



***Opening Remarks:
Prevention, Containment, and Policy
Change – Lessons from History***

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"After the Fall – Re-evaluating
Supervisory, Regulatory, and Monetary Policy"***

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Good afternoon. I'd like to welcome everyone to this conference, which is the Federal Reserve Bank of Boston's 54th economic conference. I'd like to thank my colleagues from the Bank for their work in putting together such a dynamic and timely program.

The decision to move our conference to the fall came temporarily into question when it started snowing this weekend. But the weather on Sunday didn't seem to bother our football team, the Patriots, and I don't think our conference will suffer, either. The snow is behind us and I think you'll all enjoy New England in the fall.

Throughout its history, this conference has aimed to bring together policymakers, business leaders, and academics to discuss matters of public policy. This year's conference is very aptly timed, in that the nation is currently in the midst of a very important debate about what happened over the last two years and what we should do to avoid similar problems in the future.

I want to kick off the conference by highlighting [**slide 1**] some of the extraordinary things that have happened over the course of the last two years, and by suggesting some questions we might want to address over the next two days at this conference.* I think everyone here is well aware that over the last two years, government intervention into both financial markets and financial institutions has been extraordinary. There has been a major investment of taxpayer dollars in a variety of institutions. And the intervention has not only involved depository institutions, but also a variety of other institutions that were seen as systemically important but did not necessarily take deposits.

This is a phenomenon that has occurred not only in the United States but actually in many corners of the globe. So while you might say “the match was struck” in the United States, the firestorm that we've seen over the last two years has, in many respects, been global – and policy responses have been global in nature as well.

I would highlight [**slide 2**] a few of the significant “spillovers” that occurred as a result of the problems that were occurring at many of the large global financial institutions. Perhaps the most striking was that previously very liquid financial markets essentially “seized up.” Transactions were not being done at anything near normal

* *Of course, the views I express today are my own, not necessarily those of my colleagues on the Board of Governors or the Federal Open Market Committee (the FOMC).*

prices, and in fact the bid-to-ask spread for many financial transactions became very wide.

The United States' economy went into a deep and protracted recession. And we were not alone. Much of the rest of the world also followed suit, in part as a result of a very significant drop in international trade. Not only did the Federal Reserve reduce its target interest rate to close to zero, but so did central banks in many other parts of the world. And just as our deficit has swelled, so have deficits in many other countries that experienced significant problems as a result of the financial crisis.

So, this “financial firestorm” has raised a number of questions [**slide 3**] that I think are appropriate to explore at this conference; among them the following:

- Was this crisis preventable?
- Could it have been better contained?
- What are the implications for government structures?
- What are the implications for government policies?
- What are the implications for the global economy?

Now I'd like to digress for just a moment to explore an analogy to what recently happened in financial markets, drawing on a very different type of crisis that occurred primarily in the 1700s and 1800s, but not since then. I think there are some broad lessons to be drawn from this historical example.

After all, we are from the Federal Reserve Bank of Boston, and Boston is a very historical city. I want to highlight an element of that history – the second Great Boston

Fire, which occurred steps from the current Federal Reserve building. The results of the fire are shown in this picture [**slide 4**]. As you can see, the devastation was extraordinary, with over 700 buildings burned to the ground. It was a tragic event, with a large loss of human life. The destruction that occurred in the downtown area devastated the core of the city.

I am not an historian, but the popular histories of the Great Fire suggest a couple of striking things about this tragedy. I think we do well to consider the analogies to the current financial crisis.

The next slide [**slide 5**] highlights patterns in some of the Great Fires. The first thing to note is that for many of the cities that had Great Fires, the tragedies were repeated. Boston had one in 1760, but roughly 100 years later, there was a second. So actions taken as a result of the first episode did not prevent a recurrence. This extends beyond any one city, because as you can see there were a number of great fires in American cities – and this is far from a comprehensive list. Needless to say they had devastating results both in loss of human life and in loss of buildings, businesses, and employment. As we contemplate the analogy, I'm sure all of us here would prefer to not see a repeat of the financial firestorm of the last two years.

Note that as you get into the mid to late 1900s you don't see Great Fires anymore. Why is this? I think there are a number of reasons, rooted in what really created some of the Great Fires of the 1800s [**slide 6**].

One cause was, clearly, dangerous conditions. Buildings back then were much more flammable – with either wooden structures or at least wooden roofs, as was true in Boston. Certain business activities added danger to that situation – for example certain

types of manufacturing taking place in dense downtown areas. Policy also played a role – interestingly, inventories in attics were not taxed, so attics were often stuffed with very flammable items.

Another factor involves what you might call “inadequate mitigants.” We take for granted out fire departments now, but fire departments in the 1800s were often inadequately equipped. And the water supply in American cities was quite problematic. In the case of the great Boston fire the water pressure was completely inadequate to reach the taller buildings that were being built, but pleas to upgrade water mains (to keep pace with newer buildings) had been rebuffed. Fire hydrants had varying sized couplings, so the fire brigade’s equipment didn’t fit on some hydrants.

And finally, there was often insufficient enforcement of much of the fire code – while there were fire codes in place, to a large degree they were ignored.

I’d also observe that one of the elements you read about in Great Fires seems to be – to borrow a phrase from fiction – “a series of unfortunate events.” Usually there are some unusual, but not unimaginable, combinations of occurrences that together escalate the situation. In the case of Boston’s second Great Fire, one of the strange occurrences was that all of the specially-trained fire horses had come down with an equine flu, and as a result the fire engines had to be pulled by people, as best they could.

So why do we not see Great Fires in our cities anymore **[slide 7]**? Well, cities started to take fire prevention quite seriously. When the cities burned down, many of them rebuilt in a very different way, improving their layouts to inhibit the spread of fires that might emerge. Building materials improved – if you look around downtown Boston

today you don't see wooden structures or wooden roofs. And strict enforcement of fire codes emerged.

Obviously there are much improved means to try to prevent fires, and to put fires out should they occur. We have professionalized firefighting in our major cities. Fire equipment has improved dramatically. All this was sufficient to reduce significantly the risk of Great Fires. Certainly there have been fires, but they haven't had the same devastating effect as in prior eras. Look again at the scene of Boston's Great Fire [**slide 8**], and then at the approximate scene today [**slide 9**]. What can we learn from this analogy to the financial firestorms of late – and can we make as much progress in the financial realm?

I would just highlight [**slide 10**] a few things that I hope we contemplate in the course of this conference.

First I think we do need to do a better job of improving our ability to mitigate various crises. High on my list of things we need to attend to is to have in place resolution authority for all systemically-important institutions. Had we had in place such resolution authority, the central bank would not have had to get involved with the financial problems of individual institutions.

While I don't think the Federal Reserve should be involved in the resolution of individual institutions, it's very important that someone does have that authority. This crisis would have unfolded quite differently had resolution authority been in place.

A second question I think we ought to be discussing is whether or not we can simplify the structure of many of our institutions – akin, in my analogy, to making buildings less fire-prone through enforced building codes, and making fires less likely to

spread by instituting planning guidelines and zoning rules. There have been questions about whether institutions should have what amount to “living wills” – meaning they’ve come up with a plan so that if they get into financial problems, the plan for resolution is relatively clear. That would probably require simplifying institutions’ structures. So, we should explore the extent to which regulatory and supervisory procedures should make sure institutions are easy to resolve – in other words, that they have simple enough structures so that if they do get into trouble you can sell parts of them without necessarily having to take them over.

Another area that I hope we focus on is improving some of the tools for dealing with the problems. This is akin to fixing the water pressure, standardizing the hydrants, and ensuring that fire equipment can make it to the scene – horses or not.

In this vein I would mention the issue of convertible debt, which is getting quite a bit of attention lately. I think this is a very good idea – giving the ability to convert debt to equity in times of serious stress in the banking system. Also, during this crisis, substantial dividends were paid in the initial phases of the crisis at institutions that ended up needing significant government support. During a financial crisis it is important that individual institutions as well as the banking system more generally take measures to retain capital. This would make it less likely that institutions need government support – but also would make it less likely that banks shrink in the middle of a crisis, reducing the critically important availability of credit.

Other issues worth discussing at the conference are higher capital requirements for systemically important institutions, and finding ways to build up loan loss reserves in

the “good times.” In addition, we need to reduce the risk that large financial institutions become illiquid during a financial crisis.

Next [**slide 11**] I would argue that the appropriate institution or institutions need a mandate to focus on systemic risk. Mandates matter. The last two years have shown that we clearly need institutions that have a focus on addressing systemic risk. With more and clearer focus on systemic risk, there will be more focus on identifying problems earlier and making sure those problems don’t become much larger over time.

Finally, I think we should be discussing the issue of comprehensive oversight. There were major gaps evident in this last crisis, which allowed risks to build up in areas that were not necessarily inside regulated financial institutions. I think we need a mechanism whereby if we see large asset growth that’s being financed by leverage, we should at least be asking questions, and there should be organizations designed to think about whether these situations are posing systemic risks that we need to address.

Hopefully these and other questions will be addressed in the papers we’ll see presented over the next two days. This is a time where we need to re-consider some of what we’ve done and really learn the lessons from the last two years. My hope for this conference is that each of us will gain a number of insights – allowing those of us who are policymakers to better serve the public’s interests. I wish you a very engaging two days.

I hope everybody enjoys the conference, and now we’ll start with the first session.

1. Overview of Conference

- Need for extraordinary government intervention in financial institutions, markets
 - Major investment of taxpayer money
 - Extended beyond depository institutions
- Necessary in many parts of the world – match struck in the United States, but firestorm was global



2. Significant Spillover Beyond Financial Institutions

- Previously liquid financial markets seized up
- US economy went into a deep and protracted recession
- Global recession with a significant drop in trade
- Central banks in many countries dropped their interest targets close to zero
- Deficits in many countries swelled



3. Financial Firestorm Contained by Extraordinary Fiscal and Monetary Policy Measures

- Was this preventable?
- Could it have been better contained?
- What are the implications for government structures?
- What are the implications for government policies?
- What are the implications for the global economy?



4. Lessons from History – Second Great Boston Fire



5. Patterns in Great Fires

- First Great Fire Boston – 1760
- First Great Fire New York – 1776
- Second Great Fire New York – 1835
- Great Chicago Fire – 1871
- Second Great Fire Boston – 1872
- Great Baltimore Fire – 1904
- Cities repeat catastrophe
- Great city fires no longer occur



6. What Creates Great Fires

- Dangerous Conditions
 - Flammable buildings
 - Dangerous business practices
- Inadequate mitigants
 - Fire departments inadequately equipped
 - Water supply problematic
- Insufficient enforcement
- “Series of unfortunate events”



7. Why are Great City Fires no Longer Occurring?

- Cities took fire prevention seriously
 - City layout improved
 - Building materials improved
 - Strict enforcement of code
- Improved tools
 - Fire prevention professionalized
 - Fire equipment improved



8. Second Great Boston Fire



9. Boston Today



Angelo Veneziano

10. Avoiding Future Financial Firestorms

- Improve mitigants
 - Resolution authority for all systemic institutions
 - Institutions that are more easily resolved
 - Living wills
 - Simpler structures
- Improve tools
 - Convertible debt
 - Early suspension of dividends
 - Higher capital requirements/Larger reserves
 - Greater liquidity



11. Avoiding Future Firestorms

- Mandate a focus on systemic risk
 - Mandates matter
 - More focus on early identification of problems
- Comprehensive oversight
 - Major gaps allow risk to build up in economy
 - Large asset growth financed by leverage should initiate questions about downside risk

