



*Conference Proceedings*

FINANCIAL GOVERNANCE  
AFTER THE CRISIS

Rio de Janeiro, Brazil  
September 26–27, 2013

Co-sponsored by the Levy Economics Institute of Bard College and MINDS –  
Multidisciplinary Institute for Development and Strategies, with support from the

 FORDFOUNDATION

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*These proceedings consist of edited transcripts of the speakers' remarks and summaries of session participants' presentations.*

## Foreword

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I am delighted to welcome you to the conference “Financial Governance After the Crisis,” co-organized by the Levy Economics Institute and MINDS – Multidisciplinary Institute for Development and Strategies, with support from the Ford Foundation.

This conference is one of the public outreach activities of the joint Ford–Levy Institute project Financial Instability and the Reregulation of Financial Institutions and Markets, which draws on Hyman Minsky’s extensive work on the structure of financial governance and the role of the state. Among other key topics, the conference will address the challenges to global growth posed by continuing austerity measures; the design of a financial structure to promote investment in emerging markets; the impact of the credit crunch on economic and financial markets; and the larger effects of tight fiscal policy as it relates to the United States, the eurozone, and the BRIC countries.

I trust you will enjoy the presentations that follow, and as always, your comments and suggestions are welcome.

I look forward to seeing you again at future Levy Institute events.

Dimitri B. Papadimitriou  
*President*

# Program

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## September 26, 2013

9:00–9:20 a.m.

### OPENING

#### Reforming Global Financial Governance

Leonardo Burlamaqui, *Program Officer, Ford Foundation; Professor, University of the State of Rio de Janeiro*

Rogério Sobreira, *Executive Director, MINDS*

Dimitri B. Papadimitriou, *President, Levy Institute*

9:30–10:45 a.m.

### KEYNOTE SPEAKER

Paul McCulley, *Chairman, Global Society of Fellows, Global Interdependence Center; formerly, Managing Director, PIMCO*

11:00 a.m. – 12:30 p.m.

### SESSION 1

#### Brazilian Growth Prospects in the Global Context

Albert Keidel, *Senior Fellow, Atlantic Council of the United States; Adjunct Professor, Georgetown University Public Policy Institute*

Esther Dweck, *Chief Economic Adviser, Ministry of Planning, Budget and Management, Brazil*

12:30–1:30 p.m.

### SPEAKER

Paulo Nogueira Batista, *Executive Director for Brazil, International Monetary Fund*

3:00–5:00 p.m.

### SESSION 2

#### Governance of International Capital Flows (Capital Controls)

Kevin P. Gallagher, *Professor of International Relations and Coordinator, Global Policy Program, Boston University*

Fernando J. Cardim de Carvalho, *Professor of Economics, Federal University of Rio de Janeiro*

Luiz Fernando de Paula, *Professor of Economics, University of the State of Rio de Janeiro*

5:15–7:15 p.m.

### SESSION 3

#### Governance for Development: Capital Flows, Exchange Rates, and Emerging Market Development Strategies after the Crisis

Nelson H. Barbosa Filho, *Professor of Economics, Federal University of Rio de Janeiro; formerly, Secretary of Economic Policy, Federal Government of Brazil*

Roberto Frenkel, *Principal Research Associate, Center for the Study of the State and Society (CEDES)*

Luiz Carlos Bresser-Pereira, *Emeritus Professor, Getulia Vargas Foundation*

**September 27, 2013**

**9:00–10:30 a.m.**

**SESSION 4**

**Law and Finance: Governance of Financial Innovations after the Crisis**

José Gabilondo, *Professor of Law, Florida International University*

Katharina Pistor, *Michael I. Sovern Professor of Law, Columbia Law School*

**10:45 a.m. – 1:00 p.m.**

**SESSION 5**

**Minsky Perspectives and Proposals to Improve Stability in the Financial System**

Jan Kregel, *Senior Scholar, Levy Institute; Professor, Tallinn University of Technology*

L. Randall Wray, *Senior Scholar, Levy Institute; Professor, University of Missouri–Kansas City*

Éric Tymoigne, *Research Associate, Levy Institute; Professor, Lewis & Clark College*

**2:30–4:00 p.m.**

**SESSION 6**

**Minskyan Analysis of Emerging Markets' Financial Stability: Implications for Development**

Martín Rapetti, *Researcher, Center for the Study of the State and Society (CEDES)*

Felipe Rezende, *Professor of Economics, Hobart and William Smith Colleges*

**4:15–5:00 p.m.**

**SPEAKER**

Dimitri B. Papadimitriou, *President, Levy Institute*

“Levy Institute US Forecast”

**5:00–6:30 p.m.**

**SPEAKER**

Frank Veneroso, *President, Veneroso Associates, LLC*

“Minsky and Latin American Financial Instability: A Practitioner’s View”

## Opening

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### REFORMING GLOBAL FINANCIAL GOVERNANCE

#### **LEONARDO BURLAMAQUI**

*Program Officer, Ford Foundation; Professor, University of the State of Rio de Janeiro*

#### **ROGÉRIO SOBREIRA**

*Executive Director, MINDS*

#### **DIMITRI B. PAPADIMITRIOU**

*President, Levy Institute*



Leonardo Burlamaqui



Rogério Sobreira



Dimitri B. Papadimitriou

**LEONARDO BURLAMAQUI:** Welcome to the Minsky Rio de Janeiro conference. It's great to have you here in Rio, my hometown, and I'm sure you're going to enjoy both Rio and the conference. . . .

The schedule doesn't allow me proper time to introduce the Ford initiative, or even introduce myself properly. So what I'm going to do instead is just try to throw out three broad propositions in order to start the conversation here, propositions that I think a few of you, or some of you, may want to come back to or refer to in the coming . . . panels.

My first proposition is the following: I think that one of the peculiarities of the ongoing debates—and also in actual reforms—on reforming global financial governance is that there is very little that is truly global about that. If you see the reports or the legislation, . . . they're basically domestic or they're regional, if you take the European Union. So if you look from a global perspective, it's really scary [how narrow] the global dimension is.

Therefore, I think that the basic tension that [led to] the global financial crash in 2008 is still intact. Which tension is that? One of the more important tensions, and the basic tension coming from a global perspective. What is it? I would say it's the imbalance between global financial markets, which are there and acting 24/7, and the lack of a proper institutional framework to discipline them.

Why this is so, I think, is a very good question to be explored. And, of course, the answer to that is far from easy. The question or the perception is not that difficult, but how do you deal with that is extremely difficult. But let me very quickly suggest two ways of looking . . . at the beginning of answers to that.

The first leads me to my second proposition. The first one is, that imbalance is still intact. The second proposition is that part of the answer of why this is so is that there is . . . a basic tension, if not a conflict, between the need for more public interest-oriented global governance and the demand from every single national government for increased policy space. Everybody wants global [governance], and every government wants more policy space. Well, obviously, I would say both demands are legitimate, but they're not . . . easy to combine. . . . That would be one [reason] why there is so little . . . public interest-oriented global governance in place.

The second way to look at that leads me to my third proposition, which is, well, almost reversing the idea that I just offered to you, which is that we actually do have something [like] global governance in place. But what is it? I would suggest it's a patchwork of organizations that are in place, and they exercise *de facto* global governance. The problem: it's a private system, and I think we should address that system as governance by lobby. Or, to steal a phrase, or a very well-known expression, invented by Mr. McCulley, I think we also have in place something like a shadow regulatory system—a shadow banking system and a shadow regulatory system.

What is this? Very quickly, again, it's represented by hundreds of lobbying groups in action. And by the way, what in the US is treated as a legal practice—lobbying as a legal practice—in other countries is just called corruption. But this is something that we have to think about as well. Lobbying groups are everywhere, and they're able and willing to act, and they *are* acting—hundreds of lobbying groups, [representing] corporations like the credit-rating agencies and a whole bunch of corporations that wrote the laws which now are embedded in a whole host of international trade and investment treaties—including, for example, the financial and other provisions under the WTO [World Trade Organization]. This is a system of governance, yes; but it's basically written *by* the private corporations *for* the private corporations. It benefits them; it's not a public-oriented system of global financial governance.

So the problem, as I said, is that this is a private, corporate-sponsored, and basically profit-oriented system of governance. It is completely opaque and totally disconnected from the public interest. This system, I would venture to say, is at the root of the financial crisis. It prevents . . . the buildup of a public interest-oriented system of global financial governance, and it also clashes directly with the demands for increased domestic policy space.

I will finish my . . . six minutes by suggesting that the persistence of this governance-by-lobby system as well as the resilience of the shadow regulatory system are the main menaces that I think we should, and we must, face. Why? Because I think they threaten more than the stability of the global financial system: they challenge the West's role as a leading model of democracy. So maybe a few of you want to come back to one of those propositions in the coming debates.

Having said that, I thank you very much for being here.

**ROGÉRIO SOBREIRA:** Good morning, everyone, again. It's a great pleasure to have you all here. It's a great pleasure for MINDS, our Multidisciplinary Institute for Development and Strategies, to host—co-host, actually—this conference with the Levy Institute. For us, it is a great opportunity. . . . I would like not only to thank you all for coming here, not only to [express] our pleasure at co-hosting this conference, but also . . . to take this opportunity to announce two projects that [are] beginning at MINDS now. Those two projects are strictly correlated with those themes that will be under discussion during this conference—correlated not only to those themes, but also to the projects that are about to begin—actually, that have already begun—those projects [rooted in] the works of Hyman Minsky and post-Keynesian economics.

Basically, those projects are . . . [first], the relationship between financial innovation and development, shedding light especially on the role of public banks. So the idea of this first project, of which I am the director, . . . is to look at the role of these institutions, not only public banks—by “public banks” I mean not only public banking itself but development banks as well—and what are the roles of those institutions in fostering development in the roots of a post-Keynesian paradigm. . . . The idea is to look at the role that should be played by those institutions [from] a theoretical standpoint, and looking at the Brazilian, Indian, and Chinese experience. I was having a very good conversation with Albert [Keidel] before this conference started. It’s interesting to look at what has been done in those countries that we could take as a lesson of what to do, and even what not to do.

The second project that began at MINDS is the project on financial governance, banking, and financial instability in Brazil. . . . Felipe [Rezende] is the project director for that. The idea of this project is to investigate the structure of the Brazilian financial system and its regulatory framework in order to identify sources of stability and instability, and to provide policies for reforming Brazil’s financial structure to create systemic stability as well as the ability to provide funding for development.

As you can see, those two projects are very [concerned] with this interconnectedness between finance and development. But here we don’t like to . . . emphasize aspects such as how efficient the financial system is. No, the idea of these projects is to emphasize aspects such as the functionality of the financial system, because by emphasizing only the idea of efficiency of a financial system, you perhaps miss the main part of the story. An efficient financial system sometimes is not a functional financial system. The recent story has taught us that this is the case.

So these two projects [center on] this idea of financial functionality in order to identify and shed some light on this interconnectedness between the financial system, financial innovation, and development, looking . . . deeply at Brazil but also looking at China and India in order to take lessons and suggest policies as to how to increase the functionality of the financial system.

Again, it’s a great, fantastic pleasure to have you all here. I hope you’ll enjoy not only the conference but Rio as well—it’s a fantastic city. In spite of the fact that I wasn’t born here, I feel myself [to be] Carioca [someone from Rio]. So I would like to welcome you all to the conference and to the city.

Thank you.

**DIMITRI B. PAPADIMITRIOU:** I, too, want to welcome you to Rio, even though I can’t tell you anything about Rio since it’s my first time here. And this is, I think, one of the first occasions that I take no responsibility for the weather—I take no responsibility for anything that happens to you. I cannot say this when we have conferences in New York, but it’s sort of a relief to breathe very easily by saying I have no responsibility for this.

However, I do want to take this occasion to thank MINDS and the staff at MINDS [for handling] all the logistical details. And, of course, we would not have this conference if it weren’t for Leonardo Burlamaqui and the Ford Foundation. The Ford Foundation has been supporting the promotion of Minsky not only in the United States for many, many years, but also now through the international activities of the Levy Institute, of which one of them is [this] jointly sponsored conference.

Now, throughout the conference you will hear many, many Minskyan themes, and that is because we consider Minsky to be one of the giants of the economics profession, and we stand on the shoulders of this giant of the economics profession. Unfortunately, there are not too many of our kind; but nevertheless, we try to then put as heavy a load as we can on Hyman Minsky.



I do want to say that Minsky would have had a lot of things to say about what's happening presently after the financial crisis of 2007–09. Unfortunately he's not around; but he has left us a lot, not only in his written work, his published work, but also in the work that exists but hasn't been published, and is in the archives of the Levy Institute. I invite you to take advantage of that. They're all digitized, and therefore I think you'll have a lot to find in terms of the power of Minsky's thinking.

I don't want to take more time, but I do want to say that this is a very important conference. Those of you who happen to be moving toward Europe in November, there's another conference in Athens. We invite you to come there. It will be the continuation of the themes that you will hear today.

## Speakers

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### PAUL MCCULLEY

Chairman, Global Society of Fellows, Global Interdependence Center; formerly, Managing Director, PIMCO



Good morning, everybody. It's fun to be here. I use the word "fun" very much because I *want* to use the word "fun." I do what I like to do . . . , and I like to hang around with people who take life very seriously and take macroeconomics—global finance—very seriously but don't take themselves terribly seriously at all. And that is what I've found in my many years of working with the folks at the last home of Professor Minsky, and it is a great partnership that I have with them. In fact, we don't just like each other professionally, we like each other personally; and we're always playing with each other to try to figure out how to

summarize things on bumper stickers. "Minsky Moment" can be put on a bumper sticker. "Shadow Banking" can be put on a bumper sticker. So that's one of my specialties. Therefore, I was asking Dimitri, "What's the bumper sticker for the next two days?" He couldn't give me one, so I've made one up for you. The next couple of days are going to be about "First Principles and Practicalities." Hopefully, over the next couple of days we blend good old-fashioned first principles of economics but also translate them into practical discussion of what's going on in the world.

What I see in my sphere way too often is people with practical solutions without any principled foundation—some could say that's the political profession, perhaps—but practical solutions that are guaranteed to fail because they're not grounded in first principles. And at the other end of the spectrum, I see great articulation of first principles with no appreciation whatsoever about the practicalities of implementation. What I think the post-Keynesian movement is all about is trying to blend the two, because the post-Keynesian movement is grounded within some hugely important first principles. So the first principles are there; the issue now is translating them into practical solutions and getting somebody to hear—*getting somebody to hear*.

With that preface, let me tell you about what I'm going to talk about today, which is actually three first principles. I'm going to focus on first principles, and then we can weave [those] into current events, which will beget, hopefully, some degree of practical solutions and discussions.

These are real simple. . . . There are only going to be three that I'm going to walk through today. First principle number one: Microeconomics and macroeconomics are distinctively different fields. In college and graduate school, particularly in college, . . . you tend to have your freshmen and sophomores take microeconomics one semester and then macroeconomics the following semester—is that still the sequence, micro first and then macro in the second semester?—the reason being, as they've explained that pedagogy to me, that you have to understand microeconomics before you can understand macroeconomics. And there's a strong element of truth to that: you have to understand the core concepts of

supply and demand, marginal versus average, utility maximization—that’s all the sort of stuff you teach in micro. Do you still teach that, Dimitri? Do you still teach those core concepts in micro? I hope so, anyway. So the notion is, you need to have those building blocks, and then once you have those building blocks, you can aggregate them up into this field called macroeconomics. So the ordering of the curriculum is, you learn first principles for micro and then you simply add them up, and you get to macro. From an ordinal perspective, it makes sense to have micro before macro.

The key aspect of both Keynesian economics and post-Keynesian economics—and, actually, macroeconomics as a field—is that it is not simply a summing-up exercise of micro. I’m going to repeat that because this is the bumper sticker I want you take away from what I have to say today: in many respects, macroeconomics is not simply the summing up of microeconomics. Macroeconomics is a distinctively different discipline than micro, even though it’s important to understand micro, just like it’s important to understand algebra. We usually have algebra before macroeconomics as well, but we don’t pretend that algebra and macroeconomics are the same field, and we shouldn’t pretend that microeconomics and macroeconomics are the same field, either; because macro is not simply a summing up.

Or, put differently, the core of understanding macro is the simple proposition that that which holds for the individual does not necessarily hold for the village; that which can be rational for the individual can be irrational for the village. Understanding that simple proposition is the core of macro: that which holds for the individual doesn’t necessarily hold for the community of individuals. Technically speaking, the core of macroeconomics is the paradox of aggregation—*the paradox of aggregation*. Aggregation implies summing up; paradox captures the essence of macro. Summing up that which happens at the individual level can give you paradoxical outcomes; therefore, you need to understand the village as an entity in and of itself. There are insights, analytical insights, from looking at the village itself, not as a summing-up problem.

Let me give you a really practical example. I’m going to get away from being a pointy-headed academic here for a second. A really practical example: have you ever been to a concert or a sporting event that was exceedingly crowded and was full of excitement? You can nod your head. If you haven’t been to one of those events, maybe you should, because it should be on your bucket list—a good concert or a good sporting match. And you as an individual can rationally, maximizing your own utility, make the independent decision to stand up to get a better view. You can confess—you’ve had that urge, right? If I stand up, I can see over that tall guy with a hat in front of me. So that’s rational, right? I’m going to stand up so I can see over that tall guy with the hat in front of me. Not only will I be able to see the concert, the odds of him throwing a beer over his shoulder at me go down as well; so therefore, that is a rational decision. If everybody in your section of the theater or the stadium gets that rational impulse at the same time, what is the paradoxical result? Very simple, right? Everybody is standing up. Nobody has got a better view, and everybody has got sore feet. Therefore, we need to have an analytical framework for a better outcome for the community, a better outcome for the village, than everybody individually, rationally standing up to get a better view. Because everybody acting individually rationally gives you a suboptimal outcome for the community, known as “everybody has sore feet.”

Now, as a practical matter, how do we deal with that problem at the sporting event or the concert? We as a community at such an event will likely have somebody amongst us—it may even be you—[who] all of a sudden screams out, “Everybody sit down!” Right? *That’s* your macroeconomist in the community. That is your macroeconomist in the community who has looked out and said, “This is not rational for the community. We have a collective action problem. We have a collective action problem, so we need to

have a macro referee. I'll appoint myself to be macro referee and order everybody to sit down in a very loud voice."

Another simple example that will reflect that I do appreciate that I'm 56 years old and life has changed: Cell phones. . . . You want to sneak a call on your cell phone. There is a referee at the beginning of a play when you're at the theater, right? What does the referee say? Turn off your cell phones. Most people do now. However, you still know that if you can sneak, by yourself, a picture on your cell phone, while everybody else follows the rules, then you will have gotten the only picture of Eric Clapton playing "Leila." That would be really cool, right? So what do we have here? We have a moral hazard problem. *We have a moral hazard problem.* I'm not exactly sure what happens in policing the no-cell phone rule, but I do know that there are a lot of YouTube videos of Eric on the Internet. Somebody was breaking the rules.

This is just macroeconomics. It's a very different discipline than micro—a *very* different discipline than micro.

That's the first principle that I want to leave you with this morning: when you're talking about economics—particularly when you're talking to people who you might want to influence, such as policy-makers who have come up through the electoral process and who aren't necessarily trained as we are—don't simply say "Let's discuss the economics of a situation," because economics is not a homogeneous concept. It's not a homogeneous discipline. *Be very clear.* Be very clear whether or not you're talking about microeconomics or macroeconomics. And it's not just for the sake of good articulation; it's for the sake of results. Because normal human beings don't think macro. They simply don't. They think, *I stand up, I get a better view.* And politicians—no disrespect to the field whatsoever; I have friends who are politicians; I know politicians I would buy a used car from, and that's a very strong statement of trust and faith—I'm not suggesting that they're not robustly moral people. However, they rationally want to get elected, and to get elected they need to preach, campaign, evangelize to the voters who don't understand background. So they have to put public policy . . . into a context [that] they think the voters, who they want to vote for [them], will understand.

It's why, when you think in terms of what's going on with austerity—which is the bane of our global macro existence right now—it stems from that fundamental ignorance. A politician will appeal to a voter with micro, not macro. He will say to a voter, "If you have your hours cut back at work or, God forbid, lose your job, it is rational for you to go home and say to your wife and family, and be honest about it, 'My paycheck's going down. Therefore we must tighten up our budget.'" Your family will appreciate your honesty. They will empathize with your position as the dominant provider to the home. You will have a community in your kitchen, where everyone will be understanding, and you will rationally sit down and figure out where you can tighten up the budget to reflect that your paycheck's going down because we're living in hard economic times. That's the preamble of the speech.

And then the politician will get the nod from the voter, and then say, "And would you not agree that we in government should do the same thing?" The voter, who may be the plumber or the mechanic who works on your car: "Yes, sir, I'll vote for you. I understand. We do that in my household. We want you to do that in Washington"—or Berlin, or Brasilia, or wherever the case may be—and they get elected. And then they run society square on into the paradox of thrift: that, while that is rational for you who just lost your job at the factory, if we mimicked that behavior at the village level, we would have a depression.

I'm not saying that politicians are irrational in appealing in the fashion I just articulated to potential voters. They're not, because it works to get reelected. If there's any question about that, just look at Europe right now. You get reelected for preaching this nonsense; therefore it's not nonsense from your individual

perspective to preach it, because it leads to your individual optimization outcome. It's *not* good for society. We as practitioners of the first principles of our field have a duty to teach—not just complain, but a duty to teach. My friend Paul Krugman practices that duty daily, and sometimes he gets criticized by the field of wonks for trafficking in the politics of policy. He doesn't get any criticism from me. If you don't traffic in the politics of implementation, then you're not relevant; and relevancy is the ultimate practical goal, at least for me, of what I do. When I was a fund manager, the practicality was to take a small pile of money and make it a very large pile of money. Now that I'm retired, I have a different metric of optimization: I want ideas. Little ideas become a big pile of better outcomes for the village in which I live.

So I'll conclude on first principle number one. Everyone get that one down? *Micro is not macro*. Macro is not a summing up of micro. The paradox of aggregation is not just a lofty concept that you have to learn to pass Dimitri's exam and forget. You have to remember it and practice it forever. How's that for a pitch for your class? He's nodding over here—I'm preaching to the converted. That is first principle number one.

First principle number two: unlike the case with principle number one of micro and macro, monetary and fiscal policies are not inherently different instruments. I thought long and hard before I said that, because I am not a high-church MMT-er, and I just articulated a high-church MMT thesis. Monetary and fiscal policies are not inherently different instruments—a big contrast to my first principle when I said micro and macro are inherently different disciplines. Monetary and fiscal policies are *not* inherently different instruments. That does not mean that we should not from time to time structure them living on different streets. How far apart those streets should be and whether or not there should be occasional block parties is, in many respects, an empirical question; but inherently, monetary and fiscal policies are not different instruments. Both monetary and fiscal policies are macro instruments—remember principle number one.

Moving to principle number two, monetary and fiscal policies are not inherently different instruments because they are instruments in the macro tool kit—not the micro tool kit, but the macro tool kit. It doesn't mean that monetary and fiscal policies don't have microeconomic outcomes. Art Laffer notwithstanding, supply-side economics, which is a microeconomic discipline, is not total bunk. But supply-side economics and micro incentives associated with supply-side economics is not macro. Macro, fundamentally, in practical terms—remember the bumper sticker: “Practicalities”—is about aggregate demand.

Supply-side economics is not a macro concept whatsoever. Supply-side economics is a micro concept—it's about micro incentives. It is not a macro discipline whatsoever. Macro is all about the demand side of the economy, not the supply side of the economy. I'd like to believe—I can't, but I would like to believe—that the doctrine of supply-side economics as macro died with Say's law. But the fact that I still actually say “Say's law” in polite society says that my wish has not been fulfilled. There still is a great muddle in our field on the notion that supply will create its own demand in the long run. It's wrong. In the long run, we're dead. . . . Demand drives supply, and demand comes about in part on the basis of how governments, which are the architecture of the village, carry out fiscal and monetary policy. They're instruments of the same genre, and in civilized societies they should be used in the pursuit of maximum welfare of the community.

How you blend the two instruments is an analytical issue, an empirical issue, and also a governance issue. I will come around to the governance issue in a moment, but analytically speaking, you have two tools in the tool kit. But the job to be accomplished is maximum welfare of the community, which is a very practical matter that starts with maximum possible employment—*maximum possible employment*.

That is not the only objective of macro policy. I personally happen to believe that distributions of outcomes in our society matter. I happen to be a small-*d* democrat. I'm also a large-*D* Democrat. But I start being a small-*d* democrat, meaning that I think democracy, which is founded upon the principle of one person, one vote, can appropriately consider the distribution of the fruits of the village to be a relevant optimization variable. Democracies can rightfully and morally and without apology talk about the distribution of income, in my viewpoint, (1) because it's rational from a moral perspective; but (2), and very *practical*, it matters for aggregate demand management. *It matters for aggregate demand management*. In fact, if it didn't matter for aggregate demand management, I'd be standing on much weaker ground. I really would be. If it didn't matter for aggregate demand management, then you could (I think immorally, but that's a value judgment) rationally say "Let them eat cake"—it doesn't matter. "Let them eat cake," however, is not just morally wrong (which, again, is a value judgment); it's macroeconomically wrong. It doesn't work. It doesn't work, because if "Let them eat cake" becomes your macro compass, you will drive the ship onto the shoals of inadequate aggregate demand, for the simple reason poor people have a higher propensity to consume than rich people—that simple.

We think in terms of macro as a core discipline to be optimized for the village, and the key issue for the village is the demand side of the economy. Or, to borrow from [Adam] Smith, if there is demand, the supply side, as if by an invisible hand, will figure out how to meet it. Demand is the chicken; supply is the egg. I've answered the riddle for you. Somebody tell Merkel.

So you want to use your tools to maximize demand consistent with full employment, and therefore distribution of income matters as well. Conceptually, the sovereign can use fiscal policy, which is known as the power to tax; or it can use monetary policy, which is the power to declare that which will be legal tender. Both are incredibly awesome powers—*awesome* powers.

They have many similar characteristics. If someone can tax you, that's a large impact on your life. If someone, by fiat, can declare that which can be used to extinguish a debt, including the taxes that you owe—including the taxes that you owe!—that's also a very awesome power.

So, first principle number two—there are only three here; we're about two-thirds finished—first principle number two is, analytically, do not get trapped in a cul-de-sac of lazy thinking that somehow monetary and fiscal policies are inherently separate instruments, and the notion that monetary and fiscal policy coordination is an abomination against God and mankind. Don't get caught in that cul-de-sac. It's just flat-out wrong, and that's highly relevant to where we are right now in *practical* terms when you look at the global economy.

In an act of blatant marketing of my own work, I retired two-and-a-half years ago and I've written two major, I think, scholarly articles since I retired, with a delightful young man as consultant, and both are about monetary and fiscal policy coordination. So this is an area where I'm not just talking off the cuff. I've done a great deal of scholarly work. I think the forefront of where global macro needs to be right now is open, frank, robust, analytical discussion of coordination, and knocking down of the canard that central bank independence is written in the Scriptures. It wasn't. God did not create on the eighth day central bank independence—He just didn't. But don't say that too loud or else people think you're a heathen. Believe me, I've been called a heathen on this score, and I've got a feeling the second row here has been called a heathen a few times as well.

Okay, third principle: the big idea of what I'm going to talk about is the third element to kick off this conference. Everyone get the first two down? Okay. Third element: banking. *Banking*—conventional banking, shadow banking, shadow-shadow banking. Banking is inherently a joint venture between the

public sector and the private sector. The key thing I just said is that it's *inherently* a joint venture between the public sector and the private sector. Anybody who talks about private sector banking in the modern-day world as a solution to that which ails us doesn't know what they're talking about. It's that simple.

Why? Here I have to get to core principles. Why is banking inherently a public-private sector venture? Let's go back to principle number one, the paradox of aggregation, tying this together for you—we're almost there, promise. Banking from time immemorial is founded on a very simple proposition. The public—here the public is an aggregated term, the village. The village's ex ante demand for liquidity is always greater than the village's ex post demand for liquidity. Why is that the case? It underscores the fundamental difference between micro and macro. At the micro level, you as an individual want to know that you can go to your bank and have your deposit turned into what we call in the United States a “dead president,” which is legal tender declared by the sovereign. At the micro level, you want to know that you can do that. So you have a demand for liquidity. I want these things for my deposit. You, at the individual level, want it. So if you were to look at banking as simply the summing up of everybody's demand for these things, you wouldn't have any banking, because we would simply all have all of our wealth in these things—in self-insuring our liquidity preference, which is inherently risk-averse.

Summing up micro demands for liquidity to create a village-level ex ante demand for liquidity is one construct. But if the village commits to having a banking system that is a going concern, then by definition you don't want these things. The village's ex post demand for liquidity is below the summing up of the village's individual demands for liquidity before the fact. Everyone follow me here? It's really important stuff. Ex ante is greater than ex post *most* of the time . . . , which means that banks are in the middle between ex ante and ex post and engage in what technically is known as maturity, credit, and liquidity transformation. Banks can promise that which they cannot deliver. By definition, banking is founded on the proposition that at the village level banks can promise that which they cannot deliver. Therefore, as long as everyone believes that the game is a perpetual game, then you can have maturity transformation, credit transformation, and liquidity transformation, and that is a positive-sum gain for society. *A positive-sum gain for society.*

A very simple example of how it is a positive-sum gain for society: if all of us had to keep all of our wealth [or] a large chunk of our wealth in these things, we would have the irrational result of everyone having to have a large safe in their house. Safes are, no pun intended, a deadweight on society. Banking allows us to minimize the number of safes we have in our homes—and I say that tongue in cheek because there are lots of reasons that banking is a positive for society. But, by definition, since only the government can declare this thing to be legal tender, and this is what you want to be sure that your deposit can be turned into, banking is inherently a private-public venture. Because only the government [can print these things]—we the people can't print these things. It doesn't mean I haven't had an impulse to do it before. I've resisted the impulse because I rather like my pinstripes going vertical, not horizontal. Only the government can print these things. And deposit insurance and a central banker are absolutely critical to the functioning of a going-concern banking situation. Therefore bankers—I know a few of them in the United States—who harp, complain, and bellyache continuously about government messing in their private sector capitalism-driven business can just shut up. They don't like it, but it's a marriage. Whether it's made in heaven or hell, I don't know; but it is a marriage. Bankers need the government to insure the gap between ex ante and ex post demand for liquidity. Bankers can't do that. They need the government to underwrite that exigency, and therefore create the ability for bankers to do that which they do, which is

maturity, credit, and liquidity transformation—which is a very profitable exercise, by the way. So bankers need the government.

In contrast, the government needs bankers. Bankers actually don't have to use democratic principles in deciding who gets a loan and who doesn't. They can look at prospective return on investment, which is a bastion of efficiency and resource allocation. Bankers and government need each other. It's not a matter of they need to be polite to each other; they literally need each other. They could not exist in an efficient form, maximizing utility for society, independently. They need each other—*literally* need each other.

And it's a tug-of-war in some respects, like a marriage. Not every day is going to be perfect. Maybe yours is, and I will concede that. I'm speaking for myself here. I got divorced after 17 years, so I can't say mine was perfect, but it's a marriage. And right now, the global village is quite appropriately in very serious marital therapy. That's what the title of this conference can be on a bumper sticker: "Marital Therapy for Banks and Governments." And the most important thing in marital therapy, whether it's between banks and governments, or in villages, or anywhere else? Honestly, transparently telling the truth. It doesn't mean that honestly, transparently telling the truth won't reveal differences of opinion. In fact, it *will* reveal differences of opinion. But you're not talking past each other. You're actually getting to the brass tacks of where your differences and your agreements are, which is the foundation of having a regulatory architecture that serves the village.

Let me conclude—and I am almost on time. I'll pat myself on the back—I'm not very good at being on time. First principles and practicalities: I went through three with you. Micro and macro are two different things—never forget it. Number two: monetary and fiscal policies are similar instruments and a tool kit derived from the power of the government—don't forget it. Principle number three: banking is inherently—*inherently*—a public-private sector venture. All solutions for stability must reflect this inherent verity. Deviations from this verity are prescriptions for 2008—not a good outcome. Take all three principles together and you have a paradigm that some would call post-Keynesian economics; I will call it simply right thinking.

Thank you very much.

#### **Q&A**

**ROBERTO FRENKEL:** . . . Let me ask you your opinion about the role of the macroeconomy in the booming phase of a Minskyan cycle. In the booming phase of a Minskyan cycle, you tell the people, "Coordinate." But if you coordinate in the near term you will be worse off than we are now and in the near future if we continue doing the same thing. . . .

**PM:** It's a fascinating question. . . . Coordination should be easy in the bust period, and it is not, as Europe is teaching us demonstrably, and also in the United States. The notion that you're coordinating—that you *should* coordinate—the fiscal and the monetary authority in a bust should be self-evident; but it's not. Ben Bernanke would be the first to say, "If it's self-evident, why do I have large spears in my back?" And they are *very* large spears. So it's very difficult when it should be self-evident, because the coordination will give you a positive-sum gain for society. But it's not.

So you take it to another level. . . . In a situation in the boom phase of the Minsky journey, how do you explain to the public that coordination is actually in the short run going to be negative but in the long run good, when you can't even convince them in the bust phase that, both in the short and the long



run, coordination would be good? You're basically saying, "We're in a cul-de-sac. What are you thinking about, man?" Again, I see where you're coming from.

I will give you an answer, however, which, actually, I think is not just an answer but in some respects a forecast. I think that you sell, not just monetary and fiscal coordination, but other tools or other instruments. Because I'm using just a two-instrument tool kit. We know that there are more instruments as well, such as minimum wages—there are all sorts of instruments. . . . It will be a high-quality problem, but in a boom phase . . . it's a policymaker's need to . . . sell coordination through the lens of income distribution, because the boom phase, which can lead to all sorts of pathologies for the society at large, tends, both in the creation of the boom [and] certainly in the bust thereafter, to lead to income distribution up the channel. A boom-bust cycle makes the rich richer and the poor poorer over time. A deregulated global financial system makes the rich richer and the poor poorer. The rich will say that's a relative sort of thing; that a deregulated capitalist-driven global banking system makes everybody better, and the consequence of everybody being better is that we will widen the income distribution, but we should accept that because rising tides lift all boats.

So I think the answer to your very poignant question is if and when we finally do have a boom—and we're getting elements of boom in financial markets these days—and you want to dampen the boom, how do you sell that to the public? You sell it to the public and say, "We're going to dampen the boom for the rich guy." And the 1 percent, by definition, doesn't control an election unless you let them *buy* the election. So the answer is, a more robust form of democracy allows you to do that which you are articulating.

**ALBERT KEIDEL:** . . . I want to go back to your description of politicians and how they make decisions that keep them in office even though it may not be right. That's a tad naïve, I think. There's something else much more important: that there are the kinds of lobbying groups that you've mentioned—and this goes also to Leonardo's point about some things in some countries being called corruption and criminal—that there are influential groups who don't want an effective government because it influences the way they make their money, and they have command over the best public relations that money can buy. So you get enormous support for counters to your principles—it's not trivial support. You have large think tanks, speakers who get paid to speak around the world and say that micro and macro are separate, and that you therefore have to keep fiscal and financial separate—excuse me, actually make micro the ruler of macro. So if a society doesn't recognize that there is a portion that is working hard to make sure government remains small, remains ineffective, so that a lot of the externalities they don't have to pay for get paid for by the public, and that the instability continues even though they're all right—as you just mentioned—that has to be part of the understanding of why.

I think Minsky mentioned somewhere in his '86 book, that it could be that we get some of these behaviors on the part of central banks because of an influence of the financial system, and that central banks perhaps aren't independent; rather, they're dependent on the financial system. Could you weave that into your understanding and your principles about something that really has to do with power in a society and the way that it maintains itself?

**PM:** I'm getting a workout today. . . . You're right. The doctrine that you're talking about—it's not a doctrine; it's a practice—is called regulatory capture. Regulatory capture is an *industry*, and it's a well-funded industry because the payoff at the micro level for regulatory capture is very high—it's very high for *some*.

How do you police that, is the question. Actually, I don't know the answer. But I would suggest that part of the answer—and America's going in the exact opposite direction—should be transparency in the money.

I happen to believe that sunshine is a great disinfectant. I was taught that as a young kid, and I still think that sunshine is a great disinfectant. What you are speaking of happens in the absence of sunshine. We've kind of regulated American practice into legal twilight—that's called lobbying. I just gave you legal twilight, not illegal darkness; it's legal twilight as opposed to sunshine. And I think part of the solution is, if you want to buy the best government that you can buy from your micro perspective, at least you have to declare that's what you're doing. . . . The viable approach for dealing with the problem you're talking about—and we're running into a Supreme Court that is a problem now, because the Supreme Court said that you can spend unlimited amounts of money buying the best justice that money can buy, so that is a problem—but in that context Congress does have the power to say, "The Supreme Court says you can spend as much money as you want buying your favorite politician, but you must disclose the money. The world's gotta know what you're doing." The Supreme Court says it's legal, but Congress can say that, legally, you are required to disclose that which you're doing.

So my viewpoint is, I don't like what the Supreme Court has done, obviously, but in America the Supreme Court basically says you can spend unlimited money in political campaigns now with no disclosure. It's not *officially* no disclosure, but it's de facto no disclosure. So my long-winded answer to your poignant short question is, sunshine is the only available disinfectant, that dirt is going to be amongst us, and you can't eliminate the dirt. You can just embarrass people for having dirt on their shoes, just like the right does.

One last question—we're tight on time. Anybody got a last one? I will regret the last one, I'm sure.

**LEONARDO BURLAMAQUI:** . . . The question: it goes to your first principle, which is about micro and macro. Of course, I think for us we do know that they are different subjects, they shouldn't be mixed, and they have different internal logics, et cetera. But . . . from the whole Keynesian way of seeing the system—not only the financial, but the economic system, how it works—could we try to make a case, instead of thinking about the micro foundations of macros, for the reverse: the macroeconomic foundations of micro behavior?

Why I say that: because, well, if we start with Keynes, then I think we would accept the idea that agents never decide alone. They're always deciding by looking to the institutions, by looking at the behavior of other agents. So it's very difficult to conceptualize the agents' behavior as something completely [isolated]. Therefore, the macro foundations could become a very tricky way of understanding micro. And just to finish up, . . . the first thing you learn in a micro course is all supply and demand. The question is, are supply and demand really micro concepts, or should we think about them from the beginning as macro concepts, not micro?

**PM:** Wow. The questions get higher and higher into existential space here—and I like playing in existential space. I've rejected the notion that macro is a summing up of micro; therefore, logically, you can teach macro before you teach micro. That's the inference that you were drawing, and I think that's probably true. As a matter of pedagogy, I'm not sure how you would do that, but you need to teach the concept of utility maximization. If there is a core principle underneath micro and macro, it's utility maximization. The issue is, it's very different because of the paradox of aggregation with the individual or the village.

But your core tie that binds the two fields would be utility maximization, and I think utility maximization is an easier concept to teach under the architecture of micro. . . .

This has been wonderful. Thank you very much.

**PAULO NOGUEIRA BATISTA**

*Executive Director for Brazil, International Monetary Fund*



I would like to say a few words about financial governance after the crisis. Of course, this is a vast topic. I decided to concentrate on the areas where I have some direct experience. I've been executive director for Brazil and some other countries in the IMF since 2007, and so my arrival in Washington antedates the eruption of the crisis by a few months. It began a few months after I arrived, with the first symptoms of problems in the US financial system, and then spread quickly over to Europe.

The areas which I'll deal with in this presentation are basically the IMF itself, of course, the

G20, and the BRICs, where I've had direct participation [for] the last five or six years. I will leave out a whole host of other financial governance issues that are very important, like the World Bank, the regional development banks, the FSB [Financial Stability Board], the ESM [European Stability Mechanism], the European Monetary System. . . . So it's a very partial view, but at least it has the advantage of being a view of someone who was directly involved in this in these last few years. I hope I can make this interesting for you, although I must say, . . . the presence of the fourth powers [journalists] constrains me just a bit to make it as interesting as I perhaps could [*laughter*]. But anyway, transparency is also important.

The crisis that erupted in the financial system of the US and Europe has often been called a global crisis, but in reality, this is a misnomer. It's mostly a North Atlantic financial crisis, let's say, that migrated and had substantial effects in the rest of the world. It was, of course, a major shock, a major blow, to the status quo, to established ways of thinking about economic policy, and to governance structures. No doubt about it—it was a major shock, a major blow. But five or six years later, what can we say? Has this major blow had a lasting effect? Has it produced major changes?

It's fair to say that, despite the size of the shock, there has been no overhaul of the governance system of the financial area. This governance system—I think this is one of the points I'll try to make—is, we can say, a Western-dominated governance structure. By that, I mean fundamentally the US and Europe. These governance structures have been affected by the crisis. Changes have occurred. But these changes do not amount to what we could call an overhaul of the entire system, despite our efforts to move change forward. By “we” I mean emerging markets, or some emerging markets.

But there have been, I think, significant changes. For example, in 2009—in fact since the end of 2008—one major change occurred, which was the effective replacement of the G7 by the G20 as the main forum for economic and financial discussions. The G20 existed already. It was created, in fact, as an American initiative during the Clinton administration right after the outbreak of the East Asian crisis in 1997; but it was a ministerial form that effectively deteriorated, I would say, into a sort of deputies' forum, where advisers for these 20 countries met and discussed periodically, but with no major importance—this is up to the crisis. And then when the crisis [began], especially after Lehman, the United States and

other advanced countries decided to accept an upgrading of the G20 to a leaders' forum. And the first meeting was in Washington in December 2008. I must say that Brazil played a role there—President Lula played a role there. Brazil had the opportunity to play a role maximized by the fact that Brazil was presiding [over] the G20 in the year of the crisis—the G20 in its old format. So Brazil, in an understanding with other emerging-market countries and with the United States and other advanced economies managed to upgrade the status of the G20 in a major way.

The G20, of course, as you know, has all the G7 countries in there, but also a number of emerging-market countries—Brazil, Russia, India, China, Argentina, Turkey, Indonesia, and a few others. So it's a more balanced structure, where the voice of emerging-market countries can be heard. So this was important progress.

The other thing is that at the level of the IMF we made some reforms of the voting power structure. The first one was the 2008 reform that's already enforced, that shifted quotas and voting power to emerging markets. Brazil, for example, gained from that. Then, in 2010, during the Korean presidency of the G20, we negotiated a second reform of the Fund [that] shifted further quotas to emerging-market developing countries. Brazil, again, was one of the main gainers—China was the main gainer; after that, Brazil—but this second reform is not yet enforced. It was conceived as the second step, and as part of the agreement, further steps were foreseen. It was accepted by countries like Brazil, China, India, Russia, and others that we would move gradually toward a change in the governance of institutions like the IMF and the World Bank through agreements negotiated at the level of the G20.

In another important [advance] that I would highlight, I will just quote a colleague of mine, the Russian executive director at the Fund, Alexei Mozhin, who has been there for more than 20 years. He's the Russian Kafka—[former IMF director] Alexandre Kafka. Alexei Mozhin once said in a Brookings Institution event that in all his time at the Fund, the main governance change he saw was the creation of the BRICs as an articulation—as a forum for articulating positions. Initially, it was Brazil, Russia, India, and China, later joined by South Africa. And, in fact, there is this coordination. It was started by the Russians, really. Although some Brazilians say that Brazil started it, in reality, Russia gave the initial push.

When I arrived in 2007 in Washington, there was no such thing as BRICs. It was just an acronym used by . . . [Goldman Sachs economist] Jim O'Neill. It had no political reality. In 2008, at the initiative of Russia, an articulation began at the leaders' level, at the ministerial level, at the level of executive directors in the Fund, at the level of executive directors in the World Bank. And this is working—irregularly, sometimes not so efficiently, sometimes not as far as we could go; but it's working. And I would say, for example, that (setting modesty aside a little bit) if you look at the 24 chairs of the Fund, at the Fund's board, . . . Brazil's, Russia's, and India's chairs are clearly among the most active and the most present in the discussions—in the *process*. China, less so. China's more discrete, maybe more long-term in its thinking. . . . I'll come back to that a little bit. China's a very peculiar country, difficult to understand. But I think these four countries, later joined by South Africa, have been acting jointly in a major way and are perceived by the G7 as an interlocutor.

It has happened, for example, that we often meet as BRICs on the sidelines of IMF or G20 events. . . . It has happened twice that the Secretary of the Treasury has asked to join our meeting. The first time he did that it was a complete surprise. And then, of course, he did not participate in the entire meeting. He had a message he wanted to convey to the BRICs on both occasions, and he had a dialogue with us; and then, of course, he left so that we could have our own private conversation. This is a symptom of the increasing relevance of this articulation.

[Those are] a few examples of the progress we've made in terms of governance since the crisis. But the truth is that, since 2011, this governance reform process has largely ground to a halt, and we [have] suffered some setbacks. One reason probably is that as the crisis in the advanced economies receded or became less acute, we felt less of a need to reach out to emerging-market countries and developing countries as a whole. And there is this temptation to go back to the old-style international governance—US and European, exclusively. There's this temptation. It hasn't been fully exercised, but it's there.

I'll give you examples of the sort of setbacks that we've been suffering in more recent years: since 2011—since the French presidency of the G20—the G20 has become mired in stalemates. So little was accomplished during the French presidency, even less during the Mexican presidency of 2012, and, disappointingly, even less during the Russian presidency of the G20. I was saying to my Russian colleagues, "I'm going to pass a resolution prohibiting any of the BRICs from taking the presidency of the G20. . . ." This is a problem. It's maybe something that goes deeper: although emerging-market countries have an increasing role in the world, they still don't have the assertiveness that Europeans and Americans have. So when the Russians take on the presidency of the G20, they assume a neutrality that makes us lose one of us. I was telling them, "Please do something. We have a Russian president. We have to have a Russian chair. Like the French did in 2011, we have to have a Russian speaking for Russia." But this didn't work well; it didn't work well at all.

That's at the level of the G20. At the level of the Fund, we missed a number of important target dates. The target for [enacting the] reforms of 2010, quota and governance reform, was October 2012. We're approaching October 2013, and the reform has not entered into force. Why? Fundamentally, because it requires a supermajority of 85 percent of voting power, and the United States Congress has failed to ratify the reform. We have no clear idea of how this will move forward.

At the same time, we had a target date for the reform of the quota formula, which is the main determinant of the distribution of voting power. It was January 2013. We missed it, due, in that case, to the resistance of the Europeans. The Europeans, I would say, are the best-organized bloc. It's a sort of a paradox, because Europe is very divided, even the euro area. They fight a lot among [themselves], and they even publish it. But when they come to the Fund or to the G20, they act en bloc in a very efficient manner—much more than the BRICs, needless to say. It's a much deeper integration, a much closer political alliance. It's a major, major bloc in terms of coordination. Sometimes, when I become impatient, I have the urge to say, "Let's establish a rule here on the board of the IMF. Let's simply assume that if one of the seven euro-area directors speaks, we can simply register that all of the others agree, instead of having to hear the same message seven times." But I haven't been successful so far.

In any case, we missed this, and we have a further target date that we may miss too, which is January 2014, for the completion of the next general quota review. So European unwillingness to move forward, combined with American incapacity to ratify in Congress, has built a situation where the reform process itself . . . has stalled in a major way. This rebounds on the G20. Why? Because the political agreement that guides the process of reform of the Fund was made at the level of the G20 in 2009, and, notably, during the Korean presidency in 2010, where good progress was made.

What was this political agreement in a nutshell? The political agreement was, the G20 agrees at the highest-possible level to boost the size of the Fund through foreign arrangements, including . . . sizable contributions from emerging-market countries, the BRICs in particular, in exchange for the commitment to reform the Fund—to make it legitimate, to make it credible, to make it reflect the realities of the current world economy.

The first part is there. The second is stalled. So this is a delicate situation, because, although the BRICs and the other emerging-market countries have not made much of a public issue of this matter so far, as time goes by, we have the possibility of a crisis of legitimacy at the IMF, of the G20 itself, if a clear political agreement is not followed through.

Digressing a little bit, can I try to take a long view of this issue? Maybe I'm being influenced by the Chinese sense of time, this comment attributed to Zhou Enlai. I don't know if it's authentic, but at one point in the '60s or '70s someone asked him what he thought of the end of the French Revolution. He's supposed to have replied, "It's too early to tell."

Let me try to take a long view. What we're dealing with here, really, is the end of an era. An American-Hungarian historian called John Lukacs proposed that we call it, not the Modern Age, as is usually done, but the European Age—something that began around the time of the Renaissance and the great navigations and that has effectively ended. Europe is in relative decline. The major outpost of European civilization, the most important one, the United States, is also, I believe, in relative decline; and the traditional civilizations that were submerged by this European dominance during the European Age—China and India, for example—are all rising, and rising fast.

So what is the problem that this poses for the governance of financial institutions, for international governance? It's that the structures that we have today were built when Europe was much more important than it is now, and when the United States was much more important than it is now. And these institutions have enormous inertia, enormous resistance to change. This creates a conflict between the reality of an increasingly powerful China, an increasingly powerful India, a rising sub-Saharan Africa, a rising Brazil—all, increasingly influential. The alliance of the four or five large powers from the periphery of the international system, which is clearly conceived by them as a counterpoint to the Western-dominated government structures—you will not find this point made so clearly always; there's a lot of diplomacy, a lot of (I have to be careful with what I'm saying) hesitation in bringing out these contrasts, these conflicts—but that's what in reality is going on.

To finalize this presentation, how are we reacting to these setbacks that I mentioned before? I think one of the main reactions, possibly the most effective one, is a deepening of the cooperation among the BRICs. Since last year, the BRICs [have] entered into a new phase, a phase that has not received much attention here in Brazil, I believe, but it's moving forward, I can tell you. It's moving forward step by step. It's not easy. We're entering into a phase of constructing our own institutional arrangements, self-managed. In New Delhi, when the BRICs leaders met last year, they . . . they asked their finance ministers to examine the viability and feasibility of creating a BRICs-led development bank. Then, when they met in Los Cabos late last year, they asked the finance ministers and central bank governors to examine the feasibility and viability of constructing a reserve currency arrangement among the BRICs—an international reserve currency arrangement. After Los Cabos, Brazil was charged with coordinating the reserve currency arrangement, and, since New Delhi, South Africa and India [have been] charged with coordinating the bank. I'm involved with the reserve currency arrangement, so I know what's going on there in detail; the bank, I'm less involved with. But both things moved forward, and when the leaders of the BRICs met in Durban in March of this year, an important decision was taken to create a bank and to create the reserve currency arrangement . . . , and the process has continued. The decision was to establish a contingent reserve arrangement at the value of \$100 billion and a development bank with a subscribed capital of \$50 billion, but this latter value was only confirmed when the BRIC leaders met again in St. Petersburg earlier this month. So these two things are moving forward.

To give you an idea of the BRICs' contingent reserve arrangement, we're already in the phase of drafting the first version of a legal text that we hope to discuss when the BRICs meet again in Washington in two weeks. So the process is ongoing. The BRICs continue to engage in what they hope will be a constructive dialogue with the North Atlantic powers. It's an ongoing process. We're there in the Fund, we're active in the Fund, we're active in the G20. At the same time, we're doing our best to construct our own institutional structures. The bank is a response. The BRICs bank, or the BRICs-led bank, is a response to the fact that the World Bank is also stalled in its own difficulties. The contingent reserve arrangement is what you [could] call a monetary fund of the BRICs—an embryonic monetary fund of the BRICs.

Of course, everything is very difficult, I can tell you. It's a difficult process—five sovereign countries with different views. All the details have to be discussed. It's quite a challenge, but it's moving forward. It's moving forward. The issue for the multilateral structures—the World Bank, the Fund, the G20—is whether they can be effective enough to bring trust in the changing world, or whether they will be holding back, sticking to their accustomed ways of working, and still leading a fragmentation of the system, which will inevitably occur.

So this is in a nutshell. I hoped I could make this vast topic somewhat interesting to you, and I'm ready to answer any questions that you may have. Thank you.

#### **Q&A**

**KATHARINA PISTOR:** I very much enjoyed your presentation, in particular the willingness to have a sweeping discussion about an era coming to end. In that mode, I just want to suggest that maybe a particular form of governance might also be coming to an end, and what also might be happening at the same time as you're describing the shift toward a BRICs-type of monetary regime or bank is that the Atlantic powers are relying increasingly on what Leonardo this morning called a sort of private government structure, or a lobbying government structure. So the major global financial centers are still in the North Atlantic area; China's picking up a little bit, but it's still London and New York and Frankfurt, and there are also a lot of private governments there. So I'm just wondering what you might think about the intersection of increasingly enabling private governance in the North Atlantic world, that affects the global world, of course, where there might actually be a change in the mode of governance, rather than only a geographic shift of governance.

**PAUL MCCULLEY:** I have a simple question for you. You were observing the tug-of-war between emerging markets and the developing world in the governance and structure of the IMF. Simple question: the next time the top job at the IMF becomes available, do you anticipate that the emerging markets will gather together collectively to break the feudalism of the World War II-established governing structure?

**PNB:** First, . . . I think this governance by lobby, to borrow an expression that was used by Leonardo this morning, has weakened enormously the leadership capacity of the North Atlantic, especially the United States. And perhaps more than that, the political division within the United States, the lack of a political agreement as to how to proceed, has made it very difficult for the United States to claim any sort of leadership going forward. Just think of this, for example: the only . . . G20 country that has not ratified the 2010 reform of the IMF is the United States, but it's sufficiently large to block its entry into force. It's in the company of countries that are torn by civil war, by huge instability, like Zimbabwe, Libya, and, I



believe, Afghanistan. Even . . . Iraq, I believe, has ratified, despite all its internal turmoil. So this weakens enormously the credibility of the United States.

Having said that, I think it's important to note there's a sort of void in terms of international governance, because as the Europeans and Americans decline in their capacity to exercise leadership, you do not see a corresponding capacity from the side of the emerging markets to assert a role. We do not. We have severe limitations, even psychological [ones]. If you go to the G20 context, for example, you'll see often that the most outspoken delegates are still the Americans, the Europeans—they still dominate the discussion in major respects. So there's a lot of inertia that makes the situation a bit dangerous, because the United States and Europe no longer are capable of leading, and the others that are becoming larger and more important in economic terms, at least, [are not stepping up]. Again, leaving a little bit of modesty aside, I think Brazil, perhaps, does a pretty good job, despite its relatively lesser weight. We punch above our weight in terms of discussions. And often we get punched back. But anyway, I think the main point is that you have a void there, you know, that may be sort of dangerous. . . .

But I think what you can say is that the feeling in Brazil, say, 10 years ago, was that the major platform for Brazil's international projection would be Mercosul and South America. I wonder if this could come true. I think it hasn't, for many reasons. Brazil's close to all its neighbors, it gets along very well with all its neighbors; it has its disagreements, of course, but plays a balancing role, I believe. But the situation in Latin America has not favored very much the articulation [of a regional bloc]. For example, in the IMF or in the G20 context I would say to you that Brazil's closest allies are the other BRICs, not the other Latin Americans. We get along well with the other Latin Americans; we can't rely as much on them. . . . We are close to them. We're always together with Argentina, no doubt about that—I feel that in particular. But the truth of the matter is that, in terms of international policy, international economic and financial policy, our main allies in practice have been, in recent years at least, the other BRICs more than our neighbors here. Our neighbors are divided into two, roughly speaking, groups: the Pacific arc and the Bolivarian/Argentinian group. They're very different. Brazil does not side completely with either of them. It tries to play a balancing act, but the balancing act is very difficult. . . .

Paul, on the question of tug-of-war between emerging markets and advanced countries, this is one of the main governance deficiencies of the Bretton Woods institutions. There's an unwritten rule—it's unwritten—that the presidency of the World Bank is reserved for an American national, and the managing directorship of the IMF is reserved for a European national. This was in part by accident, you know, because initially the idea was to have an American head of the IMF, [Harry Dexter] White. But when he was going to be nominated the first managing director of the IMF, revelations about his cooperation with the Soviet Union came to the knowledge of the American president, and he was then not nominated managing director. So then the tradition was established to give it to a European. That's 11 Europeans since then. This is really ridiculous—ridiculous. How can you have this reservation from a geographical point of view?

One of the convictions we have in the G20 is to have it be a transparent, merit-based selection. That goes back to agreements at the level of the G20 in 2008–09, expressed in communiqués. What happened when Dominique Strauss-Kahn was arrested? The Europeans came forward very quickly with the name of [Christine] Lagarde; and even before the end of the registration period for candidacies, before other candidates had appeared, all European countries, including G20 members, said, “We support Madame Lagarde.” How can you choose on the basis of merit before the selection process . . . is over?

Now, the question is, will, when the top job becomes available, emerging markets coalesce into a name? What was the difficulty we had last time? When you approach possible strong [candidates] from emerging markets, you tend to get a negative. Why? Because . . . there are very few people who are willing to run a protest candidacy. And given the distribution of voting power in the bank and in the Fund, the European bloc plus the United States plus a few others—Canada, Japan—has more than 50 percent of the voting power. So as long as there's no clear indication that the unwritten rule is gone, it's very difficult for us to make strong non-European, or non-American in the case of the World Bank, [candidates] interested. In the case of the World Bank position last year, we did have a strong emerging-market candidate, the Nigerian finance minister. She had quite a good showing. But I tell you, it's very difficult to persuade strong names to come to an election where the election has a predetermined result.

So the really lasting solution of this is the redistribution of voting power—that's the real lasting solution. Pending that, a clearly stated commitment on the part of the US and the European Union that they would not strive for the application of this rule. We have not had that. I wonder if an American president [could] do that. Because the idea is that the World Bank is American territory. And if the Americans don't do it, then the Europeans feel free to continue to hold the Americans accountable for honoring their part of the deal in the Fund. If the top job [became] available soon, I think we'd face the same difficulty that we had in 2011. . . .

**JAN KREGEL:** Can you comment on the relationship between the new BRICs development bank and the Banco do Sul?

**PNB:** There may be a relationship. Sorry, let's take one more question.

**ALBERT KEIDEL:** You mentioned very briefly that China's kind of mysterious and hard to understand. I wonder if China not being an ally of the United States affects all kinds of arrangements—if there is some sense within the IMF that China is a disturbance of some kind. I don't know how to say it, but the message comes through that we really need to play down the China song—not let it get to the top of the charts.

**Q:** . . . We haven't talked at all about the WTO, and I think maybe its role has been very constrained. But now we have a Brazilian director at the WTO. How does that play? Does that change things at all? Is there any kind of coordination with the Brazilian role at the Fund and at the World Bank? Does that help?

**PNB:** I'm not aware of any connection between the BRICs-led planned development bank and Banco do Sul. It could arise in the future, but I don't think it's become a major issue so far.

On China and the IMF, China has adopted a very cautious stance in the IMF. It's aware of the risk in being seen as a disturbance. It doesn't want to be seen as a disturbance. It wants to be respected. It wants to have a role, but it takes the long view, always. It's low key. Its stance is often low key. They stress, as a lot of East Asians do, cooperation—the consensus tradition.

At the same time, they are seen in the United States in a very problematic way. I think the Americans have a lot of difficulty in accepting the fact that sometime soon they will no longer be the largest economy in the world. This, for the Americans, is very difficult to accept. You can say to them, "Well, this doesn't mean that you won't be the most influential power for a long, long time, but . . . !" Psychologically, it's difficult. So China, despite the low-key [role] it attempts to play, is often facing this difficulty. . . . The

Chinese don't challenge it [the West's dominance] frontally; they make their points, but in a very discrete way. They normally almost always authorize publication with no major change. So their approach is to make their points, but not to engage in heavy-handed polemics. . . . I've never seen in all these years the Chinese . . . present their experience as a model, as a reference. They never do. Maybe it's not useful. It's possibly a wise decision, given the reaction it gets. . . .

I'm not very familiar with the details of the WTO. I sense that the IMF is risking a repeat of the experience of the WTO in the sense of fragmentation . . . at the regional or transregional level because of the difficulties of moving forward with the multilateral level. . . . It's important for Brazil that a Brazilian won the position—very important. I think it's the highest post a Brazilian [has] ever had in an international organization. But keep in mind that he's not there as a Brazilian representative, right? Although I hope he will not forget that he's Brazilian. So when we interact with him, we need to take that into account. The more natural thing for us is to interact with the Brazilian ambassador, who's the counterpart to the executive director at the Fund or at the Bank.

We've not done that enough, I agree. I think the coordination there has been poor. It's improving now because since last year I have a vice director—by the way, he's an Argentinean; Argentina is not part of our constituency, but I managed to appoint an Argentinean on merit—who's WTO staff, so he's heavily engaged with the WTO. He's making the bridge. . . . So I think this will improve. This may be an example of Argentinian-Brazilian collaboration at the micro level. . . .

Thank you.

**DIMITRI B. PAPADIMITRIOU**

*President, Levy Institute*

Levy Institute US Forecast



What I want to show you is an exercise that the Levy Institute has been engaged in for a number of years now, since Minsky and Wynne Godley were at the Institute. What Wynne Godley did was to create a macroeconomic model using as an operating principle the macroeconomic identity, which I will show you later. Also, I should say that Minsky was very much familiar with that macroeconomic identity and wrote about it. Even though this identity is not a policy or a theory, it *informs* policy.

So let me then start with some background information—what happened [to bring about] the current situation in the US. We consider growth to be anemic. The day before yesterday, there was an announcement of the final measure of GDP [growth] for the second quarter of 2013: 2.5 percent. The previous quarter was 1.1 percent. The private sector is still indebted and deleveraging. There's a decrease in government expenditure, unstable net export demand, and we have an income disparity—I'm sure you've heard of the so-called demonstrations between the 1 and the 99 percent that we had on Wall Street, and I think it has become [a trend in] many, many cities in the US as well as abroad. That income disparity can be considered to be the result of weaker unions, regressive taxation, and, perhaps, the low minimum wage. And, finally, we have, as was pointed out in a number of sessions, the shaky financial system.

[In terms of] the major components that are either increasing or decreasing GDP, both consumption and private investment have been net reducers of GDP. Business corporations seem to be stockpiling cash as opposed to investing in capital goods. In terms of employment, which is the other most important issue in the United States, the job creation figures are not reassuring. We are actually creating jobs at the rate of which, if we were to also include those new entrants into the labor force, it would probably take 60 to 65 months to reach an appropriate level of full employment as we define [it]. That is because we have about 12 million people that are unemployed.

So the unemployment rate is 7.3 percent [as of August 2013], and if we include, in addition to the unemployment, the underutilization of labor—that is, those who are marginally attached, who are part-timers for economic reasons—then it goes to 13.7 percent. What I will show you later is that the linkage between growth and employment creation has been weakening in the last three decades, and that's [based on] a major [study] that's been done by Basu and Foley.<sup>1</sup> . . . What we have seen, therefore, is recoveries, but those recoveries are jobless. So in the last recession it took much longer to get back to what is considered to be level employment in comparison with the previous recessions in the 1980s, 2001, and all that. Youth unemployment is about 25 percent. So the unemployment picture is not great at all.

This is the Godley framework, [the accounting identity that] links the three financial balances:

$$\text{Private sector balance} + \text{Government balance} = \text{Current account balance}$$

From 2008 to the fourth quarter of 2012, and then to the second quarter of 2013, you see the shifting of the private sector from 1.1 percent to 5.3 [percent of GDP], and then to 3.2 [percent].

Now, as I will show, there begins some kind of movement of credit increases. Clearly, the public sector has had some shifts as a result of the fiscal stimulus that we had in 2009–10 and how it has evolved (Figure 1). Same thing with the current account balance: in terms of the graphic representation, you can see how this has evolved since 2005. If I had to have more historical perspective here, as Randy [Wray] pointed out, in the 1990s we would see that the private sector balance would be really, really in deficit, and toward the end of the Clinton administration the public sector would have been in surplus.

Again, some more background information: you see how the [ratio of] debt to disposable income in households has evolved; you see the run-up to 2007 and then we come to deleveraging (Figure 2). Similarly, but not as precipitously, is the [rise in the] nonfinancial corporation debt-to-GDP ratio.

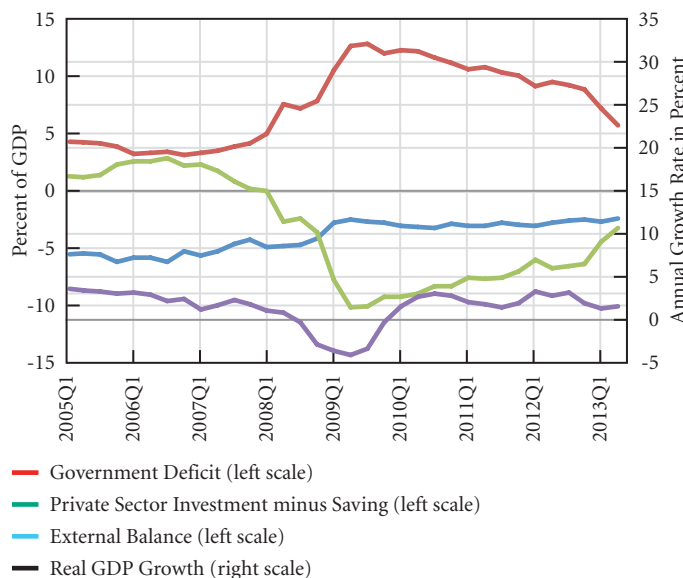
The approach to simulation is that we use some conditional projections. First, we use what the official values for the growth path of exogenous variables are, such as government expenditure and revenues, world output and world inflation, and monetary policy. Then we make some further assumptions about variables [that] affect private expenditures, such as capital gains and changes in the equity markets as well as the housing markets. . . .

First, our model computes the amount of borrowing required by the private sector for the economy to track the CBO [Congressional Budget Office] projected growth path of output—this is usually what we call the baseline scenario, which I will show you in a few minutes. Second, we use the model to derive

the growth path of output and unemployment under more reasonable assumptions about borrowing. And third, we evaluate the effects of fiscal, monetary, and exchange rate policies on more reasonable scenarios. I will show why we think that we use more reasonable assumptions as opposed to those that are employed by the CBO.

The baseline scenario basically, then, uses the CBO forecasts, and the CBO forecasts show that the government deficit will fall rapidly through 2018. Government spending will decline until 2014 and then begin to stabilize. Government revenues will increase until 2015 and then stabilize. We

**Figure 1 US Main Sector Balances and Real GDP Growth, 2005Q1–2013Q2**



Sources: Bureau of Economic Analysis (BEA); authors' calculations

**Figure 2 Households: Debt-to-Disposable Income Ratio, 2005Q1–2013Q2**



Sources: Federal Reserve; authors' calculations

**Table 1 CBO Projects, 2013–16 (in percent)**

Year	2013	2014	2015	2016
Deficit (percent of GDP)	-5.3	-3.7	-2.4	-2.5
Growth Rate*	1.4	3.4	3.6	3.6
Unemployment**	8.0	7.6	7.1	6.6

\* The CBO makes a single projection for the years 2015–18 and then for the years 2019–23.

\*\* The CBO projects that unemployment will be 5.5 percent at the end of 2018. We calculate the rates for 2015 and 2016 with a simple linear interpolation.

the macroeconomic identity gives us, indeed, we get what the CBO suggests; but we don't assume that borrowing will actually turn out to be *exactly* what the CBO suggests.

In summary, these are the baseline results: there will be a gradual decrease in the private sector surplus from . . . 5.4 [percent] . . . to 2 percent [of GDP], which seems to be implausible because it has never happened before, with the exception of the Goldilocks economy, which I don't think will happen again. At least I hope it doesn't happen again; otherwise, we'll have, perhaps, another meltdown. The ratio of household debt to income falls only gradually, and the ratio of nonfinancial corporation debt to GDP rises smartly.

So the model verifies, with the assumption of 1.4 percent growth in 2013, that the unemployment rate will increase from the present 7.3 percent to 8 percent, as the CBO suggests; that the government deficit will begin to drop and will reach exactly what the CBO suggests, 3.8 percent; and that the current account deficit will be decreasing from 2.9 percent to 2 percent by 2016.

We believe that the projections of the CBO are based on the faulty structure of their model—that is because their model is based on supply-side economics—and that the assumption is that the economy

make a further assumption to adopt the latest IMF [International Monetary Fund] growth projections for the rest of the world, especially those of the US's trading partners. . . . The deficit will decrease from 2013—it's assumed to be 5.3 by the end of 2013—through the year 2016, reaching 3.8 percent on the basis of the revenues and expenditures assumed in the CBO projections. The table shows how they will evolve over the years of the simulation period (Table 1).

The assumption we make about world growth rates, both in terms of historical projections in 2011 and then to the end of this year, are taken from the IMF. They're separated into emerging markets, the entire world, and the advanced economies, which include Japan and Europe.

We [also] make some projections . . . about the household-debt-to-disposable-income ratio, [which is expected to fall] . . . ; and the debt-to-GDP ratio of nonfinancial corporations—the assumption is that they will begin to actually borrow heavier than we believe they will. So in terms of the three balances that the

will grow at potential output because of the usual neoclassical assumption that government will get out of the way: it won't crowd out private investment. That has never been proven, mostly, so the assumption, then, of the CBO may be actually faulty, as we will show.

Because of what we think are their implausible results, we move to scenario 1, in which we make some slight changes in the assumptions. First of all, scenario 1 follows the Federal Reserve's wishes that have been expressed by some of the members of the Federal Reserve System, whether they're presidents of Federal Reserve banks or even governors, that they will continue this quantitative easing (very recently they've changed their tune) until the unemployment rate reaches 6.5 percent.

We make assumptions [about] what it would take to get to an unemployment rate of 6.5 percent within two years. The assumptions we make, then, are that there will be a smaller increase in taxes on wages and salaries than is assumed by the CBO; that interest rates will continue to be stable and low; and that there will be an increase in real government purchases . . . , which are higher than what the baseline scenario, which is the CBO scenario, assumes.

The results, of course, show that there are more pessimistic projections about the government deficit, which is natural since there will be more government expenditures; but that the GDP growth rate will increase to 5 percent in 2015 and then stabilize at a higher rate than in the baseline, but that the unemployment rate will be reduced to 6.5 percent. . . .

Now, we actually have seen that there are other people who have been talking about an unemployment rate much more acceptable than even the 6.5 percent—that of 5.5 percent. This was talked about by Christina Romer, who is the former chair of the Council of Economic Advisers under Obama in the first term; Paul Krugman; and also Robert Reich. So we thought, what would . . . we need to do, in terms of government fiscal policy, to reach 5.5 percent unemployment by the end of 2015?

The only difference, of course, between the assumptions of scenario 1 and this scenario is that the government outlay increases by 11 percent per year for at least two years, 2013 and 2014. Clearly, the results again show that the government deficit will increase, naturally, to 7.3 percent throughout—it is higher than in scenario 1, and, of course, very much higher than the baseline scenario. GDP grows to a high rate of 6.5 percent in 2015 and then stabilizes below 5 percent thereafter—that is, for one more year, since the simulation period goes to the end of 2016. The unemployment rate, which was a target, has reached 5.5 percent at the end of next year or the beginning of 2015, and the private-sector-debt-to-GDP ratio is lower than in the previous scenarios—the baseline and scenario 1. . . .

Of course, these are scenarios that, I think, are wishful thinking. Because, given what's happening in Washington—I don't know if you're following, but apparently the stock market went wild today because there's been no progress [on ending the budget disagreement] in Washington; that, in fact, the United States government will go bankrupt since they will not be able to raise the debt ceiling, and so on and so forth. So those two scenarios don't seem to be that plausible.

Therefore, we go through another exercise in scenario 3, in which we assume that there's aggregate demand growth in all sectors, that it's not only in the public sector but also in the private sector, in households as well as nonfinancial corporations. . . . Also, there seems to be some movement, some faster growth in the world than those [rates] that are assumed by the IMF. So we make the assumption that the output increases by 1 percent higher than in the previous scenarios. Therefore, that will result in some increases in the net exports from the United States.

Also, although we don't make this assumption quantitatively but qualitatively, [we assume] that there will be some reforms of corporate taxation to encourage the onshoring process. Those of you who will

probably be following the United States, there was a major attempt through the writings of Alan Blinder and none other than Larry Summers, who suggest that the United States should actually eliminate all taxes for profits that will be brought from abroad to the United States, provided that these profits are used to create employment.

Of course, this is very easy to say, but if you look even in terms of quantitative analysis, what Mr. Blinder suggested is that \$1 trillion would be brought back to the United States. And if you make some crude calculations about using all of this \$1 trillion to create employment, you actually need to import people from Germany, because we don't have enough unemployed to [fill all of the jobs that would be created]. So again, that's an idea that I think sounds very good, but it's not necessarily very plausible.

Anyway, there is some movement to make some changes [to the tax structure], although I would say there's movement only in terms of the verbal statements, but not actions, since we see what's happening in Washington in terms of the United States not being able to pay its obligations—Congress believes that this is the way to teach the administration a lesson.

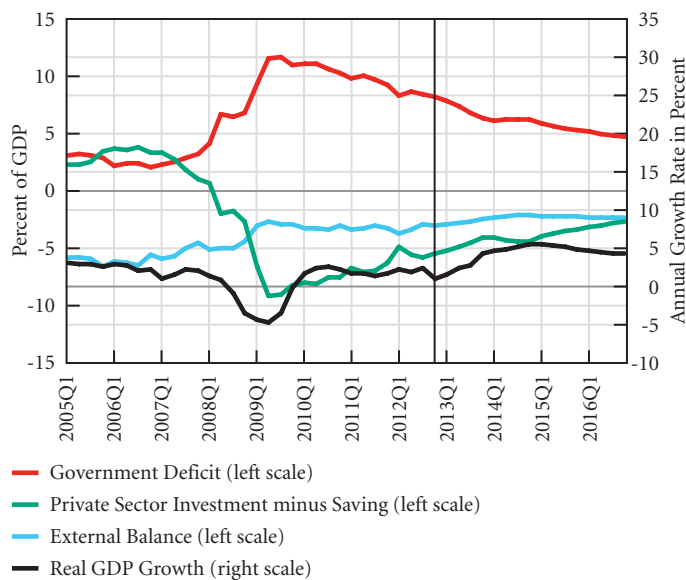
So we assume that there will be some expenditure, but also some expenditure from the other sectors. The government expenditure we want to focus on actually [is] infrastructure, which is decaying. It has been suggested that we have over \$1.2 trillion of infrastructure deficit—this has come from reports from the US Army Corps of Engineers. Felix Rohatyn and other people have been talking about it. It's interesting when you discuss going to Shanghai—getting off the plane and going through the airport in Shanghai and taking the train to go to town—as opposed to landing in JFK and then from JFK you want to go to Manhattan. . . . You wonder, which of the two is the developing nation: is it China, or is it the United States?

This scenario also, as I said, indicates that there will be some growth in all sectors. That means that there will be some borrowing. Indications show that consumer credit has been increasing; . . . not a lot,

but there is some increase. So it's a plausible assumption to make that it's possible for that to increase even further.

There's an interesting relationship that relates, actually, to research and development, and that is the relationship of the manufacturing sector with the trade deficit and the current account balance. You'll see that . . . the trends are actually the same: they're downward. One can say that the United States can export primarily high-technology goods. Of course, we also export financial services; I'm not sure they're very useful, but nevertheless, we can see the de-industrialization of America.

**Figure 3 Scenario 3: US Main Sector Balances and Real GDP Growth, 2005Q1–2016Q4**



Sources: BEA; authors' calculations



That has something to do [with] how much we invest in what is actually needed for high technology to grow, and that’s research and development. . . . [The United States isn’t necessarily] doing badly, but if you were to compare it with other nations such as South Korea and Germany and Japan, let alone China, we’re lagging behind. So we consider that to be . . . a good assumption to make.

[In terms of] US exports by country of destination [through] the third quarter of 2012 . . . , Asia and the Pacific are really where something’s happening, as well as Europe and Canada—Latin America also, although at the last count there seems to be some decline in US exports to that region—and Africa seems to be relatively stable. In terms of the trade-weighted US dollar exchange rate, there is some stability here, although there is a decline with the uptrend of the dollar against the renminbi, the Chinese currency.

With that said, what are the results of scenario 3? The private sector balance reaches 2.6 percent, which is more plausible than the 2 percent that we see here in the baseline (Figure 3). The government deficit is not as low as in the baseline scenario, but it’s not as high as in scenario 1 or scenario 2. The current account balance reaches a deficit of 2.6 percent by the end of 2016, GDP growth is a sort of healthy 5 percent, and as I will show you, again, the unemployment rate decreases and is actually much closer to scenario 2—that is, closer to 5.5 percent. . . .

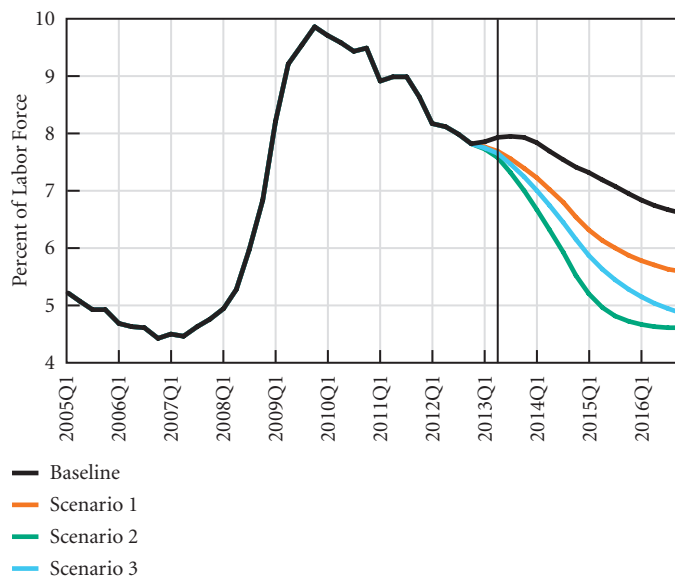
Again, I want to underscore that these are not forecasts but orders of magnitude. These are not really that at some particular time this is what’s going to be met. . . . Wynne Godley always warned us to make that statement, you know, so sometimes we sound like the Federal Reserve—“These are our personal views and do not represent the Federal Reserve System.” I think Wynne Godley’s record for forecasting has been quite, quite good, and we seem to be following in those footsteps of Wynne Godley. But still, I don’t want to say that they are forecasts—they are orders of magnitude.

A comparison of unemployment rates between 2005 and . . . 2013 and what is projected to 2016, which is the end of the simulation period [shows] the difference between the baseline scenario, which is the black line, [and] scenarios 3 and 2 (Figure 4). In 2015, you’ll see that at least they are closer to 5.5

percent—that again assumes that the government will play its role along the Minskyan lines of Big Government. . . .

In terms of the relationship between output growth and the effect of output growth on unemployment, you can see that what this chart (Table 2) represents is how much employment, in recovery periods, . . . will grow due to 1 percent of GDP growth. You can see that from .714, which was . . . four decades ago, it drops all the way down in the baseline to .258 [in the 2009Q2–2016Q4 period]. So Okun’s law has changed dramatically. You can see the results of all the scenarios, how they have

**Figure 4 Unemployment Rate, 2005Q1–2016Q4**



Sources: Bureau of Labor Statistics; authors’ calculations

**Table 2** Effect of Output Growth on Unemployment, 1975Q1–2016Q4

Period	Baseline	Scenario 1	Scenario 2	Scenario 3
1975Q1–1979Q4	0.714	0.714	0.714	0.714
1982Q4–1990Q2	0.528	0.528	0.528	0.528
1991Q1–2000Q4	0.382	0.328	0.328	0.328
2001Q4–2007Q3	0.42	0.42	0.42	0.42
2009Q2–2012Q4	0.288	0.288	0.288	0.288
2009Q2–2016Q4	0.258	0.283	0.301	0.294

changed. So we need a lot of support, a lot of fiscal stimulus, in order to reach a level of unemployment that one might begin to consider is equal to full employment.

Another sector that has always been a driver of growth in the United States has been the housing market. . . . In terms of housing units, permits, and the statistics that would tell us

something about where we are with the housing sector, the levels are very, very low in comparison to [pre-recession levels].

Let me just say that, to conclude, certainly we cannot afford to have more austerity. I think we have seen what has happened in Europe. We've seen that we have stubbornly high unemployment in the United States, and that through these scenarios a very small fiscal stimulus, especially at the end of scenario 3 with the private sector, could actually deliver the goods [in terms of] the target in unemployment that we wish to have.

There are, of course, other suggestions that could make unemployment much, much lower, and that's something that Jan Kregel referred to in his talk, about what Minsky had in mind in terms of an employer of last resort. That has been sort of talked about. . . . Robert Reich has talked about it. But I don't think this is fertile ground for the United States. It may happen elsewhere, but not in the United States.

So let me end here. Thank you. . . .

**Note**

1. Deepankar Basu and Duncan K. Foley, "Dynamics of Output and Employment in the US Economy," *Cambridge Journal of Economics* 37, no. 5 (2013).

**FRANK VENEROSO**

*President, Veneroso Associates, LLC*

**Minsky and Latin American Financial Instability: A Practitioner's View**



Emerging economies and financial instability and Minsky—in a sense, a practitioner's view. I guess I am a practitioner because my experience with this all goes back to when I was just out of school. I wound up working in the US stock market when we had a mini tech bubble, and I didn't know anything about economics or finance—but I did learn. The markets were wildly inefficient, and the psychology was really very, very important, and the psychology was nothing like what economists said it was.

Then I wound up having the good fortune to work on financial development in emerging economies. It turned out that, as we tried to develop financial markets, they went haywire more often than not, and there was no one around to be a specialist on how to deal with financial crises and bubbles and the like. Somehow or other, it fell to me, so I wound up working with a whole bunch of agencies on financial crises before there was really any theory at all about this. I mean, all there really was about banking crises was, you had the monetary history, Charlie Kindleberger's work, and Hy. So I spent a lot of time trying to [look at and be involved] in these different bubbles and these different financial crises and in how to think about them.

Well, let me tell you, you don't want to turn into a practitioner, because practitioners don't think. They have one model; usually, it's highly ideologically biased, and they are almost useless as advisers. On the other hand, you don't want to use academics either, because they have models that have nothing to do with the real world and they don't give a damn. So the key, I think, is what Keynes said: the essence of the game is to understand well small economic models and understand which ones apply to the real world that you're dealing with. I think that's the name of the game if you're practicing. But that means that you have to have a lot of models—not mathematical models, not formal models, but just small models that describe key dynamics. They're always too small and they're always inadequate, but if we don't have them, I don't think that we can think in a disciplined way.

So I've been involved in financial crises—well, financial bubbles and financial crises—since I started. I picked it up again when I was a strategist at a hedge fund, a strategist for a big financial conglomerate, and the strategy adviser to lots and lots of major funds. And always, I was drawn to financial crises and the bubble. So I've thought about it for a long, long time. And I don't think we can do what Martin [Rapetti] suggested, which is say, "Hey, I looked at Minsky and I find that there's a Minsky model here for me." I think that we have to be more disciplined about this. I think we have to say, "What is there and what's the logic of it? Precisely what is it about?"

You know, there are lots of people now who say Hy Minsky is about leverage speculation and asset markets, and they talk about stock markets and the like, and they pick this out of Charlie Kindleberger—

and Hy never really talked about it. And that's not very helpful when you really get down to the business of trying to think about financial crises that you're faced with.

So I thought about this for a very long time, and my mind's been focused because I've gotten involved in a project on China. I think that China is set up for the biggest financial crisis, potentially, in history. It'll take a long time, but every model of this kind of financial instability, almost, is at work in China. That really made me try and be more precise about how it all works. So I'm going to give you a couple of different financial instability hypotheses, and then let's relate them to emerging markets and see how they help us explain emerging markets.

The first one is what was called the financial instability hypothesis, and I'm going to really boil this down to bare bones. Everything in this game is about behavior. One of the favorite assumptions of the orthodoxy is that we are forward-looking, rational-expectations people that intertemporally optimize. This is a fantasy, and the fathers of this whole thing realized it was a fantasy. Somehow or other it persists, but that's just not reality. The reality is that we cannot see the future because it's so uncertain, and we have to make decisions anyhow. So they tend to be based on the present and the past, and they are based on the present and the past in diverse ways.

Now, the master of understanding the psychologies and the behaviors was Keynes. I mean, what the hell, in less than 20 years he made and lost two fortunes, and then the third time around he made 100 times on his money in six years. I mean, this guy was a real leverage swinger. He really had his finger in an electric socket. He really knew what was going on. Therefore, the key chapters in *General Theory*, we all look back, many many people now, as being the seminal, seminal texts.

For him, behavior was not only adaptive to convention, but it was highly unstable. The convention was unstable. In Hy, the convention is not unstable. In the financial instability hypothesis, boiled down—unfairly—basically, expected returns are adaptive. So you have recessions, which have low returns, and you have booms, which have high returns. Basically, what Hy said was, during a boom, people expect the good times to keep on rolling, and under those circumstances they will invest more and they will leverage out that investment somewhat. He didn't say they'd leverage it up . . . , because he thought there was a connection between investment and profits. It's a great fallacy, and he sort of knew it when he wrote the book on Keynes; but he decided to forget about it and insist it was the case.

Now, it turns out that if you go to the prewar world, which is where his theory comes from, it doesn't explain what happened in cycles and in financial crises. You just don't have, given what I told you, enough of a period of rising investment and rising indebtedness that the market mechanisms puncture it. So you need something more. There *was* something more, because we got these big booms, and we got all this indebtedness, and then we had these great crises. And the way that happened was that we had a different kind of expectations behavior, and we had a different type of relationship of profits to investment. We can get that from other economists, and I like to go to Schumpeter, because Schumpeter said two things. He said that when expectations went euphoric, they went really euphoric—I mean, they were the stuff of manias. They were pie-in-the-sky, totally unrealistic expectations that were above and beyond “let the good times roll.” And he said that the entrepreneur fostered the mania because, you see, the investment boom didn't come about from capitalists with profits. It came about from innovators and entrepreneurs, and they didn't have a capital endowment, so they had to *raise* the capital endowment. Therefore, the boom was highly associated with external finance, not internal finance. And in order to get that external finance, the entrepreneur had to lie. So you had manias. You had much more highly emotional kind of expectations behavior.

There is another thing that Schumpeter taught us, which was that when there is an excess of capital, although there still may be a marginal product, the financial return to that capital will collapse. There enter the swarming imitators, and when those swarming imitators come, there [are] competitive pressures, and the prices fall, the profits collapse, and the returns to capital go to the consumer in the form of lower prices. So when you have those things you can see how the boom can become so excessive and the profits can collapse, and the cash flows will not thereby validate the debts.

For that, we need something more yet, and that's price deflation. Whenever that process of price degradation occurred, we wound up with outright price deflation, and the price inflation, as Fisher explained, pushed up the real value of the debt. Therefore, the more the debtors paid off their debt by liquidating assets, by making position, the greater their debts grew as a result of the price deflation.

When you put all that together you can explain what happened in the prewar world about the genesis of financial crises. This required two things: one, it required an investment boom, which in the old days was centered around one innovation—or maybe more than one, but railroads, electrical power, steel, or whatever—and it dominated investment. And second, you needed this price deflation.

In the postwar world we had a much more diversified industrial sector. We had oligopolies and more monopoly profits, so less price degradation and *no* deflation. The question is, how did we have all these financial crises if [we] didn't have the conditions that were required for them in the prewar period?

How did Hy deal with this? Hy dealt with this in a very, very interesting way. Hy said that every time we wind up with a debt excess and an overinvestment that starts to set off a debt deflation crisis, . . . big government and the big central bank enter in order to be able to bail out debtors and keep aloft the level of income. You've heard about all of that, and that's absolutely true, and the economic agents came to realize that. Therefore, they were willing, since they knew there was a put now that they had, an insurance against catastrophic loss, that they could invest more and, more important, lever up more. And every time they did that, they made the system more financially fragile, and when they made the system more financially fragile, the next episode was a bigger threat to big government and the central bank. So there was a bigger response, and then there was even more portfolio plunging, more leveraging. This was a kind of dialectic, a historical dialectic, and it finally ended in the Great Crisis, followed by the greatest bailout anyone could have ever imagined.

This is basically a dialectical moral hazard. It's not a model, but Hy described it in [*Stabilizing an Unstable Economy*, 1986], and he had the idea before that. It's a very profound idea, because it's what generates the rising indebtedness without the deflation and without the price and profit degradation. So I think that that's the key to the postwar financial instability dynamic.

I'm going to come up with a third dynamic that comes out of Hy, and that is . . . Ponzi finance. Éric [Tymoigne] is quite right that Ponzi finance can go systemic. And when it goes systemic, it creates debt bubbles. But you don't require an asset bubble as collateral for a systemic Ponzi event. There are a lot of cases where you had systemic Ponzi—not micro-Ponzi, where one company needs to be able to capitalize the interest on his loan to complete a long-gestation project, but the whole economy capitalizing interest and thereby increasing debt, not through financing expenditures, but just through compounding its debt by capitalizing the payments of interest due. This happens even without an asset bubble.

Latin America is where I learned this. I was advising Chile, 1975 until 1983—a sound economy that had inflation wipe out its debt. Thirteen percent of GDP was the debt ratio at the end of that period of inflation. In seven years I saw that economy, without an investment boom, become so indebted internally as well as externally that . . . almost all of its major firms were busted, and all of its banks except Angelini's

bank [needed an intervention and] had to be . . . closed. How did that happen? That happened because there were very high real interest rates all the way from 1975 until 1983, and the banks and the borrowers agreed at every stage to capitalize those high real interest rates. It was largely through the Ponzi financing of high real interest rates that the debts of Chile, Uruguay, and Argentina mounted to critical points. There were different policy results. In the case of Chile, we intervened in all banks. In the case of Argentina, there was a bailout—governmental and inflationary, but the process was systemic Ponzi without collateral.

Why does that happen? I've written a paper for this conference, and I take a chapter out of a book I'm completing on China in order to discuss in detail what actually happened in Chile and what behaviorally led to this long-term systemic Ponzi. There were several things, not just one.

First, you have to realize that when you have an inflationary economy, all the guidelines for cash-flow coverage of debt payments and the like have to be thrown to the winds. You have the high nominal real interest rates. The only way that anyone can pay the rates and any banker can stay in business and make loans is if both the borrowers and the bankers agree to Ponzi-finance high nominal real interest rates. That's already a massive behavioral change. Once you have a high inflation, there are a lot of people in the system who will now experience that their debts have been wiped out by inflation. So as a result, in addition to the moral hazard that we've been talking about in a country like the United States, there's a new dimension to moral hazard in an inflationary country when people realize that inflation can somehow or other alleviate their debts.

And then the last thing is—and this is very important—whenever there's tight money there is a tendency for the borrower and the lender to agree to capitalize the high real interest rates over a short period of time to defer the costs of a bankruptcy, to defer the costs of adjustment. This happened in the 19th century. Even though we had deflations and panics, we always had these spikes in real interest rates. But in a world in which there is moral hazard, in a world in which there can be governments that inflate or bail out, people will defer by capitalizing real interest rates longer than they otherwise would. They make mistakes about what the future will bring. They think, "Oh well, somehow or other it will be all right, so we don't have to bite the bullet now," and they Ponzi finance their high real interest rates. And as their debts grow, they wind up getting into a situation where they can't even get out of that because now their debts are so big it actually doesn't make any sense to make position in Hy's sense.

So Hy had a concept of Ponzi finance. He never thought about it as a systemic event. He didn't even think about it as a systemic event when you had an asset bubble like Éric described. He certainly didn't think about the sort that I'm talking about. But it's been a very, very important part of all financial crises.

I've given you three mechanisms that I can relate to Hy that have to do with the real world, that have created overindebtedness and . . . financial crises. There's one last one, and it has to do with developing economies, and it has to do, above all, with Asian economies. If you go back to growth theory, it's a real simple idea. Basically, there is a warranted rate of growth, which is, for a developed country, the sum of labor force growth and productivity gains. That's the speed limit on the economy. You're in growth equilibrium when your capital stock is growing at the same rate, and for a given capital output ratio, that means when you have a certain investment ratio. For high-growth countries, particularly in Asia, capital stock grows very, very rapidly. You're in this period [where] you're adding capital per worker very rapidly, and you're also at very, very high productivity. So for a period of time you can grow much more rapidly than labor force growth plus some long-run warranted rate of technological progress. You both deepen capital and you have extraordinary total factor productivity because you've got all of these technological advances provided by the advanced countries which you don't happen to have. But what happens is that

development is a process of going from shallow capital and inefficient capital to the deep capital and the technologically advanced capital of the advanced countries, and that process works as long as there aren't diminishing returns, but increasing returns.

For an advanced country, Schumpeter [explained] why there are such rapidly decreasing returns, particularly decreasing financial returns. But because of the productivity potential from borrowing from the advanced countries, you can have a period in which you have increasing returns. As long as that's the case, you can capital deepen. But at some point you're going to approach the position of the developed country, where you can't do that anymore. There's no longer an opportunity for increasing returns, and you start to get pockets here and there and elsewhere of decreasing returns. That means that there's an arc of convergence. It goes [up] like this, and it can be very steep here, but it has to flatten out. For almost all developing countries, it never takes off. This is absolutely amazing. There's been so little convergence. In Latin America, you did this in the '60s and early '70s, and then you flattened out right away to a middle-income trap. In the case of emerging Asia, you did this for a very, very long period of time until you got a lot [closer] to the goal of the affluence of the advanced countries. But in the end, this process, plus dying demographics, slows the growth rate of the economy down. You have a speed limit. You can't get above that speed limit. These economies may attain the growth in their capital stock and a very high rate when the speed limit on demand, income, and output falls. That's a growth disequilibrium.

That can't happen in a capitalist economy, but it actually does. If you look at 1865 in the United States and the panic of 1873, you will see that growth disequilibria along Schumpeterian lines open up, but [they] can't last very long. But in developing countries there is a development imperative that doesn't exist in capitalist economies. The societies support governments that use all kinds of levers, including debt, in order to be able to maintain high investment ratios and very, very rapid growth rates in the capital stock. But at some point, as that speed limit slows, you start to generate excess capacity. When that happens, Schumpeterian-like, you wind up with price competition, [and] profits fall. That means, if you want to keep the investment high, it must become more debt dependent. You must find ways to provide the debt, generally through the banking system, which you control, and through the borrowers, which you influence, in order to keep the capital stock growing much more rapidly than demand, income, and output. That requires rising debt dependence, and when that occurs in, let's say, Korea, the debt-to-GDP ratio goes up by 50 percent in five years. It's not the external debt that was the problem; it was *this* process that was the problem.

In the case of China, even though you're at a very low level of capital stock, you happen to have this growth disequilibrium that you don't have anywhere else in the world. You're growing the capital stock at 11 or 12, you probably have a growth rate ceiling on demand of, say, . . . 7, and that's why you're now growing the debt-to-GDP ratio at 14 percentage points a year.

I've now given you a fourth mechanism for financial instability in developing economies, and this happens to be only in command economies. That's something that Hy didn't think about.

Now, the interesting thing about China . . . is that if you look at all four of these [mechanisms], they're at play. You have the wildest euphoric expectations among the private sector that the world has ever seen because of the high growth rates and the superhigh profit rates. You have more moral hazard in this economy than you have ever seen. In addition to that, you have the greatest growth disequilibria that's ever occurred in the world. You have systemic Ponzi. It's everywhere: everyone that's part of the development game in China knows that they will be refinanced. But it's all happening at a negative interest rate. If you go to a positive real interest rate in China, given this behavior, given these three other dynamics,

you will take indebtedness, grow it at 18 percentage points a year, and you'll explode it on the upside. They still have room. Their debt-to-GDP ratios aren't as high as they are in some countries. But at some point they're going to reach a limit, and if they reach a limit at a higher rate of ascent, then there's just going to be a great *fracaso* [failure].

That's basically my story. It's thinking simple models [and] applying them to the real world. Some of them go far beyond what neoclassical economists would ever think about. Some of them—most of them—pulled on Minsky; some of them are pulled out of elementary growth theory. And if you understand these little models, you understand how to apply them to the world. Then you can sort of analyze how these financial instabilities happen and you can foresee how they will go.

Thank you.

#### **Q&A**

**PAUL MCCULLEY:** . . . A really simple question: you conclude with the notion that if China ever had meaningful positive real rates it would all blow up, as if it were inevitable. Why not take your arithmetic—some unpleasant “Frank arithmetic,” if I can coin a phrase—and simply say it can't happen, and forecast low real rates until the last dog dies?

**FV:** The reason why you can't do that is because of the growth disequilibrium. You see, if the capital stock is growing at 12, and you can't grow demand more than seven—

**PM:** Why not?

**FV:** . . . The fact of the matter is that there's no labor force growth in China, so all of the growth is per capita income growth. Seven percent today is actually as high as it's been over the last 30 years, even though they climbed this arc of convergence. And for various reasons, the profit rate will keep falling; the debt dependence will keep rising. It's not a stable situation. To grow per capita income at 7 per annum, that's mostly total factor productivity. Some of it is added capital per worker; but to the extent that you don't raise the investment rate and start to bring it down, it becomes all TFP, and it's never happened before. China's the miracle in TFP. China had 15 years and began 2007 with 5 percent per annum TFP. I mean, you look at the Tigers, the Tigers never had 15 years with more than 2.25 percent per annum TFP. If you look at the first world, maybe it's 1. If you look at Latin America, maybe it's 1.3. I mean they have been *so* efficient. Once you climb this curve, you just can't keep it up.

**ALBERT KEIDEL:** I think that it's really valuable to have this kind of discussion, and you . . . and others have really raised the question of the high debt-to-GDP increases. There are a lot of ways to think about this. One is that . . . China now is in this arc. It's a late-, late-, latecomer—it's later than the Tigers, so the arc is higher. And in that diagram I had where you have growth rates linked to per capita GDP, China's 30 or 40 years behind Brazil and South Korea. So it's got some time.

Another factor is that the Tigers were all export led, so they suffered instabilities, and they also were seduced by the market's dark side into opening up their capital accounts, which introduced instabilities that also brought them closer to a middle-income-trap way of working. So China still has a long way to go. It's much too soon to “gloom and doom” on the basis of this kind of relationship. And since it's a domestically demand-led economy, the total factor productivity, if you think of it on the supply side, you



say, “Gosh, they must have been very efficient. How brainy are they?” But if you think that the TFP also responds to well-managed demand, the demand will pull out TFP from an economy if you’re growing fast, you have a different way of thinking about productivity and what causes it.

So in China’s case, if you can have demand that’s well managed—and that includes also investment in spending where it’s needed so that you can avoid the bubbles or the inflationary problems—and if you also manage your growth in a cyclical fashion—the Chinese just don’t have straight-line growth; they grow in a surge, and then they slow down to fight inflation, and then they grow in a surge again, and then they slow down to fight inflation—it’s a more stable process. And it’s very interesting about the structural reforms. Some of them are easier to do on the upturn of the cycle—that’s particularly [true of] price reform, where you’re adjusting relative prices—and others are easier on the downturn of the cycle, which is unemployment restructuring and the fallout of firms that need to fail and the sell-off of state-owned enterprises in the late ’90s, which continues as you go up and down in the cycle. That’s a very different process than the one the Tigers have, and it involves demand management that a lot of economies really don’t do very well, because they keep thinking, from the supply side, what do we have to do? The Chinese are therefore in a position to continue to do this for quite some time. And then the arc will come down as they approach.

But the US per capita GDP is about \$50,000 a person. If you look at China, it’s either 6 or 9, depending on whether it’s exchange rate or PPP [purchasing power parity]. They have a long way to go. The question is, can they avoid seduction by the dark side?

**FV:** You’re absolutely right in everything you say, and I’m surprised that the debt ratio’s taken off as fast as it has. I’ve looked at a lot of companies and a lot of industries, and you just happen to find a lot of companies and a lot of industries where this whole Schumpeterian event has occurred.

We talked about solar. I mean, [China] got 17 companies in six years, and they go out and they perform a miracle. They build a capacity that equals three times the local demand, and the price of solar falls by 85 percent. People didn’t think this would happen until 2020, but it left them without any profits, and so therefore they cannot continue to invest.

If you take a look at the construction equipment companies, Kubota and [Caterpillar] built in China capacity equal to two times, not Chinese demand, [but] world demand. . . . Zoomlion is in that business, and Zoomlion is *on the ropes*. There’s too much debt and not enough profits—not *any* profits. We don’t really know *what* Zoomlion’s numbers are. So when you see major industries like this, you can see that the story is unfolding. And you can say . . . that it shouldn’t unfold at a per capita income of 18 percent of capital stock . . .—problems didn’t start happening in the Tigers until it was 45–60 percent—but the numbers say it’s happening.

**LEONARDO BURLAMAQUI:** Let me throw—I don’t know if it’s an idea or a provocation—in your Minsky story. I would say, looking from precisely a Minsky perspective, I think you have on one side all the elements of an unstable economy in the sense that it’s growing very fast, and as such, obviously, you have those kinds of behavior growing—let’s say, from hedge to speculative to Ponzi. So you have a lot of finance happening there, but you also have, I would submit, all the elements that Minsky would put on the side of stabilizing his unstable economy—many. You have the big government, you have the big bank. “The big bank” means all the nation’s banks, or most of them, and the most important ones—the public and developmental . . .—and you have sort of an employer of last resort in the sense that there is a lot of

preoccupation with that. So we have both sides. You would have the recipe, also, to stabilize an unstable economy while it grows very fast. In that sense, I think you highlighted the unstable or the instability bump factors; but you didn't pay the same attention to the elements which would be precisely on the other side of the fence to tone down and stabilize an otherwise very much unstable economy.

**FV:** I agree with you in the sense that it's a command economy and they will use big government and they will use the big bank in the broadest sense of the word—development banks, everything included—to keep the thing going. The problem is that that means that the disequilibria will persist, and at some point the disequilibria will become too much for policy—the growth disequilibrium, the moral hazard, and the degree of Ponzi finance.

Look, Wall Street says this is an economy on the point of a Minsky moment, and it is a Ponzi economy. Now, it's an economy that has enough debt that, if it was a market economy, it might be at the point of a Minsky moment; but it's a command economy, so it is not. So they're wrong in that sense. And it is a Ponzi economy in the sense that, always, everyone gets refinanced—that's just agreed. You're part of the developmental process. You have any problems, you'll get refinanced. But it's all been happening at a negative real interest rate, or a zero real interest rate. . . .

**ALBERT KEIDEL:** They're not negative.

**FV:** But the loan rates have been, on average, marginally positive. That's been very important. So it's not been a corrosive Ponzi; it's been a manageable Ponzi.

But I want to go back to some more profound thing about this. When I was looking at Chile and other countries in Latin America and the Third World debt crisis, . . . I kept trying to use extant models of financial instability and crisis to explain what was happening in Latin America, where indebtedness was growing. And I realized at some point that this was wrong—that the work of Charlie Kindleberger, for example, or even Hy, had to do with the prewar world, where we didn't have these high degrees of intervention. And it was only because we had the high degrees of intervention already, and that it changed behavior, that we now had very rampant moral hazard—that we were able to generate these mounting debts. And Hy realized this—that once you started the process of big government and the big central bank, people's behavior would change. So the system became a dialectic in which the process got worse and worse and worse, and that's what happened in 2007 and 2008. Some of us think that because we've now had the great bailout, . . . we're going to change behavior even more—that we've sown the seeds for another cycle, and at some point it just becomes unmanageable.

In the case of China—it's a command economy—that's already happened. The behavior has radically changed. As a matter of fact, my message is, the Washington consensus wants to liberalize, and the PBOC [People's Bank of China] says it wants to liberalize, and Li [Keqiang] says he wants to liberalize. Given the behaviors and given the financial structures, if you liberalize this economy with those things, you'll blow it up.

**AK:** I think what you just said is what I and others were saying, that financial liberalization is a real risk.

I want to come back to something that Katharina [Pistor] brought up, because I think it helps to some extent. If you have a system run by rules, they can really mess you up, and you finally need someone to break out of the rules and make decisions that don't follow the rules. Maybe that's bad paraphrasing

on my part. A friend of mine, a law professor at NYU who works on China, says that everybody talks about the need for the rule of law if you're going to develop successfully, but they don't mention China, which doesn't have that kind of rule of law. Instead, instead of laws and rules that can get you in trouble the way Katharina was describing in a certain crisis, at least to my mind, you have adults in charge, and so you will see decisions being made that make sense when you reach a certain tension or pressure point.

Now, there are some corrections I would like to make in your characterization. You're not as sort of extreme as some of the people that I have to talk with who say it's a Leninist state and this is the way Leninist states operate, and therefore [it's] bound to fail. You're just saying it's a command economy. That's not correct. It's a *mixed* economy. Interest rates are low when you're in the banking system and financing public investment; but loans from the banking system in China are 15 percent of capital investment. It goes up to 20 in a period of stimulus, like during the SARS epidemic of 2003–04, and it goes up again when you have to respond to the combination of their own domestic downturn that was in sync with the scare of Lehman Brothers—it goes up closer to 20 percent, but then it comes back down again.

But what that five-percentage-point difference does is, it maintains the investment sources coming from retained gross earnings, which are 66 percent of capital investment in China. And the rate of return is very high, because the rate of return is an opportunity cost of China, and investors get their money back in two or three or four years because they are managing demand in ways that make those investments profitable for that 66 percent that's coming from the corporate and quasi-public revenue-earning group.

So there are some characterizations that are very understandable, very plausible. People think it's an export-led economy because it must be like Japan, or they think it's Leninist because it really has communist nomenclature; but it has its own characteristics which really help us understand why even at just \$9,000 per capita PPP you think it could collapse. It's not going to happen for a long time, and the adults will make sure of that—unless the adults get seduced by the dark side and open the capital account and liberalize the financial system. Then, I agree, they're in trouble—that's really dumb development policy.

**FV:** I think you understand China superbly. You're absolutely right that it's been a superhigh profit rate that has financed the capital accumulation at warp speed—that's the way I put it. It actually falls right out of Lewis and unlimited supplies of labor, at least as a starting point. And then if you add in a very low exchange rate, or at least a very low cost of goods . . . you have this diaspora of the Chinese merchants that all came back again in a way that doesn't happen in any other economy. And all these kinds of things led to this reinvestment at superhigh profit rates. You're absolutely right. But what I see happening now is that, because the capital stock is growing so much more rapidly than demand, we are starting to get excess capacities that won't be filled up by growth and, as a result, declining profit rates. . . .

I want to say one other thing about debt finance and whether it's a command economy. I've always wondered, is it a command economy or isn't it a command economy? When output started to collapse at the end of 2008 and they came in and turned it around, they didn't turn it around with fiscal policy; they turned it around by instructing the banks to lend to any possible project, and they told the people that had the projects, "You borrow." We had an increase in bank debt equal to 25 percent of GDP in six months. That's never happened. This is a process whereby a bank can create purchasing power by lending, but in market economies, the lenders will never do it and the borrowers won't do it. But in China, the banks lent and the borrowers took the money. They didn't spend the money—you can't spend the money that fast. They deposited the money back in the banks and they kept it there and started to then spend it

on fixed investment. But that was a command economy event. You can't tell your banks and your borrowers to do this to the tune of 25 percent of GDP in six months unless you're a command economy. . . .

That aside, I do think if you look at individual industries on the private side that we do have this excess capacity, we do have these falling profits, we do have these higher debts, and it always feels to me like the private sector in China is ready to spill into a debt deflation cycle, and every time the government senses it, they give state-sponsored investment another push. That's what they did in the first half of 2009, and I think that that's what they're doing now. If I look at steel production, if I look at railway investment, and I look at the credit, that's what it looks like to me.

So I think your characterization is true pre-2009. I think it is less and less so. . . .

**AK:** But the investment grew quickly in 2003 and again in 2009, but then the growth slowed again; so that there is a response to it, and that's understandable. But . . . you hear these cries of excess capacity in steel, and how much the national use of this is, but then three years later, they don't have enough capacity. If you're going to try to catch up with the advanced countries, and you're only at \$6,000 or \$9,000, depending on how you do it, per capita, . . . you're still at a per capita level below South Korea. So the idea of excess capacity depends on if you're stuck in a rule-based society, where excess capacity for a few months shuts you down as a company. Then you're in trouble. But if you've got adults in charge, you can keep going, and that capacity will be used, and it won't be enough.

**FV:** In the long run, you're right, but it's a rate-of-change problem. When you're here, it gets filled up; when you're here, you've got to slow down.

In any case, I want to say one thing about Latin America and Minsky, . . . because we were just talking about what caused financial crises in Latin America, and Martin [Rapetti] showed us that it was very much related to current account deficits. But I want to emphasize the horn of Latin America at the end of the 1970s, the beginning of the 1980s; because it wasn't only the external debt that rose. There was this process of exploding domestic currency debt, internal debt, and it was a systemic Ponzi process—it was a systemic Ponzi process without collateral. It's a very, very interesting instance of the pathologies of finance. It's very Latin American, but it has a place in almost all of the major financial instabilities, more or less. So I think that's something that wasn't brought up in the course of our talking about Latin America. I think everyone should learn about that if they don't know anything about it. I put quite a bit of detail into the paper for this conference for anyone who wants to brush up on it.

Thank you.

## Sessions

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### SESSION 1

*Brazilian Growth Prospects in the Global Context*



Rogério Sobreira, Esther Dweck, Albert Keidel

**MODERATOR:**

**ROGÉRIO SOBREIRA**

*MINDS*

**ALBERT KEIDEL**

*Atlantic Council of the United States*

**ESTHER DWECK**

*Ministry of Planning, Budget and Management,  
Brazil*

**KEIDEL** argued that Brazil’s long-term economic growth prospects turn on the question of whether that country can learn from and emulate China’s domestic investment- and consumption-led growth model—and that if it cannot, Brazil’s prospects are not good.

China, he said, represents a development success story. The key to its success is that its economic growth is driven by domestic demand, not exports. It has successfully insulated itself from global instabilities, according to Keidel, while deep involvement by the Chinese government in the financial sector has resulted in the optimal use of its domestic financial system.

Keidel observed that his position diverges from the conventional wisdom on China’s prospects and elaborated on why he thinks this conventional wisdom is inconsistent with the facts. The first conventional “myth” he dealt with was the idea that China’s economic growth is due for a significant slowdown. Keidel argued that, on the contrary, China’s economy follows a clearly observable

macroeconomic cycle involving investment-led surges leading to inflation, tightening, a renewed surge, and so on—all occurring at a very high level of growth—and that it is currently at the bottom of such a cycle rather than on some new, low-growth trajectory. A set of new reforms, which follow a change in political leadership, will be rolled out in the fall and will center on urbanization; this will be an investment-heavy process that will keep the Chinese economy growing in the high single digits, he said.

The second mistaken narrative, in Keidel's view, is that China's investment as a share of its GDP, which is quite high, is bound to come down, and quickly. Keidel countered that it cannot and should not, and added that Chinese policymakers are not making the share of investment in GDP the core of their economic strategy.

Third, he stressed that China's economy is not export led. Unlike, say, the German economy, Chinese growth does not slump in reaction to US slowdowns. The Chinese economy is domestic demand led, and the state's active role in the financial sector is key to this model.

The fourth misconception is that China's financial system is inefficient. Keidel countered that the system is optimized, not in spite of, but because of the state's controlling presence in the financial sector. The system is better than purely market-based finance and is "efficient," he qualified, in the following sense: it provides adequate levels of funding for public projects. The Chinese fiscal-financial system involves a tax on depositors, in the form of caps on deposit rates; a nonindependent central bank that engages in accommodation; and required bank lending directed to public projects. He added that China's capital controls prevent the country from being buffeted by short-term capital inflows and outflows. While there is some capital flight, the leakage has been reduced to harmless levels.

Keidel suggested that China's issues with local debt are manageable and pointed out that these debts have played a part in building Chinese infrastructure and generating employment. Banks lent a lot of money to local platform companies responsible for various projects (companies that were set up off budget in order to reduce corruption, Keidel observed). Rapid nominal GDP growth should dispel many worries about servicing these local debts, and an upcoming audit should tell us more about the situation. Keidel added that it is important to note that most Chinese banks are government-owned deposit-taking institutions operating "for the public will," as he put it.

Finally, Keidel pushed back against the idea that China suffers from serious domestic imbalances—specifically, the notion that investment is too high as a share of GDP. First, he insisted that a high investment rate is essential for job growth and poverty reduction—that is, he qualified, if inflation is kept low, consumption keeps growing rapidly, and the investment is reasonably efficient. Regarding concern that consumption is declining as a share of GDP, Keidel noted that (real) consumption growth has actually accelerated in the last decade—in that sense, China has consumption-led growth. He cautioned that we should not confuse this with a declining share of consumption in GDP. To get consumption growing this quickly, he explained, you also need to have rapid investment growth and a high share of investment in GDP.

Keidel concluded by arguing that Brazil's current policy tools are inadequate to the task of improving its economic performance. Brazil's vulnerability to capital flows is causing problems with its exchange rate, and its currency, as he put it, is "horribly overvalued." To emulate the Chinese model, Keidel recommended that Brazil dramatically expand the role of the state in its financial system, including monitoring and controlling short-term capital flows; weakening the *real*; capping bank deposit rates; expanding directed credit; and strengthening the use of the off-budget local platform concept for financing public projects. This will all help Brazil push the investment rate up while tamping down on capital flows—

which needs to happen simultaneously for Brazil to succeed, said Keidel. Otherwise, Brazil will remain a resource-heavy, export-led economy with inadequate domestic job growth.

As chief economic adviser to the Brazilian government, DWECK countered that the Brazilian model is one of domestic demand-led, not export-led, growth. Moreover, she portrayed the recent slowdown in the Brazilian economy as chiefly cyclical, rather than structural, and argued that it had more to do with the international environment than with domestic conditions.

Beginning in the 2000s, exports were the main contributor to economic growth in Brazil. In 2005, mass consumption began to be the main driver. She credited this shift toward consumption-led growth to the government's attempts to tackle income inequalities and raise incomes—through, most notably, increasing the minimum wage.

Following the Latin American crisis of the 1980s, Brazilian investment in infrastructure stagnated for 20 years, according to Dweck; when growth came back in the 2000s, bottlenecks developed. However, since 2007, after a program designed to address those bottlenecks was implemented, infrastructure investment has joined consumption as an important driver of Brazilian growth. Since then, investment has been a bigger contributor to growth than consumption, and in 2009 the role of public investment was further expanded by the addition of a housing program designed to address housing deficits and create jobs.

Brazilian growth was “stop and go” until 2003–04, Dweck observed, mainly because of a series of external shocks. After that point, growth accelerated and was more sustained, and recovered quickly after the 2008 crisis. The improved growth of the 2000s was paired with a decrease in income inequality—the result, said Dweck, of an inclusive growth strategy.

According to Dweck, Brazil has also managed to reduce its external vulnerability. Compared to the late '90s, during the 2008 crisis Brazil had much lower external debt, higher reserves, and a lower current account deficit as a percentage of GDP.

Dweck described Brazil as possessing a “tropical welfare system.” This system features pensions, a strong public workforce, and the Bolsa Familia plan (a conditional cash transfer scheme). According to Dweck, these programs help support domestic demand-led growth in Brazil, and the strength of the safety net ensures that crises are not too deep. She also stressed that Brazil's minimum wage hike did not have negative employment effects; in fact, it was followed by a rapidly falling unemployment rate.

Expanded household credit has also contributed to demand, said Dweck. While directed credit loans play some part in this, she noted that income growth, as a result of improving income inequalities, also helped expand household credit. Worries about this credit expansion leading to instability should be tempered by the fact that Brazilian incomes are also growing, Dweck explained—by contrast with the precrisis experience of the United States, in which credit increases were accompanied by stagnant incomes.

Although the Brazilian economy slowed down in 2011–12 after its quick postcrisis recovery, almost every country experienced a slowdown, Dweck noted. The main question, she said, is whether the economy will speed up or return to stop-and-go growth. Responding to claims that Brazil's low unemployment rate indicates that its potential GDP growth has decreased—that Brazil is effectively at full employment—she countered that Brazil still has room to move people from low- to high-productivity jobs. Dweck also explained that productivity is endogenous, and that the causality flows from economic growth to productivity, not the other way round. She presented evidence suggesting that low unemployment is an engine of growth rather than a restriction that leads inevitably to inflationary pressures. Infrastructure investment will continue to be a source of growth, and while private investment has decelerated, this is

normal in an economic slowdown, Dweck argued—it is not related to anything like “jurisdictional insecurity” (to private investors being scared off by government policies).

The Brazilian government will stick with the same growth strategy it has been relying on, according to Dweck, featuring three key engines of growth: income distribution improvements, natural resources, and infrastructure investment. Beyond exchange rate management to deal with the country’s overvalued currency, improving Brazil’s international competitiveness should involve continuing with infrastructure investment, making taxes less regressive and less production based, and reducing financial costs, Dweck suggested.

She identified potential leakage of domestic demand, as evidenced by the growing gap between retail trade and industrial production, as a challenge to Brazil’s growth strategy. Deficient global demand represents a further challenge: surplus countries are not growing as much as they could, and while Brazil has pursued a strategy of raising labor income, she suggested that the rest of the world has been moving in the opposite direction, leading to a “race to the bottom” on labor costs. Another contributing factor to insufficient global demand is underpowered fiscal policy, which Dweck traced to 20 years of macroeconomic theory and practice that has downgraded fiscal policy and elevated monetary policy.

She closed by asking three questions. First, will China be an engine of growth for the developing world or a competitor? Second, will the US recovery be a blessing or a curse for Brazil, particularly with regard to interest rates, exchange rates, and capital flows? Finally, what will happen to commodity prices—will prices be more related to international demand (especially from China), she asked, or will they follow fluctuations of the US dollar?



## SESSION 2

### *Governance of International Capital Flows (Capital Controls)*



Luiz Fernando de Paula, Kevin P. Gallagher, Fernando J. Cardim de Carvalho

**MODERATOR:**

**JAN KREGEL**

*Levy Institute and Tallinn University of Technology*

**KEVIN P. GALLAGHER**

*Boston University*

**FERNANDO J. CARDIM DE CARVALHO**

*Federal University of Rio de Janeiro*

**LUIZ FERNANDO DE PAULA**

*University of the State of Rio de Janeiro*

**GALLAGHER** discussed possible improvements to what he regarded as a broken system for regulating capital flows, which would feature developed economies incorporating the externalities of their monetary policies and coordinating on financial reform, and emerging economies developing stronger capital flow management strategies.

There is a volatile global financial cycle that, since 2008–09, has become more accentuated than ever, according to Gallagher, with the Federal Reserve acting as the main “push factor” in the surge of capital flows into developing countries (which are followed by sudden stops and then renewed inflows). The expansion of the Fed’s balance sheet has created abnormally low interest rates, but given the lack of productive investment opportunities in the US economy, investors have looked abroad. Gallagher discussed research by Hélène Rey demonstrating a negative correlation between the VIX (an indicator of volatility) and the expansion of leverage, credit, and equity outside of the United States. Moreover, Rey’s research points to the federal funds rate as the most significant driver of the VIX. When the rate is low, the VIX

(volatility) declines, and a considerable expansion of leverage, equity, and credit occurs abroad (for four to five quarters afterward). Gallagher noted that this process has operated through foreign exchange derivatives markets, particularly where interest rate differentials between the United States and other countries have been highest, and that the carry trade has been the central foreign exchange instrument. These massive capital flows result in a “financial amplification effect”: inflows lead to an appreciation of the exchange rate; domestic credit is expanded, which increases aggregate demand; then, after a sudden stop, the positions are unwound and there is a decline in prices and a reduction in exchange rates, resulting in significant balance sheet effects and slow growth.

In the wake of the global crisis, however, many emerging market countries imposed regulations on capital flows. Many countries used what Gallagher referred to as “first and second generation regulations”: first-generation regulations are quantitative restrictions on capital inflows; second-generation regulations, which are more market based, involve taxation of capital inflows. However, Brazil, Peru, and South Korea also created what Gallagher called “third-generation” capital account regulations: direct regulation of the foreign exchange derivatives market. He observed that the Federal Reserve’s emerging markets division has produced research showing that countries using capital account regulations had less exchange rate appreciation in the wake of the global financial crisis compared to those that did not.

However, according to Gallagher, we should not conclude that this system is working—a system in which the United States and other core countries shape their monetary policies without regard for the consequences in the developing world while simply refraining from intervening when the latter attempt to manage those consequences. In reference to Charles Kindleberger’s list of the public goods that a hegemon (or international institutions) needs to provide to prevent and mitigate global financial crises, Gallagher observed that there has not been sufficient coordination in three particular areas: providing countercyclical lending, policing a stable exchange rate system, and ensuring macroeconomic coordination.

Although the International Monetary Fund (IMF) has been getting credit since 2010–12 for having endorsed capital controls, Gallagher clarified that the IMF is really looking at capital controls as a measure of last resort, and that it still regards capital account liberalization as the ultimate goal for all countries. And in terms of coordinating bodies, although the conversations coming out of meetings of the G20 (as opposed to the G7) reflect some consideration of the importance of negative spillovers (from the balance sheets of the core central banks), there is still no significant coordination on macroeconomic policy.

Finally, he stressed that there has been very little coordination on financial regulatory reform. Gallagher noted then—US Secretary of the Treasury Timothy Geithner’s 2012 decision to exempt foreign exchange swaps and forwards from pending Dodd-Frank regulation. Geithner’s reasoning at the time was that the foreign exchange derivatives market was not at the core of the North Atlantic crisis—demonstrating, said Gallagher, that the United States is crafting its regulatory reforms without regard to global spillover effects. Gallagher also suggested that there needs to be more attention paid to bilateral investment treaties: the United States requires that all transfers of investment flow freely, without even an exception for balance of payments crises. Gallagher noted that Brazil has a policy to not sign bilateral investment treaties of this sort, giving them the flexibility to pursue the type of financial regulations they have been using since the crisis.

A more coordinated approach would include stronger capital flow management strategies on the part of developing countries. Gallagher suggested that, for communication purposes, these are best “cloaked” as macroprudential measures; and that, to keep markets calm, the regulations should be tied,

as part of a permanent piece of legislation, to automatic triggers as opposed to being implemented on an ad hoc basis. In addition, industrialized nations need to internalize the negative spillovers of their monetary policies. Monetary policy should be channeled toward domestic productive investment, such that the spillovers would occur through imports, thus expanding employment in the developing world. Industrialized countries should clearly signal policy changes beforehand and vocally support capital flow management on the part of emerging market countries. Finally, in Gallagher's view, international institutions should facilitate coordination on more equal footing for emerging markets and there should be more IMF surveillance of industrialized countries.

**CARDIM DE CARVALHO** articulated some lessons for the Brazilian economy on the topic of the practicality of capital controls. He began by noting that Brazil had an extensive set of capital controls until the debt crisis in the early 1980s. These controls were built around the legal principle that there is a right of exit only for capital that has first come in to the country—such that Brazilian citizens do not enjoy a legal right to send money abroad. This is, he explained, important to keep in mind, because the discussion of capital controls tends to focus too much on foreign capital. The problem of capital flight is not always caused by nonresidents. In fact, he said, it is generally the experience that foreign investors follow the movements initiated by residents.

In the second half of the 1980s, under the IMF's adjustment programs put in place after the Latin American debt crisis, Brazil's extensive capital controls (both on inflows and outflows) began to be dismantled. This dismantling continued through the 1990s and 2000s, and was pursued by governments across the political spectrum. Cardim de Carvalho observed that the capital account liberalization throughout this period was achieved by circumventing the law, through what he described as a "back-door" mechanism by which the central bank, which issued instructions to banks on how to register transactions, reduced those requirements until they were nonexistent.

He listed five lessons we can learn from the period following the mid-1990s, after inflation was brought under control. First, not all balance-of-payments problems are caused by the capital account. It is a mistake, he said, to expect too much from capital controls. Even if we could control capital flows, he emphasized, Brazil would still have balance-of-payments vulnerabilities due to factors that are relatively independent of the capital account; for example, overappreciation, deindustrialization, and the fact that it is very expensive for tourists to come to Brazil (but very cheap for Brazilians to leave).

Second, floating exchange rates do not eliminate the need for capital controls. When too much capital flows in, the currency overappreciates and the country loses exports and domestic competition; when there are sudden capital outflows, the currency rapidly depreciates, which causes inflation and balance sheet problems (particularly for Brazil's highly indebted private sector). Under an inflation targeting regime, he continued, the problems associated with depreciation are even worse: depreciation will cause pressure on prices and force inflation-targeting central banks to raise interest rates.

Third, the shortcomings of liberalization cannot be solved by further liberalization. He pointed out that this misconception was commonly found in the IMF's rhetoric during the '90s and the beginning of the 2000s: when Brazil experienced excess capital inflows and over-appreciation of its currency, the IMF simply recommended more liberalization of capital outflows. However, Cardim de Carvalho argued that the idea of facilitating payments abroad for exporters or financial investors as a means of counteracting over-appreciation does not work. He pointed out that most of Brazil's capital inflows since 1994 were due to interest rate differentials—given high differentials, it doesn't matter if one makes it easier for capital to leave the country, because, as he put it, "nobody does."

Fourth, simple, blunt regulatory instruments are superior to detailed, discriminatory controls. One of the main problems with Basel 2, he argued, was that it was motivated by the unworkable idea of coming up with sophisticated mechanisms for discriminating between good and bad capital inflows.

And fifth, as a political matter, it is easier to maintain controls than it is to reinstate them: they can be dismantled rather quickly, but putting them back is quite difficult. Liberalization creates interest groups that enjoy the gains of having access to an overappreciated currency (such as increased access to modern imports and cheap travel abroad)—groups that then treat the introduction of controls, such as financial transactions taxes, as abridgements of “fundamental” freedoms. For these reasons, he suggested that if there are, for instance, particular taxes on the books, policymakers should reduce them to zero instead of eliminating them.

**DE PAULA** discussed recent characteristics of cross-border capital flows; the question of whether the implementation of free-floating exchange rates combined with more open capital accounts is allowing greater independence for monetary policy; and the contrast between the IMF’s new institutional approach and what he called a more integrated approach to capital account regulation.

De Paula began by observing a correlation between advanced and emerging economies in terms of their gross capital inflows. However, net capital inflows in the advanced economies tend to be at relatively low levels, whereas emerging economies have much higher net inflows, moving in concert with their gross inflows. The explanation for the low level of net inflows in the case of advanced economies is the complementarity between the latter’s gross inflows and its gross outflows. In the case of emerging economies, however, gross inflows are generally higher than gross outflows—thus leading to higher net inflows. De Paula noted that both advanced and emerging economies exhibit volatility, and that, for both groups, capital inflows and outflows tend to rise when global financial conditions are easy and fall when conditions tighten.

These recent characteristics of global capital flows have important consequences for emerging economies. As de Paula pointed out, capital flows are procyclical: episodes of large capital inflows are associated with acceleration of GDP growth, after which growth typically falls quite sharply. For emerging economies, the surge in capital inflows is also associated with real effective exchange rate appreciation, which reduces economic growth. Moreover, emerging economies have much larger capital flows relative to the size of their financial markets; this explains, said de Paula, why they experience greater exchange rate volatility as compared to advanced economies.

De Paula then discussed the concept of the impossible trinity (or “trilemma”), which states that countries cannot simultaneously have a pegged exchange rate, an open capital account, and an independent monetary policy. The trilemma tells us that, with a floating exchange rate, a country can have a more independent monetary policy, but BIS (Bank for International Settlements) research suggests that, due to greater global financial integration, just the opposite is true. The co-movement of domestic interest rates in emerging economies with US interest rates is actually higher under flexible exchange rate regimes than it is under pegged regimes. Along similar lines, he noted recent research by H el ene Rey that suggests the “trilemma” has actually been transformed into a dilemma due to the global financial cycle: independent monetary policies are possible if and only if the capital account is managed. When capital is mobile, floating exchange rates cannot insulate economies from the global financial cycle.

According to the IMF’s “new institutional approach,” capital controls are now considered an acceptable instrument—but only temporarily and as a last resort, after other instruments have been used (such as macroeconomic policies and prudential regulations on the domestic banking sector). De Paula made

the case that a more integrated approach to capital account regulation is preferable. Capital account regulation should be seen, he argued, as a permanent part of the policy tool kit that can be used to smooth out booms and busts. In addition, there are important feedbacks between capital controls and prudential regulation that make them complementary measures. Pointing to the Brazilian experience of 2009–11, which included the implementation of price-based capital controls in the form of a tax on capital inflows, he noted that Brazil had success only when it combined these controls with prudential regulation and foreign exchange derivatives regulation.

### SESSION 3

#### *Governance for Development: Capital Flows, Exchange Rates, and Emerging Market Development Strategies after the Crisis*



Nelson H. Barbosa Filho, Luiz Carlos Bresser-Pereira, Roberto Frenkel, Taun Toay

**MODERATOR:**

**TAUN TOAY**

*Levy Institute*

**NELSON H. BARBOSA FILHO**

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*Center for the Study of the State and Society*

**LUIZ CARLOS BRESSER-PEREIRA**

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**BARBOSA FILHO** examined the evolution of Brazil's exchange rate and the implications for growth, distribution, and development strategy more broadly, closing with some alternative approaches to increasing competitiveness. Since 2006, most of Brazil's exchange rate fluctuations have been determined by the evolution of commodity prices and international financial conditions, rather than domestic conditions. After the 2008 crisis, as a way of addressing the impact of quantitative easing (QE), Brazil adopted capital controls to prevent overappreciation. More recently, Barbosa Filho said, the expectation of the end of QE in the United States has produced depreciation in Brazil. Despite the recent depreciation, however, he noted that the Brazilian *real* has a tendency (in the absence of shocks) to overappreciate, due in part to Brazil's system of inflation targeting.

Barbosa Filho explained that in Brazil the exchange rate is the main transmission mechanism for its monetary policy. When interest rates are increased in Brazil, there is not a large wealth effect; the stock market does not respond very much to the

interest rate. Although the credit channel in Brazil is improving, he said, there is still not a strong negative effect on credit markets when interest rates are raised, as compared to advanced economies. The government does not target the exchange rate but it does try to reduce its volatility. And so, while in theory inflation targeting is compatible with exchange rate smoothing, the Brazilian currency has a tendency to appreciate since Brazil depends so heavily on the exchange rate channel for its inflation targeting.

Since the beginning of inflation targeting in 1999, the real exchange rate appreciated in almost every year (every year but one, he specified) in which the inflation target was met. Due to international conditions, he said, Brazilian monetary policy cannot count on the continuous appreciation of the real exchange rate to control inflation.

According to Barbosa Filho, there is a long-run relationship between the level of the exchange rate—the level at which relative prices stabilize—and the economic growth rate in Brazil. There is also, he said, a relationship between the level of the exchange rate and inflation. These two facts mean that inflation targeting in Brazil ends up limiting the fluctuation of the exchange rate. Although the government does not directly target the exchange rate, it has an asymmetric response to exchange rate volatility: depreciation leads the government to raise interest rates (rather than relying on foreign exchange operations), and when there is appreciation, it relies more on the accumulation of international reserves, since inflation targeting limits how much the government can reduce interest rates.

Over the long run, either too much appreciation or too much depreciation is bad for economic growth. When the exchange rate is too depreciated, there is too much inflation and the government reacts by decelerating growth. When the exchange rate appreciates too much, there is a current account problem, and the government likewise decelerates growth to deal with this. For inflation, he demonstrated that the relationship is more complicated. When the exchange rate is high, inflation stabilizes at a high level. When the exchange rate is low, inflation stabilizes at a low level. But when the exchange rate is at intermediate levels, there is no clear relationship. Putting all these dynamics together, Barbosa Filho pointed out that when the government targets inflation, it ends up implicitly setting a limit on the fluctuation of the real exchange rate, which in turn means that it places a limit on the fluctuation of GDP growth—ultimately creating a degree of macroeconomic stability.

However, Barbosa Filho pointed out that, although Brazil's asymmetric monetary policy has been able to substantially reduce the real interest rate over the last decade or so, its real interest rate is still high by international standards, and recent changes in Brazil's terms of trade suggest that the country can no longer rely on continuous real exchange rate appreciation to control inflation.

To reduce financial fragility in the context of high real interest rates, the government has increased its foreign reserves, and to compensate for the negative impacts of real exchange rate appreciation on manufacturing competitiveness, the government has been using financial incentives in the form of lower interest rates from state banks. These two actions have increased gross public debt and the financial costs of public debt—thus limiting fiscal policy in the medium run. Furthermore, appreciation of the real exchange rate has created a “two velocity” economy, with a slow-growing tradable sector and fast growing nontradable sector.

Observing that Brazilian unit labor costs are still high by historical standards, Barbosa Filho discussed three different ways to improve competitiveness: internal devaluation, external devaluation, and growth acceleration. The Brazilian government, he said, has chosen the growth alternative, and has been trying to raise labor productivity through measures that include higher investments in infrastructure and

education. Although this is the strategy that a government concerned with the welfare of its people ought to pursue, he said, it would take some time.

**FRENKEL** articulated a policy strategy for preserving a competitive real exchange rate target that would be both stable, with respect to agents' future expectations of the real exchange rate, and sustainable, in the sense that its implementation would not, for instance, generate inflationary trends. Frenkel commented that his presentation could be understood as articulating a set of recommendations for what Latin American countries could have done starting from the depreciated exchange rates they had reached in 2002–03.

Frenkel stated that there are other attributes that need to be added to the real exchange rate goal in addition to competitiveness—namely, stability and sustainability. He noted that the adoption of a real exchange rate target has as its goal the allocation of real and financial resources in the economy, and the formation of agents' expectations of future real exchange rates is crucial to achieving that goal. So, for a competitive real exchange rate to be “stable,” agents must not only believe that the current exchange rate is competitive, but also believe that it will remain so—that the government has the desire and ability to prevent the real exchange rate from overappreciating. Although a government announcement of its intention to maintain a competitive real exchange rate helps set expectations, Frenkel argued, agents' experiences and observations are more central to the formation of their expectations: observations of the behavior of the real exchange rate and of the success of governments' efforts to ensure the rate is competitive. A “sustainable” real exchange rate target, he explained, is one whose implementation will not generate persistent acceleration of inflation (or other trends that make it infeasible). With these two additions to the concept, Frenkel moved on to discussing what policies are necessary for the maintenance of a “SSCRER” (stable, sustainable, competitive real exchange rate) target.

According to Frenkel, the adoption of a SSCRER target will have an expansionary effect on aggregate demand, which can give rise to inflationary pressures. Since it is unlikely that these pressures can be managed by fine-tuning the exchange rate policy, the adoption of a SSCRER target must be accompanied by coordinated monetary and fiscal policies. All of this requires a sophisticated political leadership that understands the economy.

At present, he observed, the best exchange rate arrangement for implementing a SSCRER target would be a managed floating regime, one in which the authorities do not commit to defending any particular rate but intervene in the foreign exchange market at their discretion. This regime is most effective, he added, when the central bank holds a substantial amount of international reserves, which reduces the risk of default of private and public debt in the case of a sudden stop of capital inflows. In order to successfully set expectations about the future exchange rate, which should be the main target of central bank interventions in foreign exchange markets, he advised that the central bank opt for bold interventions.

Frenkel maintained that the adoption of a SSCRER target would leave the central bank with sufficient autonomy—a possibility denied by the impossible-trinity concept (which tells us that the central bank cannot simultaneously control the nominal exchange rate and the interest rate in a context of free capital movement). As a *general* characterization of open economies, he contended, the impossible trinity is false. According to Frenkel, given the existence of an excess supply of foreign exchange at the nominal exchange rate and interest rate targeted by the central bank, the monetary authority can set the nominal exchange rate by intervening in the foreign exchange market and control the interest rate by intervening in the money market to sterilize the monetary effects of the foreign exchange intervention. However, Frenkel did note that there is a maximum interest rate below which the sterilization policy is sustainable



and the degree of monetary autonomy is permanent; above this level, the sterilization policy is still sustainable but monetary autonomy tends to diminish.

Frenkel stressed that his conclusions do not imply that monetary policy should be the only instrument used to control aggregate demand and inflation in a SSCRRER regime. Fiscal policy is also important, particularly in circumstances under which the interest rate level that would be capable of influencing aggregate demand dynamics is above the maximum sustainable interest rate.

**BRESSER-PEREIRA** argued that, for developing countries, financial fragility is not a necessary condition of economic development but rather the result of major economic policy errors revolving around an overvalued currency and partly explained by a revealed preference for immediate consumption.

After the Federal Reserve announced (in May 2013) that it would begin to taper its quantitative easing, many countries' currencies depreciated against the dollar. The depreciation ended when the Fed announced in September that it would put off the taper. Why, Bresser-Pereira asked, did the currencies of Brazil, South Africa, India, Indonesia, and Turkey depreciate more than others? They suffered a mild speculative attack, he suggested, potentially because their exchange rates were overvalued, their current account deficits were high, and their foreign debt ratios were beginning to cause concern among creditors.

Bresser-Pereira cited the comments of a Morgan Stanley strategist, who labeled these countries the "the fragile five," and he asked whether it was necessary to be financially fragile and accumulate large debts in order to develop economically. Bresser-Pereira confessed that for a number of years he believed this to be the case, but no longer. In his view, developing countries that have Dutch disease should have a current account surplus, not a deficit. In the case of Argentina, the country did well for a number of years, with growth rates of 7–8 percent, because it ran a current account surplus, according to Bresser-Pereira. A current account deficit would mean an overvalued currency, and this would cause problems, he said.

Bresser-Pereira emphasized that financial fragility, far from being necessary, is the result of an economic policy error that is not well discussed in the literature—an error that is rooted in ignorance of the tendency of developing countries to suffer from chronic and cyclical overvaluation of their exchange rates. Attempting to grow with a current account deficit, ignoring Dutch disease, and using the exchange rate as an anchor against inflation all mean having an overvalued currency. And the problem with having an overvalued currency, for a developing country, is that it reduces investment by disconnecting competent business enterprises from markets—from sustained access to demand. It also creates financial instability and eventually leads to financial crises. And, finally, an overvalued currency increases wages and consumption in the short term, but ultimately at the cost of growth and stability.

Given the dangers, Bresser-Pereira asked why economists do not more commonly act to neutralize overvaluation or argue for a current account surplus in Latin American countries that suffer from the same type of Dutch disease (e.g., Argentina and Brazil). Bresser-Pereira suggested that it is not only due to their ignorance of the facts he mentioned above. Economists put pressure on governments on the issue of budget deficits, but not current account deficits. They do not effectively rein in the "exchange rate populism of politicians," as he described it. Instead, economists, by accepting an overvalued currency, reveal a preference for immediate consumption (a tendency, he emphasized, that is independent of the ideological orientation of the economist). And although the idea of development is to have higher wages and higher consumption, ultimately, China is growing faster than Brazil, he argued, because China invests and saves more, as a percentage of GDP, than Brazil. Growth, he concluded, depends on a class coalition of workers, business, and the public bureaucracy coming to an agreement, one feature of which is that workers will have a relative reduction of wages for some period of time.

## SESSION 4

*Law and Finance: Governance of Financial Innovations after the Crisis*



José Gabilondo



Katharina Pistor

### **MODERATOR:**

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**GABILONDO** elaborated on a theoretical framework in which financial innovation is defined in terms of its impact on liability structure, particularly the liability structure of financial intermediaries. He insisted on a definition of liability structure that emphasizes concerns about firm funding liquidity, asset market liquidity, refinancing risk, and short-term funding. Gabilondo argued that regulators are attempting to elevate the status of liquidity management in their asset–liability regime for banks through the use of proxies such as short-term debt, and that while this is a good idea, in his estimation it is unlikely to succeed—largely due to pushback from the financial industry. As evidence of such attempts by regulators, he discussed recent comments by central bank governors, certain sections of the Dodd-Frank Act, and a set of new requirements in Basel 3.

Gabilondo referenced a 1967 paper by Hyman Minsky (“Financial Intermediation in the Money and Capital Markets”) to motivate this focus on liability structure. In that paper, Minsky stated that capitalism is essentially a financial system, where “finance” means that “the decision to invest is also

a decision to emit particular liabilities.” This is, Gabilondo noted, a narrowing of the definition of finance. The liability structure matters, Gabilondo explained, because it informs the constraints of a firm. Liabilities define the short run for a firm and drive its actions because of the contractual obligations they carry (“an explicit contractual or a contingent payment commitment,” as Minsky wrote in the ’67 paper) and the high cost of failing to meet these commitments. Second, according to a traditional notion of creditor protection, losses financed by debt are more serious, in terms of stability, than losses financed by equity, because equity has been set aside to cover what Gabilondo described as “expected unexpected losses.”

Gabilondo expanded on the idea of innovation as change in the liability structure by pointing to three examples: deregulation, new products, and collateral markets. In terms of deregulation, he mentioned the savings and loan crisis, in which banks had to pay more on the liability side, rendering their balance sheets “lopsided”; and disintermediation, whereby retailers were allowed to open transaction accounts at other types of firms and, as a result, banks lost demand deposits and had to turn to “less merciful” wholesale funders. As for product innovations, Gabilondo highlighted the balance sheet impacts of securitization and talked about how, for instance, securitized loans thought to be off-balance-sheet made their way back onto banks’ balance sheets. He also examined the cases of Enron (off-balance-sheet liabilities) and AIG (contingent swap liabilities) through this liability structure lens. Finally, he mentioned Bear Stearns’s heavy use of the repo market as an example of an innovative funding practice.

Post financial crisis, regulators have “learned a little bit,” Gabilondo asserted. Regulators took leverage and liquidity dynamics into account, as displayed by their willingness to resort to what he described as holistic, bright-line liquidity ratios as opposed to subjective assessments of banks’ balance sheets; attempts to test the quality, not just the quantity, of capital; and the use of liability structure metrics.

Gabilondo referenced comments by Daniel Tarullo, member of the Federal Reserve Board of Governors, and Bank of England governor Mark Carney as evidence that regulators have elevated the status of liquidity to the point that they are viewing capital adequacy and liquidity as interchangeable standards: Tarullo said the Fed might be willing to relax banks’ capital requirements if they were liquid enough, and Carney declared that banks with adequate capital would be permitted to be more illiquid and invest in higher-yield securities.

Gabilondo then outlined the ways in which certain provisions of the 2010 Dodd-Frank Act demonstrate awareness of the importance of liability structure. These provisions draw on the notion of liability structure in diagnosing and addressing the risks of financial instability. First, he mentioned what he called “liability internalities” (as opposed to externalities) in reference to Dodd-Frank regulations that require taking into account the impact of a liability when establishing a price or meeting a regulatory target. For instance, the Federal Deposit Insurance Corporation has added nondeposit liabilities to its assessment base when figuring out how much a bank will pay for deposit insurance; the notion of credit exposure has been expanded to include a broader notion of what counts as a liability; and off-balance-sheet liabilities will be considered to a greater extent in decisions about systemic risk.

Second, on the topic of shadow banks, Gabilondo discussed an element of Dodd-Frank that involves developing criteria for determining what counts as a nonbank financial entity and a separate set of criteria for determining whether those companies pose systemic risks. Gabilondo pointed out that among the 11 criteria for determining systemic risk, four have to do with liability structure.

Finally, Gabilondo mentioned limits on short-term debt for systemically important firms, stress tests that act as “liquidity war games,” and the expansion of the regulatory capital regime as elements of Dodd-Frank that reveal a greater regulatory focus on liability structure.

Turning to Basel 3, he focused on two newly proposed rules that would promote stability in banks’ short-term funding. The liquidity coverage ratio is an asset-side constraint aimed to ensure that banks have enough liquid assets to honor their commitments for 30 days without returning to the market for refinancing; we can think of this as a liquidity tax or “the Bear Stearns provision,” said Gabilondo. The regulation classifies assets in terms of liquidity, and does so, he pointed, in a way that creates a disincentive to hold financial assets issued by other financial intermediaries. However, he pointed out that industry pressure has led to a compromise in which a wider array of financial assets (including equities and mortgage-backed securities) would qualify as highly liquid. The second rule, the net stable funding ratio, is aimed at a longer time frame (one year) and is a liability-side constraint that would act as a kind of maturity tax.

Banks, he concluded, are designed to borrow short and lend long—they are illiquid by design. These two proposed rules are essentially an attempt to change the asset–liability structure of banks: to make them fund longer and lend out shorter. This might be a good idea, Gabilondo suggested, but questions remain about how it will affect banks’ ability to do liquidity and maturity transformation.

**PISTOR** presented what she described as a legal theory of finance. She began by contrasting her approach with other attempts to bring legal thought to the study of finance, such as the law and finance literature that has been dominant over the last decade and to which, she said, she has been trying to find alternatives. This dominant literature involves the full embrace of neoclassical economics in law schools and involves, for instance, telling economists what legal institutions would allow markets to approximate an ideal of efficiency through reduction of information costs.

Turning to her own approach, Pistor opened by observing that contemporary financial markets are legally constructed. Every financial asset, she said, is an IOU that can be enforced in a court of law without regard to the identity of the ultimate issuer of the instrument or borrower. This is essential in large-scale and global markets, in which relational finance plays a smaller role. Pistor observed that these legal structures are quite rigid and involve attempts to shift the risk involved in the future uncertainty of liquidity to “the other side”—here she referenced margin and collateral calls, and tight payment schedules built into contracts. As these financial markets have moved beyond regulatory constraints or become more and more self-regulated, we have established what she described as a private regulatory regime featuring contracts that aim to shift uncertainty risks.

When we combine the rigidity of these legally constructed financial markets—in which everyone has to obtain the additional assets to meet collateral or margin calls and everyone has to meet the tight payment schedules—with the unavoidability of uncertainty and volatility of liquidity, we have, she explained, the ingredients for an endogenous financial crash. She labeled this tendency of legal constructions (which are necessary to build financial markets) to lead to the self-destruction of those markets the “law of finance paradox.”

What, then, should we do under crisis circumstances? The answer, according to Pistor, is that we have to relax or even suspend the full force of the law—and this is, she added, what typically occurs. The problem is that many of these private contracts do not have the necessary flexibility built into them (often for reasons of moral hazard), and because this is not part of a regularized process we typically end up suspending the full force of the law at the core of the financial system while enforcing it fully on the

periphery (she cited the example of stepping in to rescue AIG, which threatened to destabilize the core of the system, but not Lehman Brothers). Pistor mentioned that she includes the granting of additional liquidity by the central bank as an instance of suspension of the law because this usually involves, for instance, rewriting the rules for what the central bank will accept on its balance sheet as adequate collateral. This determination of what counts as “adequate,” which in the United States rests in the hands of the Federal Reserve, gives the central bank enormous power to exercise judgment over when to suspend the full force of the law.

Pistor stressed that a government decision not to regulate is not tantamount to creating a “natural” market or to leaving it unregulated per se. It is, rather, a matter of leaving the regulation to private agents. But we ultimately come to the same problem: the need to suspend the full force of the law and sometimes the contractual commitments.

We need to be concerned about these decisions to rescue some entities or parts of the market and not others, she said: it is an inherently political decision, with “massive” distributional effects. And while we may want more democratic oversight of such decisions, she cautioned that we also want to ensure that central banks preserve some amount of flexibility in dealing with an inherently unstable financial system.

The final element of Pistor’s legal theory of finance is that financial systems are essentially private–public hybrids that are hierarchical. When there is a crisis, we are always moving up the hierarchy, at the top of which is a sovereign that has unlimited access to high-powered money (in the global system, she said, the US Federal Reserve is at the very top of that hierarchy). She cited the case of Ireland, where, faced with a sovereign debt crisis after essentially nationalizing the private debt of its banking system, the country needed to move up the hierarchy of liquidity to seek assistance from the troika.

Pistor then discussed how this legal theory of finance can help explain how financial crises have played themselves out in the context of the structure of transnational finance. As an example of how the core–periphery dynamic works itself out at the international level, she cited the way central bank swap lines provided a kind of flexibility during the global financial crisis, but again, only at the core of the international financial system, or among the “C5” as she framed it: the Federal Reserve, European Central Bank, Swiss Central Bank, Bank of Japan, and Bank of England. While some emerging-market economies did get swap lines during the global financial crisis, Pistor observed that this was only at the discretion of the Federal Reserve; there was no regularized structure. Citing the contrasting example of the Vienna initiative, which was an attempt in 2008–09 to prevent a financial meltdown in Central and Eastern European countries, Pistor suggested that we need to think about creating coordinated crisis management that allows those not at the core of the system to express their voice and have some role in the decision making around the suspension of the full force of the law during periods of financial crisis.

In a world of unavoidable uncertainty and liquidity volatility, she concluded, we need legal systems that have safety valves, but we also need to think about how to proceduralize those safety valves and make them more accessible to those on the periphery of the financial system. Pistor argued that it is dangerous to bail out the center while fully enforcing the law on the periphery, as this ultimately leads to more moral hazard at the center while damaging the credibility of both law and finance.

## SESSION 5

### *Minsky Perspectives and Proposals to Improve Stability in the Financial System*



Éric Tymoigne, Jan Kregel, L. Randall Wray

#### **MODERATOR:**

#### **DIMITRI B. PAPANIMITRIOU**

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#### **JAN KREGEL**

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#### **ÉRIC TYMOIGNE**

*Levy Institute and Lewis & Clark College*

**KREGEL** began with general observations about prudential regulation, then turned to an assessment of recently proposed alternatives to the 2010 Dodd-Frank Act, paying particular attention to proposals to return to the structure provided by the 1933 Glass-Steagall Act. With the aid of Hyman Minsky's insights, Kregel explained why such proposals are based on a misunderstanding of what banks do and cannot work. He closed with some Minskyan ideas for promoting stability.

Historically, financial regulation and supervision have normally been conditioned by what banks do. However, Kregel observed that this was not the case with the 1999 Gramm-Leach-Bliley Act or Dodd-Frank. Gramm-Leach-Bliley and Dodd-Frank did not provide regulations intended to make banks safe and sound by altering what banks did. Instead, the idea was to allow banks to do more or less what they wanted to do, but to ensure that they had sufficient capital to avoid bankruptcy.

Kregel suggested that there is a better way to examine how prudential regulation has functioned: financial regulation has tended toward attempting to change the way banks generate their income. In

the case of Glass-Steagall, for instance, he explained that the regulations were meant to prevent banks from making money by speculating on securities, and that it therefore turned them into a different type of “money-making machine,” in Kregel’s words. In this system, maintaining the safety and soundness of banking had nothing to do with capital requirements (which were not significant until the 1980s, Kregel noted); instead, it was predicated on banks generating sufficient income to meet losses and cover bad loans.

Dodd-Frank did not fundamentally change the way banks generate income. The only provision with the potential to do so is the yet-to-be-implemented Volcker rule, which tries to reduce banks’ ability to engage in speculative trading. Kregel noted that the details of Dodd-Frank’s regulations have still not been filled in: 40 percent of the 400 required rules have yet to be finalized, while 60 percent of the deadlines have been missed. Congressional dissatisfaction with the process has led to new regulatory proposals, many of which revolve around the idea of returning in some way to a 1933 Glass-Steagall structure that would limit the way banks operate and make money.

Focusing in particular on the proposed 21st Century Glass-Steagall Act of 2013, Kregel argued that it is impossible to go back to Glass-Steagall. Glass-Steagall had one very clear hole: banks could do anything that was considered to be the business of banking, and, piece by piece, the Glass-Steagall separations were eroded by court rulings that added more permitted activities under this “business of banking” concept. To prevent the same thing from happening again, the 21st Century Glass-Steagall Act explicitly defines the business of banking, writing in what is and is not allowed.

The problem emerges, said Kregel, when we ask how banks are supposed to make their money under this new Glass-Steagall Act. He explained that the idea that banks make money by borrowing at zero interest and lending short term to businesses is out of date—and in fact, Minsky had pointed out that this was already an outmoded idea by the time the original Glass-Steagall was introduced. In essence, Kregel argued, recent proposals to revive Glass-Steagall are based on a misunderstanding of what banks do and how they make their money.

In Minsky’s view, banks do not find reserves and then lend them out. Rather, banks lend first and then find the reserves. As a result, banks always have what Minsky called a “speculative financing profile,” in the sense that they make commitments they cannot keep. If a bank cannot meet its reserve requirement, then the central bank faces two choices: either it creates the needed reserves or the bank is allowed to fail.

Returning to Minsky’s idea of financial stability as requiring a guarantee that cash commitments can always be met—that cash inflows are sufficient to meet cash outflows—Kregel outlined three conditions for promoting stability in this sense: (1) a macro-condition, (2) a micro-condition, and (3) what Kregel called Minsky’s “secret weapon.”

The macro-condition is government deficits, which support incomes and thereby the ability of borrowers to meet their cash commitments. The micro-condition refers to Minsky’s notion of the “Big Bank”: the central bank promotes stability by opening the discount window to all financial institutions that are short of cash. Finally, Minsky’s “secret weapon” refers to his employer-of-last-resort proposal. If the acceleration of economic growth is driven by investment, this generates more financial liabilities, more financial layering, and hence more risk. Relying on capital-intensive private investment may be more inequitable (with regard to the income distribution) and more unstable, all while potentially failing to reach growth objectives. Minsky’s precondition for financial reforms aimed at decreasing instability is to substitute employment for investment as the target for economic policy, Kregel explained. A government job guarantee program would promote the stabilization of household income: by guaranteeing full

employment, the program would ensure that households would have sufficient income to meet their financial commitments. In other words, Kregel concluded, for Minsky the employer of last resort is another version of what one could call macroprudential regulation.

**WRAY** interpreted the global financial crisis as a crisis of Minsky’s “money manager capitalism”; analyzed the Federal Reserve’s response to the crisis; and ended with a discussion of possible reforms for (1) reconstituting the financial system to promote capital development and (2) altering the way the central bank handles its crisis response.

Although the trigger for the 2008 financial crisis came out of the US real estate sector, said Wray, this crisis was 50 years in the making, as the system transitioned to a form of capitalism Minsky called money manager capitalism. The features of the latter include financialization, the growth of professionally managed money, and the layering of debt on debt—financial institutions financing their positions in assets by issuing liabilities to other financial institutions. Wray also pointed to the dismantling of New Deal reforms—particularly financial deregulation and the erosion of the safety net for income and employment—as crucial steps in the evolution toward the crisis. He argued that a great deal of the growth in the overhang of private debt began under the Clinton administration, as the government’s budget surplus put pressure on the private sector to run deficits.

The question of whether the crisis represented a solvency or a liquidity crisis is an important one, Wray argued, because different responses are required depending on the nature of the crisis. Wray’s interpretation was that it was at root a solvency crisis that turned into a liquidity crisis. Banks relied on very short-term finance—overnight commercial paper—to fund their positions in assets, and when questions were raised about the quality of those assets, financial institutions holding the commercial paper refused to roll it over. This resulted in a liquidity crisis, said Wray, but the underlying problem was one of insolvency—the assets were no good.

Turning to the Federal Reserve’s response to the crisis, Wray reported the results of the Levy Institute–Ford Foundation project on Improving Governance of the Government Safety Net in Financial Crisis. Walter Bagehot’s classic recommendation is that in a liquidity crisis the central bank should lend without limit against good collateral and at a penalty rate. With regard to how the Federal Reserve’s interventions match this standard, Wray identified a number of relevant questions: What sort of collateral should be offered? What rates should be charged? And how long should the central bank intervene to provide this support?

To avoid the “stigma problem” of forcing financial institutions to come to the Fed’s discount window to receive assistance, the Fed created a number of special facilities to provide support, mostly through auctions, as Wray observed. The Fed expanded both the kinds of collateral they accepted and the types of institutions to whom the special-facility loans were extended. Peak lending amounted to \$1.7 trillion, with a cumulative total of \$29 trillion in loan originations and asset purchases. These special facilities continued to lend for up to four-and-a-half years, Wray commented, which is more in keeping with a solvency crisis. Wray’s Levy Institute–Ford project also focused on the rates charged by these special facilities. In an effort to effectively restore money manager capitalism, he observed, the interest rates offered were very low. The top three cumulative borrowers received close to 40 percent of all the funds, and were charged rates as low as 0.01 percent.

Wray argued that central banks should not be providing this sort of unlimited liquidity to a financial system that has grown too large. Stepping in as a lender of last resort—for a short period—is an absolutely



essential function of the central bank, and doing so behind closed doors could be justified for several weeks; but beyond that, Wray insisted, the Fed's rescue operations should be public and transparent.

Stronger regulations are needed to control private liquidity growth and the purpose of banking needs to be rethought. The latter begins with a Minskyan understanding of what banks do, said Wray. Banks create money by lending their own IOUs. They are not primarily intermediaries: banks do not simply move savings around. Private liquidity is highly endogenous, in the sense that it grows in booms and disappears in busts, and highly destabilizing.

Following Minsky, Wray contended that the financial system needs to be reconstituted to promote the capital development of the economy. By "capital development," Minsky meant not just private plant and equipment, but also human capital (education). To this end, the financial system should have five key components: a safe and sound payments system; short-term lending to households and firms (and possibly to state and local governments); a safe and sound housing finance system; a range of financial services, including insurance, brokerage, and retirement savings services; and long-term funding of positions in expensive capital assets (which, Wray noted, used to be the job of investment banks). Minsky emphasized that there is no reason all of these functions need to be consolidated; nor do they all need to be performed by the private sector. For instance, if it is too difficult to make the payments system profitable, it might make sense to have the government provide these services directly. Wray also mentioned the possibility of direct lending to serve public purposes.

To reform finance, Wray advocated reducing concentration and getting banks to retain risk, rather than pushing it off onto pension funds and money market mutual funds. He noted Minsky's argument that raising capital ratios may actually make banks less safe—to the extent higher ratios make banks less profitable, thereby encouraging greater risk taking.

Finally, the Fed's policy response should be reformed, according to Wray, so that it is more transparent and democratic. In this context, he noted that the government's bailout of the auto industry proceeded transparently and after open debate, and suggested that we should have had a similar debate about whether, for instance, the money market mutual funds were worth saving. Finally, Wray argued for limiting the Fed's market-maker role—which is to say, beyond its justifiable intervention in the case of a liquidity crisis—toughening collateral rules, and ending too-big-to-fail.

**TYMOIGNE** presented his index of financial fragility, which uses a Minskyan theoretical framework to measure the risk that a financial disturbance will be amplified and lead to a debt deflation, and demonstrated how it can be applied to the housing markets of the United States, the United Kingdom, and France.

In measuring financial fragility, Tymoigne said, we are not interested in measuring credit risk or interest rate risk, but in measuring whether, once an initial disturbance occurs, it will be amplified or contained. We want to be able to measure financial fragility when default rates and foreclosure rates are low and profitability is high. Rising financial fragility will occur, he explained, when bank profitability and household net worth are based on an unsustainable process featuring collateral-based lending and reliance on refinancing and asset liquidation to service debts.

Tymoigne elaborated on Minsky's categories of hedge, speculative, and Ponzi finance. Hedge finance occurs when, at the beginning of the loan contract, there is an expectation that the economic unit in question (individual or firm) will be able to service the debt from cash flows generated by routine operations. The economic unit does not have to rely on what Minsky called defensive position-making operations—that is, it does not have to borrow or sell illiquid assets to be able to service the debt. In speculative

finance, the unit is expected to be able to service the interest, but not the principal. While position-making operations are necessary to service the principal, these operations are not growing relative to the amount of debt (they are stable or declining). In Ponzi finance, net cash flows from routine operations are not sufficient to service either the interest or the principal, and there is a growing need to refinance or sell assets at rising prices in order to service debts. There are two types of Ponzi finance, Tymoigne explained. In cases of expensive investment goods that require a certain lag time until profits are generated, the economic unit will be in a Ponzi position temporarily. The second type of Ponzi finance is based on collateral, and here there is no expectation that sufficient income will ever be generated to service the debt. In collateral-based Ponzi finance, there is a high level of interdependency between leverage and asset-price appreciation.

Minsky's financial instability hypothesis says that, over time, the proportion of Ponzi finance grows, meaning that financial fragility and the risk of debt deflation also grow. Although fraud is usually associated with Ponzi finance, Tymoigne indicated that fraud can occur in all three categories of fragility. The attempt to measure fragility is not equivalent to an attempt to measure the existence of bubbles, he insisted. Bubbles are neither necessary nor sufficient for this measure of fragility. Asset price appreciation is necessary for debt deflation, but in developing his index Tymoigne made no attempt to measure whether the asset price is "correct" or above fundamentals in any sense. The real concern is over the internal linkage between asset prices and debt, or more precisely, over the means used to service debt. The key difference between Minsky's categories is the expected reliance on position-making operations. One consequence of this, Tymoigne pointed out, is a difference in the basis of underwriting in these categories: in hedge finance, there is a reliance on income to service debt, while in (collateral-based) Ponzi finance, servicing debt depends on asset liquidation. As an economic unit moves from hedge to Ponzi finance, Tymoigne explained, one should see a rising ratio of debt service to routine income, a rising need for defensive refinancing or asset-based lending, rising asset prices, and a declining amount of liquid assets relative to liabilities.

To demonstrate that fraud is not exclusive to Ponzi finance, Tymoigne pointed to data showing that the share of "low-doc" or "no-doc" mortgages in the United States grew for all mortgage categories, and proportionally speaking, they grew the fastest in the prime mortgage market. He also pointed out that from 2003 until 2007 there was actually a decline in delinquency rates, demonstrating that default rates are not an adequate measure of financial fragility.

Tymoigne detailed how he developed his index of financial fragility for residential housing for the United States, the United Kingdom, and France. All of the variables used in the index were seasonally adjusted and indexed to 1996—a period of stability in the housing market. The variables were added together using three different weight structures to create an overall index of fragility. In the United States, the growth of financial fragility accelerated rapidly beginning in 2003 and then began to decline around 2008–09. Tymoigne stressed that the index cannot be used for comparisons across countries without a loss of information, because the available data are not homogenous. If one does attempt such a cross-country comparison, while all three countries show rising trends, the United States displays the highest level of fragility, with the United Kingdom coming close and France much lower on the scale. Tymoigne suggested that one reason France registers a lower level of fragility in the index is that some practices, such as home equity lending, were not allowed in France until the end of the housing boom in 2006.

## SESSION 6

### *Minskyan Analysis of Emerging Markets' Financial Stability: Implications for Development*



Martin Rapetti



Felipe Rezende

#### **MODERATOR:**

##### **JAN KREGEL**

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##### **MARTIN RAPETTI**

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##### **FELIPE REZENDE**

*Hobart and William Smith Colleges*

**RAPETTI** discussed the differences between developed and developing countries with respect to how their financial crises are generated, their policy responses, and their crisis prevention strategies.

He began with a description of what he described as the Minskyan microfoundations that are shared between developed and developing economies. First, due to fundamental uncertainty, agents do not guide their behavior exclusively by optimization rules. Although they do make calculations, agents also follow rules of thumb and conventions in making their decisions, and are influenced by psychological factors (“animal spirits”) and other agents’ decisions (exhibiting “herding” behaviors). Furthermore, agents behave in a procyclical manner with respect to financial risks: they are optimistic during booms and pessimistic (overreacting to risk) during depressions or crises.

Financial crises are important because they generate macroeconomic crises, Rapetti noted. In developed countries, he observed, financial crises typically emerge due to dynamics within the financial sector, generally through the interaction of financial innovations, procyclical behavior, and lax

government regulation. In developing countries, by contrast, crises do not typically originate in the financial sector; rather, they tend to emerge after innovations in macroeconomic policy. Rapetti explained that these new macroeconomic policy regimes tend to have three main elements: some form of fixation of the exchange rate, the opening of the capital account, and trade liberalization. In some cases, he allowed, these new regimes are also accompanied by deregulation of the domestic financial system.

Rapetti described the boom-and-bust cycle generally experienced by developing countries. The above-mentioned combination of deregulation, trade liberalization, and fixation of the exchange rate creates arbitrage opportunities between domestic and foreign assets. This attracts capital inflows, leading to expansion of domestic liquidity and credit, which accelerates economic growth. And because the exchange rate is fixed, he continued, the expansion of aggregate demand typically leads to inflation and appreciation of the real exchange rate. The combination of expanding aggregate demand and exchange rate appreciation in turn leads to current account deficits and the accumulation of foreign debt. Then, in the bust phase of the cycle, (1) in the financial sector, domestic agents are short in foreign currency and long in domestic assets; and (2) in the real sector, because of the real exchange rate appreciation, the economy has difficulty generating foreign exchange through trade (and so the maintenance of the fixed exchange rate depends on capital inflows). These two dynamics lead to an increase in concerns about exchange rate risk, which results in a deceleration of capital inflows, a rise in the domestic interest rate, shrinking liquidity, and slow growth—all of which increases the risk of bank runs or bankruptcies. Finally, depletion of foreign exchange reserves leads to devaluation of the exchange rate, with negative effects on balance sheets in the banking system, which may culminate in a government bailout and subsequent public debt crisis. Examining a database of systemic banking crises put together by Luc Laeven and Fabian Valencia, Rapetti pointed out that over the last few decades almost all significant Latin American banking crises have been accompanied by balance-of-payments crises and/or public debt crises.

Rapetti argued that the key contrasts between developed and developing countries in terms of their policy reactions to financial crises stem from differences over two characteristics. In the developed world, first, the liquidity preference is a preference for domestic currency and safe havens are government bonds; second, government issues debt in its own currency. The implications of these two characteristics for the developed world's policy response are as follows. The central bank is able to issue the required liquidity in a crisis; there is thus little chance of a liquidity crunch or bankruptcies arising from illiquidity. Second, the governments of developed countries face no financing constraints: default on public debt is not a concern. In the context of a crisis, fiscal policy is therefore unconstrained in the developed world; the only constraint, as Rapetti noted, is politics.

He observed that in the developing world, by contrast, both the liquidity preference and search for safe havens involve a preference for foreign over domestic assets, and neither the government nor the private sector can issue all of their debts in domestic currency. As a result of these characteristics, the central bank in a developing country is limited, as a provider of liquidity, by its international reserves. And although these governments can appeal to the International Monetary Fund, he pointed out that it is unlikely the IMF would be able to provide enough liquidity to finance the equivalent of quantitative easing or TARP (Troubled Asset Relief Program). Furthermore, Rapetti emphasized, although the central bank has the ability to issue domestic currency to provide liquidity in a crisis, doing so in the context of high demand for foreign assets risks triggering a depreciation–inflation spiral.

Rapetti explained that macroprudential policy in the developed world tends to focus on mitigating systemic risk in the financial sector, while in the developing world macroprudential policy goes beyond

financial regulation to include capital controls and a whole set of macroeconomic policies designed to minimize the risk of a sudden stop in capital inflows: developing countries need policies that secure current account surpluses, a competitive real exchange rate, and large stocks of international reserves. He concluded by pointing out that the developing world faces a “divine coincidence,” in the sense that the same set of policies that is good for economic development is also ideally suited for macroprudential purposes in developing countries.

**REZENDE** provided an overview of the recent evolution of the financial system and liquidity creation in Brazil in the context of Hyman Minsky’s views on the nature of banking and the latter’s work on financial regulation.

Although one often thinks of his financial instability hypothesis, Rezende commented that most of Minsky’s work was on financial regulation and banking. In Minsky’s view of banking, as Rezende described it, banks buy assets by issuing liabilities like any other economic unit. Banks engage in money creation, and this private endogenous liquidity grows during economic booms. Rezende highlighted the following Minsky quotation (from his 1986 book, *Stabilizing an Unstable Economy*) as a “guiding principle” for the latter’s approach to understanding banking: “Banking is not money lending; to lend, a money lender must have money. The fundamental banking activity is accepting, that is, guaranteeing that some party is creditworthy.”

In this Minskyan perspective, there is dynamic change in the nature of banking over time. Turning to the Brazilian economy, Rezende said that the sharp decline in the interest rate was bound to change the way banks conducted business. He showed that for the past 10 years, the decline in the interest rate was accompanied by a sharp decline of treasury securities as a share of banks’ total assets. He pointed to data indicating that the Brazilian banking system as a whole is shifting toward more illiquid instruments (e.g., claims on the private sector).

Rezende gave a brief overview of the Brazilian financial system, which is a mixed system in which public banks play an important role. The Bank of Brazil is responsible for 24 percent of total credit operations, private banks are responsible for 37 percent, and foreign banks for almost 20 percent. Turning to the housing finance system, Rezende explained that in the late 1990s it was believed that Brazil lacked the resources to develop sufficient housing. To overcome this perceived housing gap, Brazil adopted a set of reforms that attempted to replicate the US housing finance system. These reforms, he said, which were implemented in the 1990s and early 2000s, effectively broke banks’ monopoly on liquidity creation by creating new instruments (asset-backed and mortgage-backed securities) associated with the real estate financial system.

According to Rezende, these reforms failed to achieve their intended goals. Instead of fostering mortgage lending, the reforms led to a situation in which most financial institutions were using the system to shift assets off their balance sheets using asset-backed security transactions: banks securitized auto loans, credit card loans, and payroll loans, for instance. The intention was to develop a housing market, but instead it led to an increase in securitization. What happened, Rezende explained, is that there was a shift in portfolio preferences toward short-term, low-duration assets. The reason for this shift, he argued, is that, given a rule capping the interest rate that banks can charge for mortgage lending (around 12 percent), banks are able to get much higher returns on other loan products. Banks therefore never had an incentive to explore the mortgage market; they could rely on more short-term assets to get higher returns. In Brazil, he said, there is a situation of very high return on equity for Brazilian banks in an environment of very low leverage, which gives little incentive to banks to be exposed to long-term assets.

Rezende argued that when characterizing financial systems we ought to look at the institutions that are willing to bear risk on their balance sheets (and in Brazil, he commented, banks are not willing to do this). Following Kregel, he said that, instead of characterizing financial systems as “market based” or “bank based,” we ought to distinguish between the risks that are carried on the balance sheets of banks and other financial institutions.

Given an environment characterized by high and volatile interest rates, he concluded, there is no way to develop a long-term asset market. The necessary hedging operations would require that someone else in the system bear the risk, and most financial institutions in Brazil, he stressed, are not willing to do that. Although some economists have suggested that mutual funds might be made to invest in long-term assets, Rezende compared mutual funds in Brazil to those in the United States, the United Kingdom, China, and India, and noted that Brazilian mutual funds show a preference for government bonds and the amount of equity they have in their portfolios is relatively small. The mutual fund industry in Brazil is large: its assets, relative to GDP, are almost 50 percent. However, to involve them in the funding of long-term assets, he argued, it will be necessary to either ensure a stable interest rate environment or at least take measures to reduce interest rate risk.

## Participants

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