

# Raghuram Rajan

In August 2005 at the Kansas City Fed's annual symposium in Jackson Hole, Wyo., Raghuram Rajan presented a paper filled with caution. Answering the question "Has Financial Development Made the World Riskier?" the University of Chicago economist observed that financial innovation had delivered unquestioned benefits, but also had produced undeniable risks.

"It is possible these developments may create ... a greater (albeit still small) probability of a catastrophic meltdown," he told the assembled central bankers and academics. "If we want to avoid large adverse consequences, even when they are small probability, we might want to take precautions."

It was a discordant note at a forum celebrating Alan Greenspan's tenure as Fed chairman; many deemed his conclusions "misguided." But history, of course, proved that Rajan's analysis was dead on.

The careful study and willingness to challenge dogma Rajan displayed at Jackson Hole are in evidence throughout his work. As IMF chief economist, he produced controversial reports that questioned the efficacy of foreign aid and foreign investment. In 2003, he co-authored "Saving Capitalism from the Capitalists," suggesting that government intervention is essential, not inimical, to market capitalism, but that it must be done right.

These days, policymakers listen carefully to Rajan—in May he testified before the Senate Banking Committee on the too-big-to-fail problem; he serves as economic adviser to the prime minister of India (his birthplace)—and not simply because of his insight on the recent financial crisis, but based on the quality of his scholarship.

Rajan is a highly respected economist, recipient of the inaugural Fischer Black Prize for the person under 40 who has contributed most to theory and practice in finance. "He has made path-breaking contributions," noted the award committee, "to our knowledge of financial institutions, the workings of the modern corporation, and the causes and consequences of the development of the financial sector across countries."

His extensive research continues to shape academic and policy debate, and in the following interview with the Minneapolis Fed's Ron Feldman, Rajan touches on these topics and others with eloquence and wisdom.



## ARE BANKS (STILL) SPECIAL?

**Ron Feldman:** I had suggested that we interview you, and so I get to do the interview.

**Raghuram Rajan:** You picked the short straw. [Laughter]

**Feldman:** Right. [Laughter] I thought that we could start with your work on the nature of banking. Banks make loans, such as loans to small firms, and provide other services, for example, around payments, that are not easy to replace. That is, other firms do not seem to provide the same offerings as banks. At the same time, banks fund themselves with money that depositors can easily withdraw, and such runs can lead an otherwise healthy bank to fail. That combination of essential services and unique vulnerability has led many observers and governments to consider and treat banks in “special” ways—with federal deposit insurance, for instance.

You’ve done a lot of research on why banks structure themselves in that way in the first place. Perhaps we could start with your impressions of whether banks remain special today, and why that would be.

**Rajan:** That’s a very interesting question. The question really is, “Why the structured fragility?” Why finance yourself with demand deposits, when on your asset side you have these illiquid assets—term loans, complex positions? What’s the link? The alternative, which surfaces every time you have a financial crisis, is to create narrow banks—that is, have money market instruments on your asset side financed with short-term demand deposits on your liability side. If you really want to hold illiquid assets, finance them with long-term borrowing, not explosive short-term debt.

Why the private banking sector has never chosen safe narrow banking (with finance companies issuing long-term liabilities and making illiquid loans) is really the puzzle of the ages. It’s interesting because the form of the bank seems



Why finance yourself with demand deposits, when on your asset side you have these illiquid assets—term loans, complex positions? What’s the link? ... Part of the answer is the Calomiris and Kahn view that when you have short-term liabilities, it puts much more discipline on bank management. ... But the other thing ... is that this allows the bank manager to some extent to pass on his human capital skills without charging a big rent.

relatively similar across countries and over time. It’s a form that has endured, perhaps longer than the corporation. You can go back to Mesopotamia perhaps, but certainly to Italy, and they had banks in much the form that we have today. Doug Diamond [also at the University of Chicago] and I have been puzzling over this for some time. Part of the answer is the Calomiris and Kahn view<sup>1</sup> that when you have short-term liabilities, it puts much more discipline on bank management and therefore they have to commit to, in a sense, not do anything crazy with your money.

**Feldman:** Could you spell that out a bit more? Why do short-term debt holders put more discipline on management?

**Rajan:** Banks deal with money, and

money is very fungible. If the bank manager borrows on a 10-year basis, by the time the debt holders come to collect, a lot could have happened with that money. It could be away in the Bahamas, funding the bank manager’s new lifestyle. And so you need something that checks the bank manager on a more regular basis, and with short-term deposits, which keep going in and out, there’s somebody who’s checking if the banker has got the ability to pay on a regular basis. If depositors take fright, they could run, and that’s a big source of discipline on the banker, so she or he has to maintain the sense that the bank is liquid and solvent.

Of course, when you’re financing long term, it’s hard to offer such a commitment. If you [the banker] say, “Give me 30-year money to fund this complex project,” it would cost a lot for the investor to part with 30-year money. But if you say, “Give me demand deposits,” where you can have your money back tomorrow if you get frightened, it’s much cheaper to fund the 30-year stuff. So the mismatch is, in a sense, deliberate rather than unfortunate.

That was one aspect. But the other thing, which is a little more subtle, is that this allows the bank manager to some extent to pass on his human capital skills without charging a big rent for it. That’s the part that we add to Calomiris and Kahn. The idea is simply this: The bank manager could invest in long-term assets, turn around to the short-term debt holders and say, “I’ve made all these investments, they’re valuable, but you don’t have a hope of getting the money back. I know how to get the money back, you don’t, so pay me extra for it.” Strategic debt renegotiation takes place all the time with long-term debt holders, and it would increase the amount debt holders would charge to give their money to the bank.

This is where the nature of the demand deposit comes in. Because as soon as the depositor takes fright, the depositor runs, regardless of what’s on the table in terms of offers. So the bank manager, if he’s dealing with a sensible

liability holder, can have this conversation and extract some rent for his capabilities. But if he's dealing with a demand depositor, that conversation doesn't take place. Practically speaking, demandable debt is a non-renegotiable hard claim, which is why it is especially cheap.

So it's the craziness of the depositor, the fact that he's going to run as soon as he suspects that he's going to be dispossessed in some way, which makes the deposit a cast-iron claim.

It works very well when banks are undertaking the normal course of business. It works very badly when you have a systemic crisis like the one we've seen. So banks in general work well when the probability of systemic crisis is relatively small.

## GOOD TRAITS, WITHOUT THE BAD?

**Feldman:** What options are available—are there options available—to get the benefits of the structure of banks regarding the loans they make and the other special offerings they provide without getting the bad, the threats of runs? Since these forms of banking seem to arise, as you said, spontaneously over time and across countries, it must be optimal in some sense. But could you get 80 percent of the good, without the bad?

**Rajan:** This is what people have been trying to do for a long time, right? We have a “narrow banking” proposal which resurfaces every time we have a crisis. We heard [Bank of England Governor] Mervyn King say it yesterday, “Let's break up banks into money market funds and finance companies.” We've had that option available for so many years, and it hasn't been implemented.

Now if there is value to the way banks are structured today, what we would like to do is reduce the probability of systemic breakdown. The truth is it's hard to do this without eliminating the discipline. What you really want to do is pre-



I worry about breaking up banks into “fail-safe” parts and “failure-prone” parts. ... I think that we have to be very skeptical that we will solve the problem of moral hazard, because even within the unregulated, risky part, we may still want to come in and provide protection because there are some entities that are closely linked systemically.

vent bank runs when it's truly a systemic panic, but not when it's because of the fault of the bank itself. You want a bank to face the full costs of any stupid thing it does on its own.

The downside to any proposal which tries to deal with this is that you could get a systemic breakdown when banks also herd together in taking the same kind of risk. They all take on mortgage-backed security risk, for instance, because they now know that you [the federal regulator] will come in and save them. So the current system where there is some element of the Fed coming in when there's a systemic breakdown is an attempt to get over some of the problems of the bank's fragile structure itself, but it creates moral hazard, which is why they all herd on the same risk.

**Feldman:** What would happen if we all took Mervyn King seriously, or [former Fed chair] Paul Volcker or the other

folks who suggest this separation? Five years after we adopted that reform, what would we be losing?

**Rajan:** If you believe that banks are a viable entity, independent of deposit insurance, independent of too big to fail, that there's a natural benefit to the bank structure we have today, that would suggest that if you then mandated separation, you would have much higher costs of long-term intermediation. The money market fund would be reasonably stable, presumably, and will continue to invest in fairly liquid instruments—that will not be a problem. But it would be a problem on the other side—the finance company funded with long-term debt: Long-term projects would find finance very costly.

**Feldman:** Right. And less lending, less growth.

**Rajan:** Less lending, less growth. The other thing I think is worth thinking about is, is it really possible to completely isolate a sector of the economy and make it fail-safe, and put all the risk in the other sectors? Don't the problems then migrate to the area you've said we'll regulate less, but which is taking all the risk?

Put differently, I think only part of the problem in this crisis was that we were trying to protect depositors, and limit their losses. Part of the problem also was with the investment banks, where we weren't concerned about protecting the depositors. We were protecting the investment banks, rightly or wrongly, because they are so intimately connected with the markets.

I worry about breaking up banks into “fail-safe” parts and “failure-prone” parts. Some of that effort might be useful in terms of cleaning up the bank structure; it might be helpful to delineate parts without actually breaking them up. You make the insured parts less liable to some of the risk of the other parts, if you can do that. But at the same time, I think that we have to be very skeptical that we will solve the problem

of moral hazard, because even within the unregulated, risky part, we may still want to come in and provide protection because there are some entities that are closely linked systemically.

**Feldman:** So if those proposals worked, there'd be less growth, of some magnitude. But it's not clear they will work.

**Rajan:** Exactly.

## DOUBTS ABOUT DIMINISHING RISK

**Feldman:** In a prominent Jackson Hole paper,<sup>2</sup> you talked about some of the technologies of banking that people thought were going to distribute risk widely and therefore diversify it, making the financial system and financial institutions less risky. It was less clear to you that risk reduction was actually occurring. Could you talk about how you came to that view and how important you think that was in the current crisis?

**Rajan:** One of the things I was asked to do was to look at the development of the financial sector, and I have great admiration for some of the things that have happened. There have been good things in the financial sector which have helped us. But to some extent there was a feeling that when you distribute risk, you've reduced the risk of the banking system.

My thought was, what business are the banks in? They're not in the business of being plain-vanilla entities, because they can't make any money that way. They are in the business of managing and warehousing risk. So if it becomes easier to lay off a certain kind of risk, the bank better be taking other kinds of risk if it wants to be profitable. And if the vanilla risk is going off your books, presumably the risks that you're taking on are a little more complex, a little harder to manage.

That was the logic which led me to argue based on distance-to-default measures for banks that they were not becoming less risky—I saw that dis-



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tance-to-default measures didn't look like they were coming down despite all this talk about securitization and shifting risk off bank books. That struck me as consistent with my view that maybe the risks that banks were taking on were more complicated. Whether they were excessive or not, I couldn't tell.

Also, as I saw the mood, I became worried. Having studied past financial crises, I knew that it's at the point when people say, "There's no problem," that in fact all the problems are building up. So that was just another indicator that we should be worried.

I should add that while I thought we could have a crisis, I never thought that we'd come to the current pass. However, I did argue that it could be a liquidity crisis, it could well be centered on the banks because banks were taking more of these risks, and even though banks in the past had been the safe haven, they could be at the center of this problem.

So, one strand of my argument was based on the business of banks, but the

second strand was to think about the incentive structure of the financial system and say that while we have moved to a compensation structure that penalized obvious risk, risk that you could see and measure, that may have made employees focus on risks that could not be measured. An example of that is "tail risk," because you can't measure it until it shows up, and it shows up very infrequently. So part of the reason I was worried was that people were taking more tail risk; an insurance company writing credit default swaps was just one example of that.

It didn't require genius at that point to look around and say the insurance companies were writing these credit default swaps as if there was no chance on earth that they would ever be asked to pay up, so they were really taking on tail risk without any thought for the future. AIG should not have been such a surprise to the Fed.

## WHY WAS THIS CRISIS SO SEVERE?

**Feldman:** Why do you think this financial crisis was more severe? There are lots of potential explanations. Some observers point to the failure of credit rating agencies; others point to flawed incentives in compensation and to the creation of new financial products as examples. If you had to list the two or three things that you think really underlie why there was so much risk-taking, why more risk-taking than people thought, what's the deep answer for that?

**Rajan:** You can go right to the meta-political level, but let me leave that aside for now. If you hone down on the banking sector itself, I think it was a situation where it was extremely competitive. Every bank was looking for the edge. And the typical place to find the edge is in places where there are implicit guarantees.

**Feldman:** So you think moral hazard had an important role?



My sense of what the Fed does, in part, by reducing interest rates considerably is help liquidity, and so there was a sense that, well, we can take all the liquidity risk we want, and it won't be a problem. Of course, it turned out that not just interest rates mattered; the quantity of available liquidity or credit also mattered at this point. And that was the danger.

**Rajan:** I suspect it was not irrelevant. This is where I think the most damaging statement the Fed could have made was the famous Greenspan doctrine: "We can't stop the bubble on the way up, but we can pick up the pieces on the way down." That to my mind made the situation completely asymmetric. It said: "Nobody is going to stop you as asset prices are being inflated. But a crash is going to affect all of you, so we'll be in there. By no means go and do something foolish on your own, because we're not going to help you then. But if you do something foolish collectively, the Fed will bail you out."

**Feldman:** And people read that to be broader than monetary policy?

**Rajan:** It could mean many things. Even if it was just monetary policy, my sense is one of the tail risks that was prominent in this cycle was liquidity risk. People were acting as if liquidity would

be plentiful all the time. And my sense of what the Fed does, in part, by reducing interest rates considerably is help liquidity, and so there was a sense that, well, we can take all the liquidity risk we want, and it won't be a problem. Of course, it turned out that not just interest rates mattered; the quantity of available liquidity or credit also mattered at this point. And that was the danger.

**Feldman:** I think that's right. We have not heard that much discussion of that, but that's my inclination as well, that moral hazard played a role. I don't know how big it was, but it certainly wasn't zero.

**Rajan:** Right. Absolutely, absolutely.

#### PUTTING CREDITORS AT RISK

**Feldman:** If you agree that moral hazard contributed to the current financial crisis, what can we do today to put creditors at risk of loss?

**Rajan:** I think one option is to write it into the contract—the contingent capital bonds that Mark Flannery and the Squam Lake Group have been advocating would make creditors bear losses almost automatically, but in the process stabilize the bank.

A second option is to strengthen resolution authority in as transparent a way as possible. The point is that creditors should have a very good sense of the kind of losses they will have to bear, but those losses can and should be imposed. There is, of course, a possibility that this will make banks more fragile, because short-term debt, anticipating losses, will run. But banks then will choose whether to continue financing themselves this way or alter their capital structure.

A key part of making banks more "resolvable" is first, for the relevant regulator to have the legal authority to continue or abrogate contracts that might impose significant costs on the taxpayer and, second, for the bank to have a much simpler capital and organization-

al structure. In this regard, requiring them to create "living wills" that indicate how they could be resolved could be an important incentive for them to collect information on their assets and liabilities, and simplify their organizational structures.

#### CORRUPTION, IDEOLOGY, HUBRIS OR INCOMPETENCE?

**Feldman:** One thing you haven't mentioned as a proximate cause is issues around "crony capitalism." Some seem to argue that banks were allowed to grow large and complex because they were run by friends or colleagues of people who were in power. And for similar reasons, these firms got bailed out—because they had colleagues and friends in "high places." Given that you've thought a lot about that in your own writing, given that you were at the IMF [International Monetary Fund] where you had the ability to look across countries where it is an issue, how important would you say crony capitalism is in the U.S. context in the current crisis?

**Rajan:** Let me put it this way. There is always some amount of regulatory capture. The people the regulators interact with are people they get to know. They see the world from their perspective, and, you know, they want to make sure they're in their good books. And so it's not surprising that across the world, you have a certain amount of the regulators acting in the interest of, and fighting for, the regulated.

Beyond that: Is there naked corruption, or less naked corruption? "If you do my work for me as a regulator, then

The people the regulators interact with are people they get to know. They see the world from their perspective, and, you know, they want to make sure they're in their good books. And so it's not surprising that across the world, you have a certain amount of the regulators acting in the interest of, and fighting for, the regulated.

you can come and join me as a senior official in my firm, and I'll pay you back at that point." I'm sure there were stray instances of that, but that to my mind, wouldn't be the number one reason for this crisis.

## RESPONSES TO THE CRISIS

**Feldman:** So we've talked about the crisis itself and some causes. Can we talk a little bit about the responses? One proposal that wouldn't seem to flow from what you've said is the idea of not just splitting commercial banking from the securities and trading, the Mervyn King kind of idea. But another is the idea that somehow we should just make the firms themselves smaller—literally smaller—and that will prevent this from happening again. Perhaps it will make the firms less influential, if you think there are some cronyism problems. What do you make of that argument?

**Rajan:** You know, it's a nice argument to put forward. I'm much less clear about how it would work practically. I'm also a little worried whether this is a knee-jerk reaction to what we've seen this time around. So let me start with the second point first.

One of the U.S. responses to the Great Depression, or at least the response of U.S. academics, was to point to Canada and say, no banks failed there. So at that time, the problem was there were too many small U.S. banks, they were undiversified, they all took the same risk in terms of credit risk, real estate risk, farm risk, and they collapsed. The argument then was that Canada didn't collapse because they had these large banks that were big enough to be diversified and they had no problems. But, of course, now we're saying, we have these large banks, and if we break them up, we will solve the problem—of course, Canada still has big banks that did not fail, but now they are an inappropriate benchmark. It seems to me that according to this line of reasoning, any structure that didn't exist in the most recent crisis is the right one. Now



I would also look at mergers with a very jaundiced eye going forward—I would ask, "What's the benefit of having a trillion-dollar company merge with another trillion-dollar company?" ... I think so long as you discourage mergers of megabanks, you can get half the way to the goal of getting banks of manageable size.

we're seeing more small banks go under, so maybe in a few months, we will absolve the large banks of blame. More sensibly, what we really need to argue about is why size may have mattered.

Clearly part of the problem is the too-big-to-fail (TBTF) issue that you worked on and pointed out in the past. And here the idea is that one way to prevent TBTF is to have small banks. But are they any safer than big banks? Having a hundred small banks exposed to the same risk may actually be riskier than having one large bank exposed to that risk. But the other problem is, when you look at the size of U.S. banks relative to U.S. corporations—when you look at capitalization, for example, the equity capital of U.S. banks has actually come down relative to U.S. firms, compared to what it was in the past.

U.S. firms have also grown big over this time. You have \$400-500 billion capital companies, and the largest U.S. bank is in the region right now, with shrunken capital, of about \$200 billion,

if not less. So they're not extraordinarily big in terms of equity capital. Now, you may argue leverage today is higher. I think there is some question about how you measure that leverage.

But if U.S. corporations are bigger, the risks that U.S. banks have to take in lending to a U.S. corporation are also bigger. So we should make sure that we're comparing apples and apples when we look over time. Have the U.S. banks become unconscionably big relative to what they were? One way to look at that is concentration ratios. In the U.S., they're not particularly high. Another way is to look at asset size relative to corporations. Again, they do not seem too big.

So, the problem may be that these banks are really, really difficult to manage once they get to some size like this. I think what we've seen in terms of patterns—and there's some research emerging on this—is some banks have a history of messing up time and again, a DNA of bad management, or excessively risky management. These are also banks that make a ton of money in good times, but lose it all in bad times—so, highly volatile earnings profiles. I think there's more value to looking closely at them to see if there are ways these "bad" banks can be discouraged from increasing their size and maybe even encouraged to shed some assets.

**Feldman:** You would do something targeted, based on past performance?

**Rajan:** I would target based on past performance, rather than make it a blanket "you can't grow beyond this size"—though there are obvious dangers to giving regulators carte blanche to subject banks to differential treatment. I would also look at mergers with a very jaundiced eye going forward—I would ask, "What's the benefit of having a trillion-dollar company merge with another trillion-dollar company?" If you want to grow organically, by all means do so, and as a supervisor I'll pay attention if you grow too fast, but micromanaging what size you should be seems to me is a

little limiting. I think so long as you discourage mergers of megabanks, you can get half the way to the goal of getting banks of manageable size, because banks at least for a while will be shrinking.

## WHY SOME COUNTRIES GROW

**Feldman:** We've talked about the role of financial systems in economic growth, noting that fundamental changes to the structure of banks could reduce growth. You have done much work on the factors that are important to country growth, particularly for developing countries. What are the key factors that lead some countries to grow and others not?

**Rajan:** One of the potential dangers of this crisis is essentially that we might throw out everything good that we know markets do and say they do only bad.

**Feldman:** That "capitalism has failed."

**Rajan:** Right. Capitalism hasn't failed. I think capitalism has always been subject to a certain amount of boom and bust, and every time we have a bust, we try to figure out what went wrong and try to fix it—this is a natural process of development. But the broader principle is that free-enterprise capitalism, despite its flaws, is a reasonable system, and it does create the greatest good for the greatest number of people. That, I think, is beyond doubt. So then the question is, how do we get the right capitalism in these countries?

As we learn more, I think the view of growth for these countries is becoming more nuanced. There's a view held just a short time back of "build the institutions and then everything will take off." Well, you know, you can't build the institutions in a vacuum. We need public support for these institutions. Imposing the U.S. Constitution on Liberia didn't make Liberia the United States. It made Liberia Liberia, because the people in Liberia, and the kind of



In developing countries, the financial system is very reluctant to finance small- to medium-size firms. It's too risky. They just don't touch it. So if you say organic growth, let them grow naturally, let the good ones come out of the primordial ferment—nothing happens! Imposing the free market, it seems to me, in the first few years on those countries, doesn't work, which is why there's so much impetus for intervention. The question is, when do you stop?

power structures, viewpoints and culture they had, were different from the people in the United States.

So you need support for the kinds of institutional structures you're putting down on the ground, and often, it's growth that produces that support. That support doesn't come independent of the growth process itself.

A second point is that the institutions by themselves are not enough. Sometimes we say, "Create a market structure, and then the firms will emerge and so on." I think there is something to be said for the fact that firms don't emerge spontaneously, at least of reasonable size, except over a long period. So let the market flourish for years and years, as it has in the United States, and over time you get the Rockefellers, the Carnegies. They set up

their firms, they become big firms and the United States becomes the strongest economy in the world.

Emerging markets in developing countries don't seem to have that time. They want to grow like Korea and Japan. And it seems to me that in that accelerated growth path, there's more management by the government than in the more organic growth path. There was still some amount of management, some amount of protectionism in the U.S. and the U.K. when they grew, but there's a lot more intervention in these newer, rapidly growing countries.

I think the difficulty for these countries is they have to perform an act which no other developed country has had to do, apart from Germany and Japan, which is to have the government manage the process up to a certain point and then back off totally and let the market forces take over. That switch, it seems to me, is extremely difficult. And it's also a problem for the financial system because in that early phase, the government is doing a lot of directed lending—you're telling the banks whom to support; you're giving them subsidies to support the right guys. There's a lot of intervention in this process. And then suddenly, you tell the banks they are on their own and have to find profits through competitive lending. Few systems survive the shock.

**Feldman:** Are you saying that significant government intervention into the economy is going to happen anyway, so we should recognize that, or are you saying that such intervention is constructive because it helps economies to grow?

**Rajan:** I think it may well be constructive, at least in the initial phases, because it creates the organizational capabilities. In developing countries, the financial system is very reluctant to finance small- to medium-size firms. It's too risky. They just don't touch it. So if you say organic growth, let them grow naturally, let the good ones come out of the primordial ferment—nothing happens! Imposing the free market, it seems



to me, in the first few years on those countries, doesn't work, which is why there's so much impetus for intervention. The question is, when do you stop?

If you don't stop at some point, then it becomes the crony capitalism that you referred to earlier. It's the friends and relatives of those in power who benefit from growth, and then growth tends to peter out because the inefficient are propped up.

**Feldman:** So how do countries figure out how and when to ... ?

**Rajan:** It's extremely difficult. And this is why I think a lot of growth success is serendipitous. For example, in India, the reason we broke away from that crony capitalist model where licenses were given away to the favored families and the favored families got cheap credit from the state-owned financial institutions is we had a crisis, a huge crisis, in 1990. India *had* to open up. It was opening up slightly before, but this was when the rubber hit the road.

Mind you, if India had opened up in 1960, we would not be talking about China as much now. We'd be talking of India because it would have grown so much more over that period. On the other hand, if India had opened up in 1947 when it got independence, it may still have been a basket case. There was a right time, after you'd built some institutions—maybe '65, maybe '70. But India actually opened up in 1985.

**Feldman:** So you're skeptical of a common playbook that's going to work across many countries. There's some point at which countries need government intervention and other points at which countries need free markets, and that transition has a lot of luck associated with it.

**Rajan:** Absolutely. Because that transition doesn't come naturally. In fact, the forces are all against that transition, because the vested interests that have built up in the period of managed growth don't want it to open up. On the

other hand, if you started off with free markets, which is what a number of economists have been advocating, maybe you don't get any organizational capabilities. Maybe you need a little bit of protectionism initially; maybe you need to create organizations. But you need to break off from that at some point because markets and competition have tremendous virtue.

## BACK TO REGULATION

**Feldman:** Let's get back to the financial crisis just for a minute, if we could, to discuss the proper role of government in that context. Some observers harken back to the 1960s and 1970s, at least in the U.S., when there was more regulation, and banks were more protected. They seem to connect that type of regulation to the few bank failures of that period, and so they suggest we would be better off if we were to return to more significant regulation. It strikes me that this view misses the costs of such a heavily regulated banking system, but what is your view? Is there any merit to consider going back to a regulatory system that looks like the '60s and '70s in the U.S.?

**Rajan:** I don't think so. The reason that worked so well was that there were huge rents built into the banking system. Remember when we got toasters instead of interest rates? Clearly, you shovel enough profits into a system and it will be stable, because the system doesn't want to lose that money. The reason the banking system is less stable now is that it's far more competitive. I think that's one effect.

The other is, the United States (and the rest of the world) has a far more dynamic and competitive economy than it used to have. The United States in the '60s benefited from the tremendous advantage it still had over many of the countries in Europe, and Japan, which were still recovering from the war. They had almost reached the point where they had fully recovered, but not quite.

That advantage, by the '70s and '80s,



So I think the strength of the United States' economy is based on its dynamism. Going back would make us lose that dynamism. What I think we need is to get the dynamism with a little less risk. That means let's avoid bringing back all these old solutions. I don't think the banking system can be made more boring. Anyone who advocates that doesn't understand banking today.

had dissipated. That means you needed a financial system to restructure, to send flows from one place to another. And one of the advantages of the system of the kind that the United States has is that the restructuring happens more effectively—and there's some evidence for this—that the sunrise industries tend to get more funding than in a relationship or old-style financial system.

So I think the strength of the United States' economy is based on its dynamism. Going back would make us lose that dynamism. What I think we need is to get the dynamism with a little less risk. That means let's avoid bringing back all these old solutions. I don't think the banking system can be made more boring. Anyone who advocates that doesn't understand banking today. Now, I think it can be made less risky, but that requires a lot of thought, and these very Draconian solutions, it seems to me,

would throw out much of the baby with the bathwater.

## INDIA'S FUTURE

**Feldman:** We know you're closely involved in India as an adviser and in a variety of different roles. What does the future look like for India? What kind of advice are you providing regarding India's financial sector?

**Rajan:** Well, I chaired a committee which wrote a report for the Indian government for financial sector reforms, and slowly elements of that are being implemented. The vision we had was for a system which is innovative and inclusive, but also we focused a lot on trying to reduce risk in the system. So it was, to some extent, learning from this crisis as it was developing.

Some of the things that have been suggested here in the United States, I think, we made those suggestions earlier in that report. But it wasn't rocket science. You need more coordination amongst the regulators. You need to have various forms of resolution for these entities.

There are also very low-hanging fruit in India. An effective bankruptcy court for corporations, for example, would be useful. The current bankruptcy court doesn't work. So, how to strengthen the bankruptcy court so that then you can have corporate bond markets, which then can serve as a buffer between various financial institutions. Right now you are ostensibly borrowing from finance companies, but the finance companies borrow from banks, so essentially you are borrowing at one step removed from the banks themselves. My sense is that improving the financial infrastructure in India could do wonders for creating some of the buffers and improving the resilience of the financial system.

Because there are lots of low-hanging fruit for India to pick, I have confidence that unless there's a huge political problem or there's a totally incompetent government—which seems to me unlike-



India has done some of the harder things. For example, it has created a knowledge sector, a pharmaceutical sector, IT sector, while not having done the more basic stuff—that is, building the big roads and the bridges, which don't take rocket science, which just take execution, the right amount of capital and so on.

ly—then there is a fair amount of growth ahead for India. India has done some of the harder things. For example, it has created a knowledge sector, a pharmaceutical sector, IT sector, while not having done the more basic stuff—that is, building the big roads and the bridges, which don't take rocket science, which just take execution, the right amount of capital and so on.

If India focuses on doing that and moves more of its population out from agriculture into industry, rural industry or services, I think that in itself will create a tremendous amount of productivity growth which can take India forward for the next 10 or 15 years. If India is growing at 7 or 8 percent without all that happening, add a few percentage points with that happening, and you've got pretty solid growth for a long time.

The other thing that I think is extremely interesting is, because much of the population is poor, there are whole new ways—this certainly came

out in the *Wall Street Journal*<sup>3</sup> yesterday—whole new ways that firms are trying to reach that population, which is creating a whole new range of innovation, some of which to my mind will feed back to the West.

I was in a meeting just before this at the University, where a doctor was speaking about what he was doing in India. One of the things he was saying is that the way Indian hospitals do operations, and the way they treat the very poor, is actually a blueprint for how we can treat the very poor in this country.

It's not that the poor in India settle for lower value. It's that they settle for no frills while getting value that they need. Cataract operations, for example, are immensely important in India. Tons of people with cataracts in their eyes; they can't see. It's a very simple operation. And in India, they've actually mass-produced the operation now and can do it for a fraction of the cost it used to cost in India, let alone what it costs here. It's down to its basics: How many things do we need to do? It's back to the mass production revolution that we had here, except it's now done in other arenas.

I can't resist this. I was at a meeting the other day with the head of an international auto company. We were talking about design, and he said when he wants something designed for a low-income population, no-frills, he can't send it to his industrial country designers. Their immediate instinct is to add on all the frills. He sends it to the low-income country designers because those guys have a mentality of saying, "Do I really need this or not?"

## CURRENT RESEARCH AGENDA

**Feldman:** You talked about the research agenda for macro: figuring out some of the financial details and putting that in models. What's *your* research agenda now, given the crisis? Is it changing what you were working on?

**Rajan:** One thing that I certainly have rethought a lot is, I had the view that countries got into trouble because they

didn't have the right institutional structures. I was of the view that if you transformed the institutional structures, you could become fairly immune to problems. I'm less persuaded of that now.

I think there might be some inherent volatility in financial markets that you really can't eliminate by creating more transparency, by creating the right structures and so on. These things will take on a life of their own. So you have to focus on creating more resilience in the economies. You can't eliminate the financial markets; you need them, especially as you get more sophisticated. But you need to create more resilience.

**Feldman:** So, things like a resolution regime, contingent capital ...

**Rajan:** And a variety of markets and institutions so there's more buffering. You can't ward off these problems. You can't anticipate them. I've been reading [UC Berkeley political scientist Aaron] Wildavsky recently. The guy wrote



*Apart from the stuff on banking, I am working on trying to think about the metapicture. Why did the system go wrong? Not just thinking about the financial system, but what were the political forces, what were the structural forces creating this?*

about it in the 1980s: How do you deal with these kinds of risks? A lot of what he said makes sense, which is if you try to protect the system too much, then you make it incapable of dealing with risk. One example of this is the rating system, right? The financial system became excessively reliant on something it thought was failure-proof, which was the rating system. By the time we found out that it wasn't failure-proof, so many people were relying on it, it became a systemic risk.

So there is a problem where the system becomes less varied and overly confident about safety and in the process creates tremendous risk of its own. This crisis is—pardon me for saying so—sort of a full employment act for economists [laughter], and we will keep working on these things for a long time to come.

I have no doubt that our research agendas will change. Personally, apart from the stuff on banking, I am working on trying to think about the metapicture. Why did the system go wrong? Not

## More About Raghuram Rajan

### Current Positions

Eric J. Gleacher Distinguished Service Professor of Finance, Booth School of Business, University of Chicago, since 2006; on faculty since 1991

Economic Adviser to the Prime Minister of India, since 2008

### Previous Positions

Chair, High Level Committee on Financial Sector Reforms, India, 2007–08

Economic Counselor and Director of Research, International Monetary Fund, 2003–06

Fischer Black Visiting Professor, Sloan School of Management, Massachusetts Institute of Technology, 2000–01

Visiting Professor of Finance, Kellogg School, Northwestern University, 1996–97

Bertil Danielsson Visiting Professor of Banking, Stockholm School of Economics, 1996–97

### Professional Activities

Program Director (Corporate Finance), National Bureau of Economic Research, since 1998

Director, American Finance Association, 2001–04

Founding Member, Academic Council, Indian School of Business

Member, International Advisory Board, Indian Institute of Management

Member, Advisory Board of the Comptroller General of the United States

Consultant: Finance Ministry, Government of India; World Bank; International Monetary Fund; Federal Reserve Board; Swedish Parliamentary Commission; various financial institutions

### Honors and Awards

Inaugural Fischer Black Prize (for the person under 40 who has contributed the most to the theory and practice of finance), American Finance Association, 2003

Numerous awards for best paper from the *Journal of Finance*, *Journal of Financial Economics* and *Review of Financial Studies*, 1992–2006

### Publications

Co-author (with Luigi Zingales) of *Saving Capitalism from the Capitalists*, 2003; author of over 60 research papers on banking, financial development, economic growth, firm structure and corporate governance

### Education

Massachusetts Institute of Technology, Ph.D., 1991

Indian Institute of Management (Ahmedabad), M.B.A., 1987

Indian Institute of Technology (Delhi), B.Tech. (Electrical), 1985

just thinking about the financial system, but what were the political forces, what were the structural forces creating this? That's a book project which comes out, hopefully, this spring—but I've got to work on it. The title is *Fault Lines: The Hidden Cracks that Still Threaten the World Economy*.

**Feldman:** And it's around these issues of diversity, the things you've just talked about?


**Rajan:** No, those are the details. I want to go back to how the macroeconomy runs. Why is it that the U.S. is focused so much on consumption? Why have our policies pushed credit? Why, for example, has the U.S. safety net not worked as well as it did in the past? Why is it that stimulus, both monetary and fiscal, is so much stronger in the U.S. than in other countries? And then how does this relate to what the rest of the world is doing? So, link it back together to, "Here is the gap, the fault line. How do we bridge that?"

**Feldman:** That *is* an ambitious project. You're not resting on your laurels.

**Rajan:** No, no. The financial sector is somewhere in there, but it's more about the big picture.

**Feldman:** Is there anything else that you'd like to add right now?

**Rajan:** No, no, this has been very good. We've covered a lot.

**Feldman:** Thank you very much. 

—Oct. 21, 2009

*For the full interview, including Rajan's thoughts on sources of the crisis, the state of economics and government's role in housing, visit [minneapolisfed.org](http://minneapolisfed.org).*

## Endnotes

<sup>1</sup>Calomiris, Charles W., and Kahn, Charles M. "The Role of Demandable Debt in Structuring Optimal Banking Arrangements." *American Economic Review*, June 1991, 497–513.

<sup>2</sup>"Has Financial Development Made the World Riskier?" Proceedings of the Jackson Hole Conference organized by the Kansas City Fed, 2005.

<sup>3</sup>Bellman, Eric. "Indian Firms Shift Focus to the Poor." *Wall Street Journal*, print version, Oct. 20, 2009. Online version, Oct. 21, 2009, at [wsj.com](http://wsj.com).