FINANCIAL GLOBALIZATION: THE CASE OF INDIA VERSUS CHINA

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Kenneth S. Rogoff
Harvard University

July 16, 2003

Indian Council for Research on International Economic Relations

India Habitat Centre

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Foreword

I am pleased to make available for wider dissemination the lecture on ‘Financial Globalization: The Case of India versus China’ delivered by Professor Kenneth S. Rogoff, Professor of Economics at Harvard University and till recently, Economic Counsellor and Director, Research Department, International Monetary Fund (IMF). The lecture was held at ICRIER held on July 16, 2003.

Professor Rogoff begins his lecture by stressing upon the need for India to sustain and strengthen the pace of its economic reforms to sustain a high growth rate of its economy, and outlines the areas in which reform is needed. He then discusses some of the wrong lessons that have been drawn about the Asian Crisis, both about the role of the IMF and the role of fixed exchange rates versus other factors as a lightning rod for speculative attacks. Examining the relationship between capital controls, financial integration and growth, Prof. Rogoff advocates trade integration with the rest of the world and moving to a regime of greater exchange rate flexibility for the Asian economies.

Arvind Virmani
Director & Chief Executive
ICRIER

Thank you very much, Dr Virmani, for your kind introduction. I apologise that many of you had to keep waiting. My wife, Natasha, who is in the audience, kept her audience waiting for more than two hours at her wedding! So, maybe I've got that from her! I am certainly delighted to be here and thank all of you for coming.

India is one of the most important economies in the world, needless to say, and one of the fastest growing. In recent years, for macro-economists such as myself India has become increasingly interesting, indeed in some ways remarkable.

Who could have imagined 12 years ago, when India had its 1990–91 debt crisis and was forced to turn to the International Monetary Fund (IMF) under extreme duress, that today the Reserve Bank of India would have accumulated over 80 billion dollars in reserves, that India's external position could have been so strengthened that India is now lending us, the IMF, money. And who could have imagined that the IMF would appoint an Indian national as its new Chief Economist. Indeed, I should mention that one of the central roles of the IMF Chief Economist involves giving advice to the rich countries—not always welcome, but we give it!—the US, Japan, and Europe, on how they should manage their economies! My successor, Professor Raghuram Rajan, will continue in that tradition.

My broad theme here is on India and globalisation. India's success over the post 1990–91 period is undeniable. Its growth rate is one of the strongest in the world, as I have already mentioned. But it needs to sustain and strengthen the pace of its reforms if it is to sustain this fast growth rate or even strengthen it in the coming years. Acknowledging India's remarkable progress, it is still the case, as I think most of you know, that growth has slowed in recent years.

And I worry at least a bit that some of the wrong lessons may have been drawn from the 1990s' Asian Crisis. It is important that India's second generation reforms do not become a silent victim of the Asian Crisis. The government's Tenth Five Year Plan, as again I think you all know, calls for 8 per cent growth, to be followed by over 9 per cent growth in the Eleventh Five Year Plan. These are admirable goals, which have achieved a significantly speedy pace of poverty reduction. But success is a lot more likely if the economy continues to reform. Openness to trade being further enhanced is certainly important, and here I refer not only to bringing down tariff levels, but also issues like reducing the use of anti-dumping provisions in the World Trade Organisation (WTO). If labour markets are freed up to work more flexibly, that would also strengthen the economy. If the banking and financial sector continues to be strengthened—I realise there are many reforms in progress but it is important that they continue. And I think more broadly, reforms must continue that reduce the government's hand in managing activity which is still excessive by the experience of other countries that have successfully emerged from low income status. India's gaping budget deficits—its general government budget deficits—cannot continue forever. And if they are not reduced, these will continually slow economic activity, displacing private investment by raising interest rates and reducing the savings available for the private sector. There are many other areas one can talk about and indeed it is very difficult to know how to prioritise. For example, tax simplification along the lines of the Kelkar Commission is certainly an important goal. And more generally, achieving greater clarity in Centre–state budget relations.

Last and certainly not the least, improving infrastructure, health, and education are all important.

I recognise that development is an extremely complex social, political, and economic process. And I certainly don't pretend that there are any easy, sure answers. Though in the case of India, if I have to pick one of the long lists that I have given, increasing openness to trade would be important in the twenty-first century. And having greater imports can also be a component of having greater exports. Perhaps I will end up by saying this several times—as you may have gotten from Dr Virmani's introduction—but I am not a development economist by training. And in fact, although you might not know this from some polemic diatribes that you may have seen recently, the role of development assistance in the Bretton Woods family is typically assigned to the World Bank. It is no accident that the World Bank has roughly 180 to 200 staff here compared to less than a handful of the IMF! I might mention parenthetically that the World Bank Chief Economist job is also open right now if any of you want to apply!

Although I said I am not an expert on development, and I'm not an expert on India, it is certainly not new for me to be thinking about India's potential to globalisation. Let me just say a little bit about my background. As was mentioned in my introduction, before becoming an economist, I was a professional chess player—it is strange enough being an economist, I can only say that chess is more Bohemian—and I represented the United States in the world chess championships in the zonal tournaments 25 years ago. I gave up chess for a number of reasons but mainly because I hoped to do something more important with my life—I was very young! I must say that in addition to the growing power of computers, I feared the influx of Chinese players that was starting to take place at that time. I wrote about this. I thought that out of over a billion people, surely some genius would emerge whom none of us can defeat, not to mention the general lowering of incomes from the huge increase in the low-wage talent. I did not really at that time think of India. Mind you, I knew that many historians, notably Oxford historian R. J. Murray, attribute the origins of Chess to India, tracing it as starting from India, then going to Persia, and it didn't occur to me at that time that perhaps the greatest genius to emerge over the past couple of decades that we have seen since would not be someone from China—they have some very good players but they are not yet at the very top—but would be from India—Vishwanathan Anand, certainly many of you have also heard of.

After Chess, I went to graduate school. Certainly one of the most influential teachers I had was Jagdish Bhagwati whose work I do not have to tell you about and I studied my whole life, but frankly, since I have come to the IMF I read him more and more because he is such a cogent, passionate advocate of free trade and so thoughtful and he's someone whose work I can really commend to you. Frankly, I used to read more his technical work but now I also look at his popular writings more, which are simply superb. In addition to Jagdish Bhagwati of course, I've had many colleagues and students from India. And these include Avinash Dixit in the former category, and Gita Gopinath, now with the Chicago Business School, in the latter. Then I went to the IMF Research Department and three of my closest colleagues and advisers were from India. These are Ratna Sahay, Ashok Mody, and Mohan Kumar, who is actually here tonight. And I benefited from them enormously. I think one of the great joys that I've had in my job as Chief Economist—and I hope my successor feels the same way—is how much you learn from your colleagues, that there is just an enormous body of knowledge there, and I have indeed learnt a lot. As I have already mentioned, my successor Raghuram Rajan is from India. And I just want to mention here that not only is he a world class scholar, he's also an extremely nice person—some of you have met him—and very, very sharp. And I think he is going to do simply a terrific job in his position. And I realise that I'm congratulating the IMF prematurely, because I am still there! But I really think this was a bold and imaginative appointment by the IMF. Correspondingly, I am grateful to Professor Rajan that he had the courage to take up the challenge. If you ask me questions later, may be I can say more about that.

Finally, in a couple of months I will return to Harvard University, which certainly views itself as the world's greatest university, but here in India, Harvard is just a safety school for students who are rejected at the Indian Institute of Technology! So, if you ask me the question whether India can compete in the global economy, my answer is certainly yes, and there is not very much you can do to convince me otherwise.

Let me now turn to my main material—eventually I am going to get to talk to you about a paper that we produced. I am afraid my remarks will be fairly cursory, because I want to leave a fair amount of time for interchange. But I want to start by discussing what I think are some of the wrong lessons that some had drawn about the Asian Crisis, both about the role of the IMF—that is perhaps a secondary issue but I cannot help wanting to talk about it—and I think also about the relative importance of fixed exchange rates versus other factors as a lightning rod for the speculative attacks.

Although much work needs to be done to prove this, my belief is that without the fixed exchange rate that we had in every country that experienced the Asian Crisis, we would have seen a mini Asian Crisis but not the maxi Asian Crisis that was actually experienced. There are many other lessons that have been drawn, much has been written about it. Broadly I certainly agree that premature capital account liberalisation ahead of macro-economic stability, ahead of banking regulations, these were fundamental, but without the fixed exchange rate the pain would not have been nearly so great.

I also want to say before even talking about some of the policies in the Asian Crisis that it was an extremely serious event, a traumatic event in Asia. But if you look at the numbers, it was not as deep or profound quantitatively as some of the more hysterical predictions that were being made at that time, not least coming out of the World Bank Chief Economist's office! In fact, it did not prove to be a 10-year Great Depression, like in the 1930s; it had a much shorter life. This is not necessarily to say that many mistakes were not made, that it could not have been done better, although at the same time there really were many excesses in these economies and it is hard to see how the period of high growth could have necessarily ended with absolutely no pain.

We can talk about each of the countries, but certainly Korea is the one to point to. You would not know it from reading the polemics about the Asian Crisis, but three years after the Asian Crisis, Korea's GNP was 20 per cent above what it was in pre-Crisis levels. Yes, it is true that Malaysia did relatively well by following more eclectic policies and late in the game putting in controls on capital outflows, but it did not recover as quickly as Korea did. Of course, today growth in Asia is stronger than in many other parts of the world, notably in Europe and Japan.

I also think that the role attached to the IMF, not just in the Asian Crisis, but more generally, is, if not overblown, then frequently mis-stated—and I want to pick up a couple of issues that particularly have come to my attention in the three years since I have been at the IMF. Mind you, I was an academic most of my career. We make our living by criticising the status quo, and I wrote many very critical papers about the status quo, not the least in 1990, about international capital flows being a big problem and about fixed exchange rates, but let me pick on this one.

I think the single issue where the IMF receives a great deal of attention, not just in the Asian Crisis but also elsewhere, is the idea that it is an agent of austerity: wherever the IMF comes in, tax hikes and tight government budgets are sure to follow, this is IMF policy, this is what the IMF wants, why doesn't the IMF preach counter-cyclical policy for countries in trouble like it does—I am just reciting the polemics, not saying that these are all necessarily true—for the United States and Europe. You see this theme as a constant—I just saw there was a conference in London I read about in the *Financial Times* in which some of the speakers were saying, why doesn't the IMF have spending go up when there is a recession, why don't they have tax cuts, and again this is a great theme in the polemics.

I think the problem with this idea generally—and there are exceptions—is that it fails to distinguish between cause and effect. The generic case where the IMF is called in is one where a country has been borrowing for many years.

The country as a whole has been borrowing from the rest of the world. The country's government has been typically running a deficit. Why does the country come to the IMF? Usually it is as a last resort, when all of a sudden everything has been dried up. Citizens aren't willing to hold the country's money any more except at sharply rising interest rates and often no one wants to lend to the country's government. Foreign credit has dried up. Well, if you have been borrowing and you have been spending in excess of your means both as a government and as a country, and all of a sudden no one wants to lend you money, you are going to have to tighten your belt, with or without the IMF.

The IMF was created after World War II. We have long had crises with exactly this kind of outcome—countries having to raise taxes and having to tighten government budget deficits. That has been going on for hundreds and hundreds of years. The Latin American developing countries have been doing this for a couple of hundred years. Spain actually has defaulted on its debts 13 times since 1500, France eight times, Germany six times. It looks very similar, this picture. But in fact, when the IMF comes in, the reason the IMF has been called in is precisely because it is willing to lend resources at very low interest rates relative to what market rates are in a situation where no one else is willing. The IMF actually relieves austerity, it does not necessarily exacerbate it. I am not saying that mistakes are never made, and there is no question that in the Asian Crisis, which was unlike anything the IMF ever saw in the early weeks and perhaps month or two of the Asian Crisis, it was misdiagnosed, the depth of the recession was not understood. And also simply because the IMF was not familiar with this new kind of New Century type of crisis. It was not completely understood how much scope there was for borrowing in this situation, although I think that to some extent the course was reversed. There were other mistakes made. I do not want to say that IMF policies are perfect, that every decision made was infinitely wise, but this austerity theme is certainly something that is way overblown.

Let us take India's experience. I know that there are sometimes antagonistic relations between the IMF and India, at least I read that—although not today, I hope, since you are now a creditor, and not a borrower, and since I am being replaced by an Indian national! If you look around, there are a number of leading Indians, thinkers who have written about the 1991 crisis. I am glad that not everyone in India is an economist, because you have a billion people and probably we will have two billion opinions if you are all economists! I realise that I am selecting some opinions, and there are others that I could have selected.

If you look at the writings of Montek Ahluwalia or Gurcharan Das in his book *India Unbound,* I think the way they portray what happened in 1991 is that India made very good use of the IMF. Yes, India ran into financing problems much like the generic kind I've described, with excessive external borrowing, excessive government budget deficits, and waited till the last minute to do something about it. But India made extremely good use because the policies that were adopted afterwards—which I think were really home-grown policies chosen by the India's government at that time—not only dealt with the immediate problems, not only did what was necessary to have the budget order restored, but went beyond that and started what we now think of today as the first generation reforms that continued through the 1990s. That probably has played quite a big role why growth was so strong in subsequent years. Here, arguably the fact that the pace of those reforms has slowed, that some of the second generation kind of reforms I referred to earlier had not come into play quickly, might be some of the reason why growth has started to slow.

Let me briefly talk about a few other issues or lessons that come out of the Asian Crisis. First, capital controls. I have written about this extensively and I do not have time to talk about it here. I do think going forward it is important for the international community to take a more eclectic attitude towards this. I hear different stories about what the attitude was. If I go back to the 1980s, one of my predecessors in the Research Department, Jacob Frankel, was writing papers about the timing of liberalisation. Point no. 1: Do not liberalise your capital account until you are fairly open to trade. That was subsequently written about also by Sebastian Edwards in his role as the Chief Economist for Latin America at the World Bank. There were many seminars about this. I myself, as a visitor to the IMF, wrote a paper about the dangers of lending, of having excessive borrowing by emerging markets, and steps that could be taken to prevent that, although my work pointed more at reforms, to what could be done in the rich countries in their banking laws and supervision to try to ameliorate the problem. I think that it is an important question for the international system to go forward.

Many people are talking about having more flexible exchange rates in Asia and India particularly, India already having a more flexible exchange rate than many other countries in Asia. I think this is something that is important in the future. However, as that happens, there are problems where there are very rapid capital inflows leading to huge appreciations and then depreciations in the exchange rates. It is something we should talk about. It is not a ground that I want to tread on lightly. I believe capital controls are something that when you invite them to lunch, they stay for dinner; you want them to be temporary, they become permanent; you want them to be market friendly, they become heavy handed. But at least in my Department there is quite a bit of research going on about this.

I mentioned fixed rates already. Every crisis we saw really until Brazil August 2002 involved fixed exchange rates—and of course in many ways Brazil 2002 was an echo of Brazil 1999, because they built up a lot of debt in 1999 which was a fixed exchange rate crisis. Look at what happened to Mexico, Italy, the United Kingdom, Spain, Portugal, the EMU, Russia, Argentina, Brazil, Turkey—they all had fixed exchange rates. We cannot prove this very definitively, and it remains to be seen, but having a more flexible exchange rate is a buffer to preventing crises of this sort.

Some people have asked me, you are now saying that having more flexible exchange rates is good, wasn't the IMF supporting all these fixed exchange rate regimes? Didn't it support Russia, Argentina to the death until their fixed exchange regimes finally went bust? And here I think I certainly want to explain—and I was witness to some of this from inside. First of all, technically speaking, our Articles of Agreement do not let us dictate to a country what exchange rate regime to choose. If you choose a fixed exchange rate we are here to try to advise you on policies that are consistent with that. When it reaches a situation when they are not consistent, it is extremely difficult for the international community not to get gamed into continuing to support these fixed exchange rate countries. Of course, when they end it is often in a ball of fire. Very often the government falls after a fixed exchange rate system falls. It is a very difficult situation. Many people, and this is something that I also wrote about as an academic—are concerned about what is called the moral hazard problem – that the existence of the IMF money helps make people think that there is no risk when they lend into these fixed exchange rates—your money is contributing to this to the extent that's there and India is a net creditor. Perhaps this problem is somewhat overblown, but it is not easy to withdraw from this role.

I did mention Asia more generally. I had China in the title, and I may get to a couple of slides but I do not want to go for too long. China certainly has a less flexible exchange rate regime than India by any measure, it really has a fixed exchange rate. Carmen Reinhart, who is my Deputy at the Research Department, and I wrote a paper. It is an academic paper, it is a scholarly paper, it is coming out in the February 2004 *Quarterly Journal of the Economics*, where we rethink the modern history of exchange rate, looking at what countries do, not what they say. We do not categorise India as a managed float for much of the period but as a crawling peg up to December 2001, and then more recently as a crawling band where the exchange rate can move in both directions but within fairly tight circles.

But certainly China would come out as a peg. One of the reasons that it is challenging for China to move away from this, and China has very clearly stated that it wants to, is that they have weaknesses that are significant that could be uncovered by moving too quickly to a more flexible rate system. One dramatic one is certainly in the banking sector and I do not want to quibble today between whether the estimates in the *World Economic Outlook*—that is our flagship publication that the Research Department publishes—which some have said are on the high side, are these right or are other lower estimates right. Any estimates are much higher than India's at the moment. That is an area which is much more difficult for China than India.

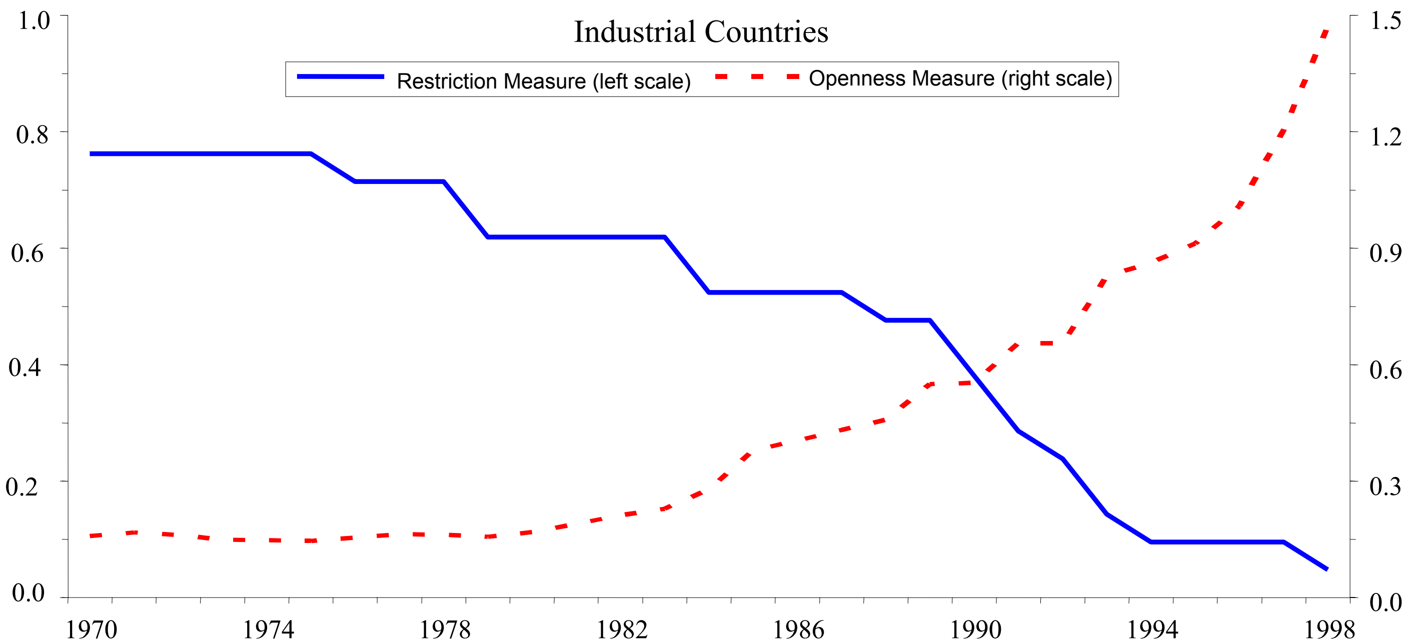
I speak of these wrong lessons that might be drawn from the Asian Crisis because I am concerned that one of the silent casualties of the Asian Crisis could be growth in India. Although I agree that India's conservative attitude towards capital account liberalisation very much stood to its benefit during the Asian Crisis, one worry is that, more broadly, India's pace in globalisation, India's pace in financial liberalisation, might have been slowed as a lesson of the Asian Crisis. If I'm wrong, that's fine, but it is certainly something that concerns me.

Finally, I am going to get to very briefly talk about this paper that I mentioned. I want to say something about fiscal policy. India of course is running very large government budget deficits in the range of 10 per cent of GDP for some time. I imagine that many have warned you for some time that it is not something sustainable. But in fact India has continued to do quite well. I think the longer-term concern with budget deficits—India's fundamental position is strong, its external position is strong—is that this may lead to slower growth over the period, that you may gradually have a strangulation in growth. It is not necessarily that this will lead quickly to a crisis. You have a high debt–GDP ratio, although you are not up yet at one of the highest in the world, you're not even up at Japan's level of 140 per cent or versus some other countries, but I think this is a very important issue going forward.

Let me very briefly just make a few comments on a paper that the IMF Research Department released recently, and then I will stop, because I wanted to stay under 40 minutes. This paper is actually about financial globalisation. It drew quite a bit of attention when it was released a couple of months ago, because contrary to what was perceived as the IMF dogma, it portrays the benefits of openness to international capital markets, perhaps in a more sober fashion than people expected to hear from the IMF. In some ways the paper points out that the glass is half empty, not necessarily half full. This may not interest you, but from the point of view of the Research Department this is consistent with things which have been written for 20 years. It certainly took a higher profile on being released as an Occasional Paper.

We looked at the experience of financial integration, not capital controls. We looked at what countries do, what they say. It is very hard to compare capital controls across countries. Latin America has had capital controls in the 1980s, they had capital controls on outflows. But that did not stop money from pouring out of Latin America. Many Latin American countries that had debt crisis in the 1980s were net creditors. Russia today has severe controls on capital outflows, yet every year—perhaps it is changing recently—there have been huge net outflows. We measure it in this paper by what we actually see as opposed to what countries say they are doing, and we tried to pose these three questions: Does financial integration help the developing countries grow faster? How does it affect the macroeconomic volatility in these countries? And how can the benefits of financial globalisation be harnessed.

Fig. 1: Measures of Financial Integration



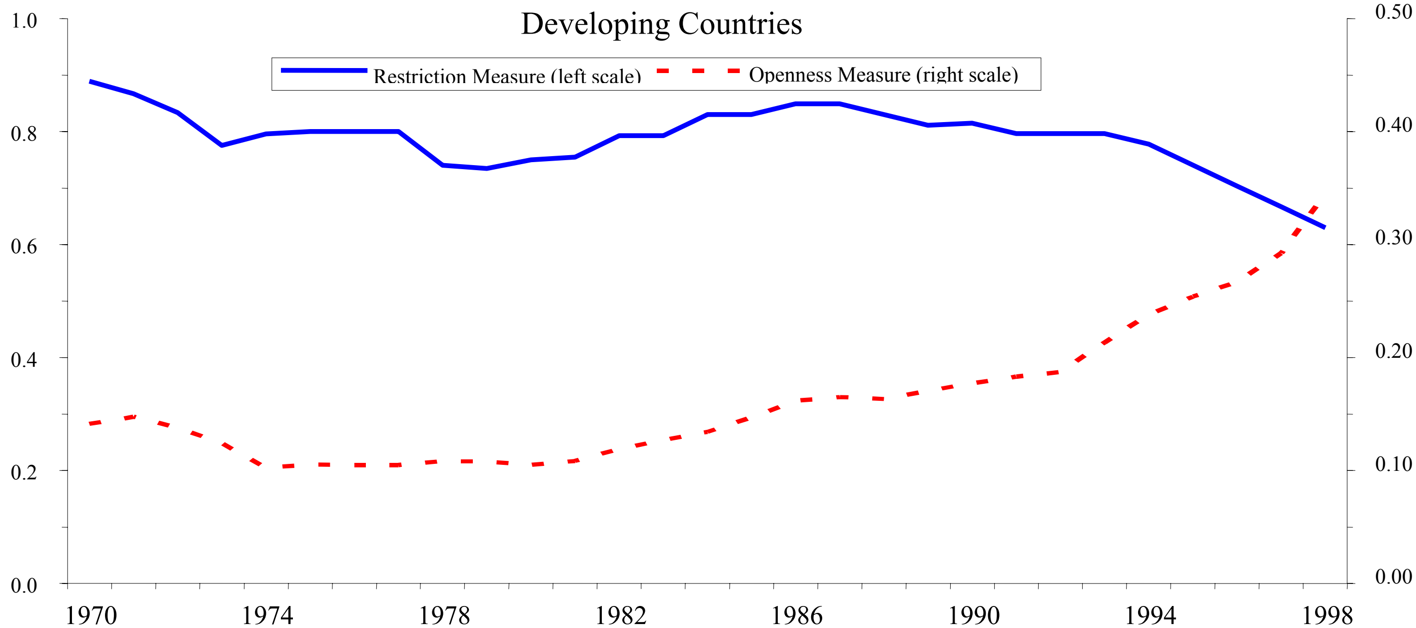
Source: *World Economic Outlook*, 2003, International Monetary Fund, Washington, D.C.; Philip R. Lane and Gian Maria Milesi-Ferretti (2003), *International Financial Integration*, IMF Working Paper No. 03/86, International Monetary Fund, Washington, D.C.

In Fig. 1, for rich countries we can see that financial integration has become much greater—the dashed line in the figure shows the growing de facto integration. What we measure is by total assets that foreigners hold in your country and you hold abroad, that has been rising; and the other line is the IMF measure of trade restrictiveness, it is an index. I can only say, as Ben Franklin once said about sausage, if you have to ask what goes into it, don't eat it! But that's our index and it has been going down.

Fig. 2 is for developing countries. Actually our trade restrictiveness index has not been going down that sharply but financial integration has been going up considerably. And net private flows to emerging markets has been growing enormously although it is heavily concentrated in a number of emerging markets.

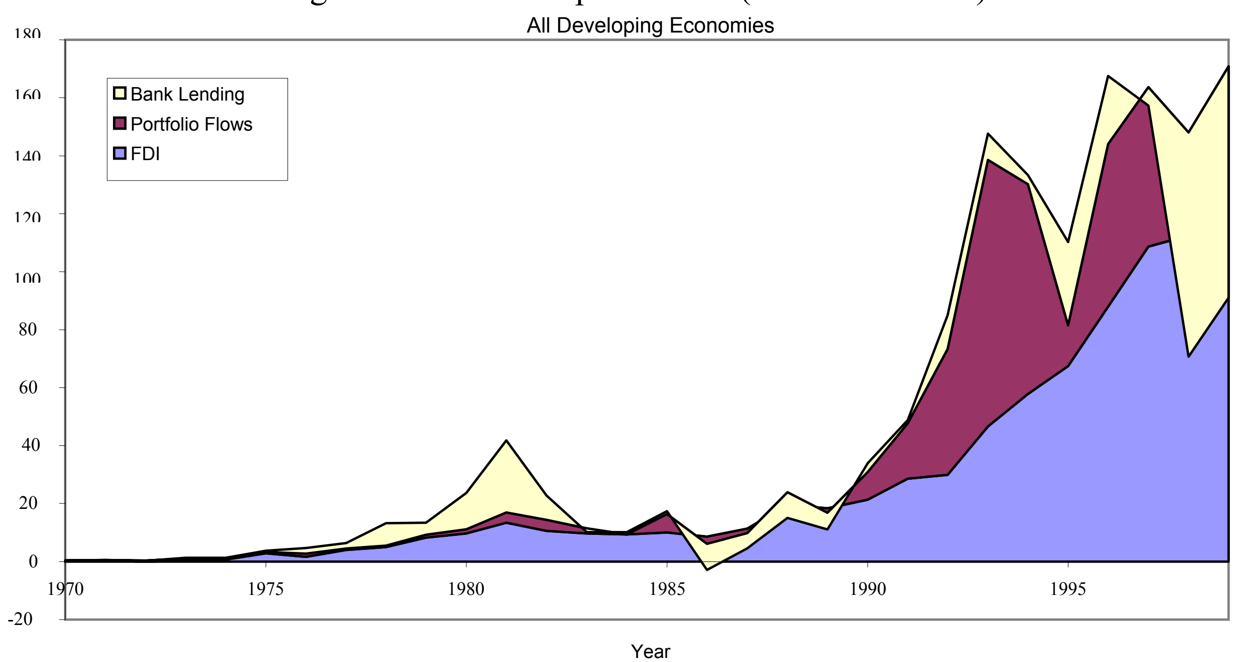
What we find in the study is that empirically it is hard to find a strong and robust causal relationship between financial integration and higher growth for developing countries. Why this is, is a question I will turn to in a moment. But let us look at Table 1. It looks at some of the fastest growing and slowest growing countries in the world, and also how they fared has to be more or less financially integrated according to our measure. Many people point at China as an example of a country that is not financially integrated. Well, whatever laws it has, it had a great deal of de facto financial integration, that's why you put Yes/No against it (see Table 1). Certainly Korea, Singapore, and Thailand are very financially integrated and they have grown very fast as have Mauritius and Botswana. And India—we also put it in the Yes/No category—I won't have the time to show it, but your financial integration has increased markedly and your correlation with the rest of the world has as well.

Fig. 2: Measures of Financial Integration



Source: *World Economic Outlook*, 2003, International Monetary Fund, Washington, D.C.; Philip R. Lane and Gian Maria Milesi-Ferretti (2003), *International Financial Integration*, IMF Working Paper No. 03/86, International Monetary Fund, Washington, D.C.

Fig 3: Net Private Capital Flows (Billions of USD)



Source: *World Economic Outlook*, April 2003, International Monetary Fund, Washington, D.C.

But there are a number of countries in Africa who have totally rescinded their controls on flows but no one has wanted to lend to them, so we don't have them as financially integrated. There are some countries who are financially integrated who have done poorly. We can find reasons for each of them. Take South Africa: in Table 1, we are looking at the figures of the 1980s, it covers the period of Apartheid. Jordan is located in the Middle East. The Middle East and North Africa had the worst performance in per capita growth over the last 20 years, even worse than Africa's. Just to make a long story short, our study does not find a big correlation and we survey many other studies. So we find that financial integration is not a necessary condition for high growth rate and it is not a sufficient condition, but one thing we did not sort out in this paper is the importance of the exchange rate regime.

One of the reasons that financial integration is not so important is that the traditional development paradigm way overrates the importance of capital inflows, of borrowings from the rest of the world, in growth. I think there are indirect effects on technology, on trade that are beneficial. But what we find looking across the countries we studied is that most of the difference in income per capita stems not from differences in capital–labour ratio but from soft factors that affect productivity—these can be infrastructure and other factors that are frankly not so easy to identify and control.

But I also want to say—I have been talking about financial globalisation—the majority of studies find that trade integration does help promote growth with the rest of the world. Because I want to leave time for questions—let me just conclude with a couple of final points.

Table 1: Fastest and Slowest Growing Economics during 1980–2000 and their Status of Financial Openness

S. No.	Fastest Growing Economies, 1980–2000	Total Percentage Change in Per Capita GDP	More Financially Integrated?	S. No.	Fastest Growing Economies, 1980–2000	Total Percentage Change in Per Capita GDP	More Financially Integrated?
1	China	391.6	Yes/No	1	Haiti	-39.5	No
2	Korea	234.0	Yes	2	Niger	-37.8	No
3	Singapore	155.5	Yes	3	Nicaragua	-30.6	No
4	Thailand	151.1	Yes	4	Togo	-30.0	No
5	Mauritius	145.8	No	5	Cote d'Ivoire	-29.0	No
6	Botswana	135.4	No	6	Burundi	-20.2	No
7	Hong Kong SAR	114.5	Yes	7	Venezuela	-17.3	Yes/No
8	Malaysia	108.8	Yes	8	South Africa	-13.7	Yes
9	India	103.2	Yes/No	9	Jordan	-10.9	Yes
10	Chile	100.9	Yes	10	Paraguay	-9.5	No
11	Indonesia	97.6	Yes	11	Ecuador	-7.9	No
12	Sri Lanka	90.8	No	12	Peru	-7.8	Yes

Development economics is extremely difficult. One of the reasons frankly that it was rather moribund in economics until recently is because it becomes very difficult to figure out how to prioritise reform, in what order to do things, how to have elegant models. I said I was not a Development Economist. But actually the first field I went into was called Comparative Systems–studies of economies such as the old Soviet economy. That is what I did my generals on at MIT. India was not exactly in this category but certainly related to it at one time. You made your name in the field of comparative systems by thinking up really a few clever reasons why what the Soviet economy was doing was optimal, why actually it was the best possible thing, why actually my friends who were chess players and who had gone back to the Soviet Union were really living in a workers' paradise. And you tried to think of clever theories like that. Of course, one of the reasons why this field has sort of gone by the wayside somewhat is clearly that something was missing here, that growth was not very strong in these economies. And how you go from a developing economy with many distortions to an industrialised economy to an economy with these kind of levels is a very difficult, social, political, and economic challenge.

In the IMF, our focus is typically often very narrow and so we will often talk about the budget deficits, we are worried about the budget deficits, we will talk about exchange rate flexibility. India is definitely in better shape than some other countries in Asia but at the same time I think that working towards greater exchange rate flexibility would be desirable. My interpretation of the evidence not just from Asia but from the whole world, from Europe's experience, from floating rates, from the Bretton Woods system, is that policy makers vastly overrate the risks of having volatile exchange rates and vastly underrate the indirect costs that can come from all the policies that they have to try to suppress them. Certainly I wouldn't say that India has gone too far at the moment in accumulating reserves, it has a very strong position but I think all the countries in Asia are reaching a point when they have to start asking the question how much is enough, that basically a lot of the reserves that the Asian economies are accumulating—even outside of Japan—we are talking about close to a trillion dollars, are basically low interest rate loans from the emerging markets to United States and Europe, and this is very costly. There are opportunity costs to the domestic economy. How much is enough and at what point should one risk letting the exchange rate appreciate. Knowing the multilateral aspects of it, I realise that there are some outside the IMF who call for greater flexibility in Asian currencies in order to strengthen demand from the rest of the world. I think that is an issue worth considering but it is not the one I want to focus on. From the Asian economies' own perspective, and this is true for India, it is true for China, it is true for virtually all the countries in the region, moving to a regime of greater flexibility would be something that is advisable, would not bring the cost many policy makers fear, and in fact would allow the economies to reduce the level of recession and that would have many positive growth effects. There are many, many issues in development. These are a couple of narrow ones that typically fall under my charge. I would again remind you that the World Bank has 180 to 200 people here, and we have 4 or 5, and I think it is for good reasons. There are many other issues in development, but I am not talking about them now.

Any way, thank you and I welcome your questions on any issue.

About the Author

Kenneth S. Rogoff is Professor of Economics at Harvard University, Cambridge, USA. Till recently, he was Chief Economist and Economic Counsellor and Director, Research Department, International Monetary Fund (IMF). Prior to this, he was Professor of Economics and International Affairs and Charles and Marie Robertson Professor of International Affairs at Princeton University, Professor of Economics at University of California at Berkeley, and Associate Professor of Economics at University of Wisconsin-Madison. Prof. Rogoff has also been Economist in the International Finance Division, Board of Governors of the Federal Reserve System and Section Chief, Trade and Financial Studies Section as well as Economist in the Research Department, IMF.

Prof. Rogoff is a Fellow of the American Academy of Arts and Sciences. He was appointed the John Simon Guggenheim Fellow in 1998 and is a Research Associate at the National Bureau of Economic Research and Co-editor of the *NBER Macroeconomics Annual*. Professor Rogoff's research interests include international finance, political economy, and macroeconomics.

Professor Rogoff is the author of many books as well as articles in reputed academic journals. His major books include *Workbook for Foundations of International Macroeconomics* (with Maurice Obstfeld and Gita Gopinath) (1998). Amongst his other major publications are: 'Global Implications of Self-Oriented National Monetary Rules' (with Maurice Obstfeld), *Quarterly Journal of Economics* (2002); 'The Six Major Puzzles in International Macroeconomics: Is there a Common Cause?' (with Maurice Obstfeld), in Ben Bernanke and Kenneth Rogoff (eds), *NBER Macroeconomics Annual 2000*; 'The Mirage of Fixed Exchange Rates' (with Maurice Obstfeld), *Journal of Economic Perspectives* (1995); 'A Constant Recontracting Model of Sovereign Debt' (with Jeremy Bulow), *The Journal of Political Economy* (1989); 'The Optimal Degree of Commitment to an Intermediate Monetary Target', *Quarterly Journal of Economics* (1985); and 'Empirical Exchange Rate Models of the Seventies: Do They Fit Out of Sample?' (with Richard Meese), *Journal of International Economics* (1983).

Professor Rogoff is also a International Grandmaster of Chess. Prof. Rogoff graduated from Yale University in 1975 and received his Ph.D. from the Massachusetts Institute of Economics (MIT) in 1980.