting legacy of 1929, and it probably serves to amplify end-of-boom drops in the stock market and drops in confidence. Moreover, any awareness that some people frame their thinking in terms of such a narrative might lead to expectations that others will also display such amplifying reactions. As of this writing, in 2019, the stock market crash story is not contagious, but it remains a part of public thinking and might return with a mutation or change in the economic environment.

Policymakers might take a lesson from both the real estate bubble narratives and the stock market crash narratives: during economic inflections, there is real analytical value to looking beyond the headlines and statistics. We should also consider that certain stories that recur with mutations play a significant role in our lives. Stories and legends from the past are scripts for the next boom or crash.

The next two chapters describe economic narratives that differ from those we have covered so far in that they engender moral outrage and an impulse to fight back. In both chapters, we examine a dominant emotion of anger—against business in chapter 17, and against labor in chapter 18. This anger takes a form that may cause significant changes in economic behavior.

Chapter 17

Boycotts, Profiteers, and Evil Business

Anger at business varies through time. People may start thinking business is evil when prices of consumer goods increase substantially. Narratives blame business aggressiveness for rising prices, and public anger may continue after the inflation stops, if the public believes that prices are still too high. Anger can also become inflamed when businesses cut wages. Such anger may induce organized boycotts or disorganized decisions to postpone spending until prices are lower. In such cases, people view their buying decisions in moral terms, not just as satisfying their wants. Anger narratives may also interact with self-interested thoughts of postponing expenditures until prices come down. We see the effects of such angry narratives clearly in major economic events, including the depression of the 1890s, the 1920–21 depression, the Great Depression, and the 1974–75 recession. We see glimpses of such anger today, and we may see it strongly again in the future.

The Boycott Narrative

The word *boycott* (with slight modifications reflecting language idiosyncrasies) entered most of the world's major languages starting in 1880. Charles C. Boycott has found eternal fame not because he invented the boycott but because he was its most celebrated victim. Boycott was the land manager for an absentee landlord in Ireland. Responding to a bad crop in 1880, he offered to cut by 10% the rents to be paid by tenant landlords, but the tenants demanded a 25% cut. He resisted. An Irish organization of land tenants then appealed to the broader community for support against Boycott. In October 1880, Boycott described his travails in a letter to the editor of the *Times of London*:

> On the 22d of September a process-server, escorted by a police force of 17 men, retreated on my house for protection, followed by a howling mob of people, who yelled and hooted at the members of my family. On the ensuing day, September 23, the people collected in crowds upon my farm, and some hundred or so came up to my house and ordered off, under threats of ulterior consequences, all my farm labourers, workmen, and stablemen, commanding them never to work for me again. . . . The shopkeepers have been warned to stop all supplies to my house. . . . I can get no workmen to do anything, and my ruin is openly avowed as the object of the Land League unless I throw up everything and leave the country.[1]

This is a vivid story, but why did it go viral worldwide? First, it was controversial. On one side, the action against Boycott seemed to offend human sensibilities, but on the other side, it addressed the prominent questions of rising inequality and the concentration of wealth and power. It was not the first time such actions had been taken. But this time the idea developed that asking for moral support in the form of a boycott from the general community might be a powerful tool. Indeed, the boycott seemed to be a new and superior tactic for labor because it involved the entire community, which did not directly benefit from the boycott. Thus it seemed to be proof that the action was moral, not self-interested. The idea was highly contagious, and it spread far and wide.

Boycott would eventually become the centerpiece of its own economic narrative. Like some other narratives, it centers on an emotional response—in this case, anger against businesspeople. The boycott narrative brings with it a sense of conspiracy also generated by anger. As we will see in this chapter, the boycott narrative and others in its constellation tend to recur when there is a broad-based undercurrent of social opprobrium, and they are economically important because they affect people's willingness to spend and willingness to compromise.

The Boycott Narrative Goes Viral

In *The Boycott in American Trade Unions* (1916), labor historian Leo Wolman wrote:

> Almost without warning the boycott suddenly emerged in 1880 to become for the next ten or fifteen years the most effective weapon of unionism. There was no object so mean and no person so exalted as to escape its power.[2]

By the middle of the depression of the 1890s, the narrative began to change, and the public was becoming fed up with a constant succession of boycotts. The moral authority of boycotts disappears when most people begin to express suspicion and annoyance with them. As Wolman notes:

> The influence of the American Federation of Labor has been exerted in inducing in its members a greater conservatism in the employment of the boycott. Practically the great majority of its legislative acts from 1893 to 1908 have been designed to control the too frequent use of the boycott. At the convention of 1894 the executive council remarked "the impracticability of indorsement of too many applications of this sort. There is too much diffusion of effort which fails to accomplish the best results." Thereafter, every few years saw the adoption of new rules restricting the endorsement of boycotts.[3]

But boycotts did not go away forever, and they have recurred periodically throughout modern economic history. In each case, the boycott lasts only as long as the narrative behind it remains strong. When the underlying narrative weakens, the boycott eventually falls apart.

Profiteer Stories Reinvigorate the Boycott Narrative with World War I

Related to boycotts was the emerging profiteer narrative. Figure 17.1 shows the epidemic contagion of *profiteer*, a new word associated with anger against businesspeople. The term was coined in 1912, according to the *Oxford English Dictionary*. It was mentioned extremely frequently around World War I and just after, with its use peaking during the depression of 1920–21. *Profiteer* is a play on the much older word *privateer*, meaning a pirate ship that has government support to prey on enemy foreign shipping. Such vivid mental images enhanced profiteer contagion. Associated phrases at the time were *excess profits* and, as we have seen, *boycotts*.

In 1918, the last year of World War I, the *New York Tribune* offered an example of these narratives:

> There is a local story, writes "The Cleveland Plain Dealer," to the effect that two men in a streetcar were discoursing upon the great struggle, when one of them said: "The war has been a godsend to my plant," and the other, chuckling, replied: "If it lasts two years longer I'll be on Easy Street." Whereupon, as the story runs, a woman stood up and smote both men grievously with her umbrella, exclaiming as she did so: "If that's what the war means to you, this is what your remarks mean to me!"[4]

This narrative, accompanied here by a powerful visual image of an angry woman using her umbrella as a weapon, was highly contagious. This narrative and similar narratives persisted after the war, strongly affecting attitudes toward business for several more years.

The sharpest depression (meaning fastest decline and recovery) in US history since the advent of modern statistics occurred from 1920 to 1921. At that time, people called the depression the "post-war depression," and the unhyphenated word *postwar* also emerged, unambiguously referring to World War I, which was considered a unique turning point in history. The phrase describing it, *the war to end all wars*, had gone viral during and just after World War I. A few decades later, World War II eclipsed World War I, and the meaning of *postwar* changed to refer to the period after World War II. As a result, the depression of 1920–21 lost a uniquely identifying name. In a 2014 book, James Grant suggested calling it "The Forgotten Depression," which was the title of his book about it.

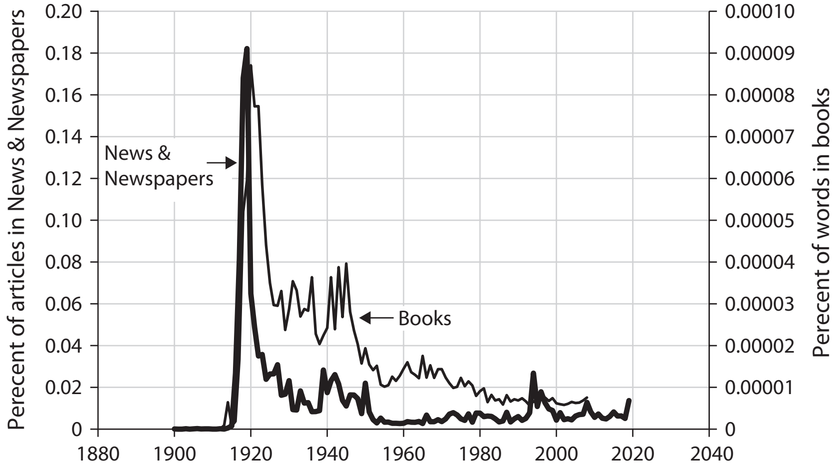

FIGURE 17.1. Frequency of Appearance of *Profiteer* in Books, 1900–2008, and News, 1900–2019

Profiteer was a strong short epidemic starting during World War I but did not peak until the 1920–21 depression. *Sources*: Google Ngrams, no smoothing, and author's calculations from ProQuest News & Newspapers.

Nonetheless, the 1920–21 depression was a powerful narrative at the time of the Great Depression of the 1930s. It was part of the script for that depression. Ultimately, every important event from the depression of the early 1920s through the Great Depression of the 1930s was put in the emotional context of either "prewar" or "postwar." For example, in 1933, twenty-year-old soldiers who survived World War I, then in their midthirties, still maintained wartime friendships and in many cases still nursed wartime wounds. Both depressions also generated an atmosphere of public outrage toward business, as exemplified by the angry woman attacking the two businessmen with her umbrella.

The Return to "Normalcy"

After World War I, with immediate postwar inflation totaling 100%, a deflation narrative developed by 1920. The story that consumer prices would fall dramatically was strongly contagious owing to its association with the profiteer narrative. Indeed, during the 1920–21 depression, thousands of newspaper articles noted that certain individual prices had fallen to their prewar 1913 or 1914 levels. The newspapers' writers and editors knew that readers would respond well to such stories because, to most people, it seemed natural that once the war was over, prices would return to their old levels: a very important perceived "return to normalcy" that might eventually encourage consumers to buy a new house or a new car, but only after prices came down fully.

The idea that prices would fall to prewar levels was encouraged by the talk during the 1920 presidential campaign. Presidential candidate Warren Harding popularized the word *normalcy* to describe the world's conditions before World War I, promising to bring back those conditions. Use of the word *normalcy* long before 1920 can be documented—it was not Harding's invention—but the word was used so rarely before 1920 that many people believed that Harding had coined it. Harding used *normalcy* much as Donald J. Trump used the words *bigly* and *yuge* in his 2016 election campaign promises to make America great again. In both Harding's campaign and Trump's, words loaned a concreteness to the narrative, were frequently joked about, and seemed almost to provide a name for the narrative. For Harding, the word *normalcy* reflected a tendency to conflate the depression conditions of 1920 with the still-vivid trauma of the war, making for an emotionally intense narrative of the times.

In his March 1921 inaugural address as new president of the United States, Harding summarized what he'd emphasized throughout his 1920 election campaign:

> The business world reflects the disturbance of war's reaction. Herein flows the lifeblood of material existence. The economic mechanism is intricate and its parts interdependent, and has suffered the shocks and jars incident to abnormal demands, credit inflations, and price upheavals. The normal balances have been impaired, the channels of distribution have been clogged, the relations of labor and management have been strained. We must seek the readjustment with care and courage. Our people must give and take. Prices must reflect the

> receding fever of war activities. Perhaps we never shall know the old levels of wages again, because war invariably readjusts compensations, and the necessaries of life will show their inseparable relationship, but we must strive for normalcy to reach stability.[5]

To Buy or Not to Buy

In the still-bruised emotional atmosphere of the 1920s, waiting to buy discretionary items until the prices fell seemed an obvious strategy, both moral and practical, to most consumers. But postponing purchases helped bring on a depression. As one observer wrote in 1920:

> The buying public knows that the war is over and has reached the point where it refuses to pay war prices for articles. Goods do not move, for people simply will not buy.[6]

Populist anger grew, along with protests against profiteering manufacturers and retailers. The protests sought to take advantage of a basic economic principle:

> If people determine to buy foodstuffs or anything else only what they actually cannot do without, the working of the inexorable law of supply and demand will operate automatically to bring conditions to a more normal state.[7]

Thus thrift became a new virtue as people waited for the return of the "normal" prices of 1913.

Why 1913? An authoritative retail price index precursor to the modern Consumer Price Index (CPI) was first published in the United States by the Bureau of Labor Statistics in 1919, just before the 1920–21 depression. The index used past data starting in 1913, the last year of complete peace before the surprise start of World War I in 1914.[8] The index highlighted a very dramatic price increase since 1913. Thus 1913 became the benchmark date for price comparisons, and consumers sought to delay purchases until prices returned to their 1913 levels. In January 1920, the commissioner of labor statistics, Royal Meeker, said, "The prices we kicked about in 1913 have come to be regarded as ideal,"[9] noting that the ideal was mistaken. The Consumer Price Index began with a value of 9.8 in 1913. By 1920, it had more than doubled to 20.9, and by mid-1921 it had fallen to 17.3. It would have to fall a lot further to get back down to 9.8.

In extreme cases of deflation, embellished narratives about deflation might develop enough emotional contagion to go viral, and only in that case would buying behavior be significantly reduced; consumers see some vengeful reward in postponing purchases until prices are at fair levels again. The anger depends on the narrative; thus there is not a strong consistent relationship across countries and through long periods of time between deflation and depression.[10] The economic narrative of the 1920s created an emotionally rich atmosphere of expectations about falling prices. The narrative was not only that it was smart to postpone purchases, but also that it was moral and responsible to do so.

Profiteering and Fair Wage Narratives

The price increase between the end of the war and 1920 was widely blamed on businesspeople who were labeled with the newly popular word *profiteer*. None of the words that were used in previous wars to criticize those who profited from the war (*harpy*, *racketeer*, *exploiter*, *black marketer*, *bloodsucker*, *vampire*, *pilferer*) seem to have the same connotations as *profiteer*, which suggests wartime fortune building at the expense of war heroes. *Profiteer* suggested a big operation, a corporation perhaps, with connections in government, rather than a small-time individual opportunist, and it thus suggested more of a need for collective action in the form of a serious boycott. An added benefit of boycotts, from a US perspective then, was their lack of any connections with communism.

The word *profiteer* during and after World War I appeared in numerous narratives, not just those reported in the business columns. Church sermons began to inveigh against the high price of food during the war, criticizing the selfish behavior of businesspeople who showed little human decency or respect for human suffering.[11] Other narratives described lawyers who discovered the names and addresses of US families who had lost a family member in the war. The lawyers would falsely state that families of fallen soldiers needed an attorney to demand government benefits, and they asked the families to sign a contract to pay them 20% of any government support in exchange for their help in navigating the maze of government benefits.[12] Such narratives make it easy to understand the extremely emotional reactions to such rapacious profiteering.

The profiteer narratives did not stop with the end of the war in 1918. During the postwar inflation, in 1920 and 1921, narratives spread of customers angry at high prices chastising their milkman and telling their butcher they would stop eating meat altogether to spite them. Economists understood why wartime inflation continued until 1920 (heavily indebted governments faced troubles from a war-disrupted economy and did not want to raise taxes or raise interest rates, which would add to their deficit), but the public at large did not. The public began to view the wartime experience and the immediate postwar experience in terms of a battle between good and evil. The popular author Henry Hazlitt wrote in 1920:

> Hence we have self-righteous individuals on every corner denouncing the outrages and robberies committed by a sordid world. The butcher is amazed at the profiteering of the man who sells him shoes; the shoe salesman is astounded at the effrontery of the theatre ticket speculator; the theatre ticket speculator is staggered at the high-handedness of his landlord; the landlord raises his hands to high heaven at the demands of his coal man, and the coal man collapses at the prices of the butcher.[13]

We might ask: Did these people deserve to be called profiteers? It seems that their only crime was selling at higher prices in an inflationary period. In 1922, Irving Fisher visited Germany, where the post–World War I inflation continued longer and developed into a hyperinflation. He recalls the conversation he had with a "very intelligent" woman who ran a clothing store and who offered him an abnormally low price on a shirt, given the extremely rapid inflation:

> Fearing to be thought a profiteer, she said: "That shirt I sold you will cost me just as much to replace as I am charging you." Before I could

> ask her why, then, she sold it at so low a price, she continued: "But I have made a profit on that shirt because I bought it for less."[14]

Fisher then energetically argued that there was nothing moral or special about prewar prices or the "dollar of 1913." German complaints against profiteering were similar to those expressed in the United States in 1920, which saw 28% consumer price inflation over the nineteen months between the World War I armistice and June 1920:

> Syracuse (N. Y.) June 2—The John A. Roberts Corporation of Utica, dealers in wearing apparel, was today fined $55,000 by Federal Judge Harland B. Howe, following its conviction of profiteering on eleven counts. . . . The sales, as explained by the government, were: A dress bought for $16.75, sold for $35 . . . a scarf bought for $6.50 sold for $25.00.[15]

The massive inflation created an illusion of high profits for this seller of apparel. Economists tried to explain some of the mechanisms at work:

> But there is injustice of another kind caused by high prices, and that is the excessive profits which business men of all kinds—manufacturers, jobbers, wholesalers and retailers—are able to reap, indeed almost compelled to take in a period of swiftly rising prices. In these last five years a business man could grow rich by merely keeping his goods on the shelf while the market price continued to rise. This is the real story of "profiteering." It is not a vicious habit which has suddenly come over the business world and which can be stopped by putting men in jail. It is a symptom of the disease, not the disease itself.[16]

This argument probably convinced only a few people who hadn't the faintest idea of inflation's true impact on corporate profits. Instead, most people were likely caught in the profiteer epidemic that business had developed a "vicious habit" of price gouging. The concern with profiteering began to recede only after consumer prices started to fall, but the concern's ebb was not exactly coterminous with that fall, for the epidemic of anger had its own internal dynamics.

In the United States, the inflation ended by June 1920, and although consumer prices never got back to 1913 levels, prices dropped rapidly. Until then, emotions ran very high on the matter. One 1920 letter to the editor stated:

> Excess profit is just what its name indicates—the fruits of profiteering, usury; and if there is anything in the world that should be taxed it is that very thing. In fact, it should be punishable by prison sentence or even more severely still.[17]

The government took these emotions seriously. In 1917, during World War I, the United States imposed a 60% excess profits tax on profits above the prewar 1911–13 level. The excess profits tax was not revoked until October 1921, because anger at corporations lingered long after the war was over. The tax contributed to the 1920–21 depression by encouraging companies to postpone profits until after the tax was revoked. Meanwhile, people held off buying, not only because of their anger at selfish profiteers but also because of the perceived opportunity to profit from postponing their purchases during a time of falling prices.

Perhaps the 1920–21 depression is better thought of as the 1920–21 consumer-boycott-induced depression. In January 1920, US senator Arthur Capper said, "Profiteers are more dangerous than Reds," urging consumers to "boycott the profit hogs by refusing to buy goods offered at extortionate prices."[18] To use another term of that time, perhaps the depression was truly "the 1920–21 buyers' strike," as captured by the word *boycott*.

Also prominent in the depression of 1920–21 was a concern about being paid a "fair wage." Anger against so-called profiteers was sometimes fueled by some companies cutting their employees' wages. These companies defended their actions by noting that they could not continue to pay higher wages when the market prices for their final goods were falling. Any rational person should have seen that wage cuts were sometimes necessary, but an explanation of employers' need to cut wages was not a contagious narrative. Labor union representatives did not have any incentive to explain the employers' predicament to their members. Rather, they found it in their interests to keep alive a story about evil management.

A plot of uses of the term *fair wage* follows a pattern remarkably similar to that of *profiteer*. However, the growth of *fair wage* was steeper and more gradual, starting in the late nineteenth century. In books, the peak usage of *fair wage* was around the time of the 1920–21 depression. In ProQuest News & Newspapers, the peak mention occurred in the Great Depression of the 1930s.

The fair wage-effort hypothesis, as presented by George A. Akerlof and Janet L. Yellen (1990), asserts that workers are inclined to slow down their work in revenge if they feel that they are not being paid a fair wage. Akerlof and Yellen presented their theory as if it applies equally at all times, but it appears that attention to fair wages can be heightened by changing narratives.

Narratives That Suddenly Ended the Sharp 1920–21 Recession

The abrupt end of the 1920–21 depression and attenuation of public concerns about profiteering do not seem to have any obvious explanation. Presumably there were new popular narratives poorly observable today that induced less expectations of falling prices and less anger about high prices.

There was a good harvest in the summer and fall of 1920, and while that may not be a reliable leading indicator, it was taken by many as such:

> We raised enormous crops this year and there is a definite relation between big crops and good times. The war didn't repeal natural laws.[19]

In late 1920 Sir Edmond Walker, a prominent Canadian banker, offered the theory why prices would not fall to 1913 levels:

> This condition [of consumer prices well above prewar levels] may last for another generation, and must last so long as the weight of war indebtedness causes unusually heavy taxes and high rents.[20]

By April 1921 there were claims that there was "less profiteering going on, as prices settle slowly to peace levels."[21] Many farmers were reportedly already back down to receiving 1913-level prices for much of their produce by 1921.[22]

So by that time there seemed to be less reason to postpone purchases until prices were lower. Also, business—and wealth—were no longer so evil, so there was no more impulse to boycott. People were becoming more comfortable with spending. Women were said to be wearing more conspicuous jewelry by 1921.[23] Children were bringing money to school rather than lunch bags, and they bought expensive lunches for themselves. A "pass it along spirit" was developing by late 1921:

> Everyone is taking more comfort—finding more enjoyment in life—than ever before. For proof of this see the roads filled with automobiles. All that means the expenditure of money.[24]

The sharp recovery in 1921 might be attributed to these new narratives, rather to any active government stimulus to revive the economy.

Contrasting the Depression of 1920–1921 with the Great Depression of the 1930s

Labor historians have found that labor was more acquiescent to wage cuts justified by falling prices in the 1920–21 depression than in the later Great Depression of the 1930s.[25] Labor unions were fewer and weaker in the former episode, and thus union propaganda was less viral. Therefore employers had better success in 1920–21 with arguing that they must cut wages because of deflation; they noted that the lower prices they could charge for their products left them with less revenue to pay wages. In *The Forgotten Depression* (2014), James Grant attributes the relatively rapid end of the 1920–21 depression to such wage flexibility.

In contrast, narratives in the 1930s described employers' justification for cutting wages as purely the result of greed and lies. Clergymen were criticized for becoming politicized against business:

> Some of the clergymen who think they were ordained with a special power to preach economics instead of religion go into wages and

> work wholly on emotion. They passionately urge minimum rates and hours on such broad and fine humanitarian grounds that those who oppose regulation on equally fine and broad humanitarian grounds find themselves classed with the sweat-shop employers as enemies of human progress.[26]

Such talk surely made it hard for employers to cut wages to avoid layoffs and to maintain goodwill with the public. In addition, as noted in chapter 13, the National Industrial Recovery Act of June 1933 regulated against wage cuts, and President Franklin Roosevelt's policy, even after the Supreme Court declared the act unconstitutional in May 1935, only made it more difficult for firms to cut wages.[27] These regulations reflected narratives of the Great Depression years that wage cuts were truly evil. Even without such regulations, firms would have found it difficult to cut wages in response to lower prices.

The "return to normalcy" narrative was not so prominent in the Great Depression of the 1930s, and not so easily disposed of with the passage of time. The perception in the depression of 1920–21 that the depression was a transitional phase back to normalcy after a war and an influenza epidemic was a fundamental framing difference when compared to the Great Depression. The unemployment and falling prices in the Great Depression were instead seen through the lens of other narratives that were of epidemic proportions in the 1930s, the confidence narratives (chapter 10 above), the frugality narrative (chapter 11 above), the technological unemployment narrative (chapter 13 above), and the 1929 stock market crash narrative (chapter 16 above).

Boycotts and Profiteers during the Great Depression of the 1930s

References to the 1920–21 depression began during the October 28–29, 1929, stock market crash.[28] The last big crisis always has a special place in people's minds, especially if it was the biggest crisis ever, because such stories rely on people's memories to enhance contagion. Though one narrative at the beginning of the Great Depression held that the current situation was essentially a repeat of the 1920–21 event, the larger Great Depression narrative had to differ in some fundamental ways. The narrative of the 1920s emphasized the recent suffering from World War I, but that narrative was less intense a decade later, in the 1930s. However, the deflation observed was much the same. The consumer price declines in 1920–21 looked like the sharpest ever. Because many people after 1929 expected prices to fall, as they had in 1920–21, they chose to delay their purchases until the price decline was complete.

A month or so after the October 28–29, 1929, stock market crash, the news paid much attention to the signs of weakening retail sales during the annual Christmas shopping season in the United States. News articles described Christmas buying as normal, but weak in luxury items. However, buying was normal only because of price cutting, with the changes attributed to "the psychological effects of the stock market crash."[29]

Economists expected the contraction to be as short-lived as that of 1920–21, which helps explain why President Hoover and others confidently stated in 1930 that the depression that had started in 1929 would soon be over. But the public didn't generally believe President Hoover. Near the bottom of the Great Depression in 1932, the narrative persisted that consumer prices would eventually fall to 1913 or 1914 levels, which would have meant another 20% decline in prices beyond what we know was the bottom level of consumer prices, in 1933.[30] This narrative justified postponing purchases of consumption goods. Catherine Hackett wrote in 1932:

> I have read enough predictions by economists to convince me that my guess is as good as anyone's on the future trend of prices. A housewife plays the falling commodity market just as an investor plays the falling stock market; she sits tight and waits for prices to settle before buying anything but actual necessities. But I do not need to be an economist to realize that if all the twenty million housewives do that, business recovery will be indefinitely delayed.[31]

This quote illustrates some important aspects of consumer behavior. Hackett compares consumer behavior to the behavior of stock market speculators, who do not trust experts and who put emotional energy into forming their own personal forecasts for individual stock prices. She also notes the high contagion of narratives about such speculation. Women must have been talking like speculators, telling stories about some smart decisions and some mistakes with their shopping successes and failures among the unpredictable variability of consumer price changes. Even if the average shopper expected some (nonnegative) inflation, the result could be a significant net decrease in consumer spending if there was a higher contagion rate for emotionally laden narratives about likely price declines.

It is curious that economists haven't looked more at the testimonies of women to understand buying patterns in the depressions of the 1920s and 1930s. Given the sex roles of the era, in which men were likely to play the stock market and women to manage the shopping, women must have been talking extensively about strategizing their shopping based on their hunches. The men who wrote the history attributed everything to important decisions made by male presidents, bankers, and business leaders, but the critical decisions that brought on the depression (that is, the postponement of purchases) may have come more from women. In fact, in 1932, during the depths of the Great Depression, a Mrs. Charles E. Foster reportedly told a women's group:

> One of the most effective weapons in the hands of American women today is their tremendous purchasing power. We are told that they spend eighty-five percent of the incomes of the United States. How could they better create public opinion in favor of spending as usual than by setting the example themselves?[32]

Meanwhile, like the depression of 1920–21, the Great Depression of the 1930s saw many boycotts: against German and Japanese goods, as well as against goods associated with Jewish people. Germans began boycotting Western goods. All of these boycotts must have had economic effects.

The "Buy Now" Campaign

In the early days of the Great Depression there were attempts to create a moral imperative against the bargain craze that led consumers to postpone purchasing.[33] The Washington, DC, Chamber of Commerce launched a campaign in 1930 with the slogan "Buy Now for Prosperity." A "Prosperity Committee" sought the participation of clergymen of all denominations to "preach prosperity through their pulpits" and thereby to "stimulate production, relieving the unemployment situation."[34] When he became president in 1933, Franklin Roosevelt launched his own "Buy Now Campaign," describing patriotic citizens overcoming their impulse to wait for lower prices in order to support a stronger economy.[35] In August 1933, a "Buy in August" campaign described patriotic people as making a special effort to buy retail products in August, the slowest month of the year for retailers. Consumers were reminded that August was "canning time" for many fruits and vegetables and so a good time to buy them. The campaign publicized the seasonality of consumer prices, implying that prices would rise for the rest of the year and that wise consumers should purchase now.[36] Clearly, the "Buy Now" campaign was an attempt to counter the "prices will fall" narrative that had taken hold.

Later Boycott Narratives

After World War II, the United States experienced something akin to a repeat performance of the 1920–21 depression and its boycotts. But this time government authorities remembered the narrative of 1920–21 and used it to guide their response. After the war ended in 1945, the US authorities maintained the wartime price controls for a while to prevent the kind of inflation experienced in 1919 after World War I. From April to October 1945 there was a very brief but sharp recession linked to demobilization, a recession with stable prices as measured. But as the US government lifted the controls, prices began to rise rapidly, and by 1949 they were about 30% higher than they'd been in 1945. Once again there was talk of consumer boycotts and a buyers' strike, and there was a recession in 1949 that resembled that of 1920. Newspapers again reported that buyers were waiting for prices to come down before buying postponable items.

The severe recession of 1973–75 is widely attributed to an embargo, the selling counterpart of the boycott. The Arab oil embargo began in October 1973 during the Arab-Israeli (Yom Kippur) War. The embargo took the form of limiting the supply of oil from the Organization of the Petroleum Exporting Countries (OPEC), which sympathized with the Arab nations that had attacked Israel and were about to be defeated, with US support of Israel. The embargo was a principle- or emotion-driven event, continuing long after the war ended in the same month it started. It was a statement of moral support for the Arab countries, even though only one of the eleven OPEC countries (Iraq) was among the five Arab countries that participated in the war.

Many of the narratives surrounding the recession of 1973–75 had a source in human anger. The most cited cause of this recession—the oil crisis generated by OPEC angrily protesting US support of Israel in the 1973 Yom Kippur War—was only part of the story. The price of oil suddenly quadrupled to unheard-of levels, generating anger among consumers and stories of difficulties dealing with oil rationing in the United States, such as odd-even rationing of gasoline. (Consumers could buy gasoline only on odd-numbered days if their license plate ended with an odd number, and only on even-numbered days if their license plate ended with an even number.) Higher oil prices caused higher electric bills, and anger at the perceived injustice was one of the reasons many people started keeping much of their homes in darkness, as a sort of protest.[37] In the period of runaway US inflation of the 1970s, when many viewed inflation as the nation's most important problem, one observer wrote in July 1974, "Fighting inflation is like fighting a forest fire, it requires courage, team play, and coordinated sacrifice."[38] At the time, US annual inflation was 12%, which was a record high excluding periods surrounding the world wars.

The firefighting metaphor has moral overtones that might have caused people to curtail spending. Indeed, at the very beginning of the severe 1973–75 recession, in April 1973, there had been a "meat boycott" in which consumers protested the high price of meat. That boycott reportedly put twenty thousand US meat industry workers out of their jobs.[39] In August there was a one-day boycott, a "Don't Buy Anything Day."[40] The next year, in January 1974, with the economy well into the recession, angry consumers renewed the meat boycott and extended it to a grain boycott.[41] The boycott sentiment remained in consumer consciousness for some time, generating reduced purchases of a wide array of goods and services, leading to, or at least contributing to, the recession.

During the world financial crisis years 2007–9 thousands of boycotts were reported, including boycotts of mortgage lenders and of gasoline, but boycotts and profiteering did not appear to rise to the level of economic significance seen in earlier episodes. Still, narratives that stimulate angry boycotts will likely appear in the future, just as they have in the past. How emerging businesses and labor unions are perceived—as either good or evil—matters greatly for the future state of the economy, a topic to which we turn in the next chapter.

Chapter 18

The Wage-Price Spiral and Evil Labor Unions

The *wage-price spiral* narrative took hold in the United States and many other countries around the middle of the twentieth century. It described a labor movement, led by strong labor unions, demanding higher wages for themselves, which management accommodates without losing profits by pushing up the prices of final goods sold to consumers. Labor then uses the higher prices to justify even higher wage demands, and the process repeats itself again and again, leading to out-of-control inflation. The blame for inflation thus falls on both labor and management, and some may blame the monetary authority, which tolerates the inflation. This narrative is associated with the term *cost-push inflation,* where *cost* refers to the cost of labor and inputs to production. It contrasts with a different popular narrative, *demand-pull inflation,* a theory that blames inflation on consumers who demand more goods than can be produced.

As Figure 18.1 shows, the two epidemics, *wage-price spiral* and *cost-push inflation,* are roughly parallel. Both epidemics were especially strong sometime between 1950 and 1990. These epidemics reflected changes in moral values, indicating deep concerns about being cheated and a sense of fundamental corruption in society. According to the narratives, labor unions were deceitfully claiming to represent labor as a whole, when in fact they were representing only certain insiders.[1] Meanwhile, politicians and central banks were selfishly perpetuating the upward spiral of inflation, which impoverished real working people not represented by powerful unions. There has been a long downtrend in

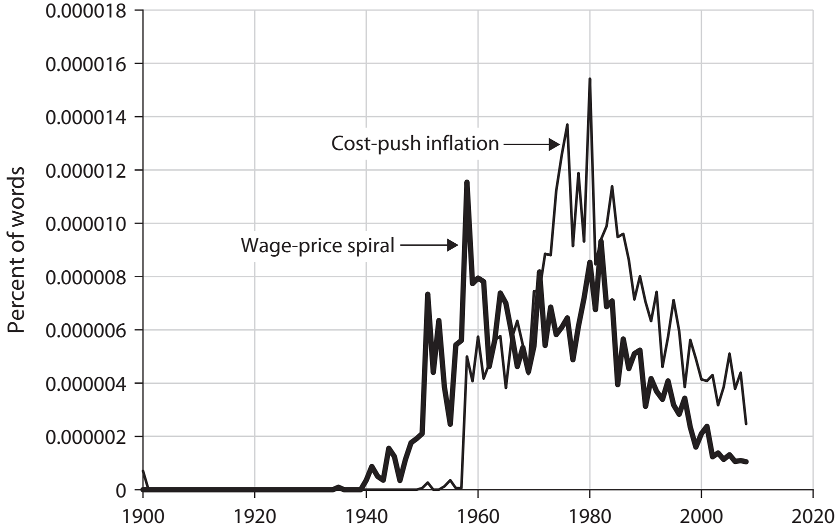

FIGURE 18.1. Frequency of Appearance of *Wage-Price Spiral* and *Cost-Push Inflation* in Books, 1900–2008

These two related epidemics helped bring about major changes in labor relations and government regulation of business. *Source*: Google Ngrams, no smoothing.

public support in the United States for labor unions, from 72% in 1936 to 48% in 2009, as documented by the Gallup Poll.[2]

These narratives were enhanced by detailed stories that invited angry responses. For example, around 1950 an outrageous story went viral about labor unions' reframing their wage in terms of miles traveled rather than hours worked. The *New York Times* described it thus in 1950:

> One of the rule changes asked by these two unions is that the pay base for trainmen and conductors on passenger trains be lowered to 100 miles or five hours, from 150 miles or seven and a half hours. The railroads have countered by asking that the basic day's work be increased to 200 miles. . . . Because of recent technological improvements, including the greater use of diesel locomotives, the speed of passenger trains has been increased, where many passenger train service employes now receive a day's pay for two and a half to three hours of work. By reducing the number of miles in the basic day to 100, the mileage rate of pay of the passenger train employes would be increased by 50 per cent.[3]

So, the story went, the conductors would have the opportunity to sit down as passengers after working only two and a half hours, long before the trip was over. Such an outrageous demand made the narrative highly contagious, and it is memorable enough to be remembered today.

Labor unions became associated in the public eye with organized crime. For example, Jimmy Hoffa took over the International Brotherhood of Teamsters union in 1957, despite corruption charges against him then, and led that union as an absolute dictator. There was for years an ongoing story of his investigation for gangster-like activities, in a probe led by Robert F. Kennedy. Hoffa was convicted of bribery and fraud and went to prison from 1967–71. In 1975 he disappeared after being last seen in the parking lot upon leaving the Red Fox Restaurant in Bloomfield Township. Rumors were that he was murdered by rival gangsters. Rumors were that his body "was entombed in concrete at Giants Stadium in New Jersey, ground up and thrown in a Florida swamp, or perished in a mob-owned fat-rendering plant."[4] These colorful theories, which suggest vivid visual mental images of Hoffa's ignominious end, led to the contagion rate of the Hoffa epidemic that further discredited labor unions. The search for his body in a garbage dump, an empty field, and elsewhere created news stories until 2013. This was a viral story, part of a constellation of narratives that described labor unions in negative terms, and which impelled many people to see real evil in them.

The wage-price spiral narrative was reflected in actual inflation rates around the world, which tended to be unusually high when the narrative was strong. The World Bank's Global Inflation Rate peaked in 1980, approximately at the peak of *cost-push inflation* in Figure 18.1, and it has been mostly on the decline ever since. These epidemics also saw high long-term interest rates, reflecting the inflation expectations engendered by the narrative. Today, inflation is down across much of the world, and long-term interest rates have fallen since the epidemic peaked. The dynamics of this worldwide narrative epidemic likely provide the best explanation for these epochal changes in trend of the two major economic variables, inflation and interest rates.

The end of the wage-price spiral narrative was marked by changes in monetary policy and the advent of newly popular ideas: the independent central bank[5] and inflation targeting[6] by central banks. The independent central bank was designed to be free from political pressures, which organized labor tries to exploit. Inflation targeting was designed to place controlling inflation on a higher moral ground than appeasing political forces.

The moral imperative here was strong. On its face, the wage-price spiral may seem purely mechanical. However, many believed it was caused by the greedy (immoral) behavior of both management and labor. President Dwight Eisenhower referred to the spiral in his 1957 State of the Union address:

> The national interest must take precedence over temporary advantages which may be secured by particular groups at the expense of all the people. . . . Business in its pricing policies should avoid unnecessary price increases especially at a time like the present when demand in so many areas presses hard on short supplies. A reasonable profit is essential to the new investments that provide more jobs in an expanding economy. But business leaders must, in the national interest, studiously avoid those price rises that are possible only because of vital or unusual needs of the whole nation. . . . Wage negotiations should also take cognizance of the right of the public generally to share in the benefits of improvements in technology.[7]

Even though 1957 saw only a moderate burst of inflation, from less than zero in 1956 to a peak of 3.7% in 1957 and far smaller than the 23.6% in 1920, it stirred emotions because of the moralizing narrative that attended it. A 1957 editorial in the *Los Angeles Times* exemplifies the reaction:

> What is wrong with our country? A creeping inflation is like a small crack in a dam or dike as it grows menacingly larger by the force of the seeping water. The crack in our national economy is being widened by greed—greed of some leaders of big business and labor as they continue to boost prices and wages, each blaming the other, and neither pausing to realize that the economy of our country is at the

> breaking point with a crash being inevitable if we do not level off now and hold prices and wages. It may even be too late.[8]

The moralizing in these narratives, spoken by presidents and prime ministers and published and commented on by journalists, gave the US Federal Reserve and other nations' central banks the moral authority to step hard on the brakes, risking a recession. They did just that, tightening money gradually until the discount rate rose to a peak in October 1957. Allan Sproul, the recently retired president of the Federal Reserve Bank of New York, in 1957 lamented the difficult role of the Fed as the "economic policeman for the entire community." He noted the blame the Fed gets for the expansion before a crackdown:

> As it is, there are times when your Federal Reserve System finds itself in the position of having to validate, however reluctantly, public folly and private greed by supporting increased costs and prices.[9]

Inflation in a Constellation of Injustice and Immorality Narratives

When inflation has been high, many commentators have regarded it as the most important problem facing the nation. Starting in 1935, the Gallup Poll has repeatedly asked its US respondents, "What do you think is the most important problem facing this country [or this section of the country] today?" During the era of highest US inflation, from 1973 to 1981, generally more than 50% of respondents responded by saying either "inflation" or "the high cost of living." This perception appears to have been common across much of the world. Reflecting this view, economist Irving S. Friedman wrote in his 1973 book *Inflation: A World-Wide Disaster* that the increasing inflation was sending "panic signals throughout the world," opining that the inflation crisis was as serious a problem as the Great Depression of the 1930s.[10] Inflation was "eroding the fabric of modern societies" and "threatens all efforts to keep the international monetary system from fragmenting into hostile forces."[11]

The discourse seemed to want to fix blame on some segment of society, either labor or business, for the inflation. Popular syndicated columnist Sydney J. Harris wrote in 1975:

> WHAT IS SO frustrating about this kind of thing is the difficulty in pinning down the culprits, if any . . .
>
> Either somebody is lying, or the whole economic process doesn't make sense.
>
> If labor is getting "too much," why are most working families struggling to make ends meet?
>
> If grocers are "profiteering," why do they get glummer as prices go higher?
>
> Where does the buck stop? Nobody knows. And so each segment blames another for the vicious spiral, and each justifies its own increases by pointing to its own rising cost of doing business.
>
> THE MARKET NO longer seems to control prices when they keep escalating despite reduced consumption.
>
> Some strange new twisted law appears to be operating in place of the classical formula of the "free market."
>
> I am not versed enough in economics to understand what is going on; neither are most people.[12]

In contrast to the 1920s and the preceding chapter, there were now multiple possible sources of evil behind inflation, not so focused on evil businesses of various kinds, but now also on evil labor.

In my 1997 study of public views of the inflation crisis in the United States, Germany, and Brazil, conducted after the worst of the inflation had subsided but during a period in which people remained concerned about inflation, I surveyed both the general public and, for comparison, university economists. My research uncovered differences in narratives across countries, across age groups, and, particularly, between economists and the general public.

For the most part, the economists did not think that inflation was such a big deal, unlike Irving Friedman, who was writing for the general public. Meanwhile, although US consumers did not agree on the causes of the inflation, they were nonetheless angry about it. When asked to identify the cause of the inflation, their most common response was "greed," followed by "people borrow or lend too much." In specifying the targets of their anger, the US respondents listed, in order of frequency, "the government," "manufacturers," "store owners," "business in general," "wholesalers," "executives," "U.S. Congress," "greedy people," "institutions," "economists" "retailers" "distributors," "middlemen, "conglomerates, "the President of the United States," "the Democratic party," "big money people," "store employees" (for wage demands that forced price increases), their "employer" (for not raising their salary), and "themselves" (for being ignorant of matters).[13]

In addition, unlike economists, the general public believed in a *wage lag hypothesis*: the idea that wage increases would forever lag behind price increases, and therefore that inflation had a direct and long-term negative impact on living standards. In short, the *wage-price spiral* offered a geometrical mental image of one's economic status spiraling down for as long as strong aggressive demands of labor kept it happening.

In some ways the 1957–58 recession differed substantially from earlier recessions. It did not have the character of a buyers' strike, as the Great Depression did. In fact, sales of luxury items remained very strong. Anger was not so much directed against "profiteers," and there was little shame in living extravagantly. The alarmist talk about the wage-price spiral did not focus anger onto the rich. Rather, sales of postponable everyday purchases suffered more.[14]

At the same time, the public sensed that no feasible government policy could stop the wage price-spiral. The earlier recessions of 1949, 1953, and 1957 had left inflation a little lower, but only temporarily. The lingering narrative of the Great Depression suggested to the general public that it was perhaps too great a risk to try to control inflation by starting a bigger recession. That idea was part of the popular conception of the wage-price spiral model, that the nation should base all of its economic decisions on the assumption that inflation will get worse and worse.

Angry at Inflation

Out-of-control consumer price inflation has occurred many times throughout history, and the phenomenon has always induced anger. The loss of purchasing power is extremely annoying. But the question is this: At whom should the public direct its anger? Anger narratives about inflation reflect the different circumstances of each inflationary period. By studying these narratives, we can see the effects of inflation and how they change through time.

The most extreme cases of inflation tend to happen during wars. When governments are in trouble, they may not be able to collect taxes fast enough to pay for the war, and in desperation they resort to the printing press for more money. But the stories may not resonate, and the public may not see or understand what is happening. That is, narratives that blame the government for the inflation may not be contagious during a war. Instead, it is more likely that people want to blame someone else. Businesspeople, who are staying home safely while others are fighting, are a natural target of narratives.

In chapter 17, we saw the remarkable epidemic of the word *profiteer* during and just after World War I. People were very angry that some businesspeople were made rich by the war, and the result was the imposition of an excess profits tax (not only during World War I but also during World War II). Such anger against the people who get rich during wartime is a perennial narrative, not limited to the twentieth century. For example, there was anger during the US Civil War (1861–65) at those who profited from the war, but it wasn't directed at business tycoons creating inflation to make large profits. The narratives were different. Consider, for example, this sermon by Reverend George Richards of the First Congregational Church of Litchfield, Connecticut, on February 22, 1863:

> How, in contrast with the greedy speculators, in office and out of it, who have prowled, like famished wolves, round our fields of carnage—stealing everything they could lay their hands on—robbing the national treasury—purloining from the camp-chest—pilfering from

> the wounded in the hospitals—appropriating to themselves the little comforts meant for the dying, if not stripping the very dead![15]

During the 1917–23 German hyperinflation, the inflation rate was astronomical, and not due to any war. Prices in marks rose on the order of a trillionfold. And yet many people were unable to identify the malefactor who was causing inflation. Irving Fisher, an American economist who visited Germany at the time, found that Germans did not blame their own government, which had been printing money excessively. Fisher wrote:

> The Germans thought of commodities as rising and thought of the American gold dollar as rising. They thought we [the United States] had somehow cornered the gold of the world and were charging an outrageous price for it.[16]

As of this writing, there is some suggestion of resurgence in the strength of labor unions, and of public support for them, in the United States. The wage-price spiral narrative does not seem poised to reappear. Inflation in the United States and other countries seems unusually tame. However, a mutation of the narrative could appear if inflation begins to creep up. The public tends to watch consumer prices closely, because of its constant repetition of purchases. The wage-price spiral narrative, or some variation on that theme, could again create a strong impulse for economic actors to try to get ahead of the inflation game. It could give them newfound zest in this effort by bringing a moral dimension into the mix, a perception of true evil in inflation, personified by certain celebrities or classes of people.

Perennial Narratives: A Summing Up

The list of nine narrative constellations in part III of this book offers a glimpse of the narrative forces that have driven economies into and out of booms and busts. One broad lesson that we may take from this list is the immense complexity of the narrative landscape. No simple index of public opinion, such as the Consumer Confidence Index, summarizes the "strength" of the economy. The various narratives that share the stage at any point have, in a biological analogy, many cellular receptors and signaling molecules. Modern communication means that new and different kinds of epidemics are possible, and economic forecasting requires close attention to many different narratives. Forecasting in the future will require a new attention to data that are becoming available, as we discuss in part IV.