## General Discussion: Regulating Finance and Regulators to Promote Growth

Chair: José De Gregorio

*Mr. Frenkel:* I would like to make three points. The first is about innovations and I liked the perspectives of both Ross and Randy about innovations very much. The key point is there are good innovations and bad innovations. And the classification of good and bad innovations is not just by the outcome itself. Let me articulate by giving you an analogy.

Consider the situation where you had engines, cars, roads, speed limits, enforcement, and all the rest, and there was equilibrium. Then somebody invented a new, more powerful engine and a car that can go much faster. It passed through all the engineering tests. It was perfect. Then it was put on the road, but the roads had not been adjusted, the speed limits had not been adjusted, and all things that had to do with it had not been adjusted. There were a lot of accidents. Is it a case against the new engine? Obviously not. What it is saying is that the introduction of a new engine must be done considering the systemic issue and, therefore, the adoption is not an engineering question but a systemic one.

The second point has to do with regulation and supervision. Normally we put them in the same sentence—strength in regulation, strength in supervision. There is a lot of evidence that in the recent crisis not all, or in fact a significant part, of the trouble came from bad

regulations. It came from the non-enforcement of existing regulation and the fact that supervisors did not use the capacities they had or they were not given the right capacities. Therefore, before we speed into new regulations automatically, we need to identify—and I am not sure we have identified—from where the failure comes, from regulation or from supervision.

Finally, regulations are typically done domestically. In the United States, the Dodd-Frank financial regulation legislation may be perfect. There are international bodies that look at it—the BIS, the Federal Shadow Bank (FSB), etc. The issue is the timing and scope of various domestic regulations differ and as a result there is, with the best intentions, a breaking of the level playing field. Here, I am not sure there is enough focus on it nor are there enough mechanisms to ensure the level playing field is insured. There is a long list of examples, but I will not take time to discuss them now.

Mr. Tošovskỳ: I have, in fact, a very similar point to the one Jacob just made. Your paper puts a lot of emphasis on financial regulation based on national institutional frameworks and policies, which means that you are suggesting a tailor-made approach to regulation and supervision, different for each country. Therefore the question is how your proposal might be compatible with the increasing international activities of financial institutions, with the efforts to enhance financial regulatory standards globally and with the need for stronger supervisory international cooperation.

*Mr. Carstens:* I liked Ross's paper and the comments very much. Now as Ross anticipated this is a subject that can generate a lot of controversy. One of the issues of the topic is that it's so broad and has so many facets that it is very difficult to capture every single facet with one single argument.

What bothers me a little bit is the conclusion about the benefit of having regulation and supervision. No doubt that it is helpful to have regulation and supervision in such a way that it can improve growth obviously by making capital resource allocation more efficient. But I also think there is a very important facet or aspect of financial markets

that is essential, especially in its relationship with growth. That is to avoid worst-case scenarios.

Yesterday, during Dani Rodrik's presentation he showed, for example, that Latin America has had a growth rate much lower than Asia over a relatively long period of time. In my point of view, that is related to a large extent to Latin America having been a crisis-prone region. In Mexico we haven't had a fully working banking system for the last 15 years because we had a very dramatic crisis in 1994-95. And that is one of the reasons why we will see slow growth in the United States for the next few years, because to get an economy to digest a financial crisis is a very long process.

It is of the essence, not only to make it more efficient and to make less intrusive regulations to promote more growth, but also to avoid financial crises. In this period, for example, Latin America by and large avoided the crisis. That is because regulation and supervision were improved dramatically. That doesn't mean that if we don't improve regulation and supervision further, we would be doing much better in terms of growth. So my comment is we should also look into the capacity of regulation to avoid those disastrous scenarios.

*Mr. Ingves:* I have a quick question. One of the conclusions in the paper was that you need sound governance mechanisms. But it is expressed in very, very general terms, so I'd like to hear examples of particularly good governance mechanisms and a few bad ones. Because from reading the paper, it is very hard to fully understand what you actually have in mind.

*Mr. Carney:* I am going to second Stefan's question. That was my question and I'll take the opportunity to make a comment, if I may.

Randy's point on diversification is incredibly important. What we have had over the last couple of decades is the globalization of finance which brought advantages of competition and diversification for the institutions, all positive. The challenge though, which was alluded to, is that these were insufficiently capitalized institutions and they were not sustainable to a shock. And that is exacerbated by the fact that cross border funding is more flighty than domestic funding

So the combination of those two created a system that is not resilient and is being rebuilt. How it is being rebuilt—and this is my comment—it's not just about capital. I know you both emphasized capital and you created a straw man, as if all everyone has been doing is working on Basel III. That is not the case. All people report is Basel III, because it is the easiest thing to talk about, because there are numbers and there is an immediate economic impact. But, if you have ever waded through an FSB press release or a G-20 summit report, you would realize there is an entire agenda on CTC derivatives and central clearing; and there is a suite of agenda across supervisory requirements as well. A thrust of this argument that it is just about capital and it's misspecified on capital is wrong. I don't think it's fair to let everybody walk out of here thinking that is all people are focused on.

For my last point, on Basel III, how is it calibrated? It is calibrated from the experience of crises, so the additional capital cushion is the average loss that is experienced in a crisis. That is a generous calibration. It shouldn't be the mean loss; it should be higher actually. But it is a nod to try to maintain some efficiency in the system and, provided the other things are done, then too-big-to-fail will be ended. It is certainly not the case now, because there is not a new CCP for derivatives. There isn't a cross-border resolution and other facilities in place yet. But then you preserve both the efficiency and the advantages of having competition in the system.

*Mr. Levine:* I'll try to be brief and combine some of the questions. I apologize if I don't answer each question. I am happy to talk about it afterward, but I'll do my best.

One theme that came up in a number of questions has to do with dynamics. If we are lucky, we live in an economy that is innovating, both in terms of technology and in terms of finance. This creates a lot of stresses on the regulatory environment to adjust and adapt to maintain sound incentives. While some financial innovations promote growth and prosperity and some do not, the recent crisis has made it too easy to point things like synthetic collateralized debt

obligations (CDOs) as both typical and evil characteristics of finance. That view is too easy and unproductively incomplete.

Financial innovation also facilitated the IT revolution. New types of financial innovation are currently facilitating the biotechnology revolution. Investment banking emerged in order to finance railroads. And, there were innovations in corporate finance that facilitated transoceanic exploration in earlier centuries.

Randy and others emphasize that there are also bad financial innovations and that financiers sometimes abuse existing financial tools. This is true. It is also true with medicine. Part of the challenge of regulation is that financial systems are not static. So, regulation must adapt. Just like one regulation is not going to be appropriate for all countries, one static regulatory regime is not going to be appropriate for a dynamic economy that is evolving over time. One can look back at this recent crisis and part of it has to do with the inability or unwillingness of supervisors to adapt to innovations that were revealing themselves to be very destabilizing over a decade, not over a few quarters.

Turning to supervision, I agree with Jacob's point completely. Many of the problems we saw were not a matter of too little regulation and too little regulatory power. They were exactly about the unwillingness of many regulatory agencies to use that power to maintain sound incentives in finance, including in Ireland, in the United Kingdom, in the Fed, in the SEC, and in the FDIC. That is exactly right. I've written quite a bit about that.

On international issues, this is a challenge but it is a challenge that is not going to be met with the current strategies. I don't think the goal should be harmonization of all rules and regulations in different environments where there are different legal systems or where the ownership structures of banks are very different. Using the same policy when ownership structures and the legal systems differ across countries is necessarily going to be wrong for many countries. There will have to be coordination and cooperation, but not harmonization.

I fully agree with the point about crises and volatility that many have raised. However, it is not clear to me the types of regulatory supervisory regimes that promote growth are going to increase volatility. It's not clear to me that there is a trade-off, but I think this concern, which many have raised, deserves further attention.

In terms of governance, I have a book making a proposal about how to improve the governance of financial regulatory agencies. I very purposely did not advance this proposal in this paper. Why didn't I put it into this paper? Because, I want here to focus on the problem. I want to emphasize that if a country is going to give a lot of power to an agency over something as important as the financial system, making sure you have sound governance of that agency is immensely important. If in this paper, I also start to propose solutions, then the emphasis becomes a criticism of my solution, as opposed to an identification of this as a vitally important issue.

In terms of responding a little bit to the governance issue, let me first reiterate that if a country grants an enormous amount of power to an entity—such as the Fed—when no other entity that is independent of the political and financial systems has (1) the information, and (2) the expertise to monitor what the regulatory agency is doing, this can create very dangerous circumstances. Unfortunately, I think these are the circumstances in which most countries are currently operating. To enhance governance, countries need to create an independent, informed, and expert institution that could challenge the Fed, the SEC, the FDIC, and the regulatory agencies about their policies. This seems to me to be of immense importance. Simply relying on the angelic intentions of existing officials is not a governance system; it's hope.

*Mr. Kroszner:* In some sense, Agustín is making a variation on the same point I was making; we have to investigate the volatility issues.

On both Mark and Jacob's comments, a good example of what you were saying about innovation itself may not be bad, but it could be the road it is put on, like credit default swaps or a number of over-the-counter derivatives. If they're centrally cleared, a lot of the problems might not be there. So working on the infrastructure of the roads could make them much better.

It is a very long and very important agenda the G-20, Basel, and CGSF have, but I do worry a little bit some of it is fighting the last war and, to some extent, some things were put on a slower track. I have heard some supervisors, in testimony Sheila Bair had said, "More is better in capital."

That is not the right way to think about it. We certainly want more and higher quality capital, but thinking about that as a substitute for other things we haven't dealt with is quite problematic, because it sets up the Maginot Line.

*Mr. Lindsey:* As someone who has spent a good portion of the 1990s during innovation and consumer regulation, I really liked the paper and I agree with the conclusions. By the way, what you selected was econometrically a very clever way of doing a test and I like that. With things like branching, credit scoring, and even the mortgage innovations, it is obvious what the links are, as far as promoting growth and equality. I am less clear whether we can draw from your paper the conclusion that, in general, innovation works that way. That was my question. Also, you are right on, on the governance issues. The use of regulation by the authorities to get political objectives here was enormous and there was no way of checking them. You are correct.

*Mr. Fischer:* I'd like to make three comments. The first is to emphasize what Agustín said. Theoretically, it is possible that growth on more volatile paths could be more rapid than those on more stable paths. But, given the damage financial crises have caused, there is a strong presumption against that. So while the issue is not just what creates the most stable financial system, it would be pretty good to have a system that prevents crises while not strangling the financial system's capacity to support risk-taking.

Second, on capital, Randy kept saying we have a cushion of capital to give regulators and supervisors time to figure out what to do. Basically it is there to give banks a cushion if they take losses. It may help the supervisors, etc., but I don't think the issue is giving time to the regulators, but rather giving stability to the system. Of course, you need other rules as well, liquidity rules prominently among them.

On roads and supervising institutions, that is "the system as a whole versus individual institutions": that distinction, which Jacob made very clear, is what macroprudential supervision is about. A lot has been done in the last few years to develop systems of macroprudential supervision; there has been a lot of progress, but there's much more to be done.

A third point has to do with the quality of evidence. We have a problem and there were quite a few statements about—"Well, you haven't tied down this number. We haven't tied down that number. Research hasn't done this or the other."—which I fully agree with.

But we have just been through a period in which it was argued for a long time that the financial system was more or less self-stabilizing and self-regulating. That particular approach, which partly caused regulators to back off from challenging practices in the markets, failed. We can't sit around waiting for the right R2 before deciding what to do about it. The evidence we need more and higher-quality regulation, compared with where we were four years ago in the meetings here, is pretty clear, even if we don't have it in statistical form.

Mr. Barnes: In thinking about the link between a healthy functioning financial system and good economic growth, is there a place for considering the optimal size of the financial sector? In the United States, we saw extraordinary growth in a number of metrics such as the size and number of hedge funds, the number of people being financial analysts, the volume of derivatives, etc., culminating in that extraordinary statistic that the financial sector accounted for 40 percent of domestic profits, just ahead of the crisis. And there was no obvious benefit in underlying economic growth during this period when the financial sector was growing rapidly. So how would you take account of that?

*Mr. Lin:* I have two comments. On the first one, I agree with you that financial regulation should provide incentive for the system to allocate credit to the best user instead of rich people. From yesterday, in Esther's paper we know that in developing countries the small and medium-sized enterprises can have a much higher return to the

use of capital. At the same time, they can have a much larger impact on poverty reduction. However, we know in developing countries, in general, small and medium-sized enterprises and agricultural households, although they have all these favorable aspects, they cannot get a financial allocation.

So my question to you is, Under these kinds of situations from the developing countries' point of view should we improve the regulation of the existing financial institution so they have a high incentive to provide credit to the small and medium-sized enterprises? Or should we improve their regulation in order to allow some new financial arrangement? Community or regional banks are more capable of providing financial resources and credit to those small and medium-sized enterprises. So that is my first question.

Second, you seem to separate the allocation function and fundoperation function. You said, "Well, we should not use the financial system as a primer to allocate financial resources to a white elephant project."

For that I agree, if the government uses that in a forceful way. If you have good allocations, then the fund has the highest return and so you promote growth. You will have more funds to be mobilized in the next one. At the same time, if you have good allocations, the return to the credit to the capital will be highest. Under that, certainly, you can also provide higher returns to the fund owner. Under the contribution, the allocation and fund-operation function should be endogenous to each other. So how can you separate that? That is my second question.

Mr. O'Brien: Back to governance: good governance needs an objective, clear metric so the governors can monitor the governed. By analogy with monetary policy, the central banks of the world, many of the people in this room, have spent decades establishing with the public that 2 percent inflation is a great metric by which to monitor the central bank. I don't think the public interest is something we would all agree on in this room, much less broadly. So are there potentially some good objective metrics that could be used to monitor regulators or supervisors?

*Mr. Eichengreen:* I want to register the obvious caution about using data from U.S. states to draw broader inferences about these matters. When we began to deregulate cross-state branching, we already had, to a first approximation, a common regulatory framework in place. Think about Europe and all the problems that home and host country regulation create. I read Ross' paper as a strong argument for giving the European Banking Authority real authority.

Mr. Ortiz: My first question is regarding the branching and subsidiary models. The cost of the crisis has been so huge that an analysis has to be made to assess the benefits and costs, both at the national and international levels. At the international dimension, for example, in the recent crisis, the financial systems of the emerging markets that had subsidiaries of the large banks were largely intact, while the home banks suffered quite a bit. So what are the implications of branching versus subsidiary models in terms of the internationalization of bankers?

My second point is about innovation. Do you agree that a good test for identifying useful innovation would be one that shows if innovation somehow is related to the basic functions of finance, which is allocating capital and improving welfare in the real economy? When you have innovation that is in strife with enhancing the real sector and you are betting on outcomes that have absolutely nothing to do with the basic functions of finance, would you consider that to be useful innovation? Is that the proper test to determine whether innovation is useful or not?

Mr. Poterba: I have a question which links the international aspect of this to some of the empirical work that Ross and others do in this area. From the end-user perspective—from the borrower or from the firm that might be accessing capital markets—there is the possibility, especially for larger entities, of crossing borders and choosing where to access the capital market. Something like IPOs in different countries would be an obvious example today, where companies might choose to find either a better regulatory environment or a deeper capital market to raise capital. The question is, Does that pose a substantial empirical challenge for linking the regulatory environment in one

particular jurisdiction to the growth rate or other aspects of that jurisdiction's evolution?

Mr. Sinai: This question is part of the theme—the two-sided nature of innovation. This question relates to a very costly tail event, Ross. When financial innovations, which generally I'm for in terms of enhancement of economic growth in a fast-moving financial system, lead to unregulated and unsupervised financial products sold by financial intermediaries (this is all part of the financial system) in such a way as to essentially eliminate the risk to the sellers, how does that help raise and sustain higher growth and the profits and gains from such activities? What does that do? How does that do anything much for productive economic objectives? And has current financial legislation—Dodd-Frank, for example—dealt with what I am getting at? This question is for both you and Randy.

*Mr. Goolsbee:* I thought I would begin, given many of the people's flights are about to be canceled, thinking for a moment about what makes a bad airline. If you fly on a crummy airline, most of the time —if the weather is good—you pat yourself on the back and you think, "Ah, it's great! I flew from Jackson Hole to Boston and I paid half the price."

It is only when something goes wrong you learn how crummy a crummy airline is, because they don't have any other flights and everything goes wrong.

Looking at the cross-country growth models and not taking into account the probability of crises is missing the point a little bit. The point of the regulation, as Randy said, in some cases is to slow the growth but to try to avoid the worst from occurring. On capital requirements, the data are pretty clear. If you look across countries in the last three years, those who had higher loan-to-value ratios on the real estate markets did worse in the crisis. They have had much harder times getting out of it. Having some buffer stock on the financial institutions and on the borrowers proved critically important.

Three years ago, Charlie Calomiris gave a paper about the history of financial crises and the fact that most of the big financial crises rather immediately followed substantial deregulations of the financial industry is worth a) examining in the spirit of the crummy airlines, but b) it interacted with—as he said—what society wanted to be subsidizing. Oftentimes, it was related to real estate, because the government was trying to press people into real estate. It was the coupling of that with deregulation that led to some problems. I wonder if it might be worth looking at that a bit. It is like the Maginot Line comparison, but of course the Maginot Line did not extend to Belgium, not because they didn't understand the Germans might invade, but because of a political decision that the Belgians said, "Whoa, whoa, whoa. Don't build a fence on the other side of our border, because that will invite people into Belgium."

A similar thing is a bit true on capital requirements. You want the higher capital requirements in places where it is going to be more risky and make a higher probability of crisis. If the political system is geared toward "No, we don't want higher capital requirements," whether it's on housing, for low-income people, for what have you, it can be a problem. If you cite the state bank deregulations, that might be a good one. But, when we had adjustable rate mortgages, the research said that was quite helpful. It made the markets more perfect. Negative amortization mortgages and zero-money-down mortgages proved rather catastrophic. Just basing the rationale for deregulation on that there have been good ones in the past is a little unfounded.

*Mr. Levine:* As Randy pointed out and I mentioned, but maybe didn't emphasize enough, I am not against stronger capital regulations and I am not against improving supervision and regulation. On capital regulations, I am simply noting what research shows: capital regulations have different incentive effects on the decision makers within banks. Because of that, the ultimate actions of those decision makers can differ markedly, depending upon the power structures of banks.

In the cross-country evidence, one finds exactly this. The same capital regulations in different countries can either increase or decrease risk, depending upon the ownership structure of the bank. Even if everybody is going to increase capital regulations for all of the excellent reasons that have been expressed, these types of incentive

effects should be taken into account because there are going to be differential implications across the world because ownership structures differ systematically across countries.

Second, in terms of supervision and regulation, the argument I make in this paper is not against strengthening supervision and regulation. Indeed, I would go farther in responding to Stan and to Austan. That is, I don't think the crisis should be viewed primarily as a few countries tried no regulation, it didn't work, and the financial system blew up.

The crisis is much more accurately characterized as a situation in which there were massive amounts of regulation in the United States and it was a bad combination of regulation and supervisory practices that destabilized the financial system. It was a bad combination. It was a series of specific bad decisions by the Fed, by the FDIC, and by many other regulatory agencies. There have been reviews in the U.K. and by Ireland, which suggest it was not just deregulation per se, but it was a bad selection of policies.

So I am all for improving supervision and regulation. I wouldn't discuss this in terms of the quantity of regulation. It is all about the quality and mixture of regulations; the quality and mixture of supervisory and regulatory policies are both essential for growth and for stability.

One point about governance, this is a difficult question and it is the right question in terms of overseeing the governance of the regulatory agencies. Again, I would go back exactly to the discussion that was led yesterday on medicine. This is going to have to be a very difficult decision about what type of medical system each country wants. And it is going to be a difficult decision about what type of financial system different economies want to have.

*Mr. Kroszner:* I hope I made it very clear that more capital and higher quality capital is important. That is one of the lessons from the crisis. To be humble about that, because when you are increasing capital requirements on particular activities, you are pricing risk. When you do that, you may not get the risk right. And also, once you price

that risk, you give a lot of incentives to innovate to try to increase risks in that particular area. That is what we saw previously. We have to have some humility about how much we can get from that.

On Stan's comment about my analogy with the Maginot Line, obviously it is also for the private sector to have more time to absorb the risks. The motivations still seem to be part of the prompt corrective action that we have enough capital that gives us a little more time. What I wanted to emphasize is it is not a substitute for other types of regulation. You may need more supervisory resources when you have high capital requirements, because of the incentive effects that sets in train.

A number of people made comments about the macroprudential regulation or what I called the endogeneity to the more negative outcomes. That is precisely what the politicians wanted when they gave more power to the supervisors. We have to think about why the outcomes are the way they are, not just poor governance reasons. It is partially driven by a political desire to get to a particular outcome, which can be very problematic for the system as a whole.