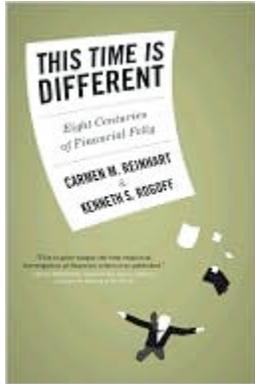




## This Time Is Different: Eight Centuries of Financial Folly

Carmen M. Reinhart , Kenneth S. Rogoff , Joanne J. Myers

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### Introduction

**JOANNE MYERS:** Good afternoon. I'm Joanne Myers, Director of Public Affairs Programs. On behalf of the Carnegie Council, I'd like to thank you all for joining us.

Our discussion today is about the economy. We are delighted to have as our speakers two leading economists whose work has been influential in the policy debate concerning the current financial crisis, Carmen Reinhart and Kenneth Rogoff.

They will be talking about their book, [This Time Is Different: Eight Centuries of Financial Folly](#), which, from all accounts, is said to provide the best empirical investigation of the financial crisis to date.

It has been a bad year for the economy. How many times have you heard, "No one was prepared for what has happened," or "It was impossible to see this coming"?

Many economists, especially those caught off-guard, have even claimed that this situation is so unusual that it bears little similarity to anything that has gone before.

Not so, say our speakers. In fact, it is just the opposite. As the ironic title of their book indicates, "This time is different" turns out to be a mantra that Professors Reinhart and Rogoff have discovered to be wrong.

How did they come to this conclusion? In researching their book, our speakers covered 66 countries across five continents, to give us a comprehensive look at the varieties of financial crises. In doing so, they guide us through eight centuries of government defaults, banking panics, and inflationary spikes, from medieval currency debasements to today's subprime catastrophe.

They provocatively argue that financial combustions are universal rites of passage for emerging and established markets. As their statistics show, financial fallouts occur in clusters and strike with surprisingly consistent frequency, duration, and ferocity. In their exhaustive research, they examine the patterns of currency crashes, high and hyperinflation, and government defaults on international and domestic debt, as well as the cycles in housing and equity prices, capital flows, unemployment, and government revenues around these crises.

Their data shows that countries do weather their financial storms, but short memories make it all too easy for crises to reoccur, and they will happen again with startling regularity everywhere.

As our guests remind us, we have been here before. If so, we might ask, is it ignorance or maybe

arrogance that has prevented us from seeing that this time is no different than the past? Can we learn from history?

For the answers, please join me in welcoming our guests this afternoon, Carmen Reinhart and Ken Rogoff.

Thank you for joining us. Carmen is going to go first.

### Remarks

**CARMEN REINHART:** I want to thank the Carnegie Council and Joanne for hosting us, and all of you for coming.

Let me begin by saying something about the title. It is meant to be an ironic title. "This time is different" is the mantra that we hear. It is universal. Crises always seem to happen to someone else at some other time; they never really happen to us. The rules of valuation don't apply to us.

So "This time is different," as Joanne pointed out, does carry very much the theme that we emphasize in our book: that these cycles of euphoria and booming asset prices and big increases in leveraging and debts that ultimately usually end in tears are nothing either unique to us in the current situation or specific to a particular region.

One of the interesting things I hope we get to talk about along the way is how certain findings that we uncovered—regions that we thought were not that crises-prone, when you delve deeper, you find that they have a long history marked by repeated crises, and there are very few reputations that are left unscathed after close inspection.

When Ken and I set out to write this book, it was when we were working together at the IMF [International Monetary Fund]. In 2001 to 2003, we worked together at the IMF, and the origins of this book date back to 2003, when we did a paper called "[Debt Intolerance](#)," which was about what we then called "the syndrome of serial default," countries that kept building up a lot of debt and then defaulting on it. One of the novelties of that research, which led us to the idea of going deeper into this and doing a book, was that some of the advanced economies of today, like France and Spain defaulted—Spain still holds the record, with 15 defaults, and France routinely defaulted every 30 years for a couple hundred years, making some of today's emerging markets look good.

A central theme of our analysis was to go beyond some other books on the history of financial crises. There is a very influential book, certainly to us, the [Kindleberger](#) book on financial panics and manias. But this literature tended to be very anecdotal, if you will, in which you got down the story of a particular bubble, be it the [tulip mania](#) or the [South Sea bubble](#) or the [Roaring Twenties](#) that ended in the [Depression](#). What Ken and I really wanted to do was to bring a systematic analysis: What are the recurring patterns that we see before crises?

Let me just say a couple of things about that. Before the book came into being, as we were doing our research on it, we did an early piece that was called "[Is the Subprime Crisis So Different? A Historical and International Comparison](#)." We put this together in late 2007. Ken presented it at the American Economic Association in January of 2008.

What we did was to say that the then-budding subprime crisis—the stock market was still doing quite well at that time—had these patterns, this boom in real estate prices, this boom in credit. We were running large current-account deficits. We were importing a lot of capital from abroad. We were borrowing from the rest of the world.

We said, guess what? If you look at the major, severe postwar crises, they had this pattern. If we continue to follow this script, that would be followed by a series of unpleasant events—namely, sharp contractions in equity prices, sharp declines in real estate, and the unwinding of private debt.

Later on we went on to write another short piece that is also very much an integral part of the book,

which is called "[The Aftermath of Crises](#)," which focused on the depth and duration of these crises.

One of the very exciting things for us was that, as we were writing this book, which really goes back and gathers data on default crises, inflation, banking crises, currency crashes—going back literally hundreds of years—we were writing this at a time in which a crisis was unfolding right here. A lot of our analysis was actually helping inform policymakers, finance ministries, central banks, not just in the U.S., but worldwide, on what to expect next.

There are recurring patterns, and one of the patterns that we emphasize in this book is the cycles of indebtedness. Usually during the feast, it's private indebtedness.

Then, as the feast turns to famine, the government steps in, and what was formerly private debt becomes public debt, and we are where we are today.

I hope we have time to uncover some of the most interesting stories of our fact finding. I know I have never personally learned so much from any research project that I have undertaken. Ken and I just, from time to time, really marveled at the things we found. I hope we have time to go over some of those highlights.

But let me pause here and turn it over to my dear coauthor, Ken Rogoff.

**KEN ROGOFF:** Thank you very much.

Carmen said "dear coauthor." A lot of people who have written books with someone sometimes ask us, "Are you still friends?" which we are.

I would just say, although Carmen was very prominent professionally, we actually really didn't meet until we started working together at the IMF. That wasn't an accident, actually. I was very familiar with Carmen's work. She is today one of the couple most cited people in international economics. I knew she lived in Washington and that I had some chance that I could bring her to the Fund. It was great. Our collaboration started there.

We have really been working on this book since then. During a portion of that period, we were involved in our own crises. We heard, "Argentina, this time, is different. We have it pegged to the dollar. Nothing's going to happen."

Then we were with Brazil: "This time is different. Nothing's going to happen, because we have a floating exchange. Nothing's going to happen."

Turkey collapsed when we were there: "This time is different. We don't have to worry because we're in Europe, and nothing can really happen to us."

Certainly over our professional careers we have heard this song many, many times.

I want to just give a little bit of flavor about what it is that we did. In a way, the book is a very novel data set, where we systematically collected data that one might use to think about crises quantitatively. As Carmen said, the typical crisis books—and there are some great ones, including a classic that Princeton University Press also published, by Charles Kindleberger, who was a professor of mine at MIT—are basically anecdotal: "The finance minister sweated bullets when he signed the contract with the bankers at midnight." But there is no sense of what a crisis is, what happened, how long it lasted, and how we know what to count and what not to count.

So we wanted to have a quantitative basis. It's really, as Carmen often says, an archaeological project, digging out some of this data and vetting it.

One thing that fascinated us—and we had discovered it in early papers; really, our first major paper in this area was in 2003—was this notion, as Carmen said, of serial default. Everybody thinks this is a Latin America phenomenon or a couple countries in Central Europe. It's actually nearly universal. Virtually

every country, when they are going through the emerging-market stage, which is usually 200 or 300 years, defaults periodically—not every year. Venezuela is the modern-day record holder, but they still default roughly every 20 years. France back then was every 30 years, up to 1800. It may be 50 years for some countries. But it's a fairly frequent event.

We learned over time that this is something countries graduate from. But something we learned in the book that surprised us was that rich countries do not graduate from banking crises. Even before this, we had written a paper and we had a chapter in our book showing that government default—yes, that happens in emerging markets, not so often in rich countries. Not banking crises. Then we were able to show that they are quantitatively not that different.

There are whole stories about the years of collecting the data, but I'll just give you a few highlights of it. I know you probably don't think collecting data could have highlights.

One of the things that we realized was really important to have was housing price data, which was not easily available. I called [Robert Shiller](#) and asked, "Where can I get housing prices for the whole world?"

He said, "There's not. You can get it for a few years." But we needed to go back a way, so we could look around at the times of these crises.

We found a paper by someone at the Federal Reserve that cited confidential data of the Bank for International Settlements and managed to get the name of that person. We wrote to him, not really thinking we would get the data. He sent us the data. He said, "You know what? This is my last day at work. This data is not supposed to be public, but somebody ought to have it," and he sent it to us.

We since got emerging-market data and a number of others to supplement that.

Then the one which you almost can't explain to somebody who is not in the field is just plain vanilla government-debt data. You say, "Oh, wait a second. The IMF keeps that. The World Bank keeps that." No, believe me, they don't. We were there. In fact, we took great pains to get it for a small number of countries, going back ten years, much less what we have in our data sets now, 100 years.

Why do you want to know that? Does the United States have too much debt when it's 60 percent, 80 percent? When do countries default? The debt data you can get is what you owe to foreigners. But there is a lot of other debt that you owe to your own citizens—pension funds, rich individuals. In fact, one thing we discovered is that it's the same order of magnitude.

We could go off on a long tangent about that, but there are things that it's just criminal that they don't exist. I don't think it's an accident that the government debt data is hard to get. I think—I'm not being facetious—they don't want us to have this.

Here we were at the IMF, working on Argentina, working on Brazil. Are they in trouble or not? We only had what they owed to foreigners, looking at historical benchmarks. We could only look at that for sustainability exercises.

Anyway, there are other things in the data set. But having this data let us say things that nobody had been able to say before. For example, we were able to look at what happened to housing prices before a big crisis. We saw that the United States was just driving down the tracks. We were able to look at what happens to debt after a crisis. It typically nearly doubles in a relatively short period. You'll be happy to know that the United States is driving down the tracks of that, too, and a number of other things—unemployment.

It's frankly almost too much, the extent to which the crisis has tracked our projections from a couple of years ago. But I think most central banks and treasuries present it and use it, because, frankly, models just aren't that useful when you have an out-of-bounds event like this.

Let me just finish up and turn to your questions. People are saying, "No, no. This time is different because the dollar stayed really strong throughout the crisis." I think the last couple of months have put

the last nail in the coffin of that argument. The fact is that in many ways this has been a very typical event that has hit the United States. If you ask us what you should do, you can't not have financial crises. You can have complete financial repression, but you also don't have healthy investment and such.

I think the thing we *do* find is a unifying theme is having a lot of short-term debt in the exchange-rate crises, in the sovereign-debt crises, in the banking crises. When someone is borrowing short-term, they need to constantly turn it over. When markets are confident, it seems great. You're borrowing at 2 percent, you're making money. But then when confidence runs out, what do you do? Looking at that dynamic and how it unfolds is something that we realized is a unifying theme.

There are economic models that explain that. But it is at the root of why people think things are fine, that it's so confidence-based.

Something else I would add that we also discuss is that a lot of times the data is hidden. It seems like it's good—"Oh, we owed all that?" You find out when the crisis happens that there are lots of hidden liabilities, contingent claims, private-sector debt that gets taken over that is also part of this pattern.

Finally, I said we'll always have crises. I think the issue today is, will we have one in 50 or 75 years—I guarantee you we will, just like we had or worse—or will it be in ten or 15 years because we decide that we didn't really need to pay that much attention this time? I'm not sure.

Anyway, why don't I stop there and turn to questions.

### Questions and Answers

**QUESTION:** Most people agree that the subprime crisis triggered the overall fiscal crisis. People argue that the reason for the subprime market was because the government intervened and encouraged subprime lending. Therefore, it was the government that caused this financial crisis. Other people say it was lack of government regulation that caused this financial crisis.

Can you make any generalizations, based on your research, about the extent to which the government, by acting or by not acting, contributed to these fiscal crises?

**CARMEN REINHART:** I think when one looks at the central finding we have, which is that these crises are preceded by bouts of borrowing, a big pileup of debt, to the extent, of course, that big borrowing and pileup of debt occurred because supervision and regulations, in the most generous terms, were lax, and that the lending, much of it, was predicated on the expectation that housing prices would continue to rise, so you really didn't need to have a borrower that had a credit history or that had a reliable income stream—after all, you had the collateral. Yes, government policies, I think, definitely played a role in making the credit cycle what it ended up being.

But let me say also this. In our research, we also highlight that the credit cycles are also often fueled by borrowing from abroad, which we were doing liberally for many years in the United States, as other countries that had major financial crises were, at their own time, borrowing from abroad, the Asian crisis being only one example in that.

So we try not to oversimplify. But, yes, government, especially the laxity towards lending practices, no doubt contributed.

**KEN ROGOFF:** Let me just add, it's different in the different examples, but the thing that's unifying is, as Carmen said, when money is pouring in, it makes your stocks look good, it makes your houses look good, and it makes your interest rates seem low. It's very tough. Whatever the institutional framework is—and we look at a lot of different countries—whether it's the politicians, the regulators, the business elite, whatever it is, they don't see what's going on. It masks the hidden vulnerabilities.

With some of the crises, it's corporate debt. With some, it's the banks. But it's remarkable, the patterns that come out that are in common, despite seeming to be so different in terms of the underlying institutions.

**QUESTION:** I think I heard an invitation to ask this question. You mentioned that private debt builds up and public debt substitutes for it after the crisis begins to break. But you didn't talk about the unwinding of the public debt. What can we look forward to?

**KEN ROGOFF:** Taxes is the obvious thing. We're on a completely unsustainable fiscal trajectory. It's completely rudderless. Taxes, just at the federal level, have been about 20 percent of GDP. Now they're 15 percent. They have to go up by about a third just to get to normal, and probably further to make up for all the debt that we have accumulated.

I don't think that's going to be a very pleasant process in our political environment, and not necessarily painless. I think it could be exacerbated if we go through a period of slow growth. That seems to be the plan for getting out of this. We'll have super-fast growth for a long time and then we won't worry about it. But we could end up having inflation, trauma—not right away, but if you're looking over five or ten years, it's very, very difficult. We haven't even mentioned the aging baby boomers and all the problems with Medicare and Social Security.

I think we go through a very challenging time, and the same in Europe.

**CARMEN REINHART:** Let me add that we really asked precisely the question that you asked when we did an exercise: How, historically, have debt-to-GDP ratios been brought down? Is it that the numerator has to go down, the denominator goes up, and so you grow your way out? Very clearly, the answer that emerges is, in most episodes in which debt was significantly reduced, it is not through growth.

Ken mentioned that sometimes in the case of emerging markets it involves restructurings and outright defaults. In the case of the advanced economies, it has involved painful restructurings in fiscal policy, à la Canada in the 1990s, and inflation.

**QUESTION:** The underlying problems facing the economy are poverty, jobs, job training, relevant school training, education, and revenues, as you point out. What practical solutions do you have to address these?

**CARMEN REINHART:** I think speed of response is critical. We really are running out of time here. What do I mean by speed? I'm not evading at all your question.

One of the things that happens during a financial crisis of this ilk is that the credit channel becomes paralyzed. Right now there is very little lending going on. The system is not in place for the restoration of lending. Small businesses are very dependent on banks. Very labor-intensive industries, such as construction, are very dependent on credit. So if the credit channel is broken, employment conditions suffer as a consequence.

So how do you get the credit channel working? It is not by delay. Let me say that this syndrome that we are living right now is, "Oh, Japan did that, but we're going to do the same thing but get a different outcome," which is akin to [Einstein's](#) definition of lunacy.

What I mean specifically is that delay in recapitalization of banks, the forbearance, is delay of resolving the credit problem, and that could mean years of subpar growth.

**KEN ROGOFF:** Let me start at a narrow point. Unemployment is terrible, and if you count underemployment, it's worse. Carmen and I wrote a paper about the aftermath of crises. This was a year ago. We got projections on what typically happens to unemployment. The answer is, it goes up about 7 percent. It started at maybe 4 or 3 percent and it will end up about 6 percent more.

I think I was telling that to my spouse, Natasha, who is a filmmaker, and she said, "No, no. I'm out here. It's going to be worse. Unemployment's going to be 13 percent."

I said, "No, it's not," not really having an idea, but I had my paper with Carmen.

In some ways, she's right, because the participation rate has fallen from 68 to 65 percent. It has fallen 3 percent. You add that to the 10 percent and it looks more like 13 percent. That has very long-term consequences—psychological, people being in training, the job market. It's very serious.

I think our industrial base is likely to continue to shrink, much the way agriculture did. Many of the people who were in Detroit will eventually be taking [EKGs](#) [electrocardiograms] or doing something in the health sector, which is going to expand a lot. I don't think our industrial base is coming back. But that's not because of the crisis. I think that's a longer-term technological trend with globalization.

**QUESTION:** Two aspects of the current crisis are that the dollar has been for quite some time the world's reserve currency, and that globalization, since some of the last crises, has created a global interdependence, particularly between, let's say, China and the United States. What do you think of the implications of those two facts going forward? It seems as if all currencies—maybe with the exception of the renminbi—are depreciating together. What are the implications of this going forward?

**CARMEN REINHART:** The issue of the role of the dollar as the world reserve currency is something that Ken and I have looked at in various dimensions. It was very unusual, as Ken mentioned, that during a crisis year like 2008 the country where the crisis originates has an appreciation. We're starting to see that unwind.

I think, before we see the writing on the wall that the dollar is giving up its role as a reserve currency, there is a series of things that one sees before that. We did study the period in which the world transitioned from the U.K. pound being the world reserve currency to the dollar taking over for the pound. There are lots of things that you see before that. You begin to see that countries started pegging to the dollar instead of pegging to the pound, that countries' debts began to be issued denominated in dollars rather than pounds.

That process went on for decades before the demise of the British pound finally ended with the big bang in 1967, the [sterling crisis](#).

We haven't seen that yet. You need a currency to replace a currency. Right now the demand from central banks is for bonds, euro bonds.

We have Greek bonds, we have German bonds, we have Italian bonds, but those are still relatively individually small markets compared to the U.S. Treasury. Japan has never indicated the intention or interest in the yen becoming a reserve currency. And the yuan, the renminbi, is not convertible.

So at this stage, no doubt that if we continue to make policy mistakes along the lines of many that we have made, the dollar's role as a reserve currency will reflect that, accordingly. But it's too soon to put it to bed.

**QUESTION:** From your research, have you determined what kinds of personal or government behaviors cause these cycles to happen? If so, do you have any suggestions about how we change that?

This is the "voice for ethics in international policy" here. Are there ethical behaviors? Is greed a substantial element to all of this? Is it ignorance? What have you determined from your research?

**KEN ROGOFF:** I think what we emphasize from our research—and Joanne used these words in her opening remarks—is that it's about arrogance and ignorance, ignorance that these things even happen or how they happen, and the arrogance that, if you're aware of that, it's not going to happen to us.

There is a lot of blame to go around in each of these things. At some level, it's the government's responsibility to try to take a longer-term perspective and to try to regulate the system so that this doesn't happen so frequently. That did not happen in the entire run-up to this. Instead, we heard that we don't need to worry, that we're borrowing two-thirds of world net savings, which is what was happening—and totally freakish, frankly—but we don't need to worry about it, because, thanks to financial globalization, our superior regulation and political system, and the trust in the United States,

there's just nothing to worry about. Our central bank is great, and our whole productivity is great.

There are all these stories. Especially given what was happening to housing prices and other things going on, we should have been suspicious.

There's a whole political economy element to this that we talk about but don't go into too deeply. Surely there is a dynamic that some sector—in our case, it was the financial sector; other times, it's the corporate sector or others—gets rich in this process, and that helps them support the dynamic politically.

There's certainly a human side.

You said, what can you do about it? At least try to strengthen your knowledge of experience. The simple data that we develop and provide doesn't tell you if you are going to have a crisis, but it says something. And if you have all the red lights blinking, somehow that should get brought into the conversation.

Also this view that I think our book shatters, that financial crises happen at other times to other people in other places—they happen in Asia. Of course, they also happen in Africa, even though you don't read about it. They happen in Europe. And they happen just about as frequently. Just some awareness of that in the public discussion, at least for a while, I think would be helpful.

**QUESTION:** Can you tell us how extraordinary the quantitative easing has been by the Fed and other central banks—notably, the Bank of England—during this crisis?

Is this unusual, to act in order to make funding for the banking sector essentially riskless and quite inexpensive? What about the mopping-up?

**CARMEN REINHART:** Let me say that quantitative easing is not new to this episode, but is a luxury that goes with having a crisis in an advanced economy. So it is a luxury. If you look at the Japanese crisis in 1992, there was massive quantitative easing, especially as fears of deflation really took hold and we saw zero interest rates and so on. It's not unprecedented.

In the crises that we analyzed in emerging markets, that's not an option. It's not an option because you lose financing, and so you have no option but to raise interest rates to try to restore confidence and to keep capital from leaving the country.

The Depression we had late, but if you look at the period after the gold clause was abrogated in 1933 and you look at what happened in the monetary base in the United States, that qualifies as quantitative easing.

But I think the one issue that I want to leave in connection with quantitative easing, highlighting again the Japanese experience, is that it can be quickly undone, if the will and wherewithal is there, which is, of course, a big "if."

**KEN ROGOFF:** Maybe I'll add a couple things to that. There's normal monetary policy, where you set the interest rate, and quantitative easing basically has the central bank acting like an investment bank in the economy. There is a lot of that in emerging markets, where they get involved in other ways. It can work for a while, but it also raises an awful lot of political economy issues and risks over the longer term, when you become involved in that.

It is not that easy to exit from this, because it's so extraordinary. I think the Federal Reserve will, rightly, emphasize that they have all the tools they need to unwind what they did. But then they need to add to that, "But we've never done it before." It's certainly risky.

We have some creative tension between us about things, which I think helps us think deeper about things. I tend to be a little less tough on them for these bank bailouts they did. It's horrible. The moral-hazard problems and everything are horrible. I tend to think the problem has been pushed down the road five or ten years, to when we figure out if we can pay for this. On the other hand, I must say I respect that often when we disagree, Carmen turns out to be right. I think she has a little bit darker view of the

near-term risks.

**QUESTIONER:** Is it very optimistic to believe that when they start unwinding this and therefore selling these securities into the market that there's going to be a lot of willing buyers?

**KEN ROGOFF:** They can't sell them. They can sell some of it, but not the junk stuff. I don't see how they can sell them.

What ought to happen is that the government, the Treasury, ought to take it over. But we have our stupid debts, and it complicates it. So it ought to get taken over by the Treasury and then worked out over a very long period. Instead, it's in the wrong place—the Federal Reserve—because Congress wouldn't do anything in the crisis. That forced the Fed to bear this burden. At least that's my interpretation.

**CARMEN REINHART:** A lot of the unwinding is just by allowing maturities to expire.

**KEN ROGOFF:** Which could take a long time.

**QUESTION:** Not focusing so much on quantitative easing and how you try and mitigate or deal with the effects of a crisis, but talking more about how to avert a crisis, in your historical research, have you come across many examples of cases where governments or regulators successfully averted a crisis that would otherwise have been building up? If you did, is it your view, based on that research, that you are more likely to be successful doing it by addressing capital imbalances or by dealing with it on the regulatory end—i.e., by curbing the excesses that tend to occur when the capital imbalances build up?

**CARMEN REINHART:** I am actually going to give one concrete example, but you can only draw so many lessons. One country that actually had its last crisis very vivid in policymakers' minds is Chile in the early 1990s—still reeling with the memories of their massive banking and currency crisis of the early 1980s. When Chile became rediscovered in capital markets in the early 1990s, they took all kinds of measures to try to guard against an excessive borrowing cycle. It involved tighter regulations, it involved actually trying to get government spending to contract, to offset what some of the private sector was doing, and it involved reserve requirements that made it more difficult for Chilean companies to borrow abroad. It involved a lot of things. But it really took a major crisis that was vivid in their memory.

Unfortunately, in all the work that Ken and I have done, there are too few examples of that type of preemptive action.

**KEN ROGOFF:** Brazil did it yesterday. It's striking that Brazil did it yesterday.

**QUESTION:** "Woe is us" in history is fascinating. Assume that you were both benevolent dictators. I do not accept the fact that the government is going to pay any attention to it. Could you come up with systems engineering to solve the problem, not whether people will accept it? In other words, your next book: What to do?

**KEN ROGOFF:** A point we would underscore—we would have said we were in trouble for a long time here and something was going to happen.

By the way, I think the idea that the [Lehman crisis](#) caused this is a joke. It was a very difficult hand that the Fed and Treasury had to play at that point, with all the excesses.

But going forward, the obvious excess is government debt. What often happens in these cycles is that the debt builds up and people start charging you higher interest rates. You think, "I want to pay lower interest rates. What can I do?" So I promise that it's going to be okay. We could link the bonds to inflation. We can shorten maturity—so, instead of borrowing at ten years, borrow at three years, two years, one year. That is such a routine cycle in this. And, of course, that backs you into a corner, so that when confidence is lost, you're toast.

It's better to just face this problem up front. If I had one concrete piece of advice for our government, it would be not to yield to that temptation. These are big amounts of money. If they are borrowing

longer-term on a debt that could be close to 100 percent of GDP, you are talking about an extra \$150 billion a year in interest payments. That's if you moved all from one category to the other. But if at some point you don't try to play the game of trying to save money by making the debt very vulnerable, you are much better off. It forces you to tighten your belt sooner, which you don't want to do.

But if I had to say what I'm afraid the dance will be as we run into trouble, as this goes on, that will be it. Carmen studied myriads of examples of this in her early work.

**CARMEN REINHART:** I would just quickly add that a critical problem is, even if you were a benevolent dictator, then you had better be a benevolent dictator that has a good handle on history. It is often the governments themselves that build up the basis that this time it's different.

I think also institutions like the IMF don't have a strong hand to deal with such situations. When the times are booming—and everyone is a genius in a bull market—those are the times when the IMF influence is also at its weakest. Therefore, enforcing corrective measures has little authority.

**KEN ROGOFF:** I should add, when Canada had its deep crisis in the early 1990s, it had many advantages over us today, because the government was very big and it could reduce it. But one of the very smart things they did was, they had a fair amount of U.S. dollar debt and they converted a lot to Canadian debt. Carmen was following it in real time, because she was the Canada desk at the IMF at that time. That was very smart. It's exactly the opposite of what most governments do.

**QUESTION:** How much of the blame should, in your view, go to the Fed for its persistent low-interest policy? Did it have other options?

Secondly, is it historically so that a low-interest policy has been at the bottom also of previous crises that you have studied?

**KEN ROGOFF:** Yes, I think it was important, but not in itself. There was a mix—this borrowing from abroad, the easy regulation. I think it certainly was an error, and no matter what they say, if they had to do it again, they would do it differently. There was a view that you should only look at inflation and not look at the rising housing prices and leverage. I think that has, happily, been thrown out the window after this crisis.

But it's the whole system—the politicians, the regulators, the financial sector, us, the ones who are buying houses and overleveraging. The Fed certainly played a role, but I think it was hardly in this dance by itself.

**CARMEN REINHART:** I would add that one of the things that becomes very manifest from our research is that these crises, these booms in credit, which are so associated with borrowing from abroad, have taken place in the context of fixed exchange rates, floating exchange rates, inflation targeting. You can go down the list.

Very different monetary arrangements have been accompanying the cycles.

**KEN ROGOFF:** We have some sections in the book where we go through these cycles. One of the ones I like is, in the 1930s, a lot of the loans were from small bondholders. In the big Latin run-up in the 1970s, they said, "Well, we're not going to make that mistake again, because then, when there's a default, it's really hard to coordinate the creditors. We're going to have just big banks make the loans. We're not going to have a problem." Well, we saw what happened in the 1980s.

In the 1990s, people said, "Look at what happened with the big banks. It was too easy to default. The countries could go to them and renegotiate because they could coordinate too easily. So this time we're going to have all bonds."

I'm not kidding. People forgot about the 1930s, that they had been through that cycle, and the next cycle will be bank lending. The same thing with the currency: "This time we have a currency board." "This time we have inflation targeting." "This time we have the gold standard." And the fiscal problems just blow

through these things.

**QUESTION:** I want to know, if taxes and inflation are a way out of this thing, what happens to our economic base? With people having less money to spend, what happens to our economic base at that point?

**CARMEN REINHART:** We went into this crisis, if you look at the postwar, with a record low in the saving rate and a record high in household debt-to-GDP. No doubt a lot of the deleveraging that's going on, perhaps, is necessary and it's overshooting, and it involves a lot of deleveraging through default on the part of households as well.

But I think, in terms of spending, one really has to go back and not use the pre-crisis level as a benchmark. That was way out of line with the postwar experience. So I think going back to pre-crisis is not what we should be focused on.

**KEN ROGOFF:** Absolutely. You've heard it a thousand ways: We were living beyond our means. That can't go on forever.

**JOANNE MYERS:** I'll ask one question, because we have time for one more. Do you think the government strategies that they are now implementing are the right strategies? Or would you have other suggestions for them?

**KEN ROGOFF:** When I walk the halls of Harvard or if I go to Chicago or Stanford, around the academic world—and, I grant, this is the academic world—the fairly universal consensus is, "Good job, but why didn't you have people who lent money to the banks, the big bondholders, share some of the cost? Would it really have been so hard?"

You hear contorted arguments that that was impossible. I think that was very unfortunate, because now we basically have deposit insurance writ large. Any kind of financial—anything is implicitly guaranteed. The government talks about taking that away. But who thinks that the big former investment banks will ever be allowed to go under at this point? Therefore, they can borrow practically at the government rate, and that lets them borrow too much, et cetera.

I think that was certainly unfortunate, is all I can say.

Otherwise, I have a few different ideas, but I don't want to go back and try it again to see if they would work better.

**CARMEN REINHART:** I have to reiterate my answer to this gentleman's questions about jobs. I think delay and coming to terms with the unpleasant, painful, and expensive fact that the financial system needs more recapitalization and this "let's wait to see what the private sector does"—we've been doing that for some time. I think delay is very costly.

I think it has also shifted a lot of the burden from the fiscal authority to the Fed. I think that is undermining the credibility of the Fed big-time.

**JOANNE MYERS:** Thank you very much. There's no question that this was a gold standard for financial analysis. I thank you both for being here.

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