Lesson 1

A Comparison of the Panic of 1907 to the Crisis that Began in 2007

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LESSON DESCRIPTION

This lesson provides an overview of the similarities and differences between the Panic of 1907 and the financial crisis that began in 2007. Students will assess the financial systems, economic events, and government responses in both periods. They will organize their analysis through a compare-and-contrast organizer.

Students will read a summary of events surrounding the San Francisco earthquake of 1906 and Hurricane Katrina in 2005 and resolve a mystery surrounding their impact on the nation's financial system. The students will participate in an oral reading illustrating the abandonment of traditional lending policies in the expansion of credit to 21st century borrowers.

INTRODUCTION

The Panic of 1907. Seldom is there a single, clearly identifiable cause of significant economic growth periods or economic collapses. The Panic of 1907 was created by a number of events, some related and others completely independent of one another.

The U.S. economy had no central bank to supply reserves or to act as a lender of last resort. The nation's money supply depended upon the amount of gold owned by banks and the federal government. As a result, if demand for money increased in one part of the country, **interest rates** would increase, money would flow to that part of the country, and money availability in other parts of the country would decrease.

Economic growth had dramatically increased the demand for loans and many institutions nationwide took on more **risk** than was prudent. The San Francisco Earthquake of 1906 was a disaster of historic proportions, and much of the world's money and gold was sent to cover claims and begin repairs. This made credit difficult to attain in New York and London. Banks lost reserves and had to reduce lending.

The excess of the Gilded Age spawned the Progressive movement at the turn of the century. Industrialization had created a great wealth disparity in the nation and attracted millions of immigrants to the country, exacerbating income differences in the crowded urban centers. The titans of business and the financial community fell under increased scrutiny by average citizens and their politicians. Reflections of the mood were manifested in 1907 by speeches given by President Teddy Roosevelt that raised the level of hostility. In one he called Standard Oil's John D. Rockefeller a "predatory man of wealth."

Increased government regulation of railroads and antitrust suits aimed at the burgeoning oil industry caused stock prices to fall. These actions and the critical public attitudes increased the level of uncertainty surrounding financial markets.

Leading financial investors attempted to buy much of the stock of a major copper company, to force others to pay high prices. The scheme failed and caused significant losses to several well-known investors. That, in turn, caused several banks to fail. Runs on other banks became serious as no central bank existed to help with panics.

In the absence of a strong federal regulatory structure or significant safety nets, the response to this crisis was delivered by a private citizen. J.P. Morgan, the world's most powerful banker, used all of his influence to convince fellow titans of industry to pool their resources and salvage the nation's financial institutions and the economy. The crisis led to the creation of the Federal Reserve System in 1913.

The Crisis of 2007-2009. A massive worldwide investment in the U.S. housing market led to the most calamitous financial crisis since the Great Depression. The irrational faith in the buoyancy of prices of housing and a changed and less regulated means to finance housing created a formula for unprecedented disaster.

Coming out of a mild recession in 2001, interest rates were lowered and credit flowed. Home ownership became a priority of the nation and lending agencies were encouraged to provide mortgages. A rapidly growing world was flush with cash and investors were looking for opportunities. Financial firms obliged by creating complicated packages of mortgages that were sold as securities promising higher rates of return and less risk to investors.

Lending standards eased, new forms of insurance for the packages of mortgages were created, risk-rating agencies gave solid reviews to the packages of mortgages; as a result, funds flowed to mortgages, and housing prices soared. Expectations of even higher prices by housing buyers and securities investors created an ever-growing demand for housing.

Increases in housing supply eventually caught up with the rising demand. Interest rates began to increase due to concerns about economy-wide inflation. The increase in supply and interest rates slowed the growth in housing prices. With changed expectations and more houses on the market, prices began to fall. With the fall in housing prices, many owners and speculators could no longer refinance their housing loans and the value of the packages of mortgages fell. Many financial institutions could not attract funds to purchase the securities holding the mortgages. As investors attempted to sell with very few buyers at current prices, financial institutions struggled to attract investors and deposits. Investors in financial institutions withdrew their funds and those institutions were forced to sell their securities at whatever prices they could get.

The full array of federal resources was brought to bear as the government tried to mitigate the crisis. Aggressive fiscal policy and federal government purchases of loans and stocks of affected financial firms, combined with extremely stimulative monetary policy efforts, were undertaken in efforts to slow the panic and make the financial system function smoothly. Central banks around the globe coordinated their efforts in response.

CONCEPTS

- The causes and effects of the Panic of 1907
- The causes and effects of the Crisis of 2007-2009
- Gold standard
- Risk
- Interest rates
- Mortgage-backed securities

OBJECTIVES

Students will:

1. Understand the causes and effects of the Panic of 1907 and the Crisis of 2007-2009.
2. Identify the similarities and differences between the two events.
3. Explain the benefits of an economic role for government in a market economy.
4. Understand the costs of a market economy with no central bank.

CONTENT STANDARDS

- Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Many choices involve doing a little more or a little less of something: few choices are “all or nothing” decisions.
- Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives.
- Costs of government policies sometimes exceed benefits. This may occur because of incentives facing voters, government officials, and government employees, because of actions by special interest groups that can impose costs on the general public, or because social goals other than economic efficiency are being pursued.
- Federal government budgetary policy and the Federal Reserve System’s monetary policy influence the overall levels of employment, output, and prices.

TIME REQUIRED

Three class periods

MATERIALS

- Activity 1: Comparing Crises (one copy per student)
- Activity 2: Catalysts for Economic Decline (one copy per student)
- Activity 3: Characters in the Financial Crisis (one copy per student)
- Visual 1: Pandemonium in the Markets (a PowerPoint or slide presentation)

PROCEDURE

1. The core of information for this lesson will be delivered with the help of a presentation using Visual 1: Pandemonium in the Market. This thorough visual aid begins with events at the center of the Panic of 1907 and finishes with a comparison of that panic with the financial crisis that began in 2007. Distribute a copy of Activity 1: Comparing Crises to each student. Have them list similarities and differences of the two financial struggles as you progress through the presentation. Slides 27 and 28 are a review of the similarities and differences between the two events which will serve as a confirmation of students' work in Activity 1.

2. Summary of the slides:

   Slides 2 to 4 introduce students to the devastation of the San Francisco earthquake of 1906. The event is widely cited as a catalyst for the Panic of 1907 because of the massive drain on the world's stores of gold, required to pay the insurance claims and rebuild the city.

   Slide 5 defines the **gold standard** and the parameters it sets on the supply of money. There were runs on banks in 1907, and there was no lender of last resort. In 2007, the Federal Reserve had the ability to prevent bank runs, but not runs on other financial investment firms.

   Slide 6 illustrates the consequences of those limits on the world's ability to respond to the circumstances in San Francisco and the weakened state of the U.S. economy.

   Slide 7 conveys the optimism at the beginning of the 1900s and the healthy business climate that led to the founding of some of America's greatest companies.

   Slide 8 describes one of the sparks that ignited the compromised economy in late 1907. The failed attempt to corner the copper market was only the beginning.

   Slide 9 implies that perceived market manipulation by many of the nation's prominent financiers was what really troubled investors and depositors.

   Slides 10 to 12 demonstrate the role that the new financial institution, called a trust company, played in the crisis. This is one of the important similarities between the economies of 1907 and today in that a new and underregulated entity (similar to today's hedge funds) had accumulated a great deal of business in a short period of time. The search for greater return left many investors exposed when the tide turned and led to attempts to withdraw funds from trust companies and banks alike.

   Slides 13 and 14 bring to light the impact on the economy from the 1907 Panic which has similarities to the scope of damage of the 2007-2009 crisis.

   Slide 15 points out one of the real differences between the two crises. With the creation of the Federal Reserve still six years away, a private citizen brought the economy back from the edge. J.P. Morgan wielded unprecedented influence in bailing the economy out. This is a good time to note that this was not the first time Morgan came to the rescue of the U.S. economy. In 1895, with the country in the depths of a two-year-old panic, the federal treasury was nearly out of gold. President Grover Cleveland arranged for Morgan to

create a private syndicate on Wall Street to supply the U.S. Treasury with $65 million in gold.

Slide 16 demonstrates an additional element of the Panic of 1907 that manifests in a similar form currently. Bucket shops were an early century phenomenon that allowed people to bet on the fate of a security without actually owning it. There was so much concern over them that they were banned by states beginning in 1909.

Slides 17 to 19 introduce students to the causes of the crisis of 2007-2009. The unusually long period of low interest rates and the concerted effort to promote home ownership to all levels of society set the stage.

Slides 20 and 21 reference complex innovations developed to securitize home mortgages for investor consumption. This is an important similarity to 1907 conditions: both periods originated sophisticated financial devices that exponentially increased profits for some but were not widely understood. Companies that provide ratings on investments failed to indicate the risks involved with the **mortgage-backed securities**.

Slide 22 describes the cataclysm that occurred when the government and investors began to come to their senses. The Federal Reserve, concerned primarily about rapidly expanding spending and the potential of increased inflation, raised interest rates squelching the demand for houses and new loans and increasing the payments on many existing loans. The demand for homes decreased and home prices began to tumble. Borrowers began to default and lenders went out of business. Mortgage-backed securities, so widely subscribed to around the world, became worth significantly less.

Slide 23 makes another connection with the Panic of 1907. Similar to the bucket shops 100 years before, credit default swaps enabled buyers and sellers to speculate on the health of the housing industry, and further encouraged speculation.

Slides 24 and 25 reflect the impact of the crisis of 2007-2009 on the world economy. As of this writing, the effects of the recent crisis are still unfolding. The Panic of 1907 lasted for about six weeks; the crisis of 2007-2009 has lasted much longer. However, both shocks to the respective economies have much in common.

Slide 26 illustrates a significant difference between the two events. From the fall of 2008 onward, the federal government spared little expense in an attempt to corral the problem. In 1907, government intervention in economic matters was not the rule.

Slides 27 and 28 summarize the differences and similarities between the two crises and are probably best shown after the next step.

3. Repeat that the purpose of this lesson is to compare and contrast two events in history to better understand economic crises and of the role of the government in the U.S. economic system. At this point, students can be asked to present their results from Activity 1.

   a. Some of the common characteristics your students will find for the two events are:

   Highly complex and linked financial systems existed in both crises.

   Strong economic growth leading up to the events generated a great demand for capital.

   Many people and institutions were highly leveraged and lenders were willing to take more risk.

   Innovative and largely unregulated forms of finance had been created: trust companies, hedge funds and mortgage-backed securities.

   Stock markets were setting all-time highs and companies were reporting record earnings.

   There were somewhat limited roles for government and the absence of relevant safety buffers.

Markets swung from great optimism to great pessimism quickly.

In both crises, the panics resulted in reduced production and rapidly increasing unemployment.

Corrective responses resulted in both crises, albeit from different sources.

b. Some of the possible differences your students will mention are:

In 1907, there was no Federal Reserve, J.P. Morgan became the de facto central banker, drawing together mostly private funds to resolve the crisis.

The Panic of 1907 lasted six weeks while the effects of the 2007-2009 crisis have continued for more than three years.

The 1907 crisis was felt at the commercial bank level in the absence of any kind of bank deposit insurance. The 2007-2009 crisis has focused on investment and financial companies; individual bank depositors have not lost their deposits. However, many individuals lost their houses.

In 1907, the nation was on the gold standard and the supply of money was fixed to the quantity of gold. In 2007, the Federal Reserve could expand the money supply in response to financial and economic pressures.

The Panic of 1907 was precipitated by a cataclysmic natural disaster in San Francisco. The events associated with Hurricane Katrina in 2005 were generally benign as catalysts for the 2007-2009 financial crisis.

In 1907, the government was sending numerous signals of its displeasure in the growing capacity of big business. In 2007, the administration was friendly to and supportive of big business.

In 1907, big business came to the rescue of the country and J.P. Morgan was hailed as a hero. In 2007, big business and financial firms were heavily criticized and blamed by many.

4. Distribute a copy of Activity 2: Catalysts for Economic Decline to each student. It describes the details of the San Francisco earthquake and Hurricane Katrina. It poses a mystery for your students to solve as to why one event had such a large effect on an economy and one did not. Have students read the details and the data silently. Allow them several minutes to absorb the information and write down a possible solution to the mystery at the bottom of the page.

   The most significant economic difference between the two events was the nature of the monetary systems. In 1907, the amount of money depended upon the gold supply and in fact gold flowed to San Francisco away from the rest of the country. In 2005, the supply of money was not fixed to the amount of gold and could be expanded by the Federal Reserve in response to financial pressures.

   Once this is completed, divide the class into groups of three and designate each student as "A," "B,"or "C." Have all "A" and "B" students pair up and read their ideas. Integrate elements from each into one statement. Then, invite the "C" students to read their statement and integrate it with "A" and "B" development. This should all be accomplished within the groups of three. Have a spokesperson read the integrated statements aloud for class discussion.

5. Distribute a copy of Activity 3: Characters in the Financial Crisis to each student. Have students take turns reading the characters' lines aloud, starting, for instance, with Seat 1 Row 1 and moving around the room. Indicate to them that the characters and circumstances are based on actual people and events whose lives have played out during the financial crisis. The scenarios were created from interviews with local mortgage lenders and reports that aired on *60 Minutes* and

CNBC during the 2007-2009 crisis. When students have finished the recitation, have them answer the following questions:

a. Based on the surprised response of the announcer in frame three, speculate on the types of documentation requirements borrowers might have been subject to in more regulated times.

Tax returns, W-2 forms, bank statements, credit reports, wage statements and payroll check stubs.

b. What financial innovation, popularized over the last 10 years, might have allowed lenders to accept a greater amount of risk?

Mortgage-backed securities. This meant that the original lender would not suffer if a borrower could not make the mortgage payments. Even if one or two mortgages failed, it would be only a small loss to the buyers of the securities.

c. In retrospect, former Fed chair Alan Greenspan has admitted that keeping interest rates low for so long was not a sound policy for housing markets. What was the effect on housing markets? What might have been the motivation to keep interest rates so low?

Low interest rates mean that more people could afford to buy larger, more expensive houses. Interest rates were kept low by the Federal Reserve in an effort to stimulate the economy following the 2001 economic recession.

d. Why were investors as far away as Narvik, Norway, willing to invest in U.S. mortgage-backed securities?

There was the general belief that U.S. housing prices would continue to increase, the risk was spread across many mortgages, and the mortgage-backed securities came highly recommended from risk-rating agencies.

e. What financial move by the Federal Reserve had a dramatic impact on borrowers holding adjustable rate mortgages?

The Federal Reserve moved interest rates upward as the economy recovered and the possibility of increased inflationary pressure became a concern. The rates on the mortgages increased rapidly.

CLOSURE

Review the fundamental points of this lesson. Two similar panics occurred for different reasons and under different conditions. Both had serious effects beyond those individuals directly involved in financial markets. Employment, production, and incomes all declined.

Help students understand that while the details of the two events might have been quite different, they are both rooted in similar systemic problems. The great desire to feed on optimism can lead to reckless decisions in the pursuit of profit. Innovative financial advancements can be introduced faster than people can fully comprehend. Runs on financial institutions (commercial banks in 1907 and investment banks in 2007-2009) caused failures and contributed to the panics.

The faith in market solutions and presumed safety nets can lead to inefficient decisions. Without a reasonable respect for risk, uninformed choices may accelerate. Prices can rise at a rapid pace until the profit taking begins to occur. The optimism that fuels the markets quickly turns to pessimism. Prices fall precipitously and investors wake up to the reality of overwhelming leverage and disenchantment with financial markets. This cycle has occurred repeatedly throughout history.

As predictable as each episode is, the only reasonable hope for a reduction in the costs of these types of events is for regulatory reform that creates some degree of containment and solution. The creation of the Federal Reserve was an example in 1913 and the current crisis may spawn another example, yet to be seen.

ASSESSMENT

Constructed-response questions

1. Although both financial crises affected the banking systems of their respective eras, one spread rapidly through commercial banks causing significant losses to individual depositors and one did not. What was the critical difference that contained the current crisis at the banks, protected individual depositors and allowed for an orderly contraction of the banking system where banks did have problems?

   No central banking authority existed in 1907. Central banks can function as lenders of last resort to add liquidity to strapped banks. The effect is to reduce bank runs and panics. The Federal Deposit Insurance Corporation (FDIC) was founded much later (in 1933) and further reduced the likelihood of bank runs.

   Without a lender of last resort or insurance, the mere scent of trouble would result in instantaneous queues outside of banks. The Federal Reserve and the FDIC in 2007 were able to prevent bank runs and support banks that failed until suitable buyers were found.

2. How can mortgage-backed securities seem to be so safe and yet at the same time apparently increase risk significantly?

   One mortgage failure will severely damage the owner of that single mortgage. But one failure out of 100 mortgages means only a 1% loss if all the mortgages are owned as a package. Thus, mortgage-backed securities appear to be safer.

   However, banks and mortgage brokers sold the mortgages they made to someone else. This meant that they could afford to be less concerned with the safety of any single mortgage and may have tended to make more risky mortgages.

3. What were the roles of changing interest rates in the housing crisis of 2007?

   Falling interest rates several years prior to the crisis of 2007 led to falling costs of mortgages and rising demand for housing. That contributed to an increase in housing prices. Rising interest rates just prior to the crisis of 2007 meant that the purchase of houses had become more expensive and thus the demand for housing fell, placing downward pressures on housing prices.

Activity 1
Comparing Crises

Directions: Use this compare and contrast organizer to explore similarities and differences between the Panic of 1907 and the crisis of 2007-2009.

THE PANIC OF 1907 **THE CRISIS OF 2007-2009**

How are they alike?

_____

_____

_____

_____

_____

_____

How are they different?

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

ACTIVITY 2
CATALYSTS FOR ECONOMIC DECLINE

The San Francisco Earthquake of 1906 and the toll exacted on New Orleans of Hurricane Katrina in 2005 are both American disasters of unprecedented proportions. The events were similar in the scope of damage. But they also are linked because the initial natural disasters were exacerbated by physical failures that caused even more losses. The earthquake caused numerous natural-gas lines to rupture, resulting in massive fires fed by the vast amounts of wood-frame construction common in that day.

Hurricane Katrina was a Category 3 storm when it made landfall on the outskirts of New Orleans. Though the winds were powerful, it was the storm surge that breached the man-made levees and engulfed the low-lying city in as much as 20 feet of flood water that wrought great suffering.

Both events are also connected because they occurred in advance of destructive economic crises that gripped the nation and much of the world. The earthquake in San Francisco is credited with being the external shock that weakened the economy so greatly that it became vulnerable to events leading to the Panic of 1907. Hurricane Katrina, although in proximity to the credit crisis that began in 2007, is not considered as a catalyst for economic decline. Why did the San Francisco earthquake play such a large role in prompting financial crisis while Hurricane Katrina was largely benign?

SAN FRANCISCO

- 7.8-magnitude earthquake
- Over 80 percent of the city destroyed
- Over 3,000 deaths (an estimated 500 shot as suspected looters)
- 250,000 left homeless
- 25,000 buildings destroyed on 490 city blocks
- 90 percent of the destruction resulted from subsequent fires
- Many buildings destroyed by firefighters using dynamite to create fire breaks
- Water main breaks depleted the means to fight the fires
- Overall cost of the property damage was about $10 billion in 2009 dollars, an amount equivalent to 1.50 percent of the nation's GDP in 1906

NEW ORLEANS

- The third-most-intense U.S. land-falling hurricane on record, Category 3 with 125 mph winds
- Levee breaches and overtopping resulted in floodwaters of 15 to 20 feet covering about 80 percent of the city
- An estimated 1,353 direct fatalities and 275,000 homes damaged or destroyed
- An estimated total of $81.2 billion in damage, slightly more than 0.5 percent of GDP in 2006
- Tens of thousands of jobs were lost due to severely damaged or destroyed businesses and supporting infrastructure
- Major highways in and around New Orleans were damaged or destroyed, disrupting commerce
- Katrina also affected the oil and gas industry by damaging platforms and shutting down refineries and interrupting operations at two major U.S. ports in Louisiana

Activity 3

Characters in the Financial Crisis

"I need money for my kid's college tuition now, in 2006," said Joe. "The problem is that I don't have steady employment, I don't really have any money in the bank, and I already have a mortgage on my house with a big monthly payment. Is there any hope for me?"

"No problem!" said Bruce, the mortgage broker, "I don't need you to verify employment, and you can simply tell me how much you earn. I won't be checking whether you have money in the bank. I'll get you your money from the equity in your house."

Our announcer asks, "How can that be? Doesn't Joe need to prove he's a worthy borrower? Doesn't Bruce want to know what kind of risk he's taking by making this loan? How does he know that Joe will repay, and how does he know that the value of Joe's house will always be there?" He pauses and then asks, "What happened to the rules of banking?"

Mortimer, the old-time banker says, "Since World War II, the U.S. housing market has continued to go up, bankers made safe loans to thoroughly vetted borrowers and then serviced the loans until they were paid off. Many people stayed in those homes for decades, and less than 1 percent of borrowers defaulted."

Uncle Sam said in 2001, "Nothing is safer than the American housing market and nothing is more important than making sure every American is a homeowner. We're going to lower interest rates and keep them low so that home ownership becomes an affordable dream. We want to see the ownership rate rise. How can they lose? Prices never go down!"

ACTIVITY 3, CONTINUED

CHARACTERS IN THE FINANCIAL CRISIS

(Announcer) "Meanwhile, the rest of the world was getting a lot wealthier. The global pool of cash had doubled to a whopping $70 trillion between 2000 and 2006. Formerly poor countries like China, Brazil and India were now making things the world wanted to buy. Add that to the dollars from oil-producing nations and the world needed new places to invest. What would keep this money safe and generate a nice return?"

"Why, mortgages of course!" said a Wall Street banker. "We'll buy mortgages from the loan originators, bundle them in large quantities so that we mix in the very few bad ones with all of those good ones and sell shares in these investments to people around the world. There's a constant stream of income because what we see is that prices always go up and homeowners always pay. We'll call them mortgage-backed securities or MBS."

By 2003, Bruce (the mortgage broker) said, "We're running out of people interested in mortgages. Rates have been low for so long and everyone who qualifies under our guidelines has gotten a loan. There are a lot of people who have asked but they seem too risky for mortgage financing."

Uncle Sam says, "We really want people to own homes and we want to continue to stimulate the economy. We're going to keep interest rates low."

"Gosh" said the Wall Street banker, "we're getting gloriously wealthy from the fees generated by mortgage-backed securities and I would hate to see the gravy train end. Hmm, let me look at those statistics again. As I thought, we can loosen our guidelines for mortgage qualification. The way these mortgages are bundled, when we mix the risky ones with the sound ones, even if 10 percent of the borrowers default, the investor will still make a tidy profit…..I think?"

Activity 3, Continued

Characters in the Financial Crisis

"Wow, what a lovely village you have here in Narvik, Norway, and so close to the Arctic Circle," said the investment salesman in the Armani suit. "Yes, these investments are absolutely safe…look, they come with an 'AAA' rating from Wall Street rating companies. What more do I have to tell you? Look at these statistics, housing prices always go up and borrowers always pay."

The village treasurer responded, "Alright, it looks good. The people of my village trust me to make our nest egg grow so that we can have more school buses, care for our elderly population, and provide more services. I'm not really sure what an MBS is, but the American borrowers always pay and Wall Street says that it's a 'AAA' investment, the safest in the world. Where do I sign?"

"This doesn't seem right, I don't have to ask for tax returns or pay stubs?" asked Bruce. "I don't need to access bank records or look at existing debt? I can accept a borrower with a 500 to 600 credit score? I thought we liked to see at least 700? I don't feel comfortable selling these mortgages; if they don't pay, won't I get in trouble? What do you think, boss?"

"Don't worry Bruce, we're going to sell these things to Wall Street, we'll pass the risk on to them," said Bruce's boss. "Our hands are clean and you will make a nice income. The more you sell the more you will earn. Besides, if we don't sell them, somebody else will. The financial customers are clamoring for them."

(Announcer) "So, lenders kept lowering the guidelines for mortgages. First it was state your income, then no income but state your assets, then it was no income, no assets, then something called a "NINJA" loan…no income, no job or assets. Most of these were adjustable rate or deferred interest deals where the interest rate was low in the first months of the mortgage but then increased dramatically to a much higher rate."

"Uhh, I can't make my mortgage payment anymore," said Joe. "The rate jumped and the value of my house is plummeting because builders built more houses and everyone with an adjustable mortgage is trying to sell at the same time. Now I can't refinance my home. The last I read, a huge number of borrowers were delinquent on their mortgages and many of those were entering or close to foreclosure."

AARRRGHHH!!!!!

ACTIVITY 3, CONTINUED
CHARACTERS IN THE FINANCIAL CRISIS

QUESTIONS FOR DISCUSSION

A. Based on the surprised response of the announcer in frame three, speculate on the types of documentation requirements borrowers might have been subject to in more regulated times.

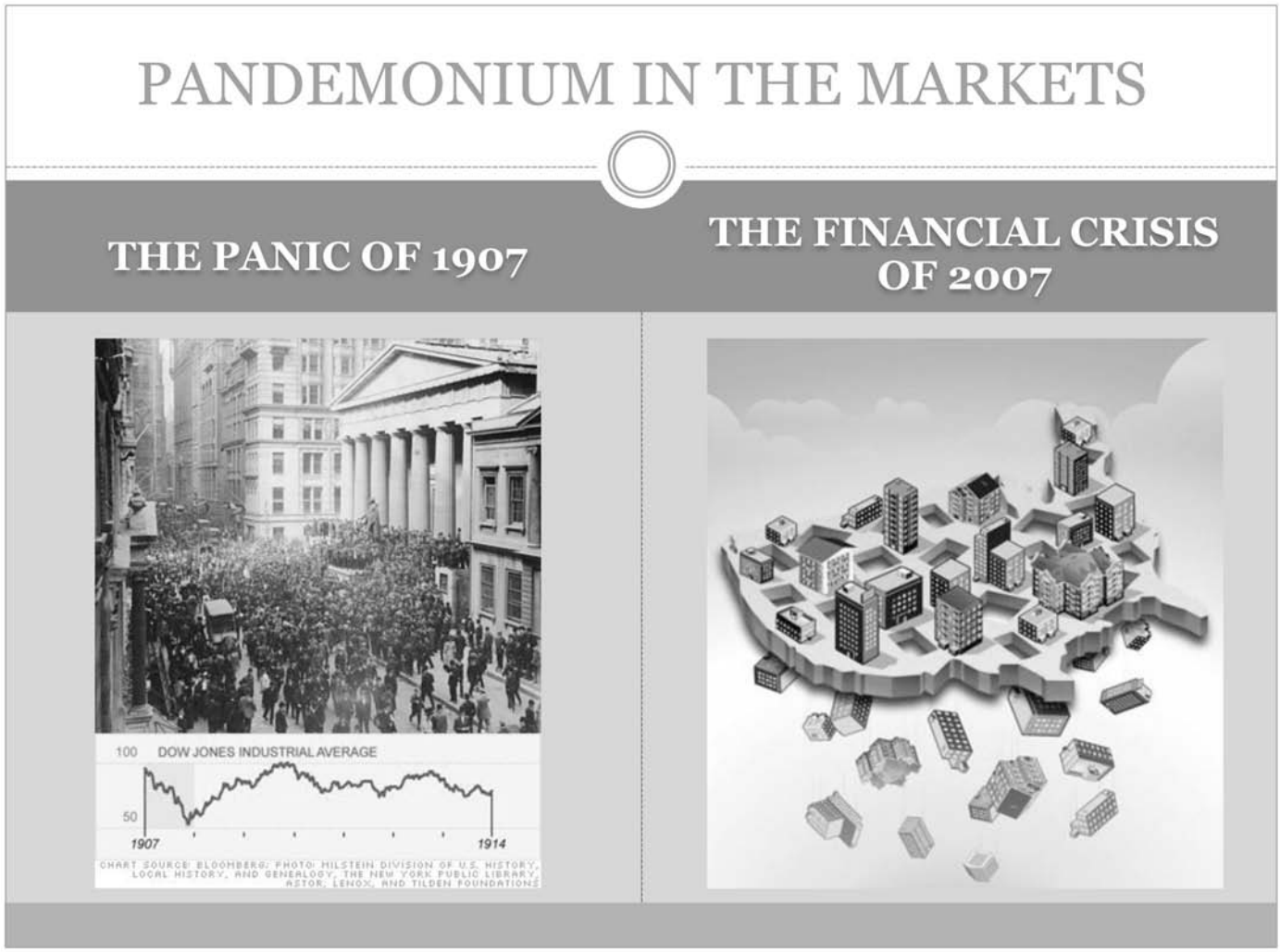
B. What financial innovation, popularized over the last 10 years, might have allowed lenders to accept a greater amount of risk?

C. In retrospect, former Fed chair Alan Greenspan has admitted that keeping interest rates low for so long was not a sound policy for housing markets. What was the effect on housing markets? What might have been the motivation to keep interest rates so low?

D. Why were investors as far away as Narvik, Norway, willing to invest in U.S. mortgage-backed securities?

E. What financial move by the Federal Reserve had a dramatic impact on borrowers holding adjustable rate mortgages?

Visual 1
Pandemonium in the Markets



VISUAL 1, CONTINUED
PANDEMONIUM IN THE MARKETS

EVENTS IN 1906

DEVASTATION

SAN FRANCISCO EARTHQUAKE

- Shortly after 5 a.m. on April 18, a 7.8-magnitude quake, unleashed offshore, shook the city for just less than a minute.

Visual 1, Continued

Pandemonium in the Markets

SAN FRANCISCO EARTHQUAKE 1906

UNCONTROLLABLE BLAZE

80 PERCENT OF THE CITY DESTROYED

- Though the damage from the quake was severe, the subsequent fires from broken gas lines caused the vast majority of the destruction.

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

Visual 1, Continued

Pandemonium in the Markets

THE GOLD STANDARD

TOUGH BALANCING ACT	INFLEXIBLE CURRENCY
 	• Between 1870 and 1914, many countries adhered to a gold standard. • This strictly tied national money supplies to gold stocks. • Currency was redeemed for gold at a fixed exchange rate.

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

THE WORLD'S FINANCIAL SYSTEM HAD BECOME COMPLEX & INTERRELATED

- At the end of 1905, nearly 50 percent of the fire insurance in San Francisco was underwritten by British firms. The earthquake gave rise to a massive outflow of funds—of gold—from London.
- The magnitude of the resulting capital outflows in late summer and early autumn 1906 forced the Bank of England to undertake defensive measures to maintain its desired level of reserves. The central bank responded by raising its discount rate 2.5 percent 1906.
- Actions by the Bank of England attracted gold imports and sharply reduced the flow of gold to the United States. Interest rates rose and by May 1907, the United States had fallen into one of the shortest, but most severe, recessions in American history.

Visual 1, Continued

Pandemonium in the Markets

GREAT ECONOMIC PROMISE

At the beginning of the century, the nation was brimming with a great amount of optimism.

Here is a list of familiar companies founded between 1900 and 1905.

- Eastman Kodak
- Firestone Tire
- Ford Motors
- Harley-Davidson
- Hershey
- U.S. Steel
- J.C. Penney
- Pepsi-Cola
- Texaco
- Sylvania Electric

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

EVENTS IN 1907

- In October 1907 two brothers, Otto and F. Augustus Heinze, teamed up with a Wall Street banker in an attempt to manipulate the stock of a copper company.
- They planned to corner the market in the copper company's shares by buying aggressively in hopes they could later force short sellers to buy them at high prices.
- The plan did not have sufficient backing and failed.

Visual 1, Continued
Pandemonium in the Markets

PANIC IN THE STREETS

- News that a number of prominent New York bankers were involved in the failed scheme began a crisis of confidence among depositors.
- As additional institutions were implicated, queues formed outside numerous banks as people desperately sought their savings.

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

FURTHER COMPLICATING MATTERS

Trust companies were a financial innovation of the 1890s. They had many functions similar to state and national banks but were much less regulated.

KNICKERBOCKER TRUST COMPANY

Visual 1, Continued
Pandemonium in the Markets

GREATER RISKS WERE TAKEN

Illustration from Harper's Weekly December 20, 1913 by Walter J. Enright

- They were able to hold a wide array of assets and were not required to hold reserves against deposits.
- They earned a higher rate of return on investments and paid out higher rates, but, to do this, they had to be highly leveraged.
- They took more risks than traditional banks.

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

The runs on deposits that sparked the Panic of 1907 were at two of the largest New York City trust companies: Knickerbocker Trust and Trust Company of America.

A NEW YORK CITY BANK RUN IN NOVEMBER 1907

Visual 1, Continued

Pandemonium in the Markets

THE IMPACT

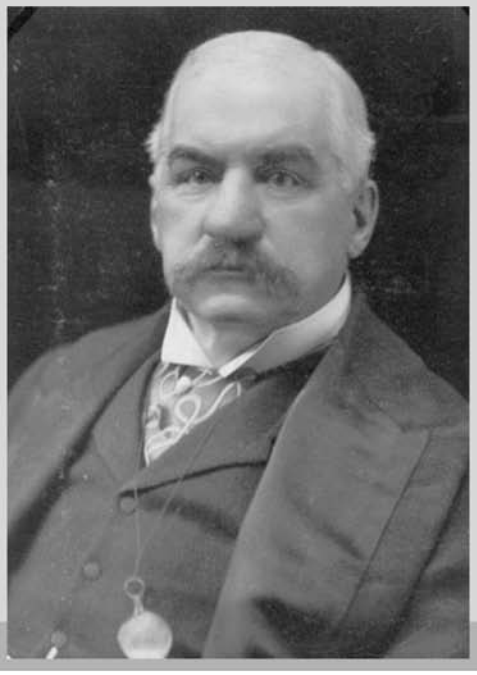
The crash and panic of 1907 had a dramatic effect on the health of the American and worldwide economies. In the United States:

- Commodity prices fell 21 percent.
- Industrial production fell more than in any other crisis in American history to that point.
- The dollar volume of bankruptcies declared in November was up 47 percent from the previous year.
- The value of all listed stocks in the U.S. fell 37 percent.
- In October and November 1907, 25 banks and 17 trust companies failed. Thousands of depositors lost their life savings.
- Gross earnings by railroads fell by 6 percent in December and production fell 11 percent.
- Wholesale prices fell 5 percent.
- Imports shrank 26 percent.
- In a few short months, unemployment rose from 2.8 percent to 8 percent.
- Immigration reached a peak of 1.2 million in 1907 but fell to around 750,000 by 1909.

VISUAL 1, CONTINUED
PANDEMONIUM IN THE MARKETS

WHAT WAS DONE?

J.P. MORGAN



NEITHER ELECTED NOR APPOINTED, HE FELT IT WAS HIS TIME TO ACT

- In the absence of a strong federal regulatory structure or any safety nets, the response to this crisis had to be delivered by a private citizen, J.P. Morgan the world's most powerful banker.
- He used all of his influence to convince fellow titans of industry to pool their resources and salvage the nation.
- The Panic subsided after six weeks.

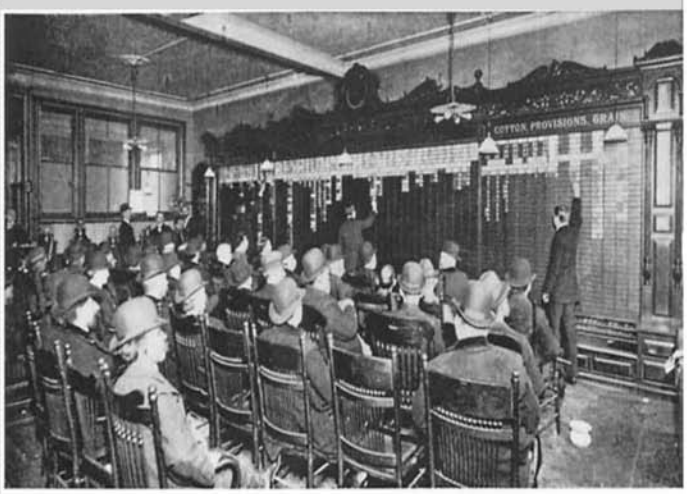
Visual 1, Continued
Pandemonium in the Markets

LESSONS FROM THE PANIC OF 1907

SPECULATION IN OFF-STREET MARKETS

Bucket shops were blamed for fueling the speculation in 1907. They enabled people to speculate on the value of a stock without having to purchase the stock itself. The actual order to purchase went in the "bucket." Beginning in 1909, New York banned bucket shops and other states followed.

A BUCKET SHOP IN 1907



CUSTOMERS GENERAL OFFICE, HAIGHT & FREESE, N. Y.

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

THE FINANCIAL CRISIS OF 2007

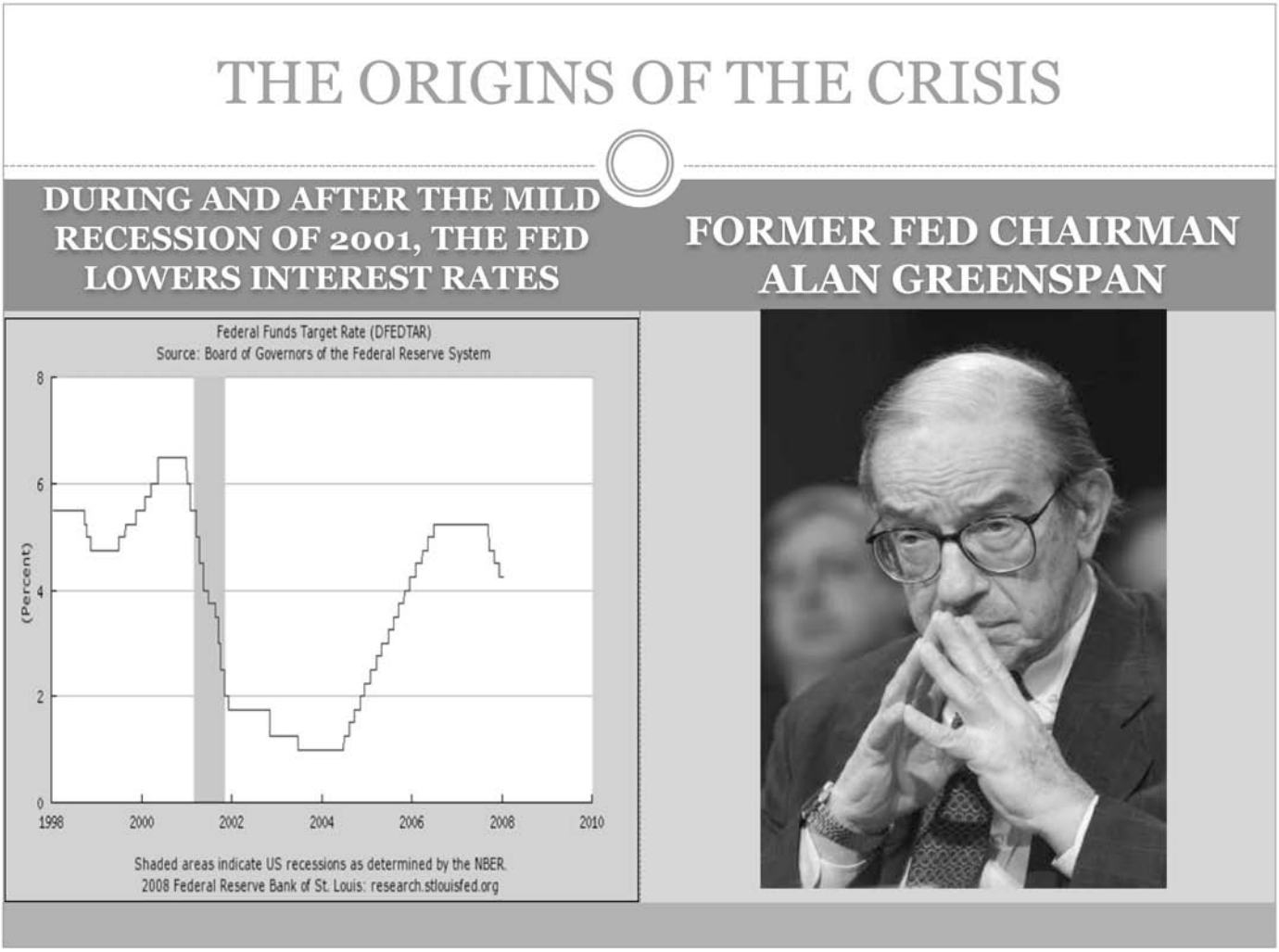
THE WORLD MADE HUGE INVESTMENTS IN THE U.S. HOUSING MARKET...

...AND LOST!!

- By ignoring risk, remaining irrationally optimistic, and forgoing transparency through an array of fantastically complicated investment vehicles, the world's financial markets were extremely dependent on housing prices.
- The underlying assumptions were that housing prices never fall and homeowners almost always pay their mortgages.

Visual 1, Continued

Pandemonium in the Markets



VISUAL 1, CONTINUED
PANDEMONIUM IN THE MARKETS

Visual 1, Continued

Pandemonium in the Markets

CAUSES OF THE CRISIS

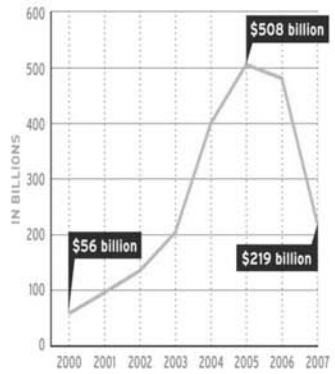
HIGHLY COMPLEX FORMS OF FINANCING

- The momentum behind the expansion of homeownership led the government to reduce regulations and capital requirements for making loans.
- This led to a dizzying number of innovative ways to get less-qualified borrowers a mortgage and seemed to reduce risk for the lender.
- Mortgages could be bundled and sold around the world as securities.

THIS WAS TOO TEMPTING FOR THE FINANCIAL INSTUTIONS

Total Financing of Mortgage-Backed Securities (2000-2007)

Banks and other investors poured more than $2 trillion into the mortgage-backed securities market between 2000 and 2007.



Source: Inside Mortgage Finance

TOP UNDERWRITERS IN PEAK YEARS: 2005-2006

(TWO-YEAR TOTALS)

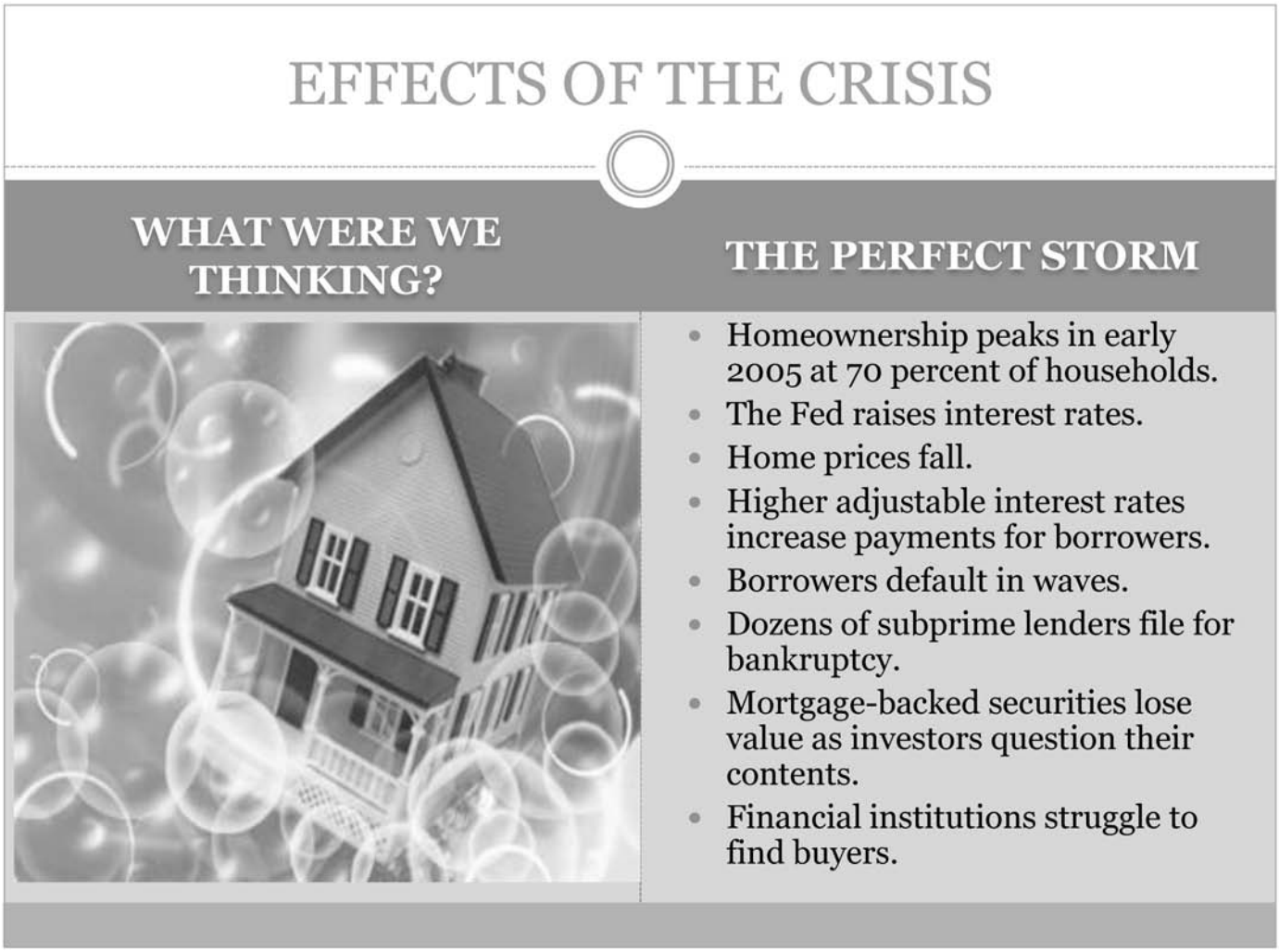
Lehman Brothers	$106,444,600,000
RBS Greenwich Capital	$99,346,200,000
Countrywide Securities	$74,533,600,000
Morgan Stanley	$74,275,800,000
Credit Suisse First Boston	$73,367,000,000
Merrill Lynch	$67,550,600,000
Bear Stearns	$60,816,100,000
Goldman Sachs	$52,810,200,000
Deutsche Bank	$51,567,800,000

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

Visual 1, Continued

Pandemonium in the Markets



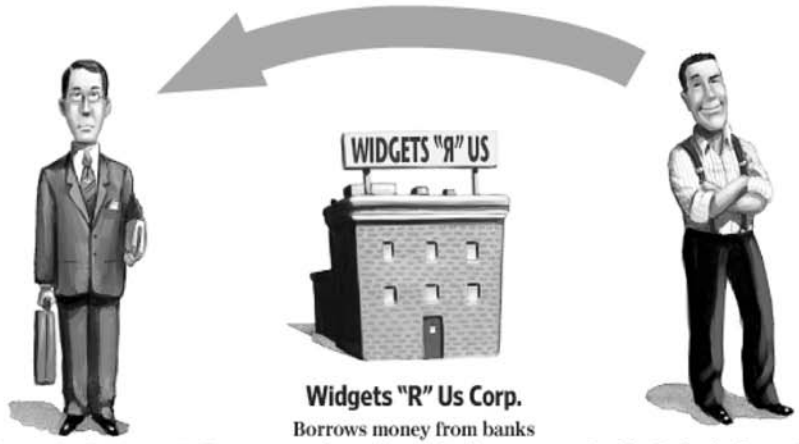
VISUAL 1, CONTINUED
PANDEMONIUM IN THE MARKETS

"FINANCIAL WEAPONS OF MASS DESTRUCTION"

Financial institutions could purchase credit default swaps. A CDS is a private insurance contract that paid off if the investment failed. One did not actually have to own the investment to collect on the insurance. These promises were unregulated, and the sellers did not have to set aside money to pay for losses.

What is a Credit Default Swap?

A credit default swap is an agreement between two parties that works like a side bet on a football game. Swap sellers promise swap buyers a big payment if a company's bonds or loans default. In return for the promise they get quarterly payments. Neither needs to hold the underlying debt when entering into a swap.



Scott Pollack

Widgets "R" Us Corp.
Borrows money from banks or issues bonds to finance operations.

Credit Default Swap Seller
Promises to pay swap buyer a set amount if Widgets "R" Us defaults, often $10 million
- Receives annual payments from swap buyer in return for "insurance"
- Can include banks, insurance companies, hedge funds or others

Credit Default Swap Buyer
Promises quarterly payments to swap seller
- Receives promise of large payout if bond defaults
- Can include banks, insurance companies, hedge funds or others
- If Widget's financial fortunes turn sour, the swap becomes more valuable. A swap holder can resell it and get high payments in return

Visual 1, Continued

Pandemonium in the Markets

THE FINANCIAL CRISIS OF 2007-2009

- Bank failures: 183 (2%) 12/07-2/10 (No deposits lost)
- Unemployment rate: 10.1% (10/09)
- Economic decline: -4.1% (4Q 2007-2Q 2009)
- Biggest drop in DJIA: -53.8% (12/07-3/09)
- Change in prices: +1.5% (12/07–6/09)
- Emergency spending and tax reduction programs: 2.5% of GDP in 2008 and in 2009
- Aggressive increase in monetary stimulus by the Fed

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

6.7 million jobs lost in 2008 and 2009

Capital investment levels lowest in 50 years

Domestic demand declines 11 consecutive quarters

Industrial production down worldwide: Japan 31 percent, South Korea 26 percent, Russia 16 percent, Brazil 15 percent, Italy 14 percent, Germany 12 percent

THE FINANCIAL CRISIS OF 2007-2009

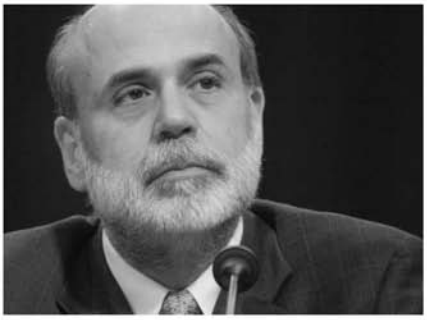
Visual 1, Continued

Pandemonium in the Markets

The federal government unleashed a series of remedies in an attempt to limit the contagion.

Massive sums of bank reserves were created to ease fears.

In the process, the taxpayers took over or funded several familiar financial and nonfinancial companies.



This time the government bails out the economy and business leaders and bankers are criticized.

VISUAL 1, CONTINUED

PANDEMONIUM IN THE MARKETS

SIMILARITIES

1907	2007
• Highly complex and linked financial system • Strong growth in the economy starting in 1900 • Many people and institutions highly leveraged • Innovative form of finance: trust companies • Stock market setting all-time highs • A limited role for government • Markets swing from great optimism to great pessimism	• Global interdependent financial system • Vibrant economic recovery after recession in 2001 • Lenders willing to take more risk in making loans • Unregulated financial institutions: hedge funds • Companies reporting record earnings • Absence of many safety buffers • Dow 14,164 to 6,500 in 16 months

Visual 1, Continued

Pandemonium in the Markets

DIFFERENCES

1907	2007
• J.P. Morgan, a private citizen, orchestrated the bailout • The Panic lasted for six weeks, though the economy didn't return to pre-Panic levels until 1909 • Many banks were closed and many depositors lost their savings • The nation was on the gold standard and the supply of money was fixed • The San Francisco earthquake was a catalyst for the Panic • The climate toward business was hostile prior to crisis	• The Federal Reserve and Treasury Department organize the reaction • The event has been unfurling for more than three years • Many banks closed and folded into healthier banks, but depositors did not lose any of their savings • The nation uses Federal Reserve notes, creating a flexible money supply • Hurricane Katrina was generally benign as a catalyst • The climate toward business was friendly prior to crisis