

# THE PANIC OF IOO

Lessons Learned from the Market's Perfect Storm

By Robert F. Bruner and Sean D. Carr



TO UNDERSTAND FULLY THE CRASH AND PANICI OF 1907, one must consider its context: it was a time somewhat like the present. A Republican moralist was in the White House. War was fresh in mind. Immigration was fueling dramatic changes in society. New technologies were changing people's everyday lives. Business consolidators and their Wall Street advisers were creating large, new combinations through mergers and acquisitions, while the government was investigating and prosecuting prominent executives—led by an aggressive young prosecutor from New York. The public's attitude toward business leaders, fueled by a muckraking press, was largely negative. The government itself was becoming increasingly interventionist in society and, in some ways, more intrusive in individual life. Much of this was stimulated by a postwar economic expansion that, with brief interruptions, had lasted about 50 years, although in recent months a major natural disaster

had disturbed the equilibrium of the nation's fragile financial system. As Mark Twain supposedly said, "History may not repeat itself, but it occasionally rhymes."

Exactly 100 years ago the United States was teetering on the edge of economic collapse. Markets were in disarray, anxious depositors were forming long lines in front of banks, and Wall Street investors were nervous and distressed. By November 1907 a major market crash had resulted in a 37 percent decline in the value of all listed stocks, affecting nearly every industrial sector. During the sharpest part of this downturn, a banking panic led to the failure of at least 25 banks and 17 trust companies." Money was increasingly scarce, brokerages were forced to close, and the City of New York was twice unable to find buyers for its bonds, forcing the municipal government to the brink of bankruptcy.

Despite its severity, the 1907 crisis was mercifully short. Altogether it lasted 15 months, from the market's peak in September 1906 to its trough in November 1907. From then until now, many observers have credited the relative brevity of this crisis to the actions of private bankers whose heroic interventions averted absolute catastrophe. In 1907, the United States lacked a central bank and the federal government possessed little authority to address widespread economic distress. Moreover, at the very nadir of the crisis, the trust-busting U.S. President, Theodore Roosevelt, was literally hunting for bear in the canebrakes of Louisiana.

Under these circumstances, as the market crash and banking panic spun wildly out of control, J. Pierpont Morgan, the colossus of American finance, ably asserted himself as the nation's *de facto* central banker. Using his personal influence among other leading financiers, Morgan and a small circle of his peers raised the funds necessary to relieve the nation's credit anorexia and support her faltering financial institutions—all within the span of a few weeks.

The bold intervention of Morgan, however, does not tell the whole story. The significance of Morgan's leadership is undeniable, and his actions deserve continued consideration as scholars and practitioners draw innumerable lessons from his temerity, judgment, and resolve. However, a thorough understanding of America's first financial crisis of the 20th century would be incomplete were we only to study its remediation. Morgan's dramatic resolution of the 1907 crisis should not blind us to the lessons that can be learned from a deeper examination of its underlying causes.

Over the years the causes of large and systemic financial crises have been the focus of considerable research—both directly and through varied intellectual streams: macroeconomics, game theory, group psychology, financial economics, complexity theory, the economics of



Lines in front of the Lincoln Trust Company during the Panic of 1907.

information, and management theory. A pluralistic interpretation of the panic and crash of 1907 that draws from these diverse intellectual perspectives suggests that financial crises may result from a powerful *convergence* of seven overlapping and interrelated forces—a "perfect storm"<sup>iii</sup> in the financial markets. Reflecting on the 1907 crisis, then, let us consider the elements of the storm and how they may gather force:

System-like architecture. A financial system has two vitally important characteristics that can serve as the foundations for crises. First, various financial institutions may be controlled by the same investors, and these intermediaries (banks, trust companies, brokerage firms) may be lenders and creditors to each other by virtue of the cash transfers they facilitate. The very existence of such a network means that trouble can travel quickly, and the difficulties of one financial intermediary can spread to others. Second, the very complexity of a financial system also means that it is difficult for all participants in the financial system to be equally well informed—thus an "information asymmetry" may motivate perverse behavior that can trigger or worsen a financial crisis.iv



J.P. Morgan at the Pujo Hearings, 1912.

In 1907, the financial system in the United States was highly fractionalized, localized, and complex. All told, the system held about 16,000 financial institutions (compared to about 7,500 in 2007), and the vast majority of them were small "unit" banks having no branches. In 1907, the systemic nature of financial crises can be seen in the chain of linkages as the panic spread, beginning on October 16, from one institution to many others in New York City and beyond (see Figure 1).

own Brothers, Sterling

As for the effects of information asymmetry, one is struck by how little the average depositor in 1907 or even J. P. Morgan himself-could know about the condition of financial institutions. To resolve this asymmetry, Morgan had privately chartered audits of the assets of various institutions and debtors. But he must have known that the more serious asymmetry lay not between him and the institutions, but between the public and the institutions—therefore, Morgan attempted to use the press, and even the pulpits, to shape public perceptions about the safety and soundness of the financial system.

Buoyant growth. As lightning precedes thunder, a volatile environment is a precursor to financial instability. Indeed, volatility in the form of buoyant economic growth may be especially pernicious since it engenders false optimism about the stability of markets and institutions. Every major financial panic has occurred after an episode of rapid economic growthvi though not all panics are associated with recessions.vii Of special interest is not the fact of growth, but rather the cause of the inflection, the downturn from boom to slump. Rapid economic growth creates a demand for money that eventually imposes liquidity strains on the financial system.

The crash and panic of 1907 punctuated a period of very rapid economic growth in the United States. This growth created a massive demand for external finance and meant the financial system within the U.S. had a low level of capital relative to the recent rate of demand.viii New capital—nearly \$100 million in gold imported in 1907—was obtained from Europe, through borrowings denominated not in U.S. dollars, but in sterling, francs, and marks. Large borrowings denominated in foreign currencies have also been associated with financial crises.ix

Inadequate safety buffers. The business cycle is associated with a

Figure 1: Some Linkages Among Financial Institutions in 1907. **Unrelated: Distant** Related: NY Unrelated: NY **Central Actors: NY** Trust Company of Mercantile Bank Correspondent banks Failure of Otto Heinze & Co. State Savings Bank of Butte America; and other Trust in the "interior": money and Gross & Kleeberg National Bank of North America: companies: New York centers and small local New Amsterdam Bank; Mechanics Stock Exchange; Moore banks; foreign financial & Traders Bank: Knickerbocker Trust. & Schley. institutions

process of credit expansion and contraction that significantly amplifies changes in markets and economic growth. The boom part of the credit cycle erodes the shock absorbers that cushion the financial system in the slump. Some banks, eager to make profits, unwisely expand their lending to less and less creditworthy clients as the boom proceeds. Then some external shock occurs and the bank directors awaken to the inadequacy of their capitalization relative to the credit risks they have taken; banks reduce or cut off the new loans available to their clients. This triggers a liquidity crisis that drives both a stock market crash and a depositor panic. The fragility of such a system stems not only from the behavior of some banks. It also grows from the structure of the industry. A system with many small and undiversified banks —such as existed in the United States in 1907—is more prone to panics.x

In addition, the economists Ellis Tallman and Jon Moen (1990) found that the emergence of trust companies—a relatively new and lightly regulated financial institution—introduced a key source of instability leading up to the panic of 1907. In part, the unequal regulation of banks and trust companies contributed to a concentration of riskier assets in trusts; the trusts took advantage of opportunities from which the banks were restricted. Moreover, the trusts were able to concentrate their portfolios more.xi

Adverse leadership. Adding to the stew of uncertainty that leads up to the financial crisis is the action of political and economic leaders who advertently or inadvertently elevate

the risk of crisis. Like rapid growth and inadequate safety buffers, the mistakes of leadership can help to foster an environment vulnerable to shocks. In 1907, Theodore Roosevelt was on the warpath against anticompetitive business practices. He wielded the power of the Department of Justice and the Sherman Antitrust Act, and he used the bully pulpit to excoriate the "malefactors of great wealth."

State governments followed suit with new legislation to limit railroad rates; New York State employed a young prosecutor, Charles Evans Hughes, to investigate the insurance industry. The Supreme Court famously imposed a massive fine on Standard Oil for rate fixing.

Should Roosevelt and the Progressives really be implicated in the crash? Financial markets withstand political bluster fairly well—were Roosevelt's speeches just empty rhetoric, we might absolve him. But markets are highly sensitive to changes in government policy (such as rate regulation, taxation, and antitrust enforcement) that affect the underlying drivers of value. By late 1906, the radical shift in government policy was apparent. Roosevelt's speeches only confirmed the shift. He was both messenger and message and thus deserves a place among the drivers of these events.

Real economic shock. Research on financial crises acknowledges the role of some triggering event. Financial crises require a spark. The history of 1907 suggests there may be several candidates. Adverse court rulings, rising regulation, and outlandish rhetoric affected the atmosphere of business confidence. But most notably, the San Francisco earthquake and fire



Depositors and messengers at the Trust Company of America, 1907.

in April 1906 triggered a global liquidity crunch. Then, in the summer of 1907, the Bank of England compounded problems by dramatically curtailing the acceptance of American finance bills in London.

These two events, the natural disaster in California and the reduction in American finance bills, stand out for having been real, xii large, costly, unambiguous, and surprising. When they hit the economy and the financial system, they caused a sudden reversal in the outlook of investors and depositors.

Undue fear, greed, and other behavioral aberrations. Beyond a change in the rational economic outlook is a shift from optimism to pessimism that creates a self-reinforcing downward spiral. The more bad news, the more behavior that generates bad news. The events of 1907 suggest an emotional influence on the occurrence and severity of the financial crisis. The history of the panic includes suicides, letters describing overly buoyant or depressed markets, anxiety among depositors and bank executives, animated crowds in the streets of New York's financial district, and the use of public relations and the press in an attempt to build investor confidence —indeed, the very word "panic" suggests a suspension of rationality.

Failure of collective action. The events of 1907 illustrate how collective action might address a bank panic. Most vividly, we see J.P. Morgan and his circle of influential New York bankers forcing the chief executives of the largest New York banks and trust companies to form their own association to aid their failing institutions. Likewise, throughout the United States in 1907, bank clearing houses functioned to monitor their members and assure depositors of convertibility. If it were necessary to suspend convertibility, the clearing houses issued scrip. Ultimately, the legacy of the crash and panic was to nationalize collective action by means of founding the Federal Reserve System. Several scholars have highlighted the important role of collective action as a brake on the severity of financial crises.xiii

Was the collective action in 1907 a success? The panic of 1907 was among the worst on record, hardly consistent with successful collective action. The major events of the panic were largely guided by a small circle of leaders in the New York City financial community, but the panic extended to all commercial centers in the United States. The true benchmark for collective action is the outcome that might

have been. It seems reasonable to guess that the panic of 1907 would have been much worse without the collective action by Morgan and others.

The events of 1907 suggest that these seven factors are mutually reinforcing. Rapid growth leads to optimism that for a time may stimulate more growth. Insufficient information fuels optimism and delays collective action. Imperfect information and optimism promote a tendency to discount the effect of real shocks to the system when they occur. Real shocks, absence of shock absorbers, and lack of collective action may amplify the conditions of instability. These factors come and go in the economy; at any point in time, a few of them are almost certainly present, and their presence individually is insufficient to cause financial market instability. Rather, it is the convergence of some or all of the forces that produces the crisis. The panic of 1907 thus offers us lessons, but also insights for action: the importance of transparency, feedback to decision makers, encouragement of collective action, the establishment of safety buffers in the global financial system, and the duty of leaders to serve their constituencies.

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continued on page 34

were found guilty. The presiding judge sentenced them to five years probation.

# The Summing Up

In the 1972 statewide elections, twoterm Governor Preston Smith was defeated, garnering about eight percent of the vote. Lieutenant Governor Ben Barnes, 32 years old, the man Lyndon B. Johnson had said could be the next president from Texas, saw his political career end when he finished third in the governor's race. Approximately half the membership of the house was either voted out or did not run again, and a higher than average number of senators turned over. The Democratic party in Texas suffered a body blow from which it has never entirely recovered.

In the legislative session of 1973, lawmakers passed a series of reforms in which state officials were required to disclose their sources of income and reveal more about their campaign finances. Most governmental records were opened to the public, and further open meetings requirements for policy-making agencies were established. New disclosure rules were passed for paid lobbyists.

After the scandal, Frank Sharp maintained a low profile. His financial losses were more than \$120 million. He died in Houston in 1993.

Preston Smith returned to business and civic activities in Lubbock. He died in 2003.

Ben Barnes went into a real estate partnership with former Texas Governor John Connally. During a 1987 real estate bust, they went bankrupt. In 1997, after becoming a successful lobbyist, Barnes accepted a \$23 million buyout of his lucrative contract with Gtech, the Texas lottery subcontractor.

In September 2000, John Osorio, the only person to serve time in the Sharpstown scandal, and a girlfriend won \$60 million in the Texas lottery. It was the largest Texas lottery ever won by a single ticket.

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# The Panic of 1907: Lessons Learned from the Market's Perfect Storm

continued from page 23

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