

**Capitalism,
Government,
Money,
and the
Future of
the World**

*Finding
and Keeping
the Right Balance
in
Market-Capitalist
Democracies*

***Imagine that you are the chairman
of the central bank***

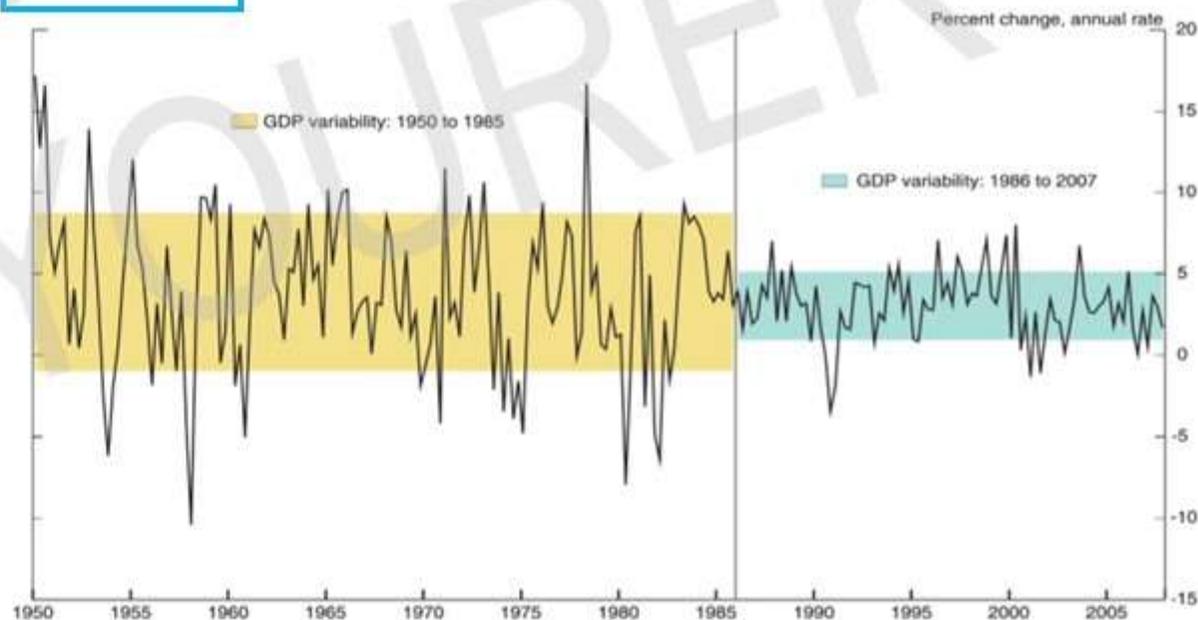
*As chairman, it is your responsibility to monitor
the economy, and to maintain interest rates
so as to keep inflation low and steady*

*It is also your responsibility to watch
economic conditions, so as to be on the lookout
for looming trouble – a new bipolar episode
that capitalism could experience at any time,
that would destabilize the economy*

*You are doing a great job keeping inflation low,
and you have been doing a terrific job now
for about 17 years! The world loves you
for helping drive sustained economic growth for
a fantastically long and successful period of time*

Here's a thought exercise
for you ...

Real GDP Growth



Note: The shaded areas of the chart show a common measure of data variability—plus and minus one standard deviation around the sample period mean of the data.

Source: Bureau of Economic Analysis

CPI Inflation



The only thing is, house prices across the entire country have been rising for the last three years, at an unprecedented rate

New financial innovations in mortgage securities are clearly a big factor in this huge run-up in housing values, but the low interest rates that you have maintained for a long time, are also quite clearly a factor, fueling the housing boom

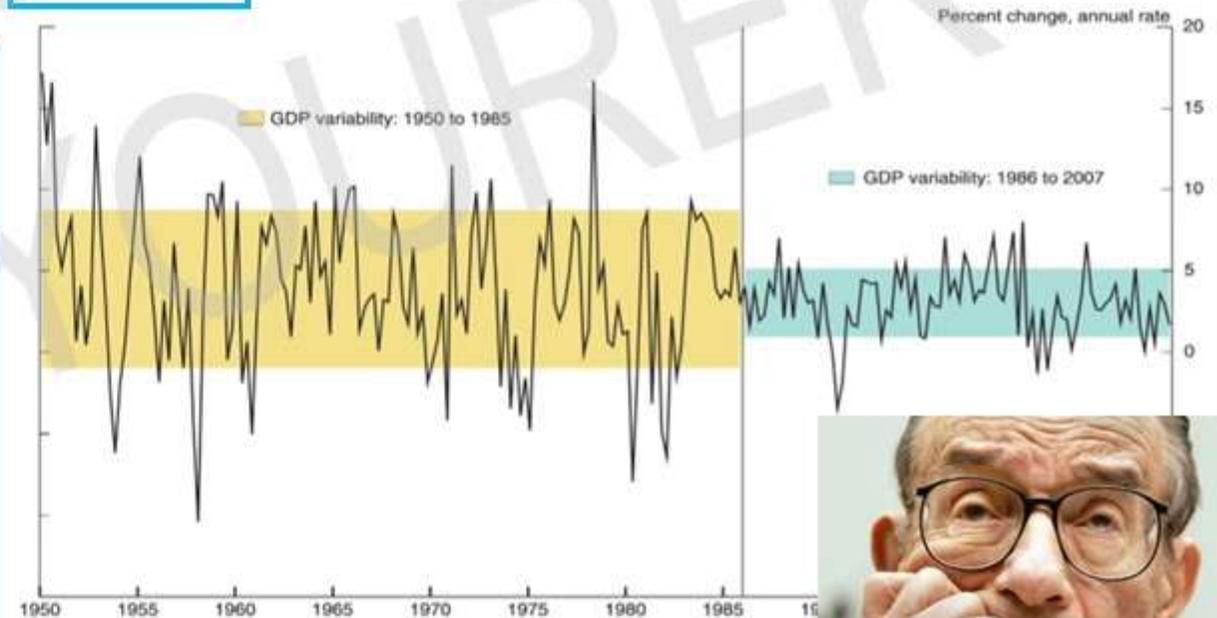
*Unfortunately, this nationwide run-up in house prices looks like it could be a **dangerous credit-fueled price bubble**... which might eventually trigger a severe downturn, if and when it deflates*

If you choose to react to this, there are at least a few obvious moves you could consider

Inflation-adjusted U.S. home prices, Population, Building costs, and Bond yields (1890–2005)



Real GDP Growth



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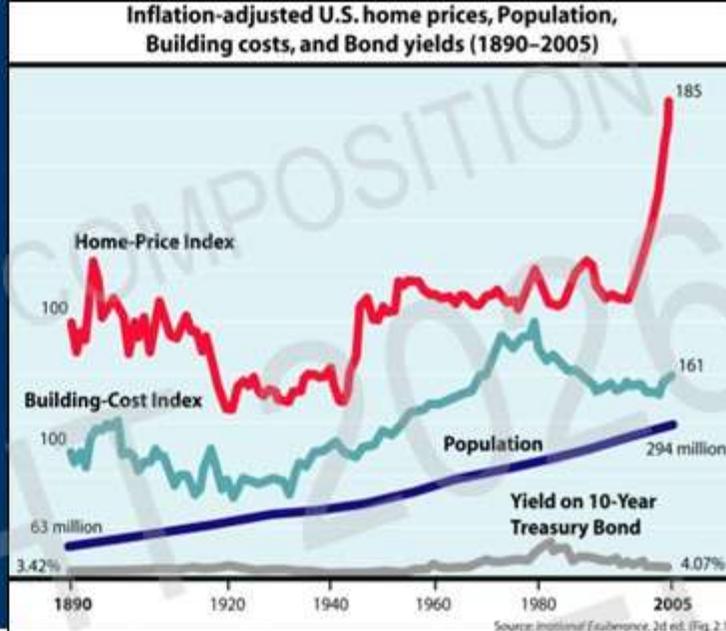


If you want to act, you could, for example:

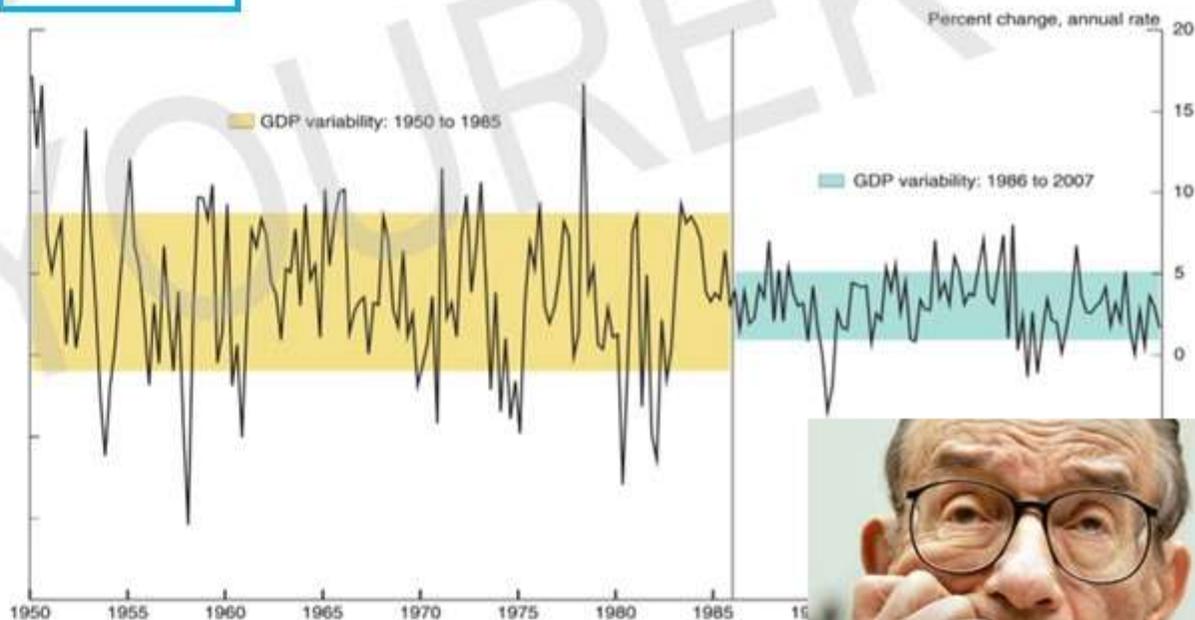
- *Start raising interest rates, in an effort to cool off the rate of new bank lending, and to signal implicitly that it's time for people to sober up and not let this situation get any more dangerous*
- *Start tightening up capital requirements on banks, letting them know that you are doing so to force them to slow down new lending, to cool the boom*
- *Start tightening up regulations on home-mortgage lending, to restrict the issuance of riskier forms of loans*

What would you do, if anything?

20
15
10
5
0
-5



Real GDP Growth



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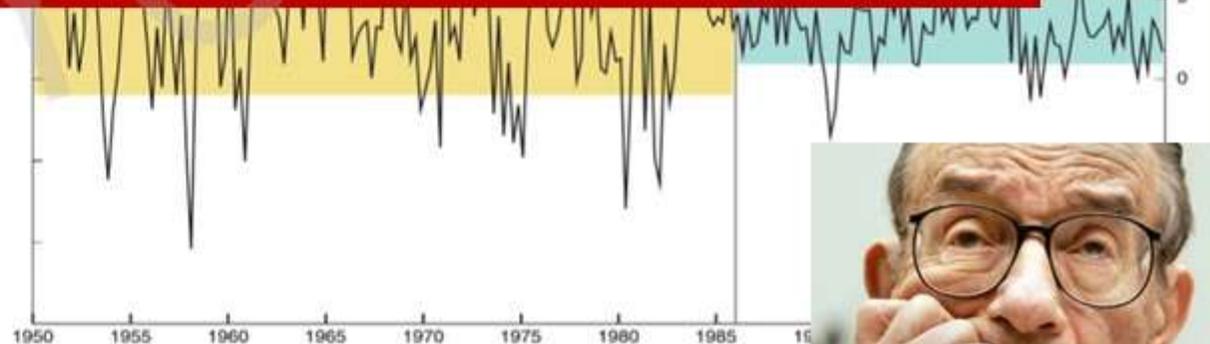
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What would you do, if anything?

Notice that this move would mean that you have decided to set aside **inflation-targeting**, as the **goal of interest rates**, to pursue a different goal: macroeconomic stability, specifically, **deflating what you think may be a dangerous bubble**

You should be aware that if you do either of these things, the banking lobby will start howling and fussing, and will say *the Fed is making it harder to make mortgages to would-be home buyers!*

So, you can expect that there will be political pressure, for you to back off...



Note: The shaded areas of the chart show a common measure of data variability—plus and minus one standard deviation from the period mean of the data.
Source: Bureau of Economic Analysis



If you want to act, you could, for example:

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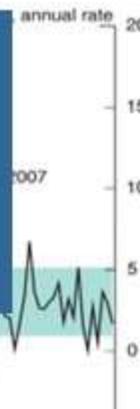
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- Another option: give a speech, cautioning the country about the situation, and warning that rate hikes and other moves may become necessary, if conditions get any more dangerous

Does the Federal Reserve have the established institutional authority to try to proactively identify and deflate asset price bubbles? Is that one of its recognized roles / responsibilities?



If Greenspan had done any or all of these things, and those moves had been successful in deflating the housing bubble, would he and the Federal Reserve have been regarded positively, by the public?

“Three months ago my house was worth \$500,000, and now it’s only worth \$300,000 – and the reason why is, because that damned Alan Greenspan opened his mouth”

Keep in mind that, generally speaking, the public isn’t likely to give you credit for averting a crisis through your wise foresight and actions – because there is no way to prove that such a crisis would have occurred... and there’s no way to prove that your actions were decisive in averting it

“We had a great economy going... but once again, government had to go and put its big fat foot on it, and ruined everything”

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Capitalism, Government, Money, and the Future of the World



A Brief Look
at the Economic
History of the
United States

The Panic of 2008:
Responses and Outcomes

bail out

legal: *to pay a court an amount of money to secure a defendant's release from custody while awaiting a criminal trial*

vernacular: *to pay money, or take some other action on someone's behalf, to allow them to escape from immediate punishment for a misdeed, or from other adverse consequences resulting from their actions*

CAUTION: When used to characterize the actions the US Government took during the financial crisis of 2008, to stabilize financial firms and other private-sector companies, the term 'bailout' is very seriously misleading: It was deliberately chosen, to drive misunderstanding and to stoke anger and resentment

bail out

when used to characterize
various actions taken by the US Government
during the financial crisis of 2008:

*to intervene, so as to prevent a business
from declaring bankruptcy
and defaulting on its obligations*

bail out

*to intervene, so as to prevent a business
from declaring bankruptcy
and defaulting on its obligations*

These interventions took different forms, but typically involved **fronting the funds to cover a business' immediate obligations**, with the government **taking ownership of sufficient assets to guarantee full repayment of the taxpayer funds, with interest** or, the government **assuming majority ownership of the company itself, to take control, and to compensate it for the intervention**

In no case at all, did any of these interventions involve a *free handout* of any kind, to anyone

to intervene, so as to prevent a business from declaring bankruptcy and defaulting on its obligations

These interventions took different forms, but typically involved ***fronting the funds to cover a business' immediate obligations, with the government *taking ownership of sufficient assets to guarantee full repayment of the taxpayer funds, with interest**** or, the government ***assuming majority ownership of the company itself, to take control, and to compensate it for the intervention***

Timeline of the financial crisis of 2008

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Tues September 16	The Fed intervenes to prevent AIG from declaring bankruptcy, with an immediate injection of \$85 billion
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What government intervention is appropriate in a financial crisis, if any?

Ben Bernanke, Federal Reserve Chairman 2006-2014



Some critics of government intervention are ideologues (the free market is always right) or uninformed (the economy will be just fine if a few Wall Street firms get their just punishment). Some simply railed against the unfairness of bailing out Wall Street giants, but not the little guy on Main Street.

Personally, I felt considerable sympathy for that last argument. (I would wince every time I saw a bumper sticker reading “Where’s my bailout?”)

But it was in everyone’s interest, whether or not they realized it, to protect the economy from the consequences of a catastrophic failure of the financial system.

What government intervention is appropriate in a financial crisis, if any?

Ben Bernanke, Federal Reserve Chairman 2006-2014



The opponents' most substantial argument was that, whatever the short-run benefits of bailouts, protecting firms from the consequences of their own risky behavior would lead to riskier behavior in the longer run.

I certainly agree that in a capitalist system, the market must be allowed to discipline individuals or firms that make bad decisions.

But in 2008 I was absolutely convinced that invoking moral hazard in the middle of a major financial crisis was misguided and dangerous. Hank Paulson and Tim Geithner agreed.

What government intervention is appropriate in a financial crisis, if any?

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“You have a neighbor, who smokes in bed... Suppose he sets fire to his house,” I would say later in an interview. “You might say to yourself, he’s irresponsible, I’m not gonna call the fire department. Let his house burn down – he deserves it.”

But then of course, what if your house is made of wood, and it’s right next door to his house? What if the whole town is made of wood?

Some argued for letting the fire burn. Saving the sleepy smoker would only encourage others to smoke in bed. But the much better course is to put out the fire, punish the smoker, and if necessary, make and enforce new rules to promote fire safety.

On the nature of government 'bailouts'

Alan Blinder, Federal Reserve Vice-Chairman 1994-1996



The Bear Stearns 'bailout', as it was immediately branded, was instantly controversial and remains so to this day.

According to moral hazard doctrine, anything that eased the pain of failure would make future investors less wary of taking the kinds of imprudent risks that brought down Bear Stearns.

But the Fed didn't see its actions as a *bailout*, and neither did Bear Stearns. After all, the stock had traded as high as \$93 in February 2008, mere weeks before the collapse.

Now, in March, shareholders would get \$2 a share (later raised to \$10). Longtime CEO Jimmy Cayne alone lost about a billion dollars.

On the nature of government 'bailouts'

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Furthermore, the company was not rescued: it was dead, as an independent concern – absorbed into JP Morgan Chase.

At Bear's headquarters, the feeling was of a funeral, not a life-saving rescue.

So who actually got bailed out? Basically, it was Bear Stearns' *creditors* – mostly other financial businesses that would have lost money in a bankruptcy proceeding.

'systemically important' institution

*a bank or other company that is sufficiently large,
with commitments and obligations to so many others,
that if it were to go bankrupt and default on its obligations,
it would threaten to cause **the collapse of the entire economy***

Such 'systemically important' institutions therefore cannot
be allowed to go bankrupt, and to default on their obligations

'too big to fail'

It's Friday, September 12, 2008

Kaplan & Yourek LLP

- **Mini-investment partnership**
- **We go in as equal partners, each putting in \$2,000,000 in capital**
- **We can borrow \$120,000,000 on a rolling daily basis, in the 'repo' market, at 3% interest, so at a cost of \$10,000 a day**
- **We can buy these things called mortgage-backed securities, that pay 5% interest. If we buy \$124,000,000 of them, that will be \$17,222 a day in income**
- **Our profit will therefore be: $\$17,222 - \$10,000 - \$413 = \6809 a day**

\$1,225,620 apiece per year

What are the risks? What could go wrong?

Our lenders in the repo markets are worried about our collateral, so they all demand their money back

The market value of our securities is starting to go down

House prices are in sharp decline all over, indicating the likelihood that there has been a huge asset-price bubble in housing

We look for other lenders, but the repo markets have completely dried up

We try to start selling our mortgage securities, but the market for them has completely disappeared

Oops! AIG didn't plan for a huge housing bubble; they don't actually have the money to pay out on all those credit-default swaps

If this business had been judged 'systemically important' – too big to be allowed to default on its obligations – what might a government intervention have looked like?

One possibility:

- **Transfer of our mortgage-bond portfolio to a stronger firm, who takes over the repo payments**
- **If necessary, the government may provide some form of guarantee to the new owner, in case our bonds turn out to be worth far less than what we owe the repo lenders**
- **Since our mortgage bonds are worth less than the \$120M that we owe our creditors, we lose our entire \$4M investment**

in \$2,000,000 in capital

Would such an intervention have had the effect of allowing us to escape punishment, or the consequences of our business decisions?

What could go wrong?

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a huge asset-price bubble in housing

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- **Another possibility:**
- **Government provides funding and guarantees as necessary to stop the repo bank run, then takes full ownership of our equity; so, we lose our entire \$4M investment**
- **Government also appoints a receiver to preside over the disposal and sale of our mortgage bonds, to attempt to get back the funds it has extended**
- **If the government's funds are fully recovered, excess funds are handed back to the US Treasury, therefore yielding the government a net profit on the bailout**

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A third possibility:

- **Government issues us a banking license, then immediately loans us the funds needed to stop the bank run, acting as our 'lender of last resort'**
- **Going forward, we must submit to minimum bank-capital requirements, and ongoing bank examination and regulation**
- **This will force us to sell most of our bonds, so as to downsize / reduce our leverage; it may also mean we have to find new partners to put in new capital, which could result in our ownership stake being diluted down to near zero. We likely therefore would lose control of the business to the new partners**

in \$2,000,000 in capital

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**market,
5%
in income**

**O
ou**

Waxman: Where do you think you made a mistake, then?

Greenspan: I made a mistake in presuming that the self-interest of organizations, specifically banks and others, were such that they were best capable of protecting their own shareholders and the equity in the firms.



Greenspan in fact did not make any mistake, in assuming that people working in the financial sector were *best capable* of protecting the equity in their firms

His mistake was in assuming that protecting their equity would always be their *top priority*

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We were certainly acting in our own best interests, but –

Was preserving the value of the equity in our firm, our top priority?

When companies are allowed to operate as 'shadow banks', with enormous leverage far beyond that which is permitted of formal banks, their profits can become so large that concerns about preservation of the owners' equity may at some point take a back seat, to the desire to keep the giant gravy train running for as long as possible

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Timeline of the financial crisis of 2008

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The case of Bear Stearns

Ben Bernanke



On April 3 I tried to explain, under the camera lights at the Senate hearing on Bear Stearns, why we had intervened.

I knew that the more thoughtful senators on the panel understood – some of them would later tell me so – but the temptation to make political hay was too great for many. Why were we bailing out Wall Street when so many ordinary Americans needed help?

Wall Street and Main Street are interconnected and interdependent. “Given the exceptional pressures on the global economy and financial system, the damage caused by a default by Bear Stearns could have been severe, and extremely difficult to contain,” I said.

The case of Bear Stearns

Ben Bernanke



Why were we creating moral hazard by rewarding failure?
“This is socialism!” Senator Jim Bunning of Kentucky roared.

I pointed out that, even with our action, Bear Stearns lost its independence, its shareholders took severe losses, and many of its 14,000 employees likely would soon lose their jobs. “I do not think it is a situation that any firm would willingly choose to endure.”

And I believed that if the American people understood that we were trying to protect the *economy*, not to protect anybody on Wall Street, they would better appreciate why we were taking the actions we did.

The case of Bear Stearns

Ben Bernanke



One thing was clear. From now on, we would be facing two challenges in dealing with the crisis.

The first would be to do the right thing.

The second would be to explain to the public and politicians why what we did *was* the right thing.

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Tues September 16

Before Lehman, the government had intervened decisively in each previous case, to either take over a failing institution, or see that it was promptly taken over by another, stronger private-sector firm

billion

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Sat September 20

Thu September 25

But the government did not prevent Lehman's failure, and Lehman was systemically *hugely important*: its failure began the collapse of the entire economy

Mon September 29

Wed October 1

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The case of Lehman Brothers

Ben Bernanke



Many have argued that Lehman could have been saved, as Bear Stearns had been and as AIG would be, and that letting Lehman go represented a major policy error.

Yet the Fed and the Treasury did not choose to let Lehman fail. Lehman was not saved, because the methods we used in other rescues weren't available, in Lehman's case.

Despite tremendous efforts, we had no buyer for Lehman, as we'd had for Bear Stearns – no stable firm that could guarantee Lehman's liabilities and assure markets of its ultimate viability.

The case of Lehman Brothers

Ben Bernanke



And the Treasury had no congressionally-approved funds to inject, as they'd had in the case of Fannie and Freddie.

Unlike AIG, which had sufficient collateral to back a large loan from the Fed, Lehman had neither a plausible plan to stabilize itself, nor sufficient collateral to back a loan of the size needed to prevent its collapse.

And Lehman's condition was probably even worse than reported at the time. Ultimately, in bankruptcy, Lehman's bondholders would receive only about 27%, and its other unsecured creditors 25%, of what they were owed. Total losses to creditors have been estimated at close to \$200 billion.

The case of Lehman Brothers

Ben Bernanke



If a means of saving Lehman did exist, given the tools then available, we were not clever enough to think of it during those frenetic days.

Dozens of people were involved in both New York and Washington, and no one has ever reported a meeting or a call in which Hank Paulson, Tim Geithner or I discussed *whether or not* to save Lehman -- as we did, for example, with both Bear Stearns and AIG.

We always knew Lehman needed to be saved.
We lacked the means to do so.

The case of Lehman Brothers

Ben Bernanke



I understand why some have concluded that Lehman's failure was a *choice* we made.

In a way, it is sort of a backhanded compliment: We had shown such resourcefulness to that point, it is hard to imagine that we could not come up with *some* solution to Lehman.

And Hank Paulson's declarations that no government money would be used to save Lehman, both before and during the weekend, also understandably fuel the belief that we *chose* to let Lehman fail.

The case of Lehman Brothers

Ben Bernanke



I am sure that tactical considerations were an important motivation for his statements. We very much wanted the *private sector* to take the lead in rescuing Lehman, either through an acquisition or through a consortium of private-sector firms.

But the private sector would have little incentive to incur the costs of a solution if they suspected the government [would be willing to] step in, [if they chose not to].

In congressional testimony immediately after Lehman's collapse, Paulson and I were deliberately quite vague when discussing whether we could have saved Lehman.

The case of Lehman Brothers

Ben Bernanke



We had agreed in advance to be vague, because we were intensely concerned that *acknowledging our inability to save Lehman would hurt market confidence and increase the pressure on other vulnerable firms* – we had good reason at the time to be concerned about runs on Goldman Sachs and Morgan Stanley being the next crisis, as well as possibly on other firms.

But today I wonder whether we should have been more forthcoming, because our vagueness has promoted the mistaken view that *we could have saved Lehman*.

And our caginess about the reasons for Lehman's failure created confusion about the criteria for any future rescues.

The case of Lehman Brothers

Ben Bernanke



Would it have been better for market confidence to have admitted that we were unable to save Lehman? Or was it better to maintain ambiguity as we did, which suggested we still had the capacity to carry out future interventions?

I don't know.

But by Lehman weekend, the ability of the Federal Reserve to keep rescuing major financial firms, alone and without support from Congress, was fast coming to an end. Even if it had somehow been possible for the Fed on its own to save Lehman, and then perhaps AIG, we would not have had either the capacity or the political support to undertake any other financial rescues.

Lehman's failure, as a necessary catalyst to further government action
Martin Wolf

It was only the consequences of Lehman's failure that created the political conditions in which subsequent action against the panic became possible.

Saving Lehman would have been difficult because the case for doing so still rested on a hypothetical – what would have happened, if it had been allowed to fail.

*Generally speaking, you don't get credit from the public for taking actions that avert a catastrophe, because it's impossible to prove that such a catastrophe **would have** occurred, **but for your action***

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It was only the consequences of Lehman's failure that created the political conditions in which subsequent action against the panic became possible.

Saving Lehman would have been difficult because the case for doing so still rested on a hypothetical – what would have happened, if it had been allowed to fail.

Not saving Lehman turned the hypothetical into a reality: Lehman precipitated a complete collapse of confidence among depositors and creditors of every major financial institution – in effect, a run on banks everywhere around the world.

Lehman's failure, as a necessary catalyst to further government action
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That made it far easier to act. So, even if it might in theory have been far better to save Lehman, *it was the failure to do so that made the crisis sufficiently bad, sufficiently calamitous, to warrant the necessary [subsequent government] actions.*

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- **We go in as equal partners, each putting in \$2,000,000 in capital**
- **We can borrow \$120,000,000 on a rolling daily basis, in the 'repo' market, at 3% interest, so at a cost of \$10,000 a day**
- **We can buy these things called mortgage-backed securities, that pay 5% interest. If we buy \$124,000,000 of them, that will be \$17,222 a day in income**
- **Our profit will therefore be: $\$17,222 - \$10,000 - \$413 = \6809 a day**
\$1,225,620 a piece per year

**Our
our**

In all likelihood, with this business, we would have recovered our entire \$4,000,000 capital stake, because the government fronted AIG the money to pay out on the credit default swaps we bought from them

in

on all these credit default swaps

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Timeline of the financial crisis of 2008

Of the 14 largest financial institutions in the US economy as of the beginning of 2008, **ultimately only 2 were able to survive without government intervention:**

**JPMorgan Chase
Wells Fargo**

Had the other 12 biggest institutions all been allowed to fail, the American economy would have been totally devastated with almost unimaginable consequences, and with an ensuing depression that could easily have rivaled the 1930s

History:
begins

85 billion

collapse on
street resort

Wed October 1

TARP is approved by the Senate

Fri October 3

**TARP is approved by the House of Representatives, signed by the President the next day
Wells Fargo agrees to take over failed Wachovia**

Wed October 8

AIG requires another \$38 billion in funds from the Fed (AIG would later require *yet another* \$59 billion)

Timeline of the financial crisis of 2008

March **Bear Stearns** collapses; government arranges sale to JP Morgan at a fire-sale price

July Subprime lender **IndyMac** fails, is taken over by the FDIC

Sun September 7 **Fannie Mae** and **Freddie Mac** are placed in conservatorship by the Fed

Mon September 15 Bank of America acquires **Merrill Lynch**, after Merrill loses \$50 billion on mortgage securities, and its solvency is in question

Lehman Brothers, having teetered for days, collapses in the largest bankruptcy in American history: \$680 billion. **The rapid systemic collapse of the financial sector, and the economy, begins**

Tues September 16 The Fed intervenes to prevent **AIG** from declaring bankruptcy, with an immediate injection of \$85 billion

Sat September 20 **Morgan Stanley** and **Goldman Sachs** contact the FRBNY, to warn of likely bank runs and collapse on Monday. The Fed issues them bank licenses and extends credit to stabilize them, as lender of last resort

Thu September 25 **Washington Mutual** fails, is taken over by the FDIC

Mon September 29 **\$700 billion TARP bailout bill is voted down in the House of Representatives**
Markets immediately plummet: Dow drops by 7%, S&P 500 by almost 9%

Wed October 1 **TARP is approved by the Senate**

Fri October 3 **TARP is approved by the House of Representatives, signed by the President the next day**
Wells Fargo agrees to take over failed **Wachovia**

Wed October 8 **AIG** requires another \$38 billion in funds from the Fed (AIG would later require *yet another* \$59 billion)

Appealing to Congress to approve TARP

Hank Paulson, Secretary of the Treasury, 2006-2009



The first meeting with Congressional leaders took place at 7:00pm on Thursday, September 18, in Nancy Pelosi's conference room.

The Hill's most powerful leadership filed in: from the House, Nancy Pelosi, John Boehner, Barney Frank, Steny Hoyer, Spencer Bachus, and Rahm Emanuel; and from the Senate, Harry Reid, Mitch McConnell, Dick Durbin, Chris Dodd, Richard Shelby, Chuck Schumer, and Patty Murray.

Ben Bernanke described the severity of the crisis we faced, and I said that the Treasury needed the money and powers to recapitalize the banks by buying toxic assets from their balance sheets.

Appealing to Congress to approve TARP

Hank Paulson, Secretary of the Treasury, 2006-2009



“It is a matter of days,” Ben said, “before there is a **meltdown of the global financial system.**”

The room erupted into questions. Everybody had an agenda to push, or an opinion to voice.

Speaking for the Democrats, Barney Frank laid out provisions that he wanted to see in the bill, including **pay restrictions for executives** at the companies receiving government money.

“If they accept help, you’re presumably doing them a service. They should be willing to accept restrictions.”

Appealing to Congress to approve TARP

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Though it didn't surprise me that Barney made this point, I pushed back hard.

To my mind, restricting compensation meant putting a **stigma** on the program – something I very much did not want to do. Tim, Ben and I wanted a program that encouraged maximum participation. My priority was to get it off the ground fast, so the system didn't collapse while we were still negotiating.

We didn't want to discourage banks from participating, either by forcing executives to take pay cuts or by making it appear that participants, ipso facto, were all **weak**. They couldn't afford that perception in the marketplace.

Appealing to Congress to approve TARP

Hank Paulson, Secretary of the Treasury, 2006-2009



How big was big, they wanted to know.

“We need to buy hundreds of billions of dollars of assets,” I said.

I knew better than to utter the word *trillion*.

That would have caused cardiac arrest.

What would happen if we didn't get the authorities we sought, they asked.

“May God help us all,” I replied.

Appealing to Congress to approve TARP

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By the end of the meeting, everyone, with the notable exception of Richard Shelby, was supportive to some degree.

The tumult in the stock market had forced a rare bipartisan consensus. The leaders appeared to understand that something had to be done, and that the only way to do it was to present a united front.

“This is a worldwide problem,” Barney Frank said. “But it started here, and the United States owns it.”

At 6:15pm on Tuesday, September 23, it was time to sit down in John Boehner’s office and meet with the House Republican leaders.

Appealing to Congress to approve TARP

Hank Paulson, Secretary of the Treasury, 2006-2009



They disliked TARP but knew something needed to be done, and they kept trying to come up with an alternative.

Boehner had already warned me that things were not going well in the GOP caucus. About a third of the House Republicans were facing tough elections and worried about losing their seats.

Another third were so ideologically driven that they would never vote for TARP.

“The group you are shooting for is the one-third in the middle,” Boehner told me. “And you’re fishing in a small pond.”

Appealing to Congress to approve TARP

Hank Paulson, Secretary of the Treasury, 2006-2009



I did more listening than speaking, trying to understand what Boehner was dealing with, and it dawned on me how difficult it was to reason with some people.

The facts didn't seem to matter to some in this group.

I looked around and wondered where the votes would come from.

I left Boehner's office demoralized. A number of people pulled me aside, saying, in effect, *"We believe this is a serious situation, but you're not going to get the votes for this.*

You're going to have to come up with some other idea."

Appealing to Congress to approve TARP

Hank Paulson, Secretary of the Treasury, 2006-2009



A meeting with the entire House Republican Conference was scheduled for the following morning. I was not looking forward to it.

The Republican Conference meeting started at 9:00am in the Cannon Caucus Room.

By then, I'd heard about another fiasco on the afternoon before, when Vice President Cheney, White House Chief of Staff Josh Bolton, Presidential economic advisor Keith Hennessey, and Fed Governor Kevin Warsh had gone to the same room to argue for TARP, only to endure a long, ugly meeting with angry Republicans.

Appealing to Congress to approve TARP

Hank Paulson, Secretary of the Treasury, 2006-2009



Knowing how difficult this meeting was going to be, I asked Ben Bernanke to accompany me. He readily agreed to do so.

Speaking to the crowd, we explained that the commercial paper market was nonexistent, and that financing was disappearing for big and small companies alike, endangering their ability to sustain normal activities. [In other words, **the entire economy is beginning to shut down**]

It didn't make a bit of difference with this group.

They opposed government intervention out of hand, as the first step on the path to socialism.

Appealing to Congress to approve TARP

Hank Paulson, Secretary of the Treasury, 2006-2009



They lined up ten deep on both sides of the room, waiting for a microphone, and blasted us.

One member after another said the bill couldn't pass without the House Republicans, and that **there was nothing we could do to change their minds.**

Afterward, one member of Congress came up to me and said, *"I've been talking about deregulation and free markets my whole life. You're asking me to change my view, and there is no way I can do that."*

Banks facilitate a large part of the investment and growth within every market-capitalist economy

Banks are an **essential foundation of capitalism**

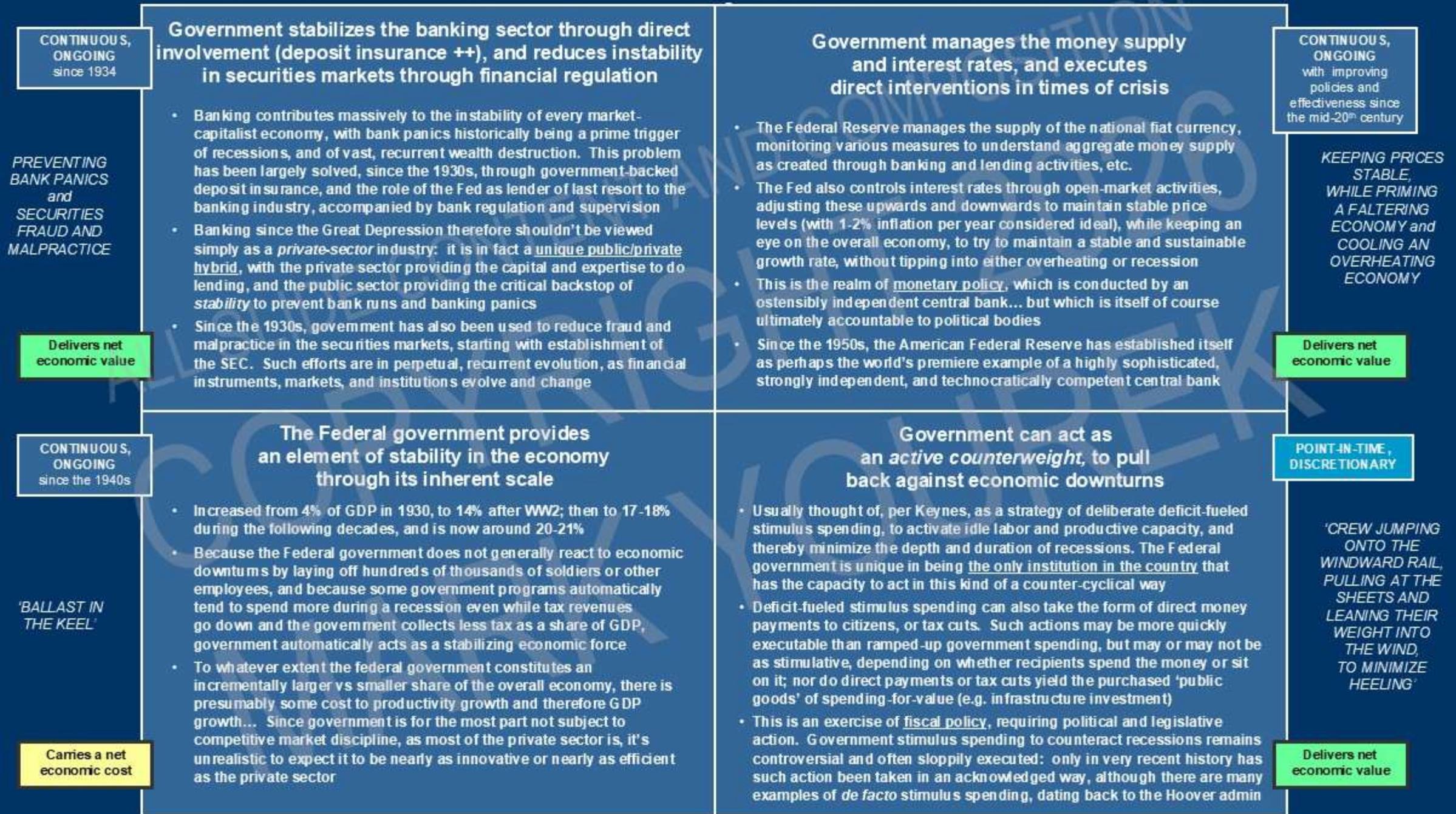
Banks are **inherently, inescapably unstable businesses**, inherently unstable institutions

For this reason, as well as for several other reasons, capitalist economies, by their very nature, at their foundation, are unstable

By its nature, capitalism is subject to
recurrent, inevitable crisis –
sudden, unpredictable spasms of collapse,
contraction, and economic destruction

Capitalism is **bipolar** –
always alternating inevitably
between boom and bust

Four ways the Federal government stabilizes the economy, and prevents or mitigates economic downturns



Four ways the Federal government stabilizes the economy, and prevents or mitigates economic downturns

CONTINUOUS, ONGOING since 1934

Government stabilizes the banking sector through direct involvement (deposit insurance ++), and reduces instability in securities markets through financial regulation

Government manages the money supply and interest rates, and executes

CONTINUOUS, ONGOING with improving policies and effectiveness since the mid-20th century

PREVENTING BANK PANICS and SECURITIES FRAUD AND MALPRACTICE

- Banking contributed to the capitalist economy of recessions, has been large deposit insurance in the banking industry
- Banking since simply as a pr hybrid, with the lending, and the stability to pre
- Since the 1930s malpractice in the SEC. Such instruments, r

Delivers net economic value

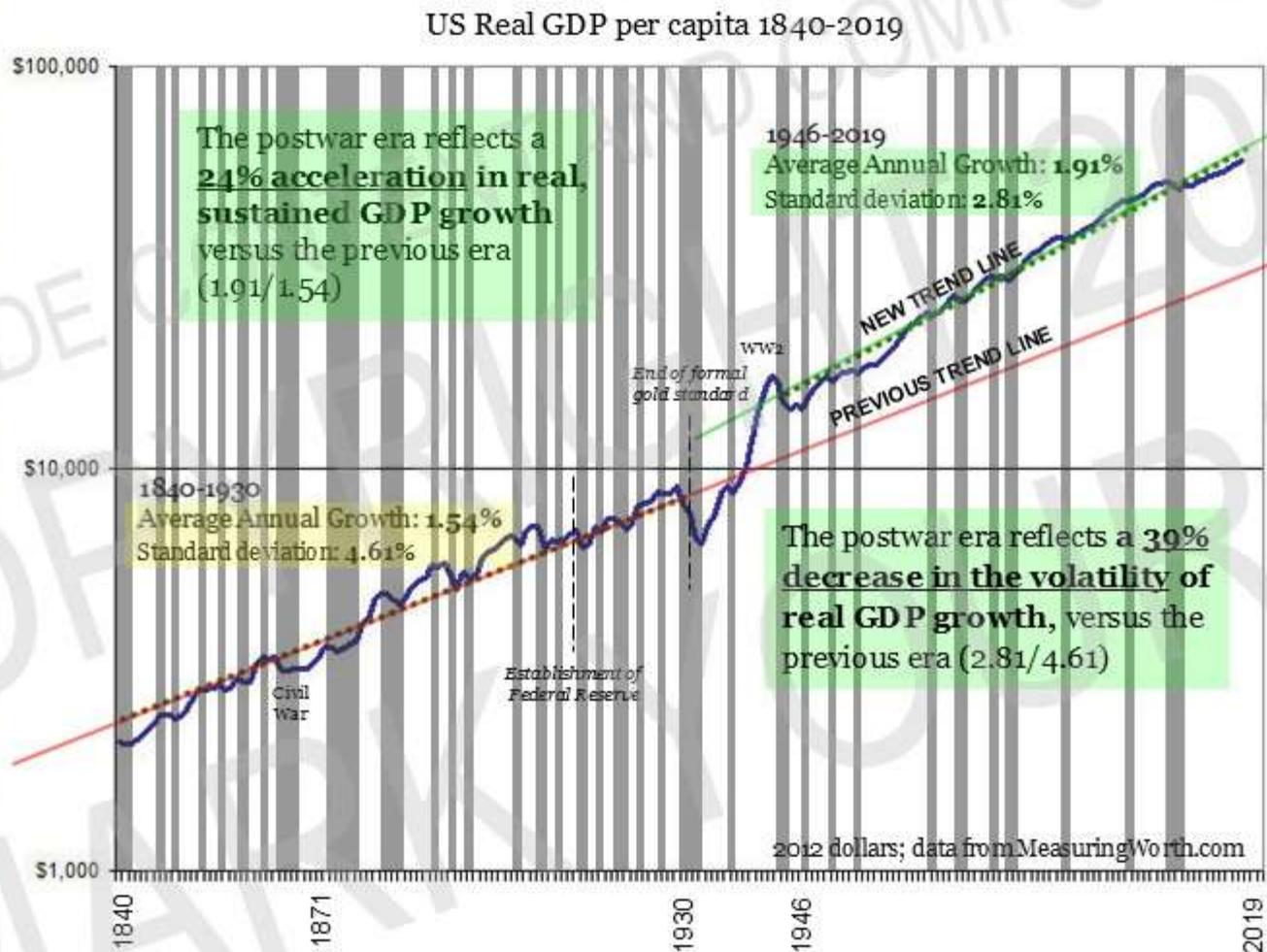
CONTINUOUS, ONGOING since the 1940s

TI an e

- In increased from during the folk
- Because the F downturns by employees, an tend to spend go down and the government at
- To whatever ex incrementally I presumably so growth... Since government is for the most part not subject to competitive market discipline, as most of the private sector is, it's unrealistic to expect it to be nearly as innovative or nearly as efficient as the private sector

'BALLAST IN THE KEEL'

Carries a net economic cost



- This is an exercise of fiscal policy, requiring political and legislative action. Government stimulus spending to counteract recessions remains controversial and often sloppily executed: only in very recent history has such action been taken in an acknowledged way, although there are many examples of *de facto* stimulus spending, dating back to the Hoover admin

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ret activities, stable price while keeping an and sustainable recession

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of direct money more quickly may or may not be the money or sit based 'public ment)

KEEPING PRICES STABLE, WHILE PRIMING A FALTERING ECONOMY and COOLING AN OVERHEATING ECONOMY

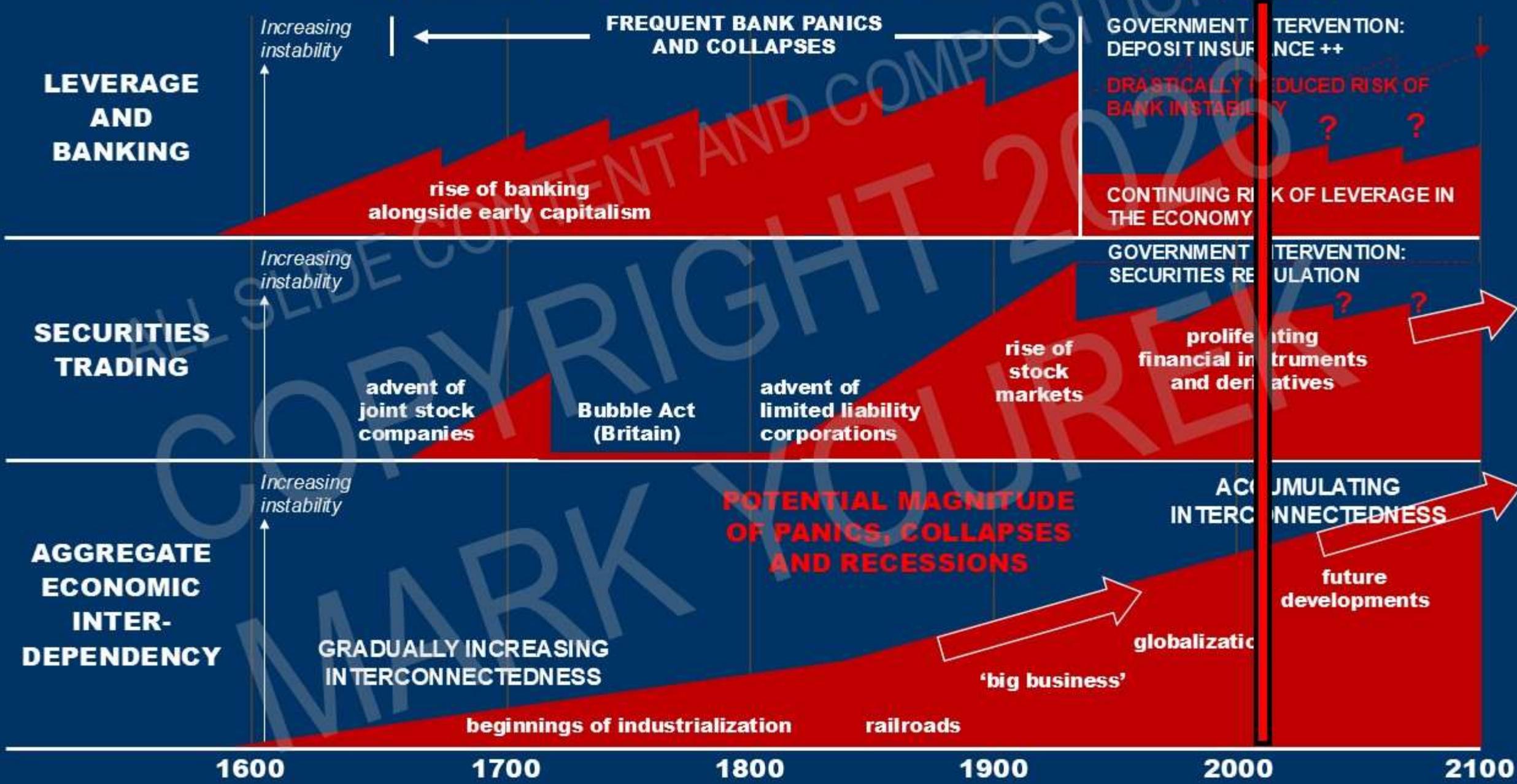
Delivers net economic value

POINT-IN-TIME, DISCRETIONARY

'CREW JUMPING ONTO THE WINDWARD RAIL, PULLING AT THE SHEETS AND LEANING THEIR WEIGHT INTO THE WIND, TO MINIMIZE HEELING'

Delivers net economic value

Capitalism's Accumulating Instability 2008



Appealing to Congress to approve TARP

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On the dysfunction in the House GOP, at the height of the crisis
John Boehner, House Republican Leader at the time



Nancy Pelosi, who was then the Speaker,
seemed like she could get her people in line, as usual.

So did Democratic Senate Majority Leader Harry Reid,
and Republican Leader Mitch McConnell. Those two guys
always seemed to have the numbers they needed.

Now it was all up to me – and that was just great.

These guys had no clue what kind of clown car
I was trying to drive, on the Republican side of the House.

On the dysfunction in the House GOP, at the height of the crisis
John Boehner, House Republican Leader at the time



Too many Republicans in the House cared more about what Sean Hannity thought, than the Secretary of the Treasury or the Speaker of the House or the President of the United States.

They were ready to destroy the economy for decades rather than come up with any realistic alternatives – just as long as it looked as if they were standing up to the “establishment.”

They were proud to send this bill to its death, and they didn't give a shit if the economy collapsed.

On the dysfunction in the House GOP, at the height of the crisis
John Boehner, House Republican Leader at the time



This was all being done in the name of conservative purity, they claimed, so that we could finally elect real, honest-to-goodness defenders of fiscal discipline and a balanced budget.

But I knew the truth. It wasn't about any so-called principles – it was about chaos. The far-right knuckleheads would refuse to back the House leadership no matter what; but because they were 'insurgents' they never had the responsibility of trying to actually fix things themselves.

So they got to 'burn it all down' and screw up the legislative process, which of course allowed them to continue to complain loudly about how Washington's problems never got solved.

On the dysfunction in the House GOP, at the height of the crisis
John Boehner, House Republican Leader at the time



Now they were willing to let every business in America collapse,
every bank fail, ATMs stop working,
just so they could pretend to be budget cutters.

It was pathetic. It was irresponsible. But was only the beginning.

None of the so-called conservatives who were
willing to blow up our economy ever paid any price.

Fighting for passage of TARP

Ben Bernanke



Americans wanted us to end the financial crisis, but we had failed to persuade them that pouring hundreds of billions of taxpayer dollars into the financial system was the solution.

Senator Jon Kyl of Arizona told me that his constituent calls on TARP were running 50-50: **“fifty percent no, fifty percent hell no.”**

When the gavel banged in the House at 2:10pm Monday afternoon, **the yeas for TARP were 205, the nays 228.**

I felt like I had been hit by a truck. So did the stock market. In the next two hours the Dow plunged 778 points.

[equivalent to a 3,400-point drop in 2026]

Fighting for passage of TARP

Ben Bernanke



The House vote seemed a crippling setback to our efforts to end the crisis.

But then something happened.

People saw their retirement accounts shrinking by the minute, and immediately, constituent support for TARP surged.

And Congress heard from them.

Sobered congressional leaders regrouped and tried again, the very next day.

Fighting for passage of TARP

Ben Bernanke



Sweetened by an increase in deposit insurance from \$100,000 to \$250,000 per account, on Wednesday the **Senate approved the bill 74 - 25**

On Friday, the **House also approved it, 263 - 171**

President Bush signed it that same afternoon.

Fighting for passage of TARP

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The worst panic, and the worst bipolar episode, yet seen

- **1929-33 – By far the most all-consuming panic yet seen,** with the stock market crash, waves of bank collapses, massive economic dislocation and additional complicating factors, followed by an **economic contraction of unprecedented depth, duration and severity**

Largely passive, ineffective uses of available government tools, due to a prevailing philosophy that government should not intervene, should let events take their course



The philosophy of the time was that government should not intervene in the economy: *'The economy must heal itself'*

Treasury Secretary Andrew Mellon, 1930:

*"Liquidate labor, liquidate stocks,
liquidate farmers,
liquidate real estate.*

*Purge the rottenness
out of the system.*

*High costs of living
and high living will come down.*

*Enterprising people will pick up the wrecks
from less competent people."*



**In 2008,
25 Senators
and 171
Representatives
voted to let
the entire
economy
burn to ashes**

insurance from \$100,000 to \$250,000
approved the bill 74 - **25**

263 - **171**

r



A brief time out, to sum up some important takeaways of this class

- Capitalist economies are **immensely productive**, and **inherently unstable**
- In the United States, our civic model emphasizes **limited government**, out of a paramount concern for **citizen rights**, and out of an assumption that government is inherently inclined to become **too powerful and too expensive**
- Over time, capitalism and industrialization have driven greater and greater **economic interconnectedness**, and as a result, **financial panics and economic crises have steadily intensified**, as can be expected
- In response, we have gradually, reluctantly **added government institutions and regulations over time**, in efforts to achieve **greater economic stability**, and to **prevent unnecessary wealth destruction during financial crises and recessions**

(not to mention other vast expansions of government to deal with national security concerns, etc)

A brief time out, to sum up some important takeaways of this class

- American public-sector efforts to date have shown **significant success in stabilizing the economy**, but the results are, and always will be, short of perfect – and, they reflect a **distinctive pattern of weaknesses and strengths**, that are characteristic of the **American political and governmental system, and of American *attitudes***
- Capitalism is always **looking for ways to get around the constraints** that have been imposed via law and government – perhaps most notably, in the financial sector

Figuring out how to keep up with this, is one of the hardest challenges we face

A brief time out, to sum up some important takeaways of this class

- The primary **weakness in American efforts to stabilize capitalism** is rooted in **ideology and attitude**: a specifically **American attitude** that **constantly denigrates and devalues the public sector**, and that is in **deep denial** about the **vital role of government in stabilizing capitalism**
 - On the part of some private-sector actors, this is motivated by a determination **to escape constraints and get rich, *at whatever expense*** to the stability of the economy as a whole
 - But **much more importantly**, this ideology, this attitude, is motivated in powerful emotional ways, by a **virulent phobia towards government**, which leads people into a **blinkerred, naïve misunderstanding of capitalism**:

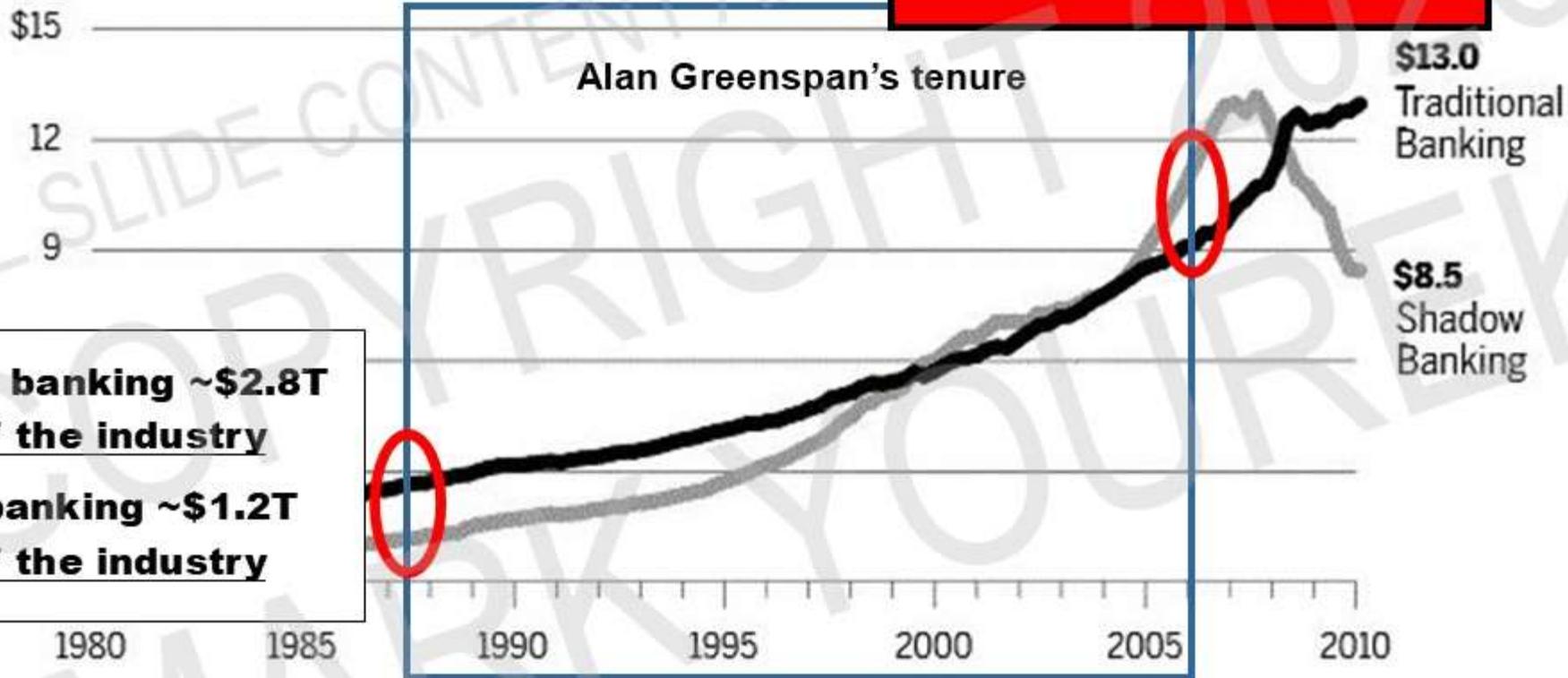
Many Americans very much want to believe that capitalism and free markets are perfect, self-sufficient, and stable on their own – because if that is true, there will be very little need for government

Traditional and Shadow Banking

The funding available through the shadow bank
2000s, exceeding the traditional banking system

IN TRILLIONS OF DOLLARS

Shadow banking ~\$11T
55% of the industry
Traditional banking ~\$9T
45% of the industry



Alan Greenspan's tenure

Traditional banking ~\$2.8T
70% of the industry
Shadow banking ~\$1.2T
30% of the industry

NOTE: Shadow banking funding includes commercial paper and other short-term borrowing (bankers acceptances), repo, net securities loaned, liabilities of asset-backed securities issuers, and money market mutual fund assets.

SOURCE: Federal Reserve Flow of Funds Report

Traditional and Shadow Banking S

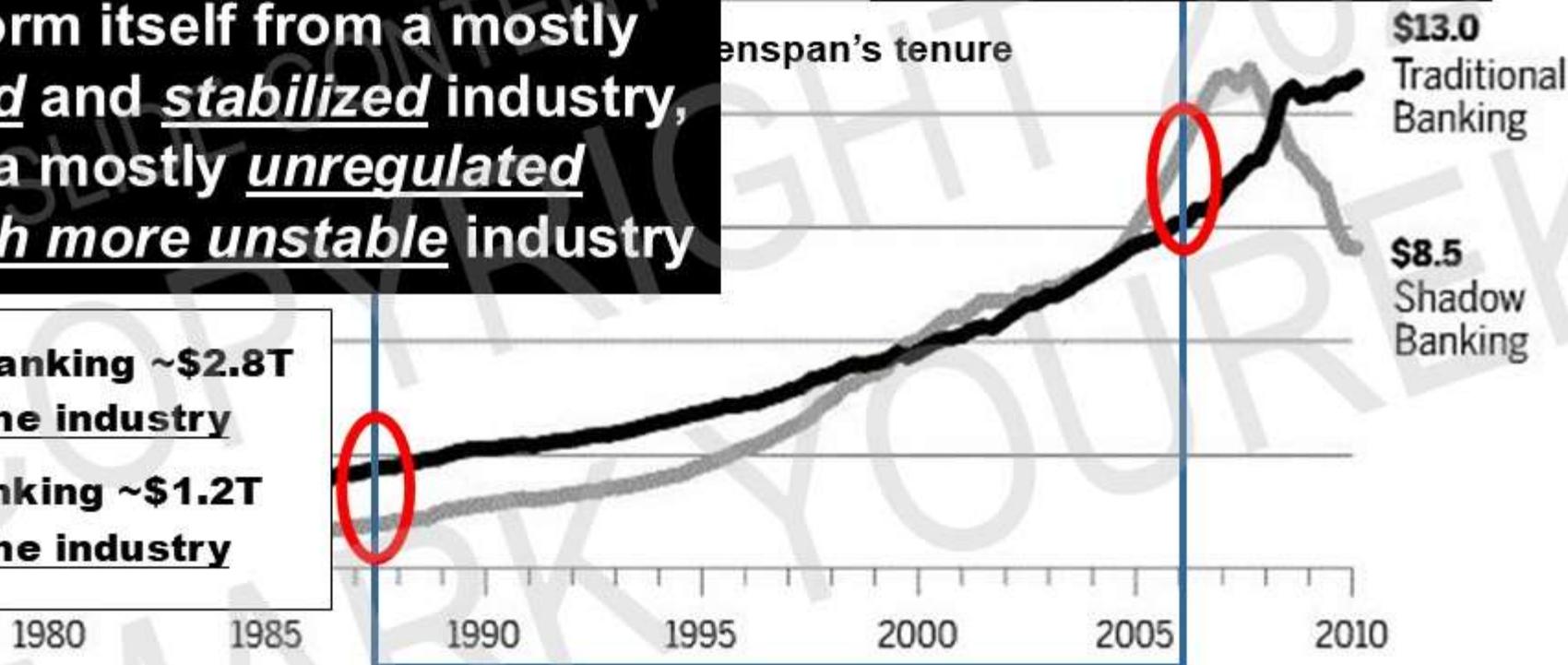
The Financial Crisis happened, partly because we allowed the banking sector to gradually transform itself from a mostly regulated and stabilized industry, into a mostly unregulated and much more unstable industry

Traditional banking ~\$2.8T
70% of the industry

Shadow banking ~\$1.2T
30% of the industry

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55% of the industry

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MARK YOUREK

“One problem is, financial regulation
always lags financial innovation.”

Barney Frank
Chairman, House Financial Services Committee,
2007-2011

If you are unwilling to proactively extend regulation to innovations produced by capitalism, particularly within the financial sector, to prevent new sources of instability from arising ...

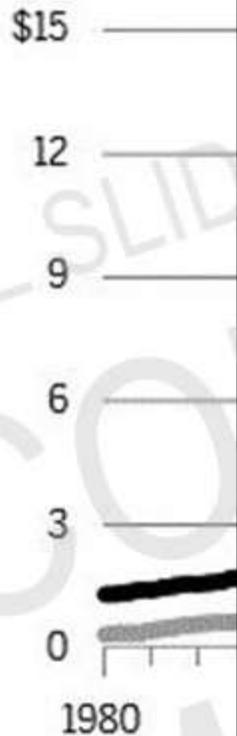
“One problem is, financial regulation always lags financial innovation.”

then, whether you realize it or not, whether you admit it to yourself or not, you are choosing to allow capitalism to gradually, inexorably re-configure itself so as to inevitably produce yet another crisis, which will someday explode in another gigantic disaster

Tradition

The funding
2000s, exce

IN TRILLIO



NOTE: Shadow b
acceptances), re
fund assets.

SOURCE: Federal Reserve Flow of Funds Report

The shadow banking sector – which lacked the stabilizing support and regulation that the traditional banking sector receives from government – was hit by catastrophic bank runs right here, in September of 2008

By then, the entire banking industry was so interconnected – across both the formal / traditional sector and the shadow sector – that once one of the biggest shadow banks – Lehman – was hit with a bank run, a *broad banking panic* hit the entire industry, instantly collapsing the shadow sector and immediately endangering the solvency of even the traditional banking sector:

almost all the big dominoes falling

w sharply in the
before the crisis.



rrowing (bankers
rs, and money market mutual

Traditional and Shadow Banking Systems

**As a result,
the only way to avert
a second Great Depression
was to have government
intervene in massive force,
on an emergency basis,
to stabilize
both the shadow sector
and the traditional sector,
to prevent the entire economy
from going off the cliff
in a free-fall catastrophe**

*w sharply in the
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SOURCE: Federal Reserve Flow of Funds Report

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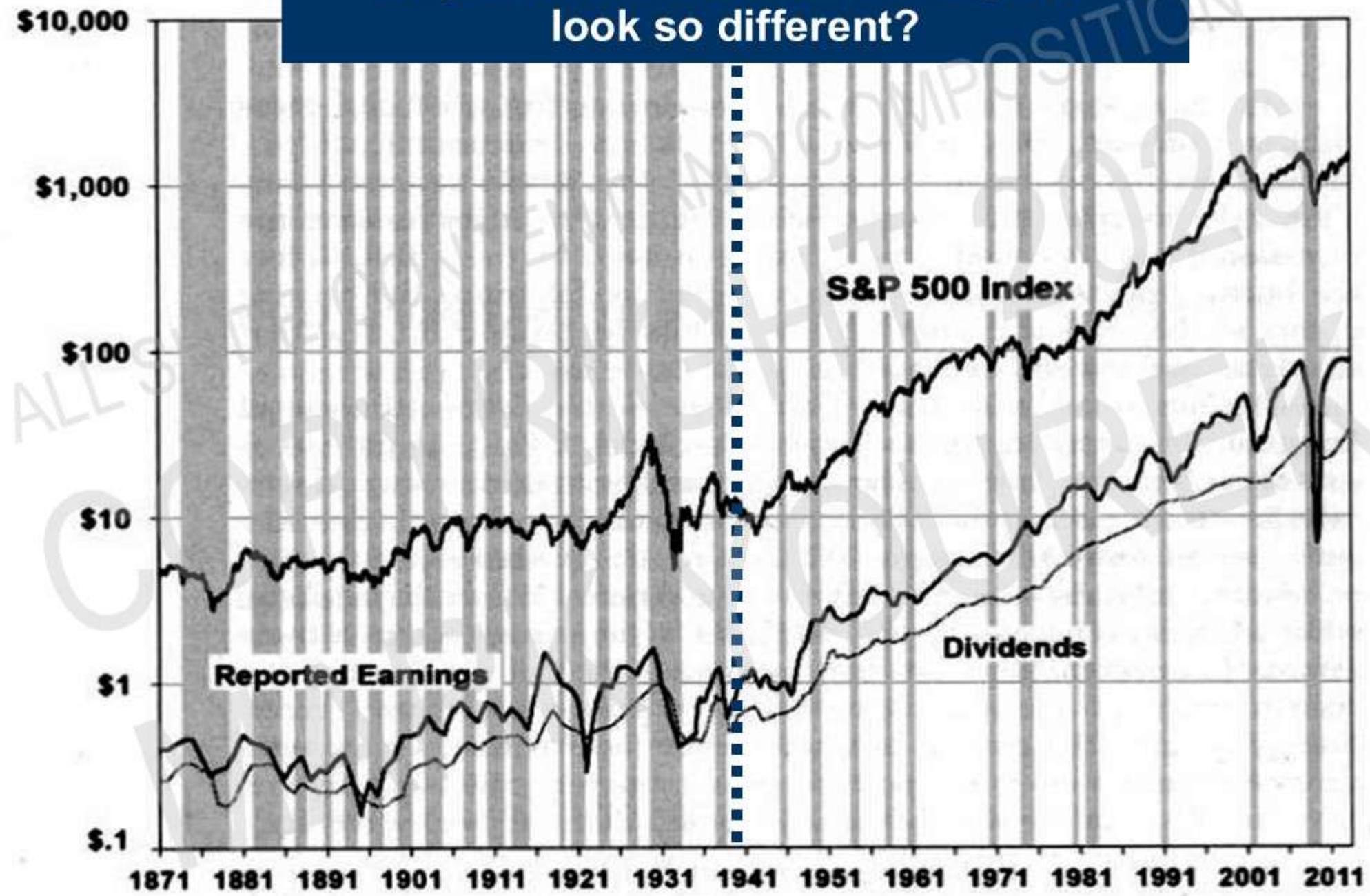
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Many Americans very much want to believe that capitalism and free markets are perfect, self-sufficient, and stable on their own – because if that is true, there will be very little need for government

▶ **Other countries are not making this mistake**: it is a peculiarly American problem

Why do the two sides of this graph look so different?



\$10,000

\$1,000

\$100

\$10

GOVERNMENT

is the overriding reason why the American economy has been far more stable, with a dramatically-higher sustained growth rate, since around 1940

S&P 500 Index

UNTIL AROUND 1940, WHEN WE STARTED FIGURING OUT HOW TO USE GOVERNMENT TO STABILIZE CAPITALISM, BANKING PANICS CAUSED THE CAPITALIST ECONOMY TO CRASH INTO DEEP RECESSIONS *EVERY FEW YEARS* – AND AS TIME WENT ON, IT GOT WORSE AND WORSE

The discovery that investment banks were holding huge quantities of CDOs
Michael Lewis

By early June 2007, the subprime mortgage bond market began what would become an uninterrupted decline.

By March 2008, the stock market began to grasp what every mortgage bond salesman had long known: Someone, probably a large group of people, had collectively lost at least \$240 billion. But who?

“I know I’m making money,” Steve Eisman would often ask.
“So who is losing money?”

Inevitably, their attention turned to the beating heart of capitalism, the big Wall Street investment banks.

Right up until the middle of 2007, Eisman had not suspected that the firms were so foolish as to invest in their own creations.

But he could see that their leverage had increased dramatically in just the past few years.

He could of course see that they were holding more and more assets with borrowed money. What he could not see was the nature of those assets.

Were they triple-A-rated corporate bonds? Or were they triple-A rated subprime CDOs?

“You couldn’t know for sure,” he said. “There was no disclosure. You didn’t know what they had on their balance sheet. You naturally assumed they got rid of this shit as soon as they created it.”

He and his team set about searching for the hidden holders of subprime CDOs: Who was holding what?

“We called it The Great Treasure Hunt,” he said.

They didn't know for sure if the big banks and Wall Street firms were in some way on the other side of the bets he'd been making against subprime bonds, but the more he investigated and asked around, the more he suspected that *they didn't know, either*.

He'd go to meetings with Wall Street CEOs and ask them the most basic questions about their balance sheets.

“They didn’t know. They didn’t know their own balance sheets.”

Once, he got himself invited to a meeting with the CEO of Bank of America, Ken Lewis.

“I was sitting there listening to him, and I had an epiphany. I said to myself, ‘Oh my God, he’s dumb!’ A lightbulb went off. The guy running one of the biggest banks in the world is dumb!”

By 2007, many of the largest banks in the world had themselves become dumb money.



Why did the big banks become dumb money?

Richard Posner

Demand for loans was rising, and was being met to a great extent by the creation and sale of tranches of debt securities, which are highly complex financial instruments, as are the credit default swaps and other derivatives that played an increasing role in financing.

With these developments, the banks' demand for financially-sophisticated staff soared. Competition to hire the best and brightest led to high salaries and generous bonuses. And those bonuses did reward risk-taking.

More important, however, was the sheer increase in the size of the banks, and in the number of bankers required to service the increased demands for credit.

Why did the big banks become dumb money?

Richard Posner

When businesses expand rapidly, they often suffer a loss of control.

In the banking industry, this took the dangerous form of a loss of control over trading, lending, and other investment decisions of lower-level executives.

Since risk and return are correlated, and a small-though-non-negligible risk is unlikely to materialize within a short time, performance-based compensation may tempt officers to make investments whose expected value over the long run could be questionable or even possibly negative.

Many of these officers' managers were technically sophisticated, but the longer they had been in management, the less likely it was that their technical skills were fully up to date.

Why did the big banks become dumb money?
Richard Posner

The math whizzes the banks hired to manage risk have been blamed for failing to calculate those risks correctly.

This may be true, but it is at least equally likely that the growing size of the banks elongated the management hierarchy by increasing the number of supervisory levels, causing the known limitations of the mathematical risk models – though perhaps honestly communicated by the math whizzes to their immediate supervisors – to fade from consciousness as they were successively relayed through multiple layers, to the top of the hierarchy.

Alan
Greenspan



Paul
Volcker



In the aftermath of the Panic of 2008,
two former Federal Reserve chairmen
offered their thoughts
on the future of capitalism
and of the financial sector

Alan
Greenspan



Modern capitalist economies need an innovative financial system if they are to work efficiently. Innovative financial systems improve the funding of new plants and ideas and thereby generate higher productivity and rising standards of living.

That said, too many recent innovations have been problematic: they increased risk by promoting leverage or reducing transparency. They thus converted financiers from agents of improved productivity into rent-seekers.

Paul
Volcker



Alan
Greenspan



Paul
Volcker



This creates a delicate problem:
how do you guard against
the destructive side of financial innovation
without blunting the constructive side?

Thickening capital buffers and cracking
down on fraud will not solve all
the problems with financial intermediaries:
that is an impossible task.

People will always accumulate too much
risk. Innovators will always dance with
danger. The shadow banking system may
well be the next source of crisis [again].

Alan Greenspan



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Paul Volcker



I hear about all these wonderful
innovations in the financial markets.

I can tell you about two
- credit default swaps and CDOs -
that took us right to the brink
of disaster.

Were these
'wonderful' innovations
that we want more of?

Alan Greenspan



This creates a delicate problem:
how do you guard against
the destructive side of financial innovation
without blunting the constructive side?

Thickening capital buffers and cracking
down on fraud will not solve all
the problems with financial intermediaries:
that is an impossible task.

People will always accumulate too much
risk. Innovators will always dance with
danger. The shadow banking system may
well be the next source of crisis [again].

Paul Volcker



A few years ago I was at a conference
that was being addressed by a very
vigorous young investment banker.

He was explaining
to all these older executives
how their companies would be dust
if they didn't embrace
the joys of financial innovation
and financial engineering,
and that they had better get with it.

Alan Greenspan



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Paul Volcker



While listening to this,
I happened to be sitting next to one
of the inventors of financial engineering,
a winner of the Nobel prize.

I nudged him and asked him
what financial engineering does
for the economy, and what it does
for productivity.

To my surprise, he leaned over
and said to me that it does nothing.
(This was from a *leader* in the world
of financial engineering...)

Alan Greenspan



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I asked him, then what *does* it do?

He said it moves around rents
in the financial system, and besides that,
it's a lot of intellectual fun.

Alan Greenspan



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Paul Volcker



I wish that somebody would give me
some shred of evidence
about the relationship
between financial innovation recently,
and the growth of the economy –
just one shred of evidence.

The most important
financial innovation
that I have seen in my career,
that really helps people
and is a real convenience,
was the ATM.

On the key takeaways of the crisis of 2008
Robert Shiller and George Akerlof

Epidemics, in both biology and economics,
call for immediate and drastic response.

Two dramatic episodes in the past hundred years give us
two contrasting experiments: regarding what happens when there is
such a response; and when there isn't.

The response to the Great Crash of 1929 was small and slow.

And the world entered a mini-Dark Age.

It lasted fifteen years, through the Depression of the 1930s
and the Second World War.

On the key takeaways of the crisis of 2008
Robert Shiller and George Akerlof

The 2008 collapse had portents similar to the Crash of 1929.

But in contrast, the world's fiscal authorities and the world's central banks [*i.e., the world's governments*] intervened promptly, in coordination with each other, and in appropriately high volume.

The recovery was slow, but thank God, we have not entered the mini-Dark Age of that earlier era.

On the key takeaways of the crisis of 2008
Robert Shiller and George Akerlof

We found out many years ago, to the world's great regret, what happens when there is no effective intervention [by government] at the time of a financial collapse – when a financial epidemic is just allowed to run its course.

Our research and analysis indicates not only that *there are endemic and natural forces that make the capitalist financial system highly volatile*; it also indicates that in the face of financial collapse *it is critical for government to intervene*.

One mini-Dark Age is one too many.

**Capitalism,
Government,
Money,
and the
Future of
the World**

*Finding
and Keeping
the Right Balance
in
Market-Capitalist
Democracies*