

General Discussion: The “Surprising” Origin and Nature of Financial Crises: A Macroeconomic Policy Proposal

Chair: Mario Draghi

Mr. Feldstein: I thought that Ricardo’s paper was a very interesting one, but I have two questions.

One is about moral hazard. We know that, in general, insurance creates moral hazard problems—that is, it leads to increased risk-taking. I wonder why that wouldn’t happen in this case. Banks, if they are given tradeable insurance credits (TICs), would, by virtue of the TICs, know that in a crisis situation their risks would be lower than otherwise. I would have thought that the optimal response for the banks was to take more gross risk, so that in some sense the net risk, including the effect of the TICs, would be back to the starting point so that you really wouldn’t get a net reduction in risk-taking. Even if it isn’t completely moving to that point, isn’t there an offsetting moral hazard problem here?

The second problem, which is separate from that, is the problem of the signaling effect when the Federal Reserve releases the TICs. In your analysis, the key economic players are the commercial banks. But, of course, there are also equity markets, nonfinancial corporations, and the rest of the world—foreign institutions of all sorts. Those institutions are not protected by TICs. When the U.S. central bank announces that the TICs are going to be released, it is effectively announcing

that we are about to enter into a very serious financial crisis. Wouldn't that have an adverse effect on all of these other unprotected players? That in turn, I would have thought, would cause the central bank to delay in making such an announcement, to be very cautious about making such an announcement, and therefore not get the defibrillator in place early enough.

Mr. Blinder: I thought this idea was very ingenious. A number of us have been thinking about how to bring to bear a lot of capital when you need it, but capital you don't want to have hanging around when you don't need it. This paper is of a piece with the Flannery and Squam Lake ideas of contingent capital that comes sweeping into the system when you need it. Ricardo's variant on this is that it doesn't have to be capital, it could be insurance, so that you get an insurance wrap when you need it, but you don't have it in normal, nonsystemic times.

I have a specific question about that, but first a slight digression on the question, which comes to Ken's point. More capital means less leverage; that's tautological. Your paper went very much overboard in trying to downplay the role of leverage.

Think about a couple of simple contrasts. The tech stock collapse early in this decade vaporized about \$8 trillion of wealth, only in the United States, or \$20 trillion around the world, with very little fallout. That's because it was all about equity. There was very little leverage; there was very little debt. All of these notions of too-interconnected-to-fail have to do with debt interlocks. I really do think the leverage is essential, and we need to watch for the leverage.

That leads to the specific question, and it is the same question that has been asked about the Flannery and Squam Lake proposals, which is: The idea is not to burden financial institutions with the need to hold huge amounts of capital, or in this case, insurance, in states in which they don't need it. Therefore, the insurance is "cheaper" than having lower leverage, or something like that, which Ken would probably prefer to do.

A key implementation question is this: At what prices would these TICs be sold? If they're cheap enough, then clearly it is going to be

an economical way to solve this problem. But if they are very, very dear, then it won't be.

And one last remark for those of us who come from parts of the country that have Lyme disease: You should have a better name than "TICs."

Mr. Caballero: I am not sure that I disagree very much with Ken's comments. It is a matter of degree. I certainly did not mean to say that leverage cannot create many problems. In fact, leverage was crucial, but it was crucial because it interacted with unprotected exposure to aggregate risk and surprises. That was one of our main points.

What worries us is that the focus is almost exclusively in reducing the leverage component, and so little is being done about the second margin.

As an aside, Ken mentioned the title of his forthcoming book: *This Time It Is Different*. It is a sarcastic title, meaning that the reason we get into crisis is because investors and economists think that history will not repeat. However, in a sense, our point is that the same applies to policymakers' response after a crisis.

Policymakers also come up with more or less the same set of policy recommendations that they come up with after every crisis. They also must think this time it is going to be different, that people will finally get it, that we have figured it out once and forever. Unfortunately, this policy view is unrealistic, it gives people the wrong sense of security, and it leaves us unprepared for the next crisis, which will happen regardless of whether we get regulation right or not.

We have to recognize that we live in an environment where people do not listen to the advice. People forget and therefore we need to worry about the panic that will be triggered once they remember, which is often too late. This is part of reality, and unfortunately, we have to think of it as part of the structure.

Let me address Alan's and then Marty's questions next. As I said, I agree with the importance of leverage, given the current state of affairs. If we cannot solve the problem of concentration of macro risk and provide insurance at a reasonable price, then we are going to have to deal with leverage directly. However, I would prefer to operate on both margins.

Alan wondered about prices. One would expect that the price of TICs would be significantly lower than that of comparable credit default swaps (CDS) during normal times. It is at this time that we want banks and other financial institutions to purchase the bulk of the TICs. Also, their tradability would allow relatively more-exposed institutions to buy more of them from less-exposed institutions once systemic institutions begin to deteriorate.

One advantage of TICs over other insurance arrangements is that if panic is a very important component of the crisis, there is less need to inject capital during the crisis, which is always expensive and politically contentious. Instead, much of the effort consists of providing reasonably priced insurance at the time of the crisis. Insurance that most likely will not need to translate into capital injections in the future, as it happened with the great majority of the guarantees and ring-fencing provided by the U.S. government during the current crisis.

This is the reason we call it an “insurance squared” instrument. It ensures during normal times that financial institutions will have access to insurance, not capital (absent default), during a systemic crisis.

On Marty’s points. We have to be careful with crying moral hazard every time there is an insurance proposal. As a first-order effect, having insurance is a good thing. What is bad is to have the perception of having insurance when there is none. But if we have the ability and resources to provide insurance against a costly systemic panic, this is certainly worth doing.

Moreover, I think the negative incentive effects of insurance proposals are greatly exaggerated. During booms, banks do lots of bad things, take excessive systemic risks, and so on. But they do these for reasons that have very little relation to the marginal benefit they may or may not perceive from a potential partial insurance during an extreme systemic event. They are just not in that frame of mind during booms.

I have written many papers on how and why banks underinsure against systemic risk. This underinsurance is why we need regulation, which is a much more effective instrument than punishing the whole economy by depriving its financial system from much-needed

panic insurance just to teach a lesson that soon will be forgotten by the new players.

On signaling, there is a tension between at least two types of signals. One is how deep the crisis really is, and the other one on whether policymakers are ready and able to contain the crisis. Marty highlights the former, and the fact that declaring TICs convertible would tell the world that things are really bad. My sense is that TICs should be used infrequently enough that by then most of the relevant players already would know that things are bad enough, regardless of the Fed's or Treasury's signal. At that point, the second signal, that there is a policy framework in place to address the problem, strikes me as much more important.

Also TICs are tradable, and they are not aimed only at commercial banks. The latter would have a regulatory requirements to hold them, but many other financial institutions could hold them. This is a virtue of this framework, as it would allow the private sector to reallocate insurance to where it is needed the most, rather than having to rely on the government to figure out who outside their regulated institutions are in most dire need for systemic insurance, but it certainly should reach beyond commercial banks.

Mr. Barnes: I am just following up a little bit more on this last point. Are you not introducing with TICs another instrument for speculation? You are going to get hedge funds, etc., making bets that the Fed is going to declare a crisis and therefore make these things convertible. The price will rise when you get momentum players bidding these things up, and the Fed itself, presumably, is looking at the price action in TICs as an indication of whether there is a crisis building. Does the Fed validate what speculators are saying? Or does it act on some other, more objective set of indicators to declare whether there is a crisis? I can see people gaming the system. I agree with Ken Rogoff that we would be creating more uncertainty, not less uncertainty, because of the role of speculators.

Mr. Fraga: Just a quick comment on Ken Rogoff's and Alan Blinder's remarks and this notion that it may be possible to have some contingent capital as a first solution to this. First, we should question the idea that

the system needs to operate with as much leverage as it does. The notion that investment banks must have 15 to 25 percent return on equity and trade at two to four times book is completely self-serving. There is really no reason why that should make for a better allocation of risk and capital in the economy. All of that is driven by one aspect that hasn't been discussed here, and that has to do with regulation and all of the things that lead to this highly procyclical world of ours that I am convinced is not an accident. But we don't have the time to get into that now.

Mr. Al-Jasser: Those of us who come from emerging markets and did not have a long history of financial sophistication are wondering at the chaos on this scale in the financial markets. I remember when I was studying economics and reading Gurley and Shaw, Hugh Patrick, McKinnon, and the role of finance, the feeling was that finance was only a lubricant or a veil. Now, as markets have developed, finance has become a leading phenomenon in the economies to a point where it has overwhelmed real economic activity and the fundamentals of the economy. In a sense, it appears to be like the analogy where the cart of finance is going before the horse. This may sound like a simple diagnosis, but it is one that does not trivialize the whole issue of financial management and macroeconomic management of an economy as a whole.

I agree with Ken and others on the risk of excessive leverage. To me, leverage is like the speed limit on a highway. If you didn't have a speed limit, you are asking for trouble. Therefore, managing the financial sector in the real economy is very important. Financial crises may not be totally prevented, but they could be mitigated in scope and scale through regulatory reforms and emphasis on financial stability.

I was very happy to hear the chairman emphasizing this point at the end of his statement, because that is really the core issue from our perspective.

Mr. Zoellick: I have a question particularly directed toward Ken, as this seems to be the key part in the program to talk about the origins of the crisis and to go back to Ken's analogy on the healthcare on the preventive side.

The issue that I find particularly missing in this is the question of how do central bankers deal with asset-price inflation. We know about a focus on goods inflation. That has been well-built into the system. It is quite clear, as you talk about the real estate prices and other aspects of the bubble, that there is an asset-price issue.

Traditionally, there has been a concern on the part of central bankers of how do you really address that. We have some examples about people trying to address it and not being effective. How do you trade it off with your overall requirements in terms of monetary policy for non-inflationary goods growth? In addition to talking about new instruments and in addition to talking about regulation and supervision, I'd be interested in your perspective about whether you think there is any advanced thinking about how you deal with asset-price inflation effectively from a central banker's perspective.

Mr. Auerbach: A question on the proposal itself, and it relates to the issue of moral hazard: It would seem to me that without some sort of risk-grading, which I gather would not be part of the proposal, there would be incentive not only to take additional risks but to attach the insurance to assets subject to considerable macro risk—in fact, to acquire such assets. That is a different type of moral hazard than simply taking overall riskier positions. That would be another problem, especially given the ease with which assets can be constructed and put into different pieces.

Mr. Gurría: Perhaps the greatest merit of the proposal would be that we agree that it is not a cure-all. When you led us through the path of what would have happened if there would have been TICs before, and all the evils that would have been avoided, and then extending the TICs' use, to say that they can transform into capital at some point rather than just to support asset values, you are probably promising too much.

This is an instrument, and I find it ingenuous. I find it useful to address a particular part of the problem. We still need good monetary policy, good fiscal policy, good regulations, good supervision, good corporate management, and good risk management. All of that has not disappeared from the scene. But this idea of the TICs presents us

with questions of allocation, questions of pricing, and also questions of the trigger. By the way, Marty, the problem you mentioned exists in any case. Because when you declare that there is a crisis, when you declare that you are starting to make very massive interventions, you know there are going to be fiscal costs. The fact that there is an instrument out there that can be used to have a softer landing may be better than the situation that we have today, where we have nothing. We just have to act intuitively in trying to read the tea leaves when there is a crisis, and we have to respond without a particular plan.

The other thing I want to say is that leverage and panic occur at different moments. You cannot say, “It’s not the problem of leverage; it’s a problem of the panic.”

Panic occurs because leverage was exaggerated. If that were not the perception—that there is exaggerated leverage—then panic would not occur to the same extent. It is not fair to play down the leverage to that extent and then to say it is just a question of dealing with Knightian types of panics when we don’t know what the outcome is going to be.

Mr. Caballero: Let me start with the last comment. I essentially agree. We never meant to say that this is a substitute for all of the rest. In fact, as to the moral hazard issue, once you have an instrument like that, you have to be even more careful when you regulate and when you supervise. I thought we had agreed already that we need a systemic regulator, so within that context this is a very useful instrument.

In the paper, we do discuss—quickly—but we do discuss also a way for smoothing things, so the attachment doesn’t have to zero or one. The attachment could have been by serial number and done gradually. We even discussed how we could have used it during the current crisis to substitute many of the effective guaranty programs that were deployed during the crisis—it could have been done more easily with TICs. It is much easier to do things when there is an actual channel.

I also want to be very clear that we are dealing with one particular aspect of the surprise, which is the panic part. But the surprise would have specific things to that surprise, and those would have to be dealt with by specific policies to that surprise that we would only learn

after the surprise is realized. Still, there is an order within this chaos, in which a common feature is panic.

Of course, leverage is a problem. But leverage in 2001 was also very high and we didn't create an equilibrium problem, because the type of assets that we were holding was quite different from the ones that we are holding now. Of course, leverage is a problem, but it is a combination of leverage with the kind of assets they had that created the problem. We want to highlight the second part.

That is also my answer to your question. Yes, all the things you do are very important—not to worry. It is not a substitute for your job. This is all very important stuff.

You know the speed limit you have depends on the quality of the road and how safe the cars are. What we are talking about are ways of improving the safety measures that you have, so you can run it a bit faster than otherwise.

Arminio, I do not know the level. All this discussion I hear about leverage I find very partial equilibrium, because it doesn't say where it is really coming from. There is a huge arbitrage of capital that demanded AAA instruments from the rest of the world, and then you need very limited intermediation capital to transform instruments that weren't AAA into AAA, or maybe not—but we thought they were AAA. So, there is a scarcity of a certain type of capital, and there is an enormous demand for safe instruments in the world. That naturally creates this leverage.

Now, the question is, Where do you concentrate it? Do you concentrate it in a particular set of banks? Do you want to give it to hedge funds? Who has it? (That is a different story.) The whole discussion of leverage means extremely partial equilibrium. It doesn't say what the equilibrium interest rate is. Leverage is a very different problem, depending on the interest rate you have, the volatility of interest, and so on. That is for another paper.

But it is important that, when we discuss these issues, we really think more about where these things are coming from. It is not just a little regulatory problem. To me, the little regulatory problems are

big regulatory problems, mostly determining where these enormous forces in the global economy appear first. But it is not really what is behind the kind of things that we are seeing.

By the way, I would argue that we are going to continue to see bubbles. We had better get used to that, because it is a result of the kind of imbalances that we have in the world, which are far more structural than just exchange rate policy and things of that kind. Yes, we can prevent some, but I suspect some others. Where we have to be careful is where they develop. Now, there are certain places that are much more harmful than other places. And that perhaps is something we can control. We are going to have bubbles in this world where there are lots of savings and so on. It is highly likely. It is not going to be the last one.

Mr. Trichet: First, I wanted to echo what Bob said on the issue, which is very, very important, and we are all meditating on this issue of central bank policy and asset prices. I have an occasion of saying a word on that tomorrow.

I would echo what Ken said: that it would be a catastrophe if one of our conclusions is that we have excellent contingent capital mechanisms and we don't draw all the lessons from the current crisis in terms of regulation—and much more than regulation because we have a full set of part and parcel in global finance that has to be improved. I am a little bit uneasy when I see that, because we have some green shoots here and there, and we are already saying, “Well, after all, we are close to back to normal.” We know that we have an enormous amount of work to do, and we should be as active as possible.

Now, the third remark: I was not entirely convinced by Ricardo's proposal, and I would echo what Martin Feldstein, in particular, said on the moral hazard question. But there is a question which remains very, very important, and Ricardo has floated it very well: the political economy of the decisions that are necessary when you have a catastrophe, and I am not very optimistic for the very long run. It seems to me that whatever good job we do to improve regulation and to be sure again that there is no more procyclical flagrant element in the system, I trust we will nevertheless see booms and busts, and

we will have a Minsky moment, we will have very difficult times, particularly if we consolidate the global economy and if we have a global entity. There I cannot help thinking that it was most miraculous that we could not only have the central banks deciding—as Ben has explained very well—immediately when we were in the liquidity crisis. It was not certain *ex ante* that we would react that rapidly and that effectively. But governments—fancy that—our own computation on our side of the Atlantic shows that if you take only the final true public support in the form of risk of capital by governments, it represents around 24 percent of the GDP. Not all has been spent; not all has been disbursed. But it is the order of magnitude. And, on this side of the Atlantic, my guess would be that it is even a little bit more.

Ex ante, the political economy of our democracies accepting to put on the table 24 percent of the GDP was extraordinarily low. Again, we could manage to get through it in a miraculous way, but it would be good to reflect a little bit on the political economy of such decisions, because I am not sure that we will get that twice. Of course, it is a good reason to do all the job I was mentioning on the regulation.

Mr. Levy: When a central bank was to issue a TIC, then wouldn't it set itself up to be the counterparty of all this paper? The broader issue is at exactly the time when the Federal Reserve and other central banks are considering how to exit from being involved in credit allocation and fiscal policy; this idea you have would set up central banks to become counterparty to an unknown amount of a different quality of bank assets. Is that the right way to go? Is that the proper role of the central bank?

Mr. Meltzer: What we seem to be discussing is a fundamental problem of who is going to bear the residual risk in the system where financial institutions—almost of necessity—lend long and borrow short. Ricardo has a clever emendation on the idea that basically the taxpayers—as Mickey Levy just mentioned—are going to bear it. As I understand what Ken Rogoff is saying, let's have more capital in the banking system to shift the risk back to the bankers.

Now, stripped of its complexity, the present system is one in which the bankers make the profits and the public takes the losses. There is,

as far as I can find, no chance that there are economies of scale and economies of scope that compensate for the losses that are available in that system.

What should you do? It seems to me that those of us who think the losses should be borne by the people who are taking the risks would want to see an end to too-big-to-fail, but it must be coupled with a specific lender-of-last-resort problem, which I believe has to be endorsed by the political authorities and the Congress in order to make it effective. That is, it is difficult to announce a lender-of-last-resort policy, as we know, and then stay with it during the period of a crisis. But it would help if the political authorities agreed that they were going to have that rule.

The banks, I believe, as they increase their size, should be told that they must increase their capital more than in proportion to the increase in size, so that the capital goes up with the size of the risks that the bank takes. That, it seems to me, will not eliminate all failures, but it will do a lot to eliminate the spread of those failures. We need a lender-of-last-resort rule.

Last year, here, I pointed out that in its 95—and now 96—year history, the Federal Reserve has never enunciated a clear lender-of-last-resort rule. At each crisis, it has some action that it takes, but it is never known in advance what that action is going to be or how far it is going to go. That seems to me to defy everything we know about rational expectations applied to monetary and financial institutions.

Mr. Hildebrand: I just wanted to very briefly echo that it is very dangerous to downplay leverage. The reason—you put it in a different context in the discussion, but in the paper it is pretty clear that you downplay it—it is dangerous is because it leads to excessive leverage. Excessive leverage is a problem.

If you think of the training book treatment in the Basel framework, that is exactly what happened. We downplayed leverage. We said it is not that important, because they will be diversified, these markets are liquid. It is exactly that logic that led to trading book leverage in some of the biggest institutions that was 400 times at the peak. One should not underestimate the link. The second you downplay

leverage, per se, chances are that very quickly gets you into excessive leverage, and excessive leverage surely matters a great deal.

Mr. Draghi: Clearly, the main difference between your paper and Flannery is that, in your paper, the contingent capital has been provided by the public authority.

Now, you are saying this has been sold. In your model, TICs can be sold by the central banks in good times. It is very likely the price at which they are going to be sold is lower than their fair value. And, in bad times, their price is going to go up. The capital gain will go into the hands of the private sector, not the taxpayers.

Mr. Caballero: First of all, it is not capital that I am giving them. I am giving them insurance. That makes it a lot cheaper.

Second, you are suggesting some sort of mispricing, because the private sector should be able to anticipate the fact that there will be a capital gain. But there was mispricing this time, so there could be mispricing. I am worried, however, that if anybody can hold this instrument, then the price may be too high. Many people are going to use this as reserves as opposed to, well, that is a dream.

In principle, if this were to work, I would advise an emerging market not to hold so much in reserves and to buy some sort of insurance. This would be a very good instrument to have as insurance in the reserves. It would be much more efficient than holding just Treasuries. That would probably make it very high, because we would have an enormous demand for that.

Yes, there is undervaluation of insurance in general during calm times, and that is not as specific to this instrument. It is more general. That is the reason you need to complement it with regulatory responses and things of that kind.

Now, let me group questions. This issue of political economy, yes, is very, very important. All that this is trying to do is to relocate the discussion to before the crisis rather than during the crisis. It is the same type of issue that arises when you discuss a lender of last resort. This is just an expansion of the idea of lender of last resort, having more to do with the equity side and the asset side.

That tends to transform the unit from cash to insurance because that very directly addresses the panic aspect. But it is of that kind. Yes, it is a very big issue. I think we should discuss it, not during those four minutes of the cardiac arrest, but let's discuss it in advance, as we have done with other things—like the lender of last resort.

There was one more question of whether central banks should be exiting from all these activities and so on. It can't. Whenever you are in the middle of a crisis, the central bank has to be involved in these activities, so you might as well acknowledge it from the beginning.

Now, there is another exit issue, which I thought was where your question was heading. As it happens with programs that currently the United States and the world have, which is, How did you exit from the programs during the crisis? In this case it would be, How do we detach the TICs now? You want to use them for a while, but then when the panic is subsiding, you don't want the government to have to keep insuring these kinds of things in the future. But that can be done with a very old recipe of charging fees, which is another way you can get some money for the taxpayer. You attach fees for the usage while you have these TICs attached, and if you detach them, then you reduce the fees. That is a way of encouraging an early exit from these kinds of problems.