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## Brazilian Exchange Policy

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President of the Kiel Institute  
for the World Economy

**Luiz Gonzaga Belluzzo**

Economics Professor at Unicamp

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**Exchange rate, dutch disease  
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**A business view of  
foreign exchange**

Roberto Giannetti





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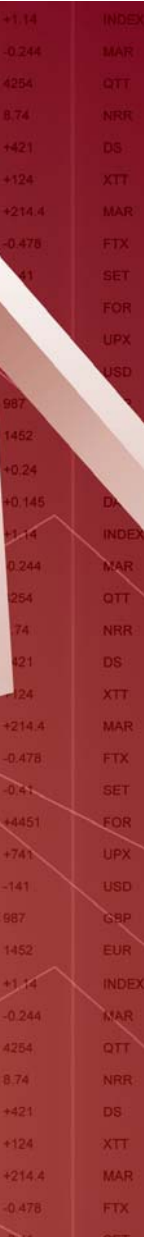
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# Editorial

Cesar Cunha Campos  
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The foreign exchange model adopted by Brazil is a key factor for the stability and economic growth of the country. In this post-crisis period, marked by alterations in the exchange rate parity, concern about the direction of the Brazilian economy is inevitable and with it the following question: what are the conditioning factors of the exchange rate and Brazilian foreign exchange policy for 2010? To clarify this and other questions, FGV Projetos organized the seminar “Exchange Rate Perspectives 2010”.

Authorities in Economics, namely Finance Minister Guido Mantega, Yoshiaki Nakano - Director of the São Paulo School of Economics of Fundação Getulio Vargas (EESP/FGV), Luiz Carlos Bresser-Pereira - former Finance Minister and Professor of Economics and Political and Social Theory of Fundação Getulio Vargas (FGV), and Roberto Giannetti - Director of the Department of International Relations and Foreign Trade of the São Paulo State Industries Federation (Fiesp), and FGV Economists and Professors Samuel Pessôa and Márcio Holland, discussed the exchange rate and its perspectives.

During the seminar, whose lectures are in this edition of Cadernos FGV Projetos, key data and varying comments were discussed on the Brazilian economic scenario and our exchange rate. Finance Minister Guido Mantega stressed the difficulties encountered by the Brazilian economy due to the absence of a homogeneous foreign exchange regime between the countries. China’s competitive edge on the world markets is another determining factor in upsetting the economic scenario, according to the specialists. With the yuan linked to the dollar, the Chinese product gains an unique competitive status.

In addition to the talks during the seminar, this edition of Cadernos FGV Projetos publishes the testimonies of the president of Fundação Getulio Vargas, Carlos Ivan Simonson Leal, Senator Eduardo Suplicy and Rubens Cysne, director of the Post-Graduate School of Economics of Fundação Getulio Vargas (EPGE/FGV).

Exclusive interviews with two key personalities for in-depth discussion of the topic are also provided in this edition. The first interview feature Dennis Snower, president of Kiel Institute for the World Economy (IfW), from Germany, who recently visited FGV in Rio de Janeiro to discuss the directions of global economy. The second addresses the opinion of Luiz Gonzaga Belluzzo, Chair of Economics at the State University of Campinas (Unicamp). We therefore hope that this edition contributes to clarifying key questions on the exchange rate in Brazil.

Good reading! ■



## Interview with Prof. Dennis J. Snower

FGV Projetos





■ Prof. Dennis J. Snower

Graduated in Economics from Oxford University, UK and has a PhD in Economics from Princeton University, USA. He is President of the Kiel Institute for the World Economy (IfW), Germany, Professor of Economics at Christian-Albrechts-Universität (CAU), Germany, member of the Global Agenda Council on Economic Imbalances and of the Board of the Centre for Economic Policy Research (CEPR), UK. Specialist in Public Economics, Macroeconomic Theory and Microeconomic Theory, Snower has also published books on the global economy as well as on the effects of globalization on labor markets.

### ABSTRACT

After the seminar “Exchange Rate Perspectives 2010”, FGV Projetos hosted a lecture by Professor Dennis Snower pertaining to global economy. Recorded on the occasion, this exclusive interview expresses Snower’s views on the imbalance created by the Chinese exchange rate regime and what the solution to the problem might be. He also expounds on the need for a mechanism to ensure that the Eurozone countries keep the debt/GDP ratio at a certain level, and suggests that this mechanism should be established through an independent fiscal authority. Snower concludes by exposing his opinions on how Brazil should act in order to make its products more competitive.

**FGV PROJÉTOS - Everybody is discussing the war on exchange rates and we would like you to comment on the issues involved. They say the Chinese are waging a war of a new kind. Instead of protectionism, subsidies or the like, the war is on exchange rates. Do you believe that there is a war on exchange rates right now?**

*Prof. Snower* - I don't think there's a war on exchange rates. We could talk in great length about global imbalances and exchange rates adjustment, but I think that all sides in this controversy know that if the exchange rates adjust quickly in any direction, it would create major problems for the world. So, if the yuan appreciated quickly, then the dollar would probably lose part of its position as a reserve currency. It could crash. That would have terrible effects on the global financial system. If countries started to make adjustments of exchange rates, like it's been proposed in the United States, that could start a trade war. I don't think anybody would want that. And there's no obvious quick way out of this problem, because the Chinese economy is still very export-driven and the American economy is very much based on America having the reserve currency. This current constellation only works if China buys up a lot of American debt, and holds its currency low. So, if there's going to be any adjustment, it's going to take time, be

very gradual, if we don't want to have a disorderly rebalancing, which could lead to another financial crisis. So, I don't see any simple way out of the present situation. I think all this talk of exchange rate wars is misconceived, because all the main actors that could participate know what the dangers are on all sides.

**FGV PROJÉTOS - Some people say there is already an imbalance created by this regime that the Chinese put together, in relation to the exchange rate. Is this an argument? Is this imbalance a threat?**

*Prof. Snower* - Well, the imbalance is a big problem, but you can't solve the imbalance problem by just readjusting the exchange rates, for the reasons I gave. Another way of helping would be to adjust the real economy. Say, for example, if China were to invest a lot in providing a welfare state that provides more security towards its inhabitants, then people would have to save less, and they could consume more. And that would be a big step towards rebalancing. The Americans are already making a step towards rebalancing, because the American households are saving much more than they did before. That could land them into a period of low growth, over a long period of time. And China is going to need to rethink its growth model, because, even though China trades a



lot with emerging markets, if you look at all the direct and indirect effects, then China still is reasonably heavily dependent on growth from advanced industrialized countries. If that growth is going to be lower after the crisis, as it was before, then sooner or later, that fact is going to arrive at China's doorstep, and it will have to adjust. And how will it do that? How will it move from a very export-driven economy to one that is more internally driven? That is an open question.

**FGV PROJETOS - Which means instead of following a war on exchange rates, you have to change the way the countries are developing. China has to consume more, the US has to save more. Are there policies that can contribute to this?**

*Prof. Snower* - And then the exchange rate regime will have to adjust slowly, if it's not to cause a big damage. And, if there is such an adjustment, then probably the dollar would gradually lose part of its position as a reserve currency. The euro, should it overcome its present problems with Greece, and find a way of spreading risks rationally, will then gain from this in the long run, but so would other currencies. And therefore, I think one shouldn't see just the appreciation of the yuan as the panacea to solve all our long-run balance problems.

**FGV PROJETOS - During your speech at FGV "Brazil, Europe and the Global Economy", you said it can be harmful for any country to pull out of the euro once it has embarked on it. On the other hand, in the long run, Germany is seen with productivity gains higher than other countries, which can lead to an even greater share of Germany in the exports to these countries and to the rest of the world. So, how do you see the euro in the long run? Do you see any threat, if we don't manage to increase the set of criteria that the countries have to meet? For instance, the size of the deficit. Do you have in mind any mechanism to enforce total expenditures and the quality of expenditures for each country in the euro zone?**

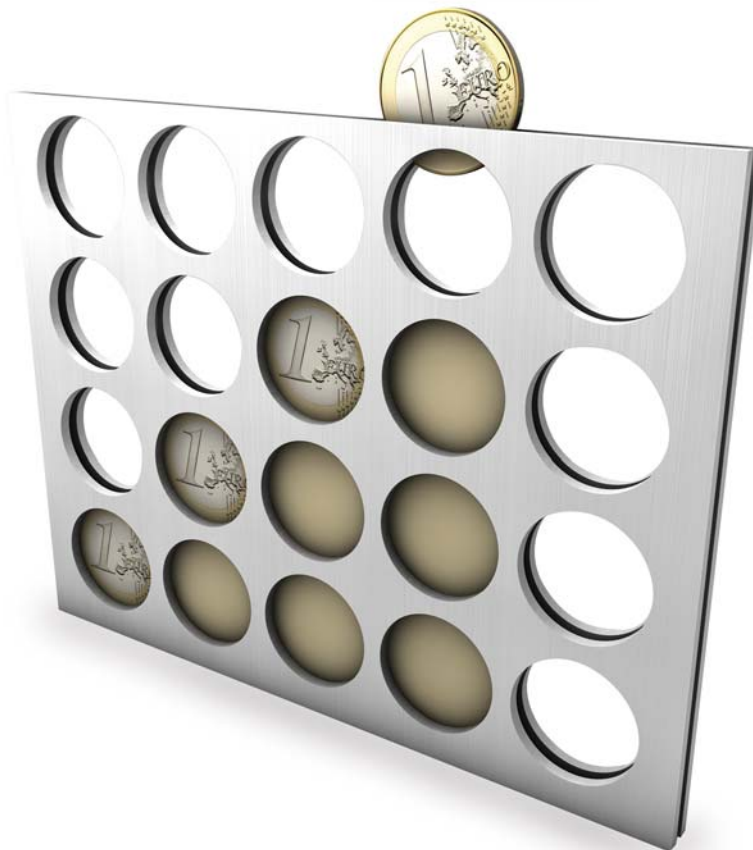
*Prof. Snower* - Yes, I think so. The big deficiency in the Maastricht Treaty was that rules were created, but there was no enforcement mechanism. Like with nuclear non-proliferation agreements, and that doesn't work. You need an enforcement mechanism that ensures that countries do keep their debt-to-GDP ratio at a certain level. Maastricht Treaty states a maximum of 60%, not unreasonable, but it could go up to 90% without a lot of harm. That is the important ratio, debt-to-GDP. Deficits are less important. You have to have a deficit rule that allows you to stimulate the economy when you are in a recession, and at the same time approach your long-run debt-to-GDP ratio.

FGV PROJETOS - What is your proposal for this enforcement mechanism?

*Prof. Snower* - I think that we need a fiscal authority like we need an independent central bank, whose job is to tell the government how high its deficits and surpluses can be in every stage of the cycle. So the government can say in the recession - "I want to stimulate the economy this much" - and then this commission says - "Fine". Then, in a boom, you'll have to do the opposite, and generate surpluses so that, over the cycle, the debt-to-GDP ratio remains constant at the desired level. And that would solve the problem.

FGV PROJETOS - If you look at the discussion over the crises in Europe, you already see that, if you have a common currency, you have to have a common political power. For instance, if the US has a problem in Alabama, the country goes and targets help to Alabama. When Greece went on crises, Angela Merkel was forced to help.

*Prof. Snower* - If we had such a fiscal authority in place, you wouldn't need countries to help one another, because the fiscal authority would ensure that the country has a responsible fiscal policy.



“ (...) if China were to invest a lot in providing a welfare state that provides more security towards its inhabitants, then people would have to save less, and they could consume more. And that would be a big step towards rebalancing (...) ”

Dennis. Snower

FGV PROJETOS - You are being very brave in saying that, “OK , you have to submit to this”

*Prof. Snower* - That’s right! So, the government would have every power it has now. It could allocate its expenditures and its taxes in any way it likes, except, it would not have the power to have irresponsible fiscal policy, that is, fiscal policy which, in the long run, increases the debt. So, it would be very odd for a government to say “I want the right to have irresponsible fiscal policy”.

FGV PROJETOS - What does “irresponsible fiscal policy” mean to you?

*Prof. Snower* - “Irresponsible fiscal policy” is fiscal policy that leads to a long-run increase in the debt relative to GDP. A trend of increase in debt-to-GDP, that’s “irresponsible fiscal policy,” because that leads to higher interest rates and lower economic growth.

FGV PROJETOS - Your proposal is very bold for a fiscal authority. Would an European fiscal authority be necessary?

*Prof. Snower* - No, not European. It could be on a national level. Every national government could have this independent commission. While I was in Turkey, earlier this year, the Turkish Finance Minister indicated that

he intends to formulate a fiscal rule that provides the groundwork for responsible fiscal policy. And David Cameron stated that, if he won the election in Great Britain, he will follow this course as well. Now we have to collect his pledge.

FGV PROJETOS - Would you suggest the creation of an independent debt authority, like the Central Bank? The Brazilian law for fiscal responsibility helped a lot, but you suggest taking a step further. We always considered this law an enforcement policy, because it avoids state’s excess. Is it an institutional up-grader?

*Prof. Snower* Yes, we got independent central banks and nobody said democracy is coming to an end. It helped to reduce the interest rates and so on. This would reduce risk premia. If Greece, for example, had had such a commission, we would have much lower spreads on its credit default swaps.

FGV PROJETOS - Could such a law pass in Germany?

*Prof. Snower* - Well, I suggested it for Germany but the Finance Minister didn’t like it. But it’s a long process. Germany is a country where things take a while. But the discussions in all the newspapers are full of this. It’s a big discussion in Germany.

FGV PROJETOS - With a law like this, are many technicalities are going to come up?

*Prof. Snower* - Not at all. All I say is the commission has to be independent of the government. It will never be able to estimate the cycle perfectly, but, at least, the estimates will be independent of political influence. That's all I need. We need some experts on business cycle movements, like the NBER, you know. Where are we in the cycle? It will never be perfect, but it will be independent of politics.

FGV PROJETOS - Will the commission set the targets or the law?

*Prof. Snower* - No, the government sets all the targets. The government sets the debt-to-GDP target as well as the target on how countercyclical fiscal policy should be. As for the commission, all that it would do is the really boring job of estimating where in the cycle the economy is, and then setting the deficits and surpluses in such a way as to guarantee that, over the cycle, whatever the estimates, the debt-to-GDP ratio is constant.

FGV PROJETOS - It will have to have the final word over the numbers that are set?  
And then it will be guaranteed by law?

*Prof. Snower* - Correct! Yes!

FGV PROJETOS - It's like an independent central bank?

*Prof. Snower* - Yes. Precisely.



“ (...) Brazil will need to do something similar to Germany, and combine its raw material resources and manufactured goods with particular skills and services. ” ”

*Dennis Snower*

FGV PROJETOS - When it comes to central banking, you have the money supply. But if you have laws such as the social security, for instance, you say “I’m not going to pay this one dollar in social security.” There is somebody knocking at your door and there is a social security law that guarantees this person the right to knock on that door. So, this commission would have to have the power to deal with all laws which generate that problem and change the fiscal budget?

*Prof. Snower* - No, no, no, no. I think, what would happen is that the government has discretionary expenditures and non-discretionary expenditures. And now, the government will have to see that it manages its discretionary expenditures in such a way as to adhere to this law. I’ll tell you how this would feel in real life: you’re in a boom, the country is doing really well, tax revenues are streaming in. And, at that time, all the ministries are saying: “we have to build new roads, we want more this and more that.” And the Finance Minister will say: “I am sorry! We can’t do all of that, because this horrible debt commission has told me I need to produce a surplus.” That is where it would bite, in the boom.

FGV PROJETOS - Could we agree perhaps that instead of the adjustment being through exchange rates, it would be through the countries adjusting their development process?

*Prof. Snower* - Right. Correct. That’s it. I agree!

FGV PROJETOS - In the seminar “Exchange Rate Scenario - 2010” there was a pressing issue regarding the manufacturing sector here in Brazil: the Dutch disease. This sector is losing market and blaming “the government” for not doing anything, and letting the Chinese do anything they want with their exchange rate. The pressure is mounting and the question is: what would you say to the manufacturing sector? The government is reacting. It has to give some answers, but, either it does something regarding the exchange rate or not. What should it do?

*Prof. Snower* - I think in the long run, I suspect, that Brazil will need to do something similar to Germany, and combine its raw material resources and manufactured goods with particular skills and services. And package that for export in a way that it creates a niche for itself. German manufacturing would never be competitive, if it wouldn’t manage to combine its exports with services attached to these manufactured goods. And Brazil needs to do something similar and, in order to do that, Brazil probably needs to invest a lot in skill creation.

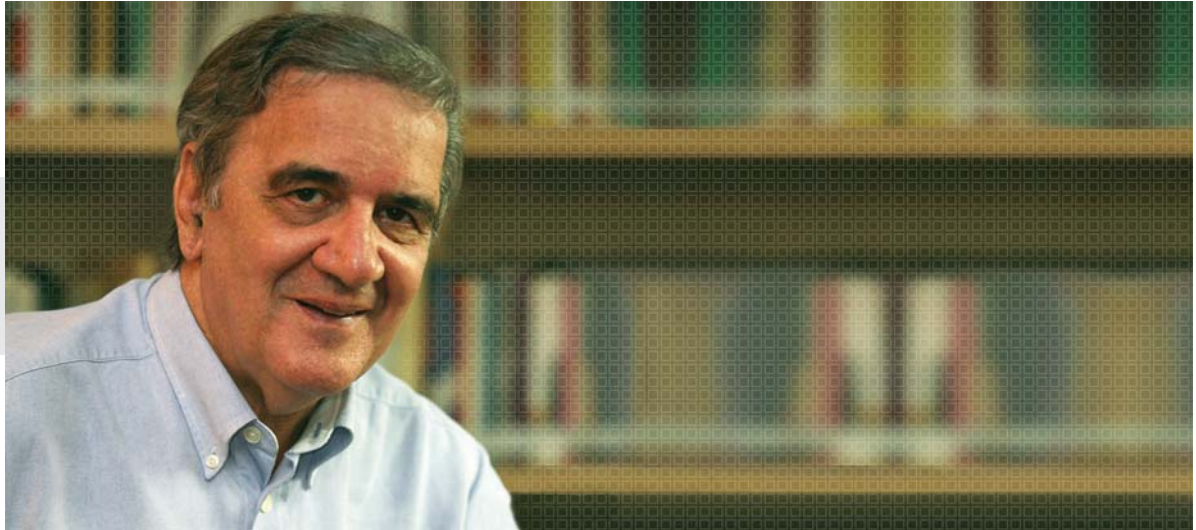
FGV PROJETOS - That’s what we’re doing. And, will we have surpluses again?

*Prof. Snower* - Yes. That’s it. Precisely. Your model. ■



## Interview with Luiz Gonzaga de Mello Belluzzo

FGV Projetos



### Luiz Gonzaga de Mello Belluzzo

Holds a Law degree from University of São Paulo (USP), a graduate degree in Economic Development from Economic Development from the Latin American and Caribbean Institute for Economic and Social Planning (CEPAL/ILPES) and a PhD in Economics from the State University of Campinas (Unicamp). He was Secretary for Economic Policy of the Ministry of Finance of Brazil from 1985 to 1987 and Secretary for Science and Technology of São Paulo State from 1988 to 1990. He is currently the editorial consultant of the weekly magazine Carta Capital, Institutional President of the Celso Furtado International Center for Development Policy and personal economic consultant to the President of Brazil, Luiz Inácio Lula da Silva. Belluzzo is also the current President of Palmeiras, one of Brazil's major soccer clubs. In the academic field, he is an Economics Professor at Unicamp.

### ABSTRACT

In this interview, Luiz Gonzaga de Mello Belluzzo reveals his wide knowledge of Economics by making critical considerations on several aspects concerning the exchange rate. For Belluzzo, the benefits of a strong Brazilian Real are illusory and the use of the exchange rate as an instrument of long-term industrial policy is viable only for China, which, with its strong manufacturing capacity, continuously produces imbalances. When speaking about the fact that contemporary economies tend to further move towards the service sector, Belluzzo defends the view that there cannot be a clear separation between services and manufacturing, because the two sectors are interconnected. The growing inequality in income distribution in the United States and the impact of the Chinese currency devaluation policies on global financial stability were among the other important issues addressed by the economist. Regarding the exchange rate policies of Brazil, Belluzzo criticizes the regime adopted since the '90s.

**FGV PROJETOS - Are there benefits of the strong real for Brazilians, in a perspective of aggregated social well-being in the long run?**

*Luiz Gonzaga Belluzzo* - The benefits are deceptive, since we have poor specialization of the economy and even in relation to commodities, the sector is very concerned with foreign exchange. Remuneration is worsening and the sector has benefited from the lower elasticity-income of the commodities because of China's presence. The elasticity yields less, and paradoxically, benefits them when the economy is down but is detrimental when the economy is on the increase.

**FGV PROJETOS - Is it desirable and enforceable in Brazilian conditions to use foreign exchange as a long-term industrial policy instrument?**

*Luiz Gonzaga Belluzzo* - That was true for the 1950s, 1960s and for China. We cannot ignore the fact that China used foreign exchange as a long-term policy and was successful; not only for this reason, but also due to the domestic conditions of an unlimited labor supply, and to the movement of the large American and Japanese corporations. It was a competitive movement that led to a concentration in the manufacturing capacity of China. Whoever did not negotiate with China was in a difficult situation, bearing in mind the production drawbacks with European or American wages. Brazil benefited little from this because of the continuing foreign exchange valuation. From an integrated global economic viewpoint, this is not good because it steals liquidity when generating trade surpluses and high reserves, and this continuously furthers the reproduction of imbalances. There must be coordination with rules that meet the requirements of liquidity of the countries in deficit, and redistribute the low purchasing power to the domestic markets. Specialists suggest, for example, that China or Brazil increases its domestic demand to permit re-absorption of the imbalances. Now, how can they do that at the risk of a crisis in balance of payments? That's what happens. This is a repeat of recent history. Countries that try to push ahead and grow according to their needs find a barrier

in the balance of payments. Let's take the case of the Asian crisis, which clearly had nothing to do with fiscal bases. Korea, for example, had excellent fiscal bases. It did not have heavy public debt or deficit and was surprised by a liquidity crisis. What was the solution? It is necessary for some institution to take care of it, since we cannot ignore the integration of the economies. Another key factor is that the Americans over-consume and do not save. If they saved, they would not have trade surpluses that boost the economy by multiplying credit, based on the growth of the bank reserves. It would not therefore be possible to have the abundance of credit or exchange rate control. The Americans, however, claim that the Chinese manipulate the exchange rate, when in fact neither wishes to move to a more rational solution. It's impossible to run an integrated economy using old concepts, because when this floating exchange rate theory was formulated, only a balance of current transactions was considered, so the floating rate did in fact function. Now, for example, Brazil is moving toward a current account deficit, which results in valorization of the real. Therefore, Brazil acquires certain conditions and the currency then undergoes a devaluation process. While the real is valorizing this is causing damage to local industry to become a major problem.

**FGV PROJETOS - Bearing in mind that the developed and even developing economies are increasingly shift-**



ing toward the service sector, are there grounds for the concern of certain analysts regarding deindustrialization?

*Luiz Gonzaga Belluzzo* - This question of services is not what is real, since the dynamism of this economy is provided by the manufacturing sector. The service sector is a non-tradable sector, so we must understand that it is due to asymmetric trade relations that the Chinese economy today has the strongest growth. Unless services also begin to be tradable, the mass of international transactions would concentrate on commodities and manufactured goods. We are talking about imbalances. To look at this solely from the national viewpoint is wrong, to approach the question from one narrow angle is not very intelligent. Let us consider that Brazil has a service economy, and then what? Income and employment in this sector increase, and the valorized exchange rate will increase the demand for imported goods. The reality is that a lot of the services that are internationalized are linked to manufacturing production. Therefore, we see that it is not possible to make this separation. It is as if, today, there is export of commodities and industries, a large part of the commodities have a more or less long production chain, called field industrialization, which is being jeopardized by offsetting the exchange rate. As long as this is not solved on a globally coordinated basis, there will be no solution to the problem. We need to look at



the overall. And how is all this performing? Poorly. China is clearly benefiting from this poor performance. What will happen to the other countries? They will also take individual decisions, devalue their foreign exchange, set tariffs and this will all jeopardize international trade.

**FGV PROJETOS** - Is relative flexibilization of the labor market in the different sectors (primary, transformation, service) somehow related to the industrial impact of floating exchange rates?

*Luiz Gonzaga Belluzzo* - This is another question that is also one of my major concerns. What does flexibilization of the labor market mean, as done in the 1990s? Does it mean that the labor market will be more fluid, that the cost of employment will be lower? Everyone bases themselves very much on what happened in Germany, but Germany did that in the 1990s with a competitive superiority, which was already widespread and that caused this problem with the PIGS<sup>1</sup>. A recent article on the PIGS says that market flexibilization is not enough and that a deflation of wages and prices is necessary, something that is politically unfeasible. So, how can we solve this problem with Germany? By further flexibilizing the labor market? The problem is that there are different degrees of development in a monetary union that does not have a fiscal basis. The question is how can the productive structure be reproduced in Spain or Greece in a short time and give it the degree of competitiveness that Germany has? How can these backward peripheral European countries that entered the monetary union as consumer and not producer be transformed without a transfer mechanism? The countries need to act in unison. What Germany is doing is foolish since it wants those countries to pay a debt that it actually forced upon them. The countries cannot undergo devaluation since they are in the euro. To do so, it would be necessary to restore the peseta or escudo. Or will Portugal first become a competitive economy? In Brazil it is like having Piauí and the State of São Paulo. Why does it work? Because it has a mutual fiscal monetary space. This business of flexibilizing the labor market doesn't make sense. What does it mean? That it would be possible to reach the unit cost

<sup>1</sup> PIGS is a pejorative acronym used for the group of economies of Portugal, Italy, Greece and Spain. This acronym of pigs is used in cartoons to illustrate the poor economic performance of the four countries.

of Chinese labor? No country would achieve this in a short time span; just compare the American, Chinese and European unit production costs. How is it adjusted by wages? Such a feat would cause a huge political and social crisis which would flexibilize the labor market even further. Recently there was a change in the international labor division caused by the internationalizing movement of the economies, especially of the large American, European and Japanese corporations. There are 30,000 Japanese companies in China. How can equilibrium be restored? It is very complicated. The American government says that it wants to double its exports in five years but this will be hard to achieve. Even with lower American wages, to reach the level of China would be a revolution and very foolish.

**FGV PROJETOS - How can we assess the impacts on the income distribution of the different foreign exchange regimes, considering the capital-intensive primary sector and the labor-intensive service sector?**

*Luiz Gonzaga Belluzzo* - I think that the best example regarding income distribution is the USA, which developed into a service economy with a high increase of unskilled jobs and productivity. Today, the USA has an income distribution similar to the Chinese in terms of inequality. However, the inequality of China originates from the fact that when the economy grows the wage changes; in the USA most of the workforce is created in jobs with low production. In my opinion, this question of income distribution has to do with employment policies, the spending structure, with the productive structure that the country has been acquiring, and this capitalist economy does not generate good distribution. It must have redistribution mechanisms. Brazil is a good example. Considering the advance of the industry's productivity even in the service sector, it is not possible to create good jobs quickly. The economy goes into recession, recovery causes low employment, so policies designed to re-balance the position of the various social classes in the distribution will be necessary.

**FGV PROJETOS - To what extent is it possible to incorporate foreign exchange as a variable for auxiliary control in a system based on monetary stability (and, therefore, on anticyclical orientation)?**

*Luiz Gonzaga Belluzzo* - The problem of foreign exchange, as I said, is not easy to solve because it has two dimensions: the monetary and the real. The two are not always compatible in the short-term. The question of foreign exchange is stability. There must be stability and foreign exchange that guarantees minimum equality, com-

petitive conditions with the others. I'm not talking about using foreign exchange as a promotional instrument, as some countries do. China uses the real exchange rate as a competitive instrument and yet does not have losses with regard to monetary stability. But China is a particular case, since governance control mechanisms of the Chinese economy are very peculiar. If there is no efficient international coordination, it is necessary to use various instruments in addition to foreign exchange, to combine monetary stability, and the real exchange rate as an instrument to further its exports or protect against predatory imports, namely the Chinese. They cannot concentrate on one instrument alone. This is what the crisis has taught and they have not learned. To deal with a number of different problems it is necessary to use foreign exchange, fiscal policy, and in order to have an idea of what often cannot be done for the foreign exchange policy to act as an anticyclical instrument, it is necessary for the fiscal policy to also function anticyclically. Brazil is learning this. For example, it doesn't work of course to use the interest rate as the only instrument of monetary policy. Just look at what happened in the USA and other countries that did not want to use quantitative credit controls, a major capital requirement for certain foreign exchange operations; in other words, to control credit quantitatively. This is the obvious measure to take. However, some say that interest rates must always be used or, in the case of monetary stability, let the exchange rate float freely. This is sheer folly.

**FGV PROJETOS - Could further opening of the Brazilian economy by lowering tariff barriers have impacts on the exchange rate?**

*Luiz Gonzaga Belluzzo* - The exchange rate would devalue. The problem of this statement is that it does not take into account that today, financial transactions are much more important in determining the exchange rate than actual transactions. Moreover, with this current optimistic trend in the markets, we would probably have the chance to valorize even more, because it has always been like that. An IMF article analyzed the reversals of the surplus by deficit countries. The reversals are almost always damaging and traumatic. So this solution seems to me like putting out a fire with gasoline.



**FGV PROJETOS - Does the low propensity of Brazilian families to save play a role in the course of capital flows and, consequently, in foreign exchange stability?**

*Luiz Gonzaga Belluzzo* - This is a very old discussion. Economists do not usually agree on the role of savings. In the case of China, for example, family savings have very little impact on overall savings. The Chinese earn little and most savings are corporate. The problem is the way in which these savings are generated. Deep down, what happens is that China has a much higher productivity-wage ratio than any other country in the world. A study by NBR<sup>2</sup> clearly shows how the Chinese achieved fast technological graduation. They moved from low added value goods to more technology-intensive higher added value goods. This is a process involving a more skilled workforce and changes in production structures and large-scale production organization. So there's no point in talking about savings in the macroeconomic sense. Saving does happen, families save part of their income, but this is not decisive for further Chinese competitiveness. To discuss this is a waste of time, since it is the same thing as saying that American family savings have declined. To start with, it was never high, always very low. Secondly, the growth of American capitalism is based increasingly on a huge increase in credit-financed consumption. The USA was the first country to introduce generalized consumer credit. In the 1920s, at the time of the 1929 crisis, families had 45% indebtedness in relation to available income. This is the American model of how capitalism worked. And it is precisely this that gave rise to this form acquired by the world economy and the Chinese are playing this game. In other words, they have high productivity and low wages that will increase, but not fast enough to reach the American cost levels. This is something systemic, and that is how capitalism grew. There is no point in adopting a model for generating savings and investment that does not work. The model is wrong and reckless. Keynes already explained this and they insist on this nonsense. The situation is the following: the combination between American spending and the Chinese investment rate leads to an increase in profit accumulation by the companies, and this has the Chinese trade surplus as a counterpart. So, in fact, the Chinese save in dollars because they save the wages of the Chinese. It is the productivity/wage ratio that matters and accumulation of profits by the companies. To correct this imbalance does not entail an increase in the savings of the Americans. So far, it has not increased much because American consumers, despite the low income, continue to consume a little.

<sup>2</sup> The cable television channel that announces the acts and policies of the federal government and broadcasts live the main government events.



“ *I think that the best example regarding income distribution is the USA, which developed into a service economy with a high increase of unskilled jobs and productivity.* ”

*Luiz Gonzaga Belluzzo*

FGV PROJETOS - Does “inflation contagion” of the price of imports in real at a time of valorized foreign exchange make much noise with regard to the anticyclical power of inflation targeting?

*Luiz Gonzaga Belluzzo* - Of course. This problem concerns volatility, and something that we should not have is this valuation-devaluation-valuation period. An example is the fact there has been a visible drop in prices of manufactured goods within the USA, which helped the anti-inflationary policy. Many think that it was the monetary policy that permitted that. There was sharp deinflation<sup>3</sup> in recent years because of the low cost of Chinese goods invading the American industry by almost 40%. This caused an asset inflation combined with a devaluation of the goods and service market. The question is much more complex than this. If there was the credit expansion velocity without China, there would have been inflation of assets and of goods and services, and the economy would have come to a standstill due to a rise in interest rates against the loss of control over inflation. But the system changed, since ratios changed. Unprecedented credit expansion - occurring since the start of the post-second world war - currency credit in the broadest sense: M3 and GDP. The ratio between the three grew exponentially. Credit increased sharply compared to these variables. Why can it be like that without inflation? Because there is a very peculiar productive and financial arrangement.

<sup>3</sup>Deinflation is an economic concept corresponding to the slow-down of inflation. The inflation rate drops, without reaching a zero or negative level. It must not be mistaken for deflation, which corresponds to reduction in the general price level.

**FGV PROJETOS - What is the impact on the global financial stability of China's foreign exchange devaluation policies?**

*Luiz Gonzaga Belluzzo* - China's increasing weight in international trade is very destabilizing. The Chinese will not surrender these policies unless they can have greater weight in the global financial, monetary and political decisions. They have a financial system that is practically public, much less sophisticated than, for example, that of Brazil. They have control over the foreign exchange and a goal to maximize urban employment and shift the rural masses. They are adopting a policy to transfer labor from the countryside to the city, always very carefully. They know that they cannot have a very low growth rate, nor is it easy to lean on the home market. This transition is very complicated, since a large part of their productive capacity has been built for exports. The model was clear: in order to use exports as an instrument to accumulate reserves, the public system manages corporate and family savings, and at the same time has capacity to finance private and public investments, which obviously does not work. Most credit goes to the large international companies. The other companies run on practically their own capital and little credit. This is China's rationale. Their aim is to maximize skilled employment and undertake an industrial and social productive transformation that leads to the status of a developed country. The pressure may lead them to create a monetary zone in Asia. It's difficult to achieve this change in the Chinese foreign exchange policy and it is obviously damaging for the whole. But to solve this question, there is no point in insisting on the idea that they will abandon their system. They will only do so if there is concession from the other side and, nowadays, the relation of forces

is complicated. For example: the USA cannot, unilaterally, raise the interest rate to recover the situation, since it does not have this instrument. On the contrary, it has to keep a low interest rate for a long time. Being restricted to this discussion of national foreign exchange policies always leads to a dead end. While the economies are growing and the US was acting as a residual country, everyone could devalue the exchange rate to become more competitive, protect their productive apparatus and industry. Now this can only be used by some countries ultimately, but will be used in a way that will aggravate stability. Will foreign exchange, then, be determined by the market? No; since the current situation is unsustainable and countries will intervene, seeking to devalue the exchange rate, this will lead to a situation of worsening the imbalance. It is said that China does not have international responsibility. The problem is that neither do the Americans. They want to keep the dollar as a reserve currency, and this is the question bothering the Chinese. Very well, the Chinese agree provided that they can play a role in managing international liquidity, which is not left to the market criterion, since the market is pro-cyclical. This is the case of Brazil now. There is surplus liquidity caused by the anticyclical action of the American and European central banks, which changed their assets from private securities to public bonds and are turning to more profitable assets. This reversal devalues the foreign exchange, which is bad for inflation. A price such as the foreign exchange cannot be in the criterion of these circumstances.

**FGV PROJETOS - Are the perspectives of a reform in the international financial system, increasingly present in the agendas of the global leaders, critically affected by the internal perception of industrial impacts on correcting these foreign exchange imbalances?**

*Luiz Gonzaga Belluzzo* - Yes they are. Most difficulties come from the fact that the Americans do not want to give up their privileges and the Chinese also have their reasons. The problem is as follows: what is the mechanism for deficit financing and for supplying liquidity? These are the questions. How is this determined? How to prevent a balance of payment crisis from leading to deflationary adjustment? We have already seen this movie here again and again. Of course, it is clear that general rules must exist against, for example, a country acting irresponsibly during a growth period. It is necessary for the fiscal and monetary policy to act properly, but at the same time not to imprison the countries like that. This was the concern of the Bretton Woods<sup>4</sup> reforms, so we have to focus on this again.

**FGV PROJETOS - To what extent can industries whose competitiveness is sensitive to foreign exchange cancel this risk in the market of foreign exchange hedging instruments? Does the industrial policy through differentiated interest rates (such as TJLP) facilitate or hinder this kind of market solution?**

*Luiz Gonzaga Belluzzo* - How I see it is that industries aggravated hedging instruments when the exchange rate was valorizing and they chose to target forward<sup>5</sup>. I don't think it possible, since hedging is becoming very expensive. This is an additional cost for the company, unless this hedge has strong support from the Central Bank, but this is not on the horizon. If it were possible it would

have already occurred. In relation to the second question, I think that any country that had industrialization policies with the intention of catching up<sup>6</sup> made credit choices, including the Americans. The industrial policy is not made up only of different interest rates or selective credit. It is necessary to have other instruments, such as government procurement, and the Americans do. The American government has now re-edited the Buy American. I see the different credit policy with interest rates as only one of the instruments, and I don't know if it makes it easier. It would facilitate adopting an industrial policy but cannot be reduced to that.

**FGV PROJETOS - In general, what is your opinion on Brazil's foreign exchange policy?**

*Luiz Gonzaga Belluzzo* - I think that it has been wrong since 1994. First we adopted a semi-fixed exchange rate, because it was out of alignment, but kept the devalued exchange rate, which took us to the 1998, 1999 crisis. A very strong depreciation period followed devaluation, especially in 2002 because of the election. Since the situation became clearer that there was no political risk of a very serious inversion in the economic policy, Brazil returned to a situation of appreciation, which is a lot due to the success of Brazil's international inclusion as exporter of commodities. The price of commodities helped valorize the real, and the Central Bank's policy, in my opinion, was not very adequate to prevent it. Preventing valorization would be perfectly possible by adopting a policy of closing the exchange rate in the Central Bank and purchases, done above the flow, and operating in the derivative market, with a position of requiring higher margins, much higher in order to prevent gains in the expectation of valorization, which, in fact, caused huge

<sup>4</sup> A 1944 agreement designed to regulate the world economic policy.

<sup>5</sup> Target forward is an operation where the company invests twice over in the valorization of the real.

<sup>6</sup> The concept of catching up consists of the capacity of secondary centers to absorb techniques and general know-how generated in the leading centers, so as to permit the former to "achieve" the levels of productivity of the latter and thereby reduce the technological and economic development gap separating them.

loss to companies that undertook anti-devaluation operations, which in the end were damaging. In a situation of fast reserve accumulation like what we found, the exchange rate policy could have been adopted with no trauma, no inflationary impact, and in fact, there was no need for devaluation and abrupt valorizations. So, I think that it could have been a stabilizing foreign exchange policy at a reasonable level, with much smoother movements. This would not be a heresy, it is something everyone does. Brazil was, in fact, a prisoner of a senseless dogma, and the greatest perception is that Brazil had flexibility, instruments and a situation of reserves that would permit it to keep the foreign exchange more or less stable.

**FGV PROJETOS** - In your opinion did the seminar held by FGV with Minister Guido Mantega provide positive reflection on the pros and cons of our foreign exchange policy?

*Luiz Gonzaga Belluzzo* - Yes, but if the problem is not analyzed as a whole, the matter is fragmented. Should Brazil devalue the currency or not? If we continue with this non-system, non-coordination, the results will certainly not be good for the countries and overall. What should be done is to adopt a self-protecting policy, which I would call neo-mercantilist, which is not good as a whole nor is it possible that all countries want to have surpluses, since some would have to have a deficit. It is an elementary problem. If every country wants and needs to have surpluses, it is negative for the whole. They need to have trade surpluses and, consequently, put their development problems on the right path, which is unlikely and impossible. ■

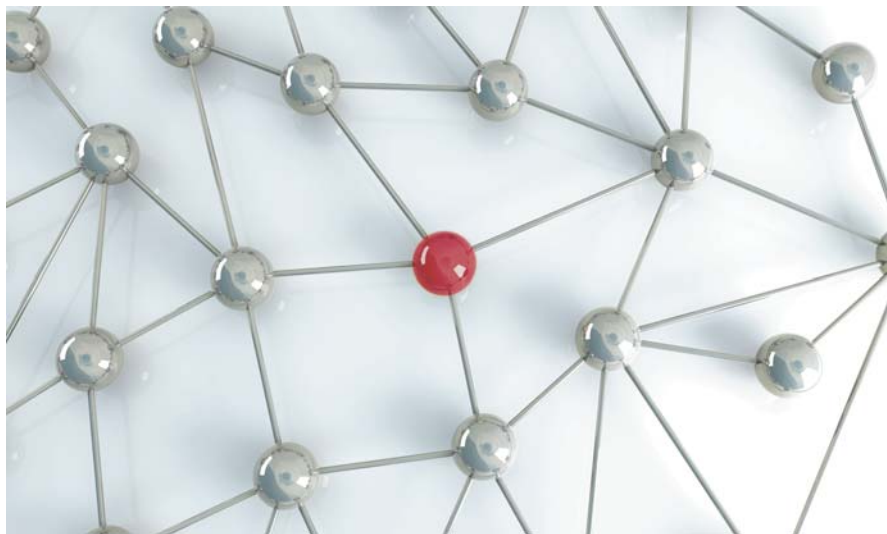


## Incentive to technical discussion

Carlos Ivan Simonsen Leal

### ■ Carlos Ivan Simonsen Leal

Graduated in Civil Engineering from the Engineering School of the Federal University of Rio de Janeiro (UFRJ), has a Masters in Mathematical Economics from the National Institute for Pure and Applied Mathematics (IMPA) of the National Council for Scientific and Technological Development (CNPq), holds a Doctorate from the Post-Graduate School of Economics of Fundação Getulio Vargas (EPGE/FGV) and a PhD in Economics from Princeton University, USA. At FGV, he was Professor at the EPGE from 1986 to 1997, Director of FGV-Business from 1992 to 1997, General-Director of EPGE from 1994 to 1997, Vice-President of Fundação Getulio Vargas from September 1997 to August 2000, when he assumed the presidency. He is a member of several executive boards of directors.



### ABSTRACT

Carlos Ivan Simonsen Leal explains the reasons why Fundação Getulio Vargas (FGV) encourages academic debate between people with different views on a given subject. At the seminar "Exchange Rate Perspectives 2010", different views on the best path for growth of the Brazilian economy were presented and, according to the President of FGV, these contributions help the country's development.

Fundação Getulio Vargas (FGV) was created with the specific mission to foster national development. For this purpose, discussion on the main economic topics is one of the ways chosen by FGV since its creation. In Brazilian history, practically since its independence, one of the key topics was the absence of a strong currency that would facilitate foreign trade. This drawback marked the tone of the last 100 years, because whenever the country needed to import more, especially capital goods, it would come up against a budget restraint, did not have the money to buy, would curb the import process and growth, and this would result in a vicious cycle. This is why Brazilians have always associated the balance of payment crisis with the growth crisis. However, at random moments one may occur before the other.

This has always been our history and today we are living a completely different paradigm, primarily because for the very first time Brazil, instead of being a net debtor, is a creditor in terms of fixed income, a net creditor of the rest of the world. Its net foreign liabilities today consist largely of direct investment, namely, risk capital, which essentially alters the country's status. Moreover, the powerful dollar is no longer as powerful as its once was. Brazil exports a lot, exports many commodities, semi-manufactured and manufactured goods and aircraft, there is a radical change and at this moment a discussion re-emerges: What is the best route to take for the country's further growth? Positions arise that I could characterize as somewhat stereotyped; on one hand some defend immediate adoption of a stronger fiscal equilibrium for further domestic savings and have this money for investment, depending solely on the domestic; and on the other, some say that we can also grow using foreign savings.

Both views are defended by different groups of professors within FGV, groups in Rio de Janeiro and São Paulo at the same time. These views have collaborated and collaborate toward developing the country. In Fundação Getulio Vargas we are very proud to have an academic environment that permits the coexistence, sometimes in the same corridor, of people with different views on the same subject, democratically discussing topics of great relevance at the highest technical level.

I sincerely believe that economics is a more complex topic than found in textbooks; I believe that the solutions are good depending on history and timing. A solution that is good in 1990 or 2020 may not be good ten years later; a solution that is bad today may become good, depending on the change of factors outside the country. Say that there is a tightening in the extremely strong international liquidity caused by an

increase in last year's crisis, so we will again have to review some concepts. Let us say the opposite: that there are surplus capital and foreign resources of risk capital to invest in Brazil! Why don't we use this capital? Why do we continue to refuse such capital that very often is accompanied by expertise, technology, and not even accounted for? So everything depends on the moment, but the real art is to choose for each moment, and recently Brazil has been very successful in choosing the right tool for each moment.

But this is not an easy choice, not a choice that can be made if unprepared. And how do we prepare ourselves? Precisely with the kind of ongoing outspoken applied discussion in FGV. Some will stick to their viewpoints, others will differ and this is greatly encouraged by the FGV structure. We do not seek homogeneous thought but precisely discussion and different opinions. Within the academic environment, an institution without discussion is a weak institution. Unfortunately in Brazil, we still need to encourage this further. FGV prefers to encourage technical discussion rather than just any discussion. It is a learning process for everyone when our specialists raise diverging arguments. In the seminar "Exchange Rate Perspectives 2010" held in São Paulo, a series of technical information was given by different speakers, chosen for their differing opinions, to be able to raise and put forward the question from quite a formal point of view.

When we discuss a problem, it is very easy for us to know what we agree with. Sometimes it is a little harder to establish with what we disagree. There are some things on which we totally disagree but there are others that we also do not know whether we agree or disagree, because we do not know enough about the subject. Discussion on foreign exchange may be very exciting and it is important to address the technical aspects because black and white do not exist in economics, and we generally experience situations where, for lack of information, we do not know whether they are black, white or grey, and we have to help the country choose an economic policy.

In his introduction to the seminar, Finance Minister Guido Mantega, distinguished and experienced professor at FGV, presented the strategy that has been extremely successful for the country's development. His own arguments and those of the other speakers present are available to the public on the internet, in order to raise the level of the discussion on such a key topic in Brazil, and so that we can make choices involving such a complex issue, with the due capacity to confront this complexity. ■



## A daring exchange rate policy

Eduardo Suplicy



### ■ Senador Eduardo Suplicy

Graduated in Business Administration and Economics at Fundação Getulio Vargas (FGV); Holds a Master's degree in Economics from Michigan State University (MSU) and a doctorate in Economics from Stanford University. He is a Professor at São Paulo School of Business Administration of (EAESP/FGV) since 1966. In 1983, Suplicy was elected Federal Deputy and, in 1988, was the most voted Alderman for São Paulo's Municipal Chamber, over which he presided from 1989 to 1990. Elected Federal Senator of Brazil in 1991, he is currently serving his third term in office.

## ABSTRACT

Senator Eduardo Suplicy offers an analysis on Brazilian exchange rate policies in the economic context of the past 50 years. For the Senator, lower interest rates can become a great incentive for investment and demand for goods and services, contributing to economic growth. Suplicy also advocates the implementation of several economic policy instruments to meet the aspirations of society as, for example, the economic and social development of the country and the reduction of regional imbalances and income inequalities. How to manage the exchange rate, in the Senator's opinion, depends on the combination of these instruments. In conclusion, Suplicy shows that Brazil is experiencing a positive growth and is expected to continue to do so for the remainder of 2010 and 2011 while improving income distribution, although we are still among the countries with the highest economic and social disparities in the world.

I considered the seminar "Exchange Rate Perspectives 2010" excellent, a very positive contribution to whoever wishes to accompany and learn more about the complexity of the foreign exchange policy in Brazil and its effects. I made an effort to attend because I felt that it would be worth participating in such a valuable meeting. I am a Professor of Economics and my PhD thesis was defended in 1973 at Michigan State University on the Effects of Mini-Devaluations of the Exchange Rate in Brazil.

I found it interesting that most of the participants, especially Economists from parties other than those in Lula's government, namely professor Bresser-Pereira, who was Finance Minister in Sarney's government, and Yoshiaki Nakano, who was Finance Secretary for Governor Mario Covas, expressed great respect and praised the adoption of the economic policy and exchange rate policy of President Lula and Minister Guido Mantega. Both emphasized the courage of Minister Guido Mantega when he insisted last year on an increase in the Temporary Contribution on Financial Transactions (CPMF) quota for international transactions, foreign fund investment here in Brazil of 0.2% and mentioned that he acted courageously in the right direction. Roberto Giannetti, Director of International Relations and Foreign Trade for the São Paulo State Industries Federation (Fiesp), gave a considerably positive appreciation of the economic policy of the Finance Minister and President Lula's government.

Today the Brazilian foreign exchange policy has been constant as a result of the experience gained in the last 50 years, after Brazil undergoing numerous phases of foreign exchange policies. Phases involving multiple fixed exchange rates, with a major innovation in 1968 when the mini-devaluation of the exchange rate was adopted during a period of fairly high inflation. This contributed to reducing the exchange rate discrepancies in relation to the inflation process at that time. It was precisely between 1968 and the mid-1970s that Brazil began very significant growth of its foreign trade, thanks to increased exports that were more feasible and had a positive effect on the Brazilian economic growth, even though at that time there was a very serious problem of growing inequalities in the Brazilian society. A very dynamic growth was accompanied by increasing inequality.

Later came the times of exchange rate policies. During the government of President Fernando Henrique Cardoso the phase of applying the Real Plan instated a fixed exchange rate for a while, but eventually resulted in serious distortions, until the decision to adopt the floating exchange rate system. The government of President Lula reckoned that it would be important to keep the floating exchange rate since the start of his mandate, as well as the inflation target system that involved at some stages a very high interest rate - one of the highest in the world - and combined with exchange rates that at times led to situations where the real became relatively more valued or overvalued in the opinion of many people with regard to what would happen if the interest rates were not so high. Obviously, a relatively lower interest rate may be a slower curb on price increase or inflation, but on the other hand, it can be a further incentive for investments and demand for goods and services, and therefore for stronger economic growth. But if this further growth begins to cause inflation, a curb is necessary, which implies an increase in interest rates, plus application of other also important economic policy instruments.

The economic authorities have a set of economic policy instruments at their disposal and they achieve results by combining the application of these instruments. These are key tools for tax and fiscal policy, which implies what types of tax are to be instituted by the Executive in line with the Brazilian Congress. The government spending policy covers a wide variety of sectors and purposes, in addition to the monetary policy involving how much currency is to be placed in the economy and when. Various tools are used for open market operations, currency issue, rediscount rate in addition to defining the basic interest rate, rate of the Special System for Settlement and Custody (SELIC) e de Custódia (Selic); and more or less expansionist policies may always be adopted, more or less tax collection policies, and all these instruments need to be combined to meet objectives that are the concerns of society - constitutional objectives.

Part of the Brazilian nation's mission is to boost economic and social development and at the same time eradicate poverty and increase equality, and reduce personal and regional income imbalances. For these purposes, it is necessary to have the proper tools, combine them and, therefore, since administrating the exchange rate is closely related to accompanying these other instruments, especially changes in the

exchange rate, they need to be in close harmony with changes in the interest rate, in simple terms to explain this point. A rise in interest rates in the Brazilian economy, the Selic rate, may mean strong attraction for international investors to invest their funds in Brazil. Here a much higher rate of return is being paid than elsewhere, and this could result in a strong inflow of foreign capital, which in turn may mean valorization of the real. The real's valorization, in turn, will result in problems for exporters, because the remuneration of each exported dollar will yield fewer reais. And, on the other hand, an incentive to imports may mean incentive to deindustrialize the country, although this may contribute to prices not increasing so much and to a low inflation rate.

Other eras recorded a gradual drop in the interest rate, including the Selic, which contributed to a sharp rise in incoming foreign currency. This along with the fact that the CPMF quota was now collected on incoming foreign funds curbed the excessive overvaluation of the real, which helped solve the imminent problem. And the fact is that the overall economic policy succeeded in Brazil, even at a time of international crisis, not suffering such serious effects on its economy, and when the state of the world economy began to recover, one of the countries with the fastest recovery from the crisis was precisely Brazil due to the quality of its economic policy. Today we have a perspective of a reasonable growth rate for the rest of 2010 and 2011, forecast by many at around 5.8%, with an inflation rate very close to reaching the 4.5% target, which historically is a relatively low rate and with the benefit, thanks to the set of economic and social policies, of seeing ongoing improvement in the distribution of income toward more equality and a drop in absolute poverty.

The Gini-coefficient of inequality<sup>1</sup> has gradually diminished year by year. In early 2000, it was around 0.59 and is 0.54 today. Nevertheless, this is one of the highest rates in the world, and we are still one of the nations with the highest degree of economic and social inequality. If we wish to build a really civilized and fair society, we need to think of the economic policy instruments

consistent with concerns that are not merely seeking our own interest and always getting our own way; we need to consider other values. Of course, we all want to progress, want our loved ones, our children, family members and friends to progress, and it is important that we teach our children, our students that these objectives of the history of humanity are important, such as adopting ethics, truth, solidarity, fraternity, justice, freedom, democracy and which instruments are consistent with such objectives and concerns. For example, providing good education opportunities for all children and young people, for adults who did not have a good education, and providing a good health care system for the entire population.

In a country with such economic and social inequality, it is important to undertake land reform, accelerate the possibility of forming settlements and also to encourage cooperative forms of production that permit people interested in producing any type of goods and services to be able to organize themselves to manage better and share the decisions on how to produce and distribute the earned wealth. By extending micro-credit opportunities so that more and more people can obtain modest loans to buy tools to help them survive with dignity it is then possible to build a civilized and fair society. There is also another point and everyone who knows me well knows what it is. It is referent to the institution of a basic income for citizenship, the right of each and everyone, no matter their origin, race, gender, age, civil or socioeconomic status, to share in the wealth of the nation as a right of being Brazilian.

I think that when analyzing an instrument of economic policy such as the interest rate and its prospects for this year, it is very good to have listened to the reflections of all the professors who were able to analyze its effects and reach the conclusion that floating exchange rate policy combined with the various other instruments of economic policy is playing what is considered to be a positive role, and that has permitted the Brazilian economy to behave today in such a way that it is considered one of the best among the emerging nations. ■

<sup>1</sup> The Gini-coefficient is a measure of inequality used to calculate income distribution.

## Coordination and international persuasion: The new global challenges

Rubens Penha Cysne

### ■ Rubens Penha Cysne

Graduated in Chemical Engineering from the Engineering School from the Federal University of Rio de Janeiro (UFRJ), PhD in Economics from the Post-Graduate School of Economics of Fundação Getulio Vargas (EPGE/FGV), has a post-doctorate in economics from The University of Chicago. Currently he is director at EPGE, where he additionally administers classes of Masters and Doctoral Programs in Macroeconomics, Public Sector Economics and Monetary Policy.



### ABSTRACT

In this statement, Professor Rubens Penha Cysne supports the thesis that the solution of some of the great problems of our times revolves around two words: 'coordination' and 'persuasion'. Examples of such problems are the financial crises, fiscal crises (as the current one in the euro zone) and global warming. Once coordination and consensus are obtained concerning a particular solution, the next step would require the persuasion of some sovereign states by other sovereign states, this constituting one of the greatest hurdles for the success of any strategy.

Three of the major problems early this century are linked by two words: 'coordination and persuasion'. The effective exercise of these acts is an almost always voluntarist and personalist task, still seeking suitable institutionalization. The close heterogeneity between countries makes it even harder. A rapid analysis of the problem suggests that either the nations learn to cooperate more with each other, particularly sharing more of their technology, income and wealth, or some kind of "constructive catastrophe" may become inevitable, as a way to reduce global collective folly.

Due to greater integration between financial markets, monetary unions, greater use of flexible foreign exchange markets and the palpable threats of hazardous climate change, the current moment echoes around three challenges: to prevent new financial crises, curb irresponsible fiscal regimes and control environmental aggressions. Coordination and persuasion underlie the solution to any of these problems.

Let's begin with the financial crisis. Let us imagine that a certain country decides to have strong control over assets and liabilities of its financial institutions in order to protect the depositor. Unless it is a case with no interest in which this country is a complete autarchy, with no relationship with the rest of the world, this control will be of little use, if other countries do not adopt a similar procedure. This is because part of its assets will either be invested abroad or in national institutions that have assets abroad, and so on. If only one link in the international chain of assets and liabilities was to break, because one of the countries ceased to provide a reasonable financial regulation, the whole castle of cards would again run the risk of collapsing, whatever the regulatory effort of the others has been. Interdependence requires coordinated solutions and generalized adhesion, which obviously requires the persuasion of some nations over others.

The same occurs with the fiscal question. Let us take, for example, the fifteen countries in the euro zone and the current problem caused by the fiscal imbalance of Greece. It is today acknowledged that the conditions imposed by the Maastricht Treaty, particularly a maximum public deficit of 3% of the Gross Domestic Product (GDP), are in desperate search for a convincing persuasion mechanism; or perhaps, at least, a suitable enforcement mechanism. Without this, and without control of the quality of fiscal spending, the Monetary Union originally set up in 1999<sup>1</sup> now runs the constant risk as we now see.

If Greece were to still use the drachma as local currency, its devaluation would solve part of the problems, mainly if, as occurs in a large part of Brazil's liquid foreign liabilities, most of its foreign liabilities were denominated in local currency. The absence of a currency for devaluation would be solved partly if salaries were to easily

<sup>1</sup> Which Greece only joined in 2001.

drop. It so happens that, as is known since the publication of Keynes' General Theory in 1936, such a hypothesis cannot be considered. In the absence of an exchange rate and drop in salaries, recession and financial instability prevail.

Further increases in productivity in some countries in the euro zone in relation to others, generate either migration of labor to the former (a usually undesirable fact for such countries) or recession in the countries with low productivity (an also undesirable fact). If efficient mechanisms of coordination and fiscal persuasion are not introduced and including quality of public spending, then the problem now seen with Greece tends to be repeated elsewhere

To leave the euro zone at times of crisis, returning to their original currency, is much harder than to join it. It is necessary to reach solutions that do not involve unilateral rupture. Such solutions, of course, make the exercise both of coordination and persuasion mandatory between different nations. In other words, we return to the two terms in the article's title not only in solving financial crises but also in the fiscal question.

A third key issue at the moment concerns environmental aggression, caused by the uncontrolled growth of some countries and the short-sightedness of others. Various interesting means to control such a problem are discussed, some of which through incentives and market mechanisms.

For example, there is the idea that all countries should institute carbon credits, environmental protection activities being subsidized and aggressive activities against the environment being taxed. Countries that do not conform to such a regulation would find their exports to the others taxed, as has already been tried in the past to attempt to solve the problem of child labor. In the event of not enough countries joining, however, such a methodology tends to fail. Again, we are faced with a problem of coordination and persuasion.

In short, the current problems require international solutions, involving everyone's participation, or at least a relevant number of nations. At the same time, nor were the multilateral institutions, like the World Bank (BIRD) and International Monetary Fund (IMF), created to develop the objective of finding solutions for challenges such as those addressed herein. There is a void of coordination and international persuasion.

It is possible to reduce the collective folly and address some of these problems without the need for catalyst global damages of collective learning. But the process is still extremely amateur and incipient, considering the urgent need for palpable results.

A little extrapolation shows that the solution of global problems will involve, in its next steps, annoyingly morose for many, the creation of international regulations according to which, countries that do not comply would be punished with increasing ostracism by the others. If such a development is too slow, this is an open question. However, it should always be remembered that it's hard to stop a train going a hundred kilometers an hour. ■



# The importance of a homogeneous exchange rate regime between countries

Guido Mantega

## ■ Ministro Guido Mantega

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## ABSTRACT

In his lecture on the prospects of the exchange rate in 2010, the Brazilian Finance Minister, Guido Mantega, warned about the negative consequences that result from the asymmetries between different exchange rates regimes of countries. The Minister also reviewed the impact of the financial crisis on foreign exchange, focusing primarily on the large inflow of capital to Brazil, a country attractive to investors due to favorable economic conditions and solid prospects for growth. To avoid overvaluing the currency, the government has imposed a tax on fixed-income financial operations and on the stock market. The central idea of the lecture of Finance Minister Guido Mantega is to stress the importance of securing more homogeneous exchange rate regimes among countries, which would help to solve several problems, including the unfair competition taking place today in world markets. We offer below a transcript of the lecture after making the necessary adjustments for written publication.

Today we are experiencing a global foreign exchange imbalance that brings with it negative consequences, such as loss of competitiveness, because the exchange rate is a key variable of any country's economy and may cause distortions in important relative prices.

This foreign exchange imbalance, aggravated during the financial crisis, has been caused in recent years, first and foremost by surplus liquidity in the capitalist economies. Second, because different foreign exchange regimes exist between countries since the break down of the Bretton Woods agreement<sup>1</sup> at the start of the 1970s. Formally, since then, most countries have adopted the floating exchange rate but in practice the fluctuations are generally managed by interventions in the foreign exchange market. In other words, the floating rate is very often dirty but sometimes extremely dirty. Accordingly, this heterogeneous exchange rate situation between countries makes a difference for Brazil's economy. Surplus liquidity has been accumulating with market liberation, and we have seen the proliferation of financial arbitration operations between countries, called carry trade<sup>2</sup> and other similar modalities.

On the other hand, the financial crisis caused an upset in the previously established foreign exchange regime. With increasing risk aversion in the early stages of the crisis, a flow of capital began to leave emerging countries and move curiously enough toward a safe haven, the USA and epicenter of the financial crisis. At that moment, the exchange rate was very volatile and currencies devalued. Brazil underwent sharp devalorization but as soon as the financial markets calmed down and confidence in overcoming the crisis was resumed, the direction of the capital flow was inverted again, leaving the USA for the emerging and principally more solid economies with greater prospects of growth and profitability. Countries that export commodities and were in conditions to have more equilibrium foreign accounts also became more attractive. Brazil became one of the main destinations for this capital because it matched all those characteristics beneficial to investors.

Here we perhaps were more volatile than other countries, but our recovery was just as fast as the decline in the dollar, and it was the Brazilian stock exchange that valorized most. Of course, behind this financial movement there are also concrete reasons: the solidity of the Brazilian economy, possibility of profitability here compared to almost zero elsewhere, substantial foreign exchange reserves, solid regulations in the financial and derivative markets.

<sup>1</sup> The 1944 agreement, based on the parity between gold and the US dollar.

<sup>2</sup> Financial investment consisting of taking money at an interest rate in one country and investing it in another, where interest rates are higher.

The foreign exchange imbalance, which already existed before the crisis, was also exacerbated because the reference currency - the dollar - had been devalorizing in relation to most currencies and, whenever this happens, problems arise in the world economy. This is historic. To worsen the situation, Asian currencies decided to be harnessed to the dollar, which caused a major problem. We are talking today about the world's largest exporter, which surpassed Germany during the crisis. In theory, the Chinese currency should be valorizing because of the situation of its trade balance and foreign exchange reserves. Since this does not happen, and who eventually suffer the consequences are the countries that have a more solid economic situation and more floating exchange rates.

Brazil is one of those countries with solid economic bases and a floating exchange rate. We are one of the countries to have resumed growth fastest and with even stronger growth prospects in the forthcoming years. Our high interest rates and absence of foreign capital restraints permit a more favorable carry trade. China, India and even Russia, however, have more restraints than Brazil. Consequently, Brazil is now one of the favorite destinations for international capital. And the consequences can be felt: the Brazilian stock exchange valorized, Brazilian currency had the highest rise in this period, again suffering the risk of overvalorization.

The real's valorization process is inevitable because, when the country is strengthened and has as many reserves as solid foundations, it is natural that the currency is stronger and does not stay at its level in 2002 and 2003, when the country borrowed from the Monetary Fund. The problem, however, occurs when this valorization is excessive and begins to have serious consequences for the country, such as loss of competitiveness, higher priced merchandise and increase in cheaper imported goods.

This situation worsened after the crisis, because the shrinking world markets led to tougher competition - countries making more effort to sell their goods, lower prices and so on. In this context, the foreign exchange question is evident, the price dispute stronger, and the real's overvalorization reduces the competitiveness of the manufacturing industry. With commodities, it is possible to survive even with the valorized exchange rate, but not so in the case of manufactured goods. In 2009, exports of manufactured goods dropped US\$ 30 billion, from US\$ 90 billion to US\$ 60 billion. If this situation stays for a long period, our manufactured goods lose the foreign market and tend to be substituted by imports even in the home market.

This is the situation that we saw in the second half of 2009, with the global crisis under closer control, Brazil being assessed overseas and the capital flow returning en masse to the country. One of the instruments that we have been using to confront this strong inflow of capital was to reduce the dollar supply in the market through Central Bank interventions. And we began to be aggressive in these interventions to prevent higher valorization of the real.

In October 2009, we saw that the flow was very strong. The financial balance was US\$ 14 billion in just one month, an extraordinary flow. The purchase of dollars was no longer sufficient to solve this situation and so we decided to adopt the Financial Operations Tax (IOF) for fixed income investments in an attempt to prevent carry trade. We also introduced the IOF into the capital market because most foreign capital was going to the stock exchange. In other words, carry trade was no longer attributed to fixed income but to variable income. Later, we also adopted charges for investments in American Depositary Receipts (ADRs).

Contrary to what many people think, this tax did not prevent Initial Public Offerings (IPOs) or opening of capital. So much so that Brazil tends to be one of the countries that will host the largest volume of IPOs in 2010. The measure did not actually hinder the capital market. The purpose of the IOF was not to solve the problem of valorization but rather to eliminate overvalorization, since it is very damaging to the country.

For example, overvalorization influences investment decisions, and the post-crisis period is time for redefining the world economy. There is another economy after the crisis: investors and multinationals need to take investment decisions. Where will I invest? Where will my operating base be? Where will I do business? The foreign exchange situation influences this. I'm not going to set up a company in Brazil because it's better in China; Brazil does not have the conditions with its overvalorized exchange rate.

Moreover, there is the possibility of a bubble. With the anticyclical policies governments have injected many financial resources in the economies. After the banks' situation resumed, however, these funds were not directed at production. In the USA consumption is still low. Financial resources have not reached the consumer or producer. But the banks have been profiting by doing this type of financial operation. They seek "to carve a fine leg of pork", as they say. And here the leg of pork was very big, offering possibilities of higher yields.

A surplus capital flow can lead to bubbles. We could have had a bubble here. China almost had a bubble, because it also released a lot of capital during the crisis. China's anticyclical policy was very strong and provided more than US\$ 1.2 trillion of financial resources to resume its economic activities. China does not play around and the surplus funds caused waves on the stock exchange. There in China things happen differently from what we are accustomed here. Nor did bubble there occur normally. It was a softer bubble and, when it burst, we hardly noticed. But in Brazil, we managed to prevent the bubble, made a smoother intervention because we charged 2%



IOF, which did not take away the profits but showed the market that the Brazilian government would not permit overvaluation.

Together with the IOF, we regulated the sovereign fund. It was created in 2008 to maintain primary savings. We took part of the tax revenue and put it in this fund at the end of 2008, when the tax revenue was very good, reflecting the favorable situation of the economy. At that time I considered it best to keep 0.5% of the Gross Domestic Product (GDP) for anticyclical fiscal savings. I think it very beneficial to do this in order to have it at our disposal if required at some other time. It is invested there, no longer 0.5, and has increased slightly; but the sovereign fund also plays a foreign exchange role. It is authorized to procure dollars on the market, as does the Central Bank, and we regulated it all. The fund has no restraints for purchase because it uses funds from the Treasury coffers. If the Treasury has money, and it always has a lot of money, the fund can procure dollars through auctions, with the Bank of Brazil as an agent, and so this puts a curb on the dollar surplus.

After we adopted the IOF measure on October 19, 2009, the exchange rate volatility diminished and the dollar quotation stabilized. I recall that the dollar was quoted at R\$ 1,70 and tended to go lower. With the IOF, from then on, the exchange rate only swung upward. So, I would say that our measure was successful. It was a

daring measure because it went against the principles of the international financial market, which is against this kind of intervention. In any case, the measure had the support of major newspapers, namely the Financial Times and The Economist and the so-called community of international economists. The measure was discussed in other countries and in the G-20 with my finance minister colleagues.

In any case, the Brazilian economy was already showing an increase in the current transaction deficit. Therefore, with a deficit in current transactions on the horizon, in the mid and long-term, the tendency is for a correction to restore equilibrium in the exchange rate. This is theoretical because it is very hard to say what the equilibrium exchange rate is. It is worth mentioning that it would be hard to maintain all this valorization, because in fact, with the valorized exchange rate, exports drop, imports rise sharply and this puts an end to the trade balance. Having a strong deficit in current transactions weakens Brazilian industry. So, today it is important to prevent too strong an overvaluation.

An exchange rate valorization is much better than a sudden strong valorization, because the latter destabilizes. This has already happened between 2006 and 2008. When I took over as Minister of Finance in March 2006, there was already a tendency to strong exchange rate valorization. At that time, it was 2.10, and everyone

said that we were in a good situation; the institutions said that the exchange rate would quickly go to 1.80 and the stakes accelerated the route in this direction. I told the president that we had a foreign exchange problem that would jeopardize the Brazilian productive activity and that we had to be aggressive in buying dollars. The Central Bank had been buying a few; at that time we had reserves of US\$ 58 billion.

We recently received major reinforcement from the IMF. Against its beliefs and earlier recommendations, the Fund said that the emerging countries that have a strong pressure of foreign capital can adopt foreign exchange controls. This was surprising, since the IMF had never made such a recommendation before; on the contrary, it would criticize whoever dared to do so.

Today we are in a relatively stable but not ideal situation; it is not equated to the question of competitiveness; we are feeling the effects of this competition, disloyal in some aspects, that occurs today around the world. A number of countries try to dump their goods with strong hidden subsidies, which is a problem but we don't want to do things just any old way. Brazil has reached a level of excellence and regularity; it's not worth taking impetuous measures that only upset the markets. But it is a situation that must be settled.

I have raised this question for discussion at the G-20, insisted on it, and it is better for countries to reach a joint solution and for each not to do what is best just for itself. China is quite independent and does not care much about the consequences of its policies for the rest. It would be very bad if such an attitude created retaliations from other countries.

I do not think that the fixed exchange rate is a solution; we've already paid the price of the fixed exchange rate in Brazil. The floating exchange rate, although with defects, is the best regime because it more easily corrects the imbalances. But it is only good if the others also adopt it. Therefore, we need another Bretton Woods, another international agreement also on foreign exchange, so that its rules are more homogeneous.

I understand that the USA currency has weakened, but they are at an advantage thanks to the devaluation of the dollar and increase in exports. Even in Brazil we have a trade deficit with the USA, after longstanding surplus. The weak dollar is one of the factors that determine a slight reaction from the US economy, but it will not be able to keep those interest rates close to zero forever. They are not sustainable, and at one moment in time the dollar will increase in value.

We must pursue the increase in production of the Brazilian economy. We are working on this in conjunction with the business sector and manufacturing industry sector in general. We have to cut down on costs - financial, tax and bureaucratic, which are still high. But very often, it takes a tremendous effort to reduce 10%, while another country has a 40% edge over Brazil because of the exchange rate. It is easy to see how important foreign exchange is in this relation; it weighs more than the efforts. Nevertheless, we must continue pursuing the increase in production. We have to find a solution without abandoning the floating exchange rate, within general regulations, seeking understanding until we achieve a more homogenous exchange rate regime between countries. ■

## Revealing the exchange rate

Yoshiaki Nakano

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### ABSTRACT

The aim of the economist Yoshiaki Nakano with this article is to unravel the complexity of the exchange rate and avoid ambiguity and controversy about the issue. For each question discussed a definition is given of the relevant exchange rate, involving a set of macroeconomic variables. The text begins with definitions and concepts and then deals with some aspects of the reality of the Brazilian exchange rate regime.



The nominal exchange rate defines the official parity of our currency for international transactions. It is the price of a unit of foreign currency expressed in national currency. Its definition is simple, but as soon as we want to understand the determining factors of this price and the various channels through which they have considerable effects on the economy, we find an extremely complex phenomenon, very important especially for emerging economies. For each aspect discussed, we can have a relevant definition of the exchange rate involving a set of macroeconomic variables. So we begin this text with some definitions and concepts and then move on to address some aspects of the Brazilian foreign exchange problem. This is how we hope to clarify the question and prevent ambiguities and controversies on the topic.

The nominal exchange rate permits comparison of the prices of goods and services produced in the country with those of goods produced elsewhere, converting their prices into national currency. In an economy open to trade, when defining the vector of international prices in national currency, we establish a benchmark for fixing the prices of goods produced in the domestic market. It is a nominal anchor for the domestic price system defining the general level of the latter. The nominal exchange rate, therefore, is one of the key determining factors of the inflation rate and, consequently, of real wages. A fixed or floating exchange rate is a valuable tool for stabilizing prices.

The nominal exchange rate, as one of the factors determining the price level and, consequently, real wages, also determines the profit margin of companies; that is, distribution of income of the economy. When determining income distribution, such as the propensity to save, wage income is different from the propensity to save dividends, determine the economy's average saving propensity. Another very complex relationship is between the exchange rate and domestic savings rate of a country, measured by the decision of companies to

withhold profit and by their cash flow, which is the investment decision.

The nominal exchange rate is also the price of a financial asset, whatever the currency of a country, expressing the quantity of national currency required to procure currencies of other countries. It is calculated that 97-99% of transactions made daily in the exchange market are financial. Foreign currency is acquired to have access to assets issued abroad, whose value is defined in other currencies. Its variation affects the return rate on these assets, which is determined by the interest rate (dividend or profit rate) and the expected variation of the exchange rate. And, in this way, expectations on the exchange rate play a key role in the financial market, and may generate sharp movements in capital flows and even shake healthy economies that have debts in foreign currency.

Since the cost of issuing national currency is practically zero, it is not possible to establish a reference. Unlike goods that have a production cost that acts as a benchmark for defining their equilibrium price in a foreign exchange market, as a financial asset. The equilibrium price is transitory and depends on expectations, which may be based on the market's recent behavior or on the country's macroeconomic foundation. In the short-term, since there is no axis around which the market price tends to be fixed, the exchange rate determined by the market may oscillate strongly and hence its huge volatility, particularly in emerging countries where this market is very small compared to the global market.

When dealing with analyzing the impacts of the exchange rate on the production structure and growth of an economy, the key definition is the relative prices of tradable goods and services. The domestic sectors, which are exposed to international competition and are part of the global market, refer to the non-tradable goods and services, which focus only on the domestic market. Therefore, a depreciation of national currency

raises the trading power of tradable goods and, therefore, affects the return of investments and allocation of real resources in these sectors. Since a relative price is a physical, quantitative relation and expresses the physical trade terms between these productive sectors, the real exchange rate determines the relative size of these sectors in the economy.

This macroeconomic relative price is of vital importance, since they are tradable sectors, particularly the manufactured goods, which are closest to the technological frontier and as a rule are more productive, add more value, and generate more skilled jobs and greater externalities. The bigger the tradable sector the less vulnerable to external shocks a country tends to be. Its expansion has been fundamental in fast-growing countries.

Another way to define the real exchange rate is from the side of production costs that is relevant if we wish to analyze the channel of incentives to increase a country's supply of exports, making investments more profitable. Company production costs in foreign currency, compared to the cost of companies located abroad, determine its profitability. The depreciation of foreign exchange, when reducing domestic wages, converted in foreign currency, compared to the wages prevailing outside Brazil, gives the company a competitive edge and a higher profit margin. This export company, in turn, can finance a large part of its investments by withholding a portion of the large profit flow.

These export companies of tradables, particularly manufactured goods, are one of the dynamic and groundbreaking nuclei of fast-growing economies. Since exports comprise the aggregate demand, if they consist of products with high income elasticity, such as, for example, more technology-intensive manufactured goods, the exports can increase in the long-term, to become a key determining factor in the sustained growth of a country.

From the viewpoint of the external competitiveness of exports, we can alternatively define the real exchange rate by comparing relative prices for the consumer abroad. Exchange rate depreciation makes the price of the domestic product more attractive for the consumer abroad. If boosting the demand abroad is more important in determining exports than boosting the supply side, this result will be the key definition for directing the foreign exchange policy. Likewise, depreciation of the exchange rate, when increasing the prices of imports in national currency, it benefits domestic production and employment. However, if the exchange rate is too depreciated, when increasing the costs of imported capital goods, it negatively affects investments and, when reducing the real wage, can also have a negative effect if the country's growth is determined by wages and consumption.

Accordingly, in an economy like the Brazilian there is an optimum real exchange rate in which the incentives in the return and competitiveness of exports are higher than the lack of incentive, thereby increasing the cost of the imported component in investments and reducing the real wage in foreign currency.

There is a real exchange rate that, encouraging aggregate supply, raising or lowering domestic demand, and encouraging or discouraging exports and imports, determines both the internal and external equilibrium of the economy. Of course, these equilibriums involve many other key variables of the economy.

So now we arrive at an important concept: the exchange rate that balances both the foreign and domestic sectors is the basic equilibrium exchange rate. With this we can have a theoretical benchmark and define whether the real exchange rate is appreciated or depreciated against the basic equilibrium exchange rate. Of course we can have other references: defining whether the rate is appreciated or depreciated, such as the rate given by the purchasing power parity (PPP) which expresses the international competition and arbitration with the law of one price.

However, when defining a basic equilibrium exchange rate, we do not take into consideration the differences of productivity and sectoral production costs. For example, if a country has an abundant natural resource, whose production costs is summed up in extracting what nature took millennia to produce, and if it is a significant portion of the export agenda, it may in itself balance a country's foreign accounts at a given exchange rate. But this exchange rate may disable the development of other productive activities in the sectors exposed to international competition. Thus, the real basic equilibrium exchange rate needs qualifications.

These brief comments are now enough to see how complex exchange rate discussion is. Both as a price of a financial asset and relative price of goods and services, its determination is affected by multiple variables and, in turn, there is a complex



interaction between the markets of assets, goods and services, and labor. The price of the financial asset, determined on the financial asset market, depends on its domestic and international conditions, especially on the variation and differential of the return rates of these assets compared to them elsewhere.

Accordingly, understanding the exchange rate is only possible in a context of general theory. From this viewpoint, there are two basic alternative models: the neoclassical (Walrasian) and Keynesian.

In the neoclassical general equilibrium model, the price level and nominal exchange rate are totally irrelevant. It is a question of defining the money in the system, with no real effect on the economy. In this context, it is concluded that both the currency and finances are irrelevant and superfluous. The exchange rate is a relative price, endogenously determined. Government action or economic policies are regarded as exogenous shocks that upset the running of the markets, but in the long-term do not have effects on the equilibrium of the economy, which is determined by the market, given the preferences and allocation of factors of the consumers who have maximizing behavior. Moreover, the neoclassical model is based on very restrictive premises, such as: maximizing agents, complete information and no costs, accurate predictability, perfect competition, perfectly flexible prices, and so on, also including the existence of the mythical "Walrasian auctioneer". Without them it would be impossible to establish the equilibrium, much less determine the equilibrium exchange rate. In a general theory in which the financial sector is superfluous, it is impossible to discuss pragmatic and economic political questions.

In the Keynesian model of general equilibrium, the currency and financial market are nominal variables like the nominal exchange rate, have real effects through different channels, on the supply and demand sides, and interact in a dynamic and complex manner. The general theory must obligatorily cover the different markets in which not always homogeneous agents interact. So this is the model that has provided a general structure of analysis based on less restrictive premises, which can be

relaxed, bringing them closer to reality, including the government as a key player in the economy. In this sense, with regard to the exchange rate, the government may or may not play an active role, including administrating the nominal exchange rate, and may with the monetary and fiscal policies determine the real exchange rate, making it an instrument to achieve other objectives, such as growth. In the Keynesian model, the real exchange rate is partly endogenously determined, since government action, adopting the foreign exchange policy, can have control over the nominal exchange rate and this by interacting with other key macroeconomic variables determines the equilibrium rate.

If the purpose of the economic policy is to achieve internal and external equilibrium, this will be the same as achieving the basic equilibrium exchange rate. By knowing the determining factors of internal and external equilibrium it is possible to reach the real basic equilibrium exchange rate.

In the real world of government action, there are two pure exchange rate regimes: the fixed, in which the government fixes the price, that is, the nominal exchange rate, intervening in the market through the variation in quantity and foreign exchange reserve. At the other end, we have the floating exchange rate regime in which the government fixes the quantity, that is, the foreign reserve volume, and lets the price float freely according to market conditions. Since in the fixed exchange rate regime the Central Bank has to intervene by varying a quantity to fix the price, the monetary policy becomes endogenous if there is free capital mobility. In the floating exchange rate regime, since the Central Bank fixes the quantity, it is then possible to vary the interest rate and the capital mobility will affect the exchange rate.

Recent empirical studies show that the interest regime differs from the actual practice. Numerous countries claim that they have a floating regime, but intervene in and administrate the exchange rate, a phenomenon that became known in literature as "fear of floating". This fear emerged after the liberalization of the capital account when sudden stops in its movement can upset economies. Lately, with the phenomenon of surplus liquidity on the global financial market, the "fear of appreciation" phenomenon has been empirically found. This fear is justifiable, since the capital flow leads to foreign exchange appreciation that can have disastrous consequences in developing countries. The recent accumulation of foreign exchange reserves by the emerging countries is a consequence of this "fear of appreciation".

Thus, the foreign exchange policy is a difficult art to place between these two extreme regimes, to choose between an infinity of possible intermediary regimes, with greater or lesser intervention, fixing rules and objectives or not, looking to conform to or control the restraints imposed by capital mobility.

What is the best exchange rate regime? From the above comments, there is apparently no single answer: for each moment, circumstance and fixed objective it is possible to arrive at more suitable and consistent foreign exchange regime. The question is even more complex because the exchange rate, when affecting income distribution, incorporates elements of a political nature. As a rule, when studying the exchange rate the focus is on some particular aspect, adding to the model some information or empirical relation, almost always in an analysis of partial equilibrium, with the resource of keeping that constant that presumably is not the focus or is considered irrelevant, almost always arbitrarily or involving value judgments. Hence the general theoretical picture is implicit and, consequently, there is huge controversy.

The above comments are an example of the cognitive problem that the economic agent or economist has to face to take decisions or understand the exchange rate. Even when the economic agent has all necessary information and at no cost, and knows a general model to process the data, it is hard to empirically reach testable simple analytical results with general validity under all circumstances and for all countries in order to direct the policies. This was why Meese and Rogoff had already demonstrated that the existing theoretical models do not pass the empirical test nor are the foundations able to create

econometric models that result in correct predictions.

More recent behavioral studies show that when the economic agents have to take decisions in a complex and uncertain situation, they go around this situation looking for simple heuristic rules. These rules are normally created by interacting agents who, by trial and error and learning, establish conventions or standards to take satisfactory decisions. Accordingly, these simple heuristic rules can include rationality. But the agents do not always use the same rule, since the market can be made up of heterogeneous agents. For example, some prefer to draw up simple rules for decision based on theoretical models and basic economics. Other agents look at the market and behavior of the exchange rate to take their decisions (chartists) based on that information. More recent advances in the exchange rate theory involve stochastic models, with strategic interaction between heterogeneous agents that generate complexity, chaotic dynamics, unpredictability, and so on, with more exciting empirical results. (See, for example, Paul De Grauwe & M. Grimaldi, "The Exchange Rate in a Behavioral Finance Framework", Princeton: Princeton University Press, 2006). Considering the complexity of the treatment of the foreign exchange issue, it is not possible to discuss the topic at depth in this paper.

Nonetheless, the comments will give the reader a better position in the discussion on the exchange rate. Proceeding with the discussion, let us look at the following comments that will bring further transparency to the three questions of Brazilian foreign exchange policy addressed herein: 1) how does the current mix of monetary, foreign exchange and fiscal policy lead the Brazilian economy to fall into a trap of spurts of growth, followed

by crises, and what can be done to overcome it?; 2) why does the current foreign exchange policy offer a major risk of a new mid-term balance of payment crisis for Brazil?; and 3) why is the exchange rate policy a strategic variable for accelerated sustained growth?

Brazil has been undergoing major changes in recent years. From the economy dominated by the financial dynamics of asset valorization, including in the real sector of the economy, we are moving toward an economy focusing on growth with dominance of the pro-

investment rate of the last quarter of the decade was aborted in the last quarter of 2008, with the financial panic and sudden credit squeeze by the private banks. If it were not for this interruption, the investment rate would have been more than 21% of the Gross Domestic Product (GDP) that year, assuring a 5% growth without risk of accelerating the inflation rate. Now that we are starting to recover, we again run the risk of interrupting the process of increasing the investment rate with the rise in interest rate announced by the Central Bank. In



cess of production capital accumulation. With accelerated growth since 2004/2005, expectations have shifted to production investments and, as a result, an expansion of the time horizon of economic agents, and we rediscovered our potential for growth and reactivated the business drive. When this shift of expectations reaches a minimum critical mass of businessmen, and they begin investing, the battle of development will take a decisive step, since it will be a transforming and irresistible force. The necessary reforms and changes will be a result and not the cause of this process.

Unfortunately, the first impulse to increase the

other words, we are in a trap in which we began the process of constituting this critical mass of investments, but external shocks or increased interest rates do not permit the transition to faster growth.

Yet, is a higher interest rate the necessary measure in the current Brazilian context? Is there an alternative policy?

Without a doubt inflation has accelerated this year, but there are still no signs that this acceleration is permanent. But what, in fact, will guarantee the transitory nature of the current acceleration of inflation and its control in the future will be the expansion of the pro-



duction capacity. The rise in the interest rate will have a negative effect on the recovery of the investment rate underway. So the increase in interest rate today is sowing a higher inflation for the future; that is, another rise in interest rates.

The interest rate will affect the aggregated demand, but only temporarily, since the recovery of the Brazilian economy comes from increasing commodity exports and a new dynamics of domestic consumer expansion caused by the rise of the new middle class (class C),

wages will increase and consumption rise, particularly of imported goods, when we should curb it. So in fact, the effect of the interest rate on inflation will come from the appreciation of the exchange rate.

This process of foreign exchange appreciation will aggravate a second recurring problem in the economic history of Brazil, and which has already begun to appear: the sharp rise in the current transaction deficit. And this will have two perverse consequences. First, the deficit in transactions, which is already booming, will increase



which has more permanent social and demographic factors as causes. Nor the interest rate or credit squeeze will eliminate these two dynamic elements.

We are actually interrupting a natural process of increasing the investment rate in response to the recovery of the economy and increased demand, which would permit the transition to faster growth.

Furthermore, higher interest rates imply a larger inflow of capital from abroad, which means increase in foreign credit, when the intention is to contain it internally. And a greater capital inflow will bring the appreciation that will curb inflation and this is why real

even further. In this first quarter of 2010, it reached a record level since 1947, with foreseeable consequences in the mid-term. And secondly, it will negatively affect the investment in tradable sectors.

In the current financial context, with the explosive rise of liquidity and interest rate close to zero practiced by the Federal Reserve Bank (FED) - which will still persist for at least two years until the effective recovery of unemployment - the period of appreciation tends to extend until the current transaction deficit reaches dangerous levels, accelerating the increase in the inventory of liquid foreign liabilities and payment of interest and

dividends. In this situation, we can again have a sudden reversal in the capital flow, with a sudden surge in the exchange rate, accelerating the inflation rate, creating a new soaring cycle and crisis, which we know only too well. Considering the current conditions of the Brazilian economy, this is not a short-term scenario but with the continuation of the current policy, it is very likely to be the scenario after 2012.

The argument that Brazil is today anchored firmly on more than US\$ 240 billion of foreign exchange reserves is weak to say the least. We must also remember that the rise in foreign exchange reserves has, as a counterpart, public bonds, whose liquidity is guaranteed by the Central Bank at a high cost, given the differential in the interest rate. We all know that these reserves must be compared with the monetary aggregates with liquidity, such as the M2.

Consider only that the open market investments, with the Central Bank buy-back commitment, are more than R\$ 400 billion. This is ready ammunition for speculators to launch an attack against the real. Investors and administrators that have this security will rush to the dollar, when the capital flow is inverted and the expectation of depreciation of the exchange rate takes shape. They are liquid resources that, at any moment, can be directed for speculation against the real and the foreign exchange reserves will fast dwindle. The actual risk that Brazil runs is that, with the very fast rise and growing deficit in current transactions in the mid-term, it will see another balance of payment crisis.

We have an alternative for an effective macroeconomic policy to confront the current Brazilian situation and which would permit transition to fast growth without accelerating inflation. What we need is a fiscal policy to cut personnel and costing expenses, which would prevent overheating the demand, thereby controlling expected inflation. Moreover, this fiscal policy would change the composition of the aggregated demand, opening a non-inflationary space for a rise in the investment rate. With lower interest, thereby, it would prevent foreign exchange appreciation of higher investment rates, which means more growth without accelerating inflation.

This fiscal policy, when controlling the aggregated demand, would also contribute to reducing the current transaction deficit.

In short, only a structural adjustment in the composition of the aggregate demand could save the Brazilian economy from the aforementioned trap in which the economic recovery raises inflationary expectations, followed by a rise in the interest rate and appreciation of the exchange rate - caused by the increased in capital flow from abroad - which curb investments and the transition to faster growth. Even worse,

the exchange rate appreciation reduces the inflation rate, but causes damage to the country's productive structure, creating a regressive specialization, with specialization in the production and export of commodities and destroys the technology-intensive manufacturing sectors. To escape this trap, we must have at the same time a long-term real interest rate and a more competitive real exchange rate, so that the investments and liquid exports can increase against the GDP, creating the necessary conditions for fast stable and sustained long-term growth. In relation to the depreciation of the rate, to make it more competitive, we must curb current government spending when it is part of the domestic demand, and it would quantitatively reduce the sector of non-tradables, making room for reallocating real resources from these "backward" sectors, with low average productivity, for more "advanced" sectors included in the global market, thereby expanding the tradable sectors, which means a change in the real exchange rate, as we saw above.

A basic sub-product of this adjustment process has to be the increase in domestic and public savings, with a cut in government and private consumption, with a higher profit margin for businesses.

It is also worth mentioning that the investment rate and domestic savings rate in relation to the GDP have to rise to the level of at least 25% of the GDP, to guarantee faster growth, say, 5%. It is worth recalling that the average rate of emerging countries today is around 30% of the GDP.

The short-term macroeconomic policy also has to find external equilibrium of the capital account, so that the domestic interest rate combines with international rates. This will prevent the aforementioned cycle of capital inflow booms followed by foreign exchange appreciation, current transaction deficit, sudden standstills in the flow of capital and repeated crises, as we have lived in the recent past. With the capital account in equilibrium, there is room for a new foreign exchange policy.

And this implies changing the dirty floating exchange rate regime, with strong Central Bank intervention, but without pursuing real exchange rate targets, for a new system with an implicit but unannounced target. In operational terms, the Central Bank and National Treasury should intervene asymmetrically to prevent the appreciation of the real exchange rate, so that it is not lower than the basic equilibrium exchange rate. It must be an asymmetric intervention, since it would permit an upward fluctuation, that is, foreign exchange depreciation. The logic of this intervention is well known and formation of expected appreciation must be prevented, because it is an upsetting agent since by boosting speculators' return rate, it attracts new speculators, creat-

ing a prophetic wave of self-achieving. This must be avoided at all cost. On the other hand, expectation of depreciation is stabilizing, since it tends to balance the country's current transactions. Therefore, this foreign exchange policy, when preventing appreciation, seeks to have one of the benefits of fixed exchange rate, pursuing the basic equilibrium rate, but when it permits upward fluctuation it has benefits of the floating exchange rate. It is also found that if the internal interest is in line with international rates, the cost of the intervention, with accumulation of foreign exchange reserves and sterilization of the monetary expansion, will tend to be zero.

If the interest rate policy seeks equilibrium in the capital account, then how is inflation controlled? Both the rise in the investment rate, therefore, the faster growth of the potential product and the stabilizing asymmetric intervention with the more stable exchange rate will contribute to price stability. This is why empirically it is found that countries with fast growth tend to have more stable prices. However, if some unexpected shock causes too much aggregate demand and creates inflationary pressures, it will be necessary to increase the interest rate. In this case, it will be necessary to use transitory instruments to equalize the interest rate, such as taxing incoming capital or some other capital flow control mechanism. Unfortunately, this is the price we have to pay for premature opening of the capital account, that is, without prior expansion of the tradables sector and without deepening of the financial and particularly the foreign exchange market.

Below, a little of the historic context to demystify the idea existing that only in Brazil is the floating exchange rate an advance automatic adjustment mechanism of the current transaction deficit. If we were to live in the mid-20th century, when every country controlled the capital flows, under the International Monetary Fund (IMF) command, complying with a clause in the Bretton Woods agreement, these flows would not have an effect on the exchange rate, and it should respond to exports and imports. If there is growing deficit, like today, this organization would recommend Brazil to depreciate the exchange rate, and to do so provide financing to prevent further damage to employment. With the breakdown of the Bretton Woods agreement, countries very gradually moved to flexible exchange rate regimes and freedom of capital movement after the 1970s. With soaring capital flow since the early 1990s the exchange rate was now basically determined by transactions in the financial market and no longer by exports and imports. Thus, if we had stopped in time, we could say that the real should start a depreciation cycle, since the market, considering the growing deficit and foreseeing the inevitable need for depreciation of the exchange rate, at some moment in time would then begin a depreciation process, until current transactions are adjust-

ed. It is true that some of the operators in the foreign exchange market, the fundamentalists, reason and act like that. But what happened over the past few decades was the integration of the financial markets with booming financial assets so that the exchange operations increasingly focused on arbitration gains and financial speculation. The rationale ruling many of these speculators is something else, they behave like a herd. Estimates show that only 1%-3% of the volume of operations in the foreign exchange market is linked to exporting and importing goods and services. So we can say that the exchange rate is 97%-99% determined by the financial asset market, whose liquidity boomed and depends on a set of factors, such as: the US monetary policy, China's surplus current transactions (over-saving) and oil exporters, therefore, of the capital flows and strategy and whims of those who speculate in these markets.

Lastly, let us see some comments on the relation between the exchange rate and growth. The attempt to find an empirical correlation between the exchange rate and growth involves first a general model with its theoretical premises. But to make this task feasible, simple analytical results are needed, discarding variables considered irrelevant. Moreover, it is not always possible to establish relations of empirically proven causality.

The studies on the role of the exchange rate in economic development made major progress in recent years. The most interesting studies are those focusing on success stories - countries with accelerated growth for decades - looking to find empirically the common characteristics that explain these cases and can ask as benchmarking (see, for example, Andy Berg, Jonathan D. Ostry & Jeromin Zettelmeyer, "What Makes Growth Sustained?" Washington: IMF, November 2006; Simon Johnson, Jonathan D. Ostry & Arvind Subramanian, "The Prospect for Sustained Growth in Africa: Benchmarking the Constraints", Washington: IMF Working Paper 52,

March 2007; and the Report of the Growth and Development Committee, organized by experts from 18 countries and chaired by Michael Spence, Nobel Prize winner in economics).

Michael Spence's report points to 13 success stories, with 7% or more annual growth for at least 25 years in the Post-War period. Brazil is in this group, but this report mentions that we are a case apart, since we meet the criterion but after forty years of rapid growth we interrupted this process in the 1980s and spent a long period of instability and semi-stagnation. Ten of the other 12 success stories are rated as models based on exports of manufactured goods, where the foreign exchange policy played a strategic role. What is common in these success stories is the trade opening - not capital account - and this prevented the appreciation of the exchange rate, thereby facilitating closer approximation to the technological frontier by importing capital goods. There is no empirical evidence that foreign savings were of any importance in the growth. There is, however, contrary empirical evidence that the premature opening of the capital account caused instability for the underdeveloped economies.

In fact, the old theory of development already showed that the sector of manufactured goods, in addition to more skilled jobs and high productivity, generate externalities with increasing scale returns and forming dynamic links in the production chain. This is the sector that has been commanding the accelerated growth, increasing its added value and share in the GDP, at least until reaching a per capita income of around US\$ 15,000. The remarkable role of exporting manufactured goods does not mean that it pulls the whole economy, but its expansion and diversification are fundamental to permanently sustaining the rising imports required to build a competitive and dynamic productive structure.

In the success stories, accelerated growth was accompanied by an increase in the participation of exports, which facilitates the transfer of the technological frontier to within the country by the growing import of capital goods and new technologies. And remember that these imports have high income-elasticity, and their demand grows more than the GDP. Therefore, to prevent payment of balance crises, it is necessary to also export goods with a high income-elasticity. It is worth mentioning that the strategic policy is foreign exchange, accelerated and sustained growth for a long period was accompanied by foreign exchange policy, and this prevents over valuation of the exchange rate. And here the empirical evidence addressed in the aforementioned studies is remarkable, since in the group of countries with sustained growth there is no over appreciation of the exchange rate, while in the countries that witness brief spurts of growth, but fail to achieve long-term accelerated and sustained growth, over appreciation has a much higher incidence.

Brazil's present problem is also to overcome a long period of dominance of financial interests that imposed an economic school of thought: the belief in the myth of the efficient market that is self-regulating, to adapt in advance always moving toward equilibrium. The spurt of growth of the Brazilian economy and the international financial crisis should further bring fresh pragmatic thinking.

The wave of high commodity prices, considered eternal, and the discovery of the pre-salt oil reserves have also raised some controversial ideas. The appreciation of the exchange rate would reflect this fact that is considered a "heaven-sent gift" and nothing should be done about its over-appreciation. In this line of thought, there is an "irreversible Brazilian reality"; we are like natives who prefer easy consumption, shade and fresh-water, no hard work like embracing a building project

of a competitive productive structure to catch up. So we are condemned to have current transaction deficits, but this will not be a problem since "divine providence" has endowed us with natural resources and even more now with the abundant petroleum of the pre-salt layer. The simple extraction of the natural riches will create a never-ending flow of Ricardian income so that we can live for the forthcoming years consuming, since we would only be anticipating a future flow of income already guaranteed by nature. We must absorb more goods and services than we produce; that is, we must resort to foreign savings to invest and we can deliver our natural resources as guarantee.

We will not criticize this thought process but will mention some important facts. The appreciation of the exchange rate can occur with bursts of growth based on consumer increase, with a rise in the real wage, and we may even increase investment momentarily by procuring machinery and equipment imported with a "subsidy" of the appreciated foreign exchange. But this burst is not sustainable in the long run, and our past denounces that a persistent deficit of current transactions eventually flows into a foreign exchange crisis, depreciation of the exchange rate, galloping inflation and tightening of economy activity. If the country does not built an efficient and competitive productive structure or generate decent employment for its population, neither the guarantee nor delivery of natural resources to foreigners will be sufficient for financing growing deficits. We know that the rise in commodity prices is a cyclical phenomenon and we have no security on the feasibility of the pre-salt, since the world is investing substantially in looking for alternative clean energy. The pre-salt should be preserved as savings for us to pay what we have already taken from the future, as in the case of social security spending.

Accordingly, it is extremely crucial that we promote ourselves with foreign exchange appreciation and



a regressive specialization in our productive structure, accompanied by a consumer burst, enabling an anticipation of future Ricardian income and cyclical increase in commodity prices. What we need is to enjoy this cyclical increase in commodity prices to expand our capital stock and come closer to the technological frontier. The cyclical increase in commodities with a competitive exchange rate would permit us to accelerate growth and thus increase domestic savings and increase the investment rate, without resorting to foreign indebtedness, since our foreign and social security liabilities will be onerous in the future. It is worth remembering that, with accelerated growth of the GDP, we can increase the savings rate without reducing consumption.

Let us not forget the lessons of our recent history. We can even admit accumulation of small current transaction deficits, say, an average of 1% to 1.5% of the GD over the years, if exports are soaring and the foreign liabilities under control, as happened with Brazil after the Second World War until the end of the 1960s. Some empirical studies also show that a small indebtedness of 60%

or less in exports may even help the country grow more, but when it passes this level, its contribution becomes less and less and from a certain point when it passes the export value, it begins to have negative effects. That is what happened to Brazil in the 1970s. Accumulated deficits in this decade created increasing foreign liabilities, leading us to a balance of payment crisis and maxi-devaluation of the foreign exchange at the end of 1908. Thus, the indebtedness of the 1970s became an obstacle to growth and resulted in the inflationary boom, the lost decade of the 1980s, and in semi-stagnation of the 1990s. Similarly, the current transaction deficits of the early years of the Real Plan unleashed the balance of payment crisis, the 1999 foreign exchange depreciation and the financial crisis of 2002. Over this long period of preparation of the 1980s crisis until today, the current transaction deficit has been an average 3.5% of the GDP. The logic is simple and obvious - whoever owes must pay the debt. If we wish to prevent such disasters, it is best to administrate the exchange rate by taking it to the level that brings external and internal equilibrium. ■



## Exchange rate, dutch disease and industrialization

Luiz Carlos Bresser-Pereira

### ■ Luiz Carlos Bresser-Pereira

Graduated with a Law degree from the University of São Paulo (USP), holds a Master's degree in Business Administration from Michigan State University (MSU), has a Doctorate in Economics from USP where he also teaches Economics. Since 1959, he teaches Social and Political Theories and Economics at Fundação Getulio Vargas (FGV). From 1963 to 1982, he was Vice-President of the Pão de Açúcar Group, and in 1983 he was Chairman of the São Paulo State Bank. Two years later, he served as Secretary of the State of São Paulo and, in April 1987, became Minister of Finance. He was Minister of Administration and State Reform in 1995 and Minister of Science and Technology in 1999. Today he is fully engaged in academic life.



## ABSTRACT

Despite its strong economy, Brazil is experiencing a process of deindustrialization. Data show that the country is losing some of its export capacity and competitiveness. For Luiz Carlos Bresser-Pereira, Professor of Economics, Social and Political theory at Fundação Getulio Vargas, this picture is mainly owed to the high valuation of the exchange rate. He argues that the exchange rate is controlled by the balance of payments crisis and that the real equilibrium rate of the Brazilian economy is the industrial balance exchange rate. The Dutch disease, a market failure that affects almost all developing countries, is a subject of particular relevance for Bresser Pereira's lecture. He raises the possibility that the problem may worsen with the exploration of the "Pre-Salt" oil reserves, something that has not been clearly addressed in our country. The excessive inflow of capital in Brazil, the policy of growth relying on foreign savings and exchange populism based on a high exchange rate are other factors that he cites as responsible for the trend that militates against and undercuts the growth and industrialization of the country.

When we talk about the exchange rate, several questions come to the fore. What is the equilibrium exchange rate in Brazil? Why is Brazil de-industrializing? Why are the growth rates in Brazil much smaller than the Asian country growth rates? Some data clearly show a de-industrializing process. This process was not however violent because in the last four years the policy of Lula's government - to increase the minimum wage, increase family allowance and create consigned credit - caused the domestic market to increase and industry to save its skin. But it has evidently lost exporting capacity and international competitiveness.

So, why is Brazil not competitive? Because, on one hand, the interest rates are too high and discourage investments and, on the other, because wages are artificially high due to the chronic over-appreciation of the exchange rate since 1992. Only depreciation and administration of the exchange rate to make it competitive or equilibrium and staying reasonably stable at the new level may solve the problem. But why is the exchange rate high in Brazil and the country has been de-industrializing since 1992? This process has been happening in the 1980s due to a situation of deep crisis of foreign debt and high inflation. Since the country began its financial and trade opening and stopped neutralizing the tendency to overvalue the exchange rate caused by the growth policy with foreign savings, and the Dutch disease, the exchange rate not only became volatile and suffered cyclical crises but it was also at a new overvalued level.

When we study the exchange rate, it is essential to distinguish the short from the long-term or the structural conjunctural conditions. For example, when the Financial Operations Tax (IOF) is collected on incoming capital to restrict these inflows, it is a short-term measure. Very correct and competent, but short-term.

Long-term measures are also necessary, which derive from the structuralist macroeconomics of development that I have been preparing over the last ten years. This theory helps us understand what happens with the exchange rate and industrialization in a country like Brazil, which accepts the growth policy with foreign savings and faces the problem of the Dutch disease. Both the Dutch disease and growth policy with current account deficits and foreign indebtedness, use of an exchange rate anchor or then abusively high interest rates to control inflation and the populist exchange rate cause over-appreciation of the national currency, further its de-industrialization and become prone to cyclical crises.

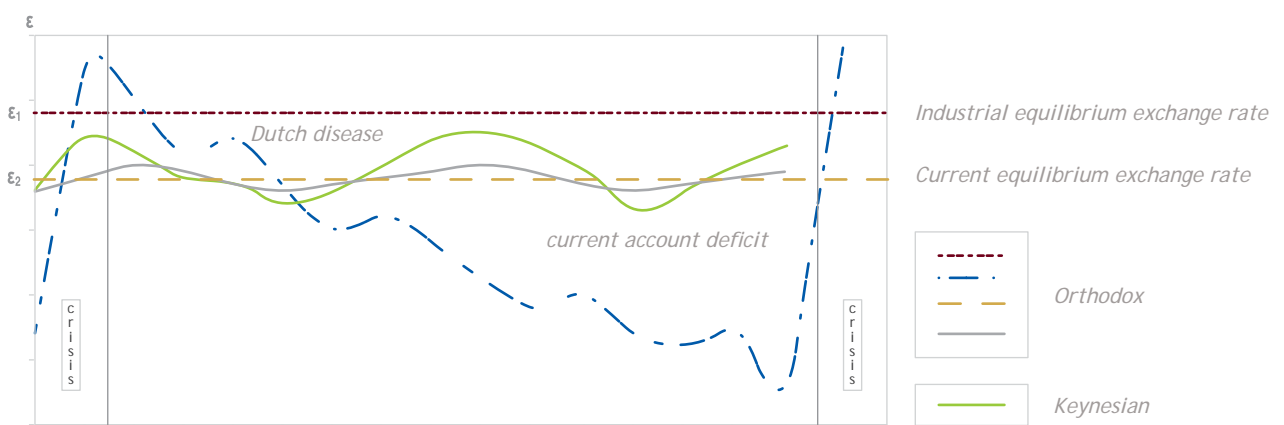
The Dutch disease, or the curse of natural resources, is a chronic over-appreciation of the exchange rate not controlled by the market, because this over-appreciation is compatible with the long-term balance of the Brazilian current account. It is the result of pro-

ducing and exporting commodities that use abundant cheaper natural resources than in other countries. Since they are cheap, their profitability is compatible with a considerably more appreciated exchange rate than that required for the country's industries of tradable goods. The latter, although they use world-class state-of-the-art technology, become unfeasible due to the over-appreciated exchange rate.

I summarized this macroeconomic model in a simple graph that shows the two equilibrium exchange rates that characterize the Dutch disease: the industrial equilibrium exchange rate and the current equilibrium exchange rate. The industrial equilibrium rate is what makes industries of tradable goods feasible using the best world-class technology; and the current equilibrium is the rate that intertemporally balances the country's current account.

There is a discussion on this rate among the orthodox and Keynesian economists<sup>1</sup>.

The orthodox economists consider that the exchange rate gently floats around this equilibrium, while the Keynesians think that the exchange rate is volatile. The theory that I have been presenting in recent years, worked into my book "Globalization and Competition",



<sup>1</sup> Keynesianism is the economic theory consolidated by the English economist John Maynard Keynes in his book *General Theory of Employment, Interest and Money*, which consists of a political-economic organization against the neo-liberalist concepts, based on the State's assumption that it is an indispensable agent of control over the economy, in order to run a full employment system.

is that both neoclassical and Keynesian economists are wrong, although I myself am Keynesian. In fact, if left completely free, what happens to the exchange rate in developing countries is that it is prone to a cyclical tendency to over-appreciation, so that it is not controlled by the market but by the crisis. The country goes from one balance of payments crisis to another. This tendency, shown in the graph, acts as follows: the process starts with a balance of payments crisis resulting in sharp depreciation of the currency and the latter goes higher than industrial equilibrium; then the exchange rate begins to appreciate gradually, crosses the industrial equilibrium line, crosses the current equilibrium line, enters into current account deficit, its foreign debt increases, until one day the creditors lose confidence and a new crisis occurs, which again suddenly and sharply depreciates the currency. Then the process starts all over again. This happens for two reasons. The first is a fundamental structural reason, the Dutch disease, which pulls the industrial equilibrium exchange rate to the current equilibrium. However, the exchange rate does not stop there; before, it continues to appreciate for a second structural reason: the developing countries attract capital due to their higher profit and interest rates. But this structural attraction is not enough to explain why the exchange rate continues to appreciate and the current account deficit continues to increase until a new crisis appears. The main explanation for the current account deficits and the resulting exchange rate appreciation is the growth policy with foreign savings that the economists and financiers in the rich countries recommend because they are interested in investing in or lending to the country, and that our orthodox economists (and the majority of heterodox economists too) believe to be “necessary” for the country to “complement” its internal savings. The criticism of this apparently true theory is also part of the structuralist macroeconomics of devel-

opment on which I have been working. For those who defend growth with foreign savings, a developing country like Brazil would not have enough resources to finance its investments. This is why it should grow thanks to “foreign savings” - in other words, the current account deficits that increase the country’s foreign debt. In fact, the studies are clear when they show that the countries, even the poorest, finance their investments with internal savings, which is little but enough if the exchange rate is competitive. Foreign savings does not increase investment much and greatly increases the country’s debt. Its evils, seen from back to front, are the following: on the border, this policy causes balance of payment crises; before reaching this limit, it financially weakens the country and obliges it to adopt a confidence building policy; and even before this, since the current account deficit appreciates the exchange rate, the foreign savings do not add to the internal savings: instead, the internal savings are substituted by the foreign savings, so that a large part of the funds entering the country becomes additional consumption and not investment.

In addition to the growth policy with foreign indebtedness, we have other policies that continue to appreciate the exchange rate: first, the economists and financiers recommend an exchange rate anchor to control inflation; when this is not possible, an inflation goal policy that, after all, is a disguised exchange rate anchor controls inflation not so much because the rising interest rate discourages investment and consumption, but chiefly because it appreciates the exchange rate. Lastly, we have the “exchange rate populism”: the politician at the head of the government perceives that, when the exchange rate appreciates, inflation drops and wages increase; therefore, he lets the exchange rate appreciate; for a time the country is in paradise and, if the crisis does not appear, the politician is re-elected. Consequently, the exchange rate continues to appreciate and

plunges into the current account deficit and foreign indebtedness. In the graph, the rate drops more and more. All these factors are consubstantiated in the unnecessary and in most cases harmful liquid inflow of foreign capital. Direct investments are desirable when they bring technology and, as happens in China, they do not finance current account deficit but compensate for the country's investments abroad. Foreign resources to finance deficits and a non-administrated exchange rate cause its over-appreciation, artificial increase in consumption and, finally, the balance of payment crisis, which leads again to the exchange rate's sharp depreciation to close the cycle.

The Dutch disease will be more serious the greater the difference between the industrial and current equilibrium. The equilibrium exchange rate - the competitive rate - is the industrial equilibrium exchange rate, that is, the exchange rate that helps industries using world-class state-of-the-art technology. This concept is the key in my Dutch disease model. The rest results from this. When there is a very abundant natural resource generating a Ricardian income or productive edge in relation to other countries<sup>2</sup>, the exchange rate is determined by the commodities that use this resource (the current equilibrium exchange rate) - an exchange rate more appreciated than that that makes the other industries competitive (the industrial equilibrium exchange rate). The main way to neutralize the Dutch disease is to prescribe a tax or retention on sales and exports of the commodity (or commodities) that cause the disease. This tax pushes up the supply of the product in order to make the current equal to the industrial equilibrium.

When I was developing this model, one doubt caused me

to interrupt my work. If Brazil today has Dutch disease because of these farming products and iron, then it has always had it. If we have always had it, and considering that the problem was not discussed between 1930 and 1980 (the period in which Brazil had the highest growth rates in the world), how can this development have happened? When I explained my difficulty to Cambridge University economist and lecturer Gabriel Palma, he replied: "Bresser, we do nothing else in Latin America in the good old days of its development but neutralize Dutch disease". I needed to say no more. In Brazil, we have had various multiple exchange rate systems and between 1968 and 1990, the import duties and export subsidies resulted in the famous "confiscation of the exchange rate". Then, confiscation was nothing more than the tax on commodity exports that pushed its supply curve up and neutralized the Dutch disease.

The Dutch disease can be drastic, as in the case of Venezuela or Saudi Arabia (a 95% Dutch disease), or can be moderate as in Brazil (around 25%). These percentages, for example, indicate tax on exports required to neutralize it. Let us suppose that the industrial equilibrium exchange rate in Brazil is R\$ 2,50 to the dollar, and to simplify matters, that soy is the commodity that causes Dutch disease. Given the international soybean price, the exchange rate necessary for the farmers - current equilibrium rate - is R\$ 2,00 to the dollar. If the government stipulates a retention of R\$ 0,50 per exported dollar, the soy farmers will push its supply curve up, that is, will only be willing to produce if the exchange rate rises to R\$ 2,50 to the dollar. Consequently, the market will cause this displacement, and the Dutch disease will

<sup>2</sup> Ricardian income is so called because its theory was developed by David Ricardo. It is income from land deriving from the fact that the capitalist tenants lease the lands from the landowner aristocracy, starting with the most fertile lands and gradually, when they are exhausted, starting to lease increasingly less fertile land. Consequently, prices of the produced goods rise as do the profits of the tenants of the more fertile land. However, considering market competition, they are soon forced to pay higher income to the landowners who, thus, earn a "Ricardian income".

be neutralized: industry is then again competitive. The interesting point is that it is not the soy farmers who pay the tax; due to depreciation, they will stay with the same profit - and, since the tax may be used for a stabilization fund, they will be more guaranteed. If, for other reasons, the international price of soy falls (the tax does not affect it), the tax will be reduced to zero and may even become a subsidy.

This is the mechanism to neutralize the Dutch disease. It is simple, but difficult to implement, because, as it happened in Argentina, the ruralists believe they are the ones to pay the retention. They are not. As we have just seen, they keep their profit margins and are more guaranteed. It is paid by every Brazilian, due to depreciation. And whoever gains, once again, is every Brazilian because the country from then on, may grow much more. The gradual process of de-industrialization will be interrupted and we will be able to fully enjoy our benefits from abundant natural resources and high technology we have developed in agribusiness. A correct exchange rate will place all international demands for industrial goods within the reach of our competent industries, as happens in the dynamic Asian countries.

The problem of neutralizing the Dutch disease and, more broadly, the problem of neutralizing the cyclical tendency toward exchange rate overvaluation is a political problem. We Brazilians need to talk more about it. We have to solve it. We were able to do so in the past, why can't we solve it in the present? Brazil has conditions to grow much more than it is growing. We have good specialists, entrepreneurs and workers, technology in the field and industry, and a much more effective State to guarantee a well-run market than is generally supposed. We have extraordinary conditions to compete in the world, but we have not had the courage to face the exchange rate problem: solving the Dutch disease problem - transforming it into a blessing instead of a curse - and refusing the false promise of growth with foreign savings. Only when Brazil again administrates its own exchange rate will it be able to grow to its real potential. ■

## A business view of foreign exchange

Roberto Giannetti

### ■ Roberto Giannetti

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## ABSTRACT

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The fixed exchange rate that China maintains against the dollar leads to unfair competition on the part of China relative to the rest of the world and gives Chinese products an unbeatable competitive advantage. In his lecture at the seminar “Exchange Rate Perspectives 2010”, the Director of the Department of International Relations and Foreign Trade of the São Paulo State Industries Federation (Fiesp), Roberto Giannetti, showed strong disapproval of the advantages that China has in this connection. According to Giannetti, we need to mobilize the world to force China to change its stance and join the floating exchange rate regime. Giannetti criticizes the World Trade Organization (WTO) for being remiss and negligent regarding this issue and states that countries could impose on China a special safeguard clause envisaged in the country's accession to WTO. Concerning the exchange rate in Brazil, he presented data on the ratio of exports to industrial employment, criticized the Brazilian Central Bank for the slow modernization of the foreign exchange legislation and for its passive role in the exchange market. Giannetti also spoke about the exchange rate volatility as a source of growing concern for Brazilian businessmen.

There are two angles to be analyzed in the question of foreign exchange: the foreign, with regard to the relation of other countries with Brazil, and the domestic, which influences the formation of the exchange rate in our economy. I will first concentrate on the foreign part. When mentioning the war of post-crisis exchange parity, which is a fact that we can see with absolute clarity in today's world, we have first of all the dollar furthering a competitive adjustment in the American economy, thereby making American products more competitive and imports dearer. Considering the current devaluation of the dollar, we can predict a gradual adjustment of the American economy in the near future, to lower trade and current account deficits than they are today, which is an urgent real necessity for new world macroeconomic equilibrium. It would be impossible to imagine the USA keeping the level of fiscal and trade imbalance for an indeterminate period, which we have seen here over the past ten or fifteen years.

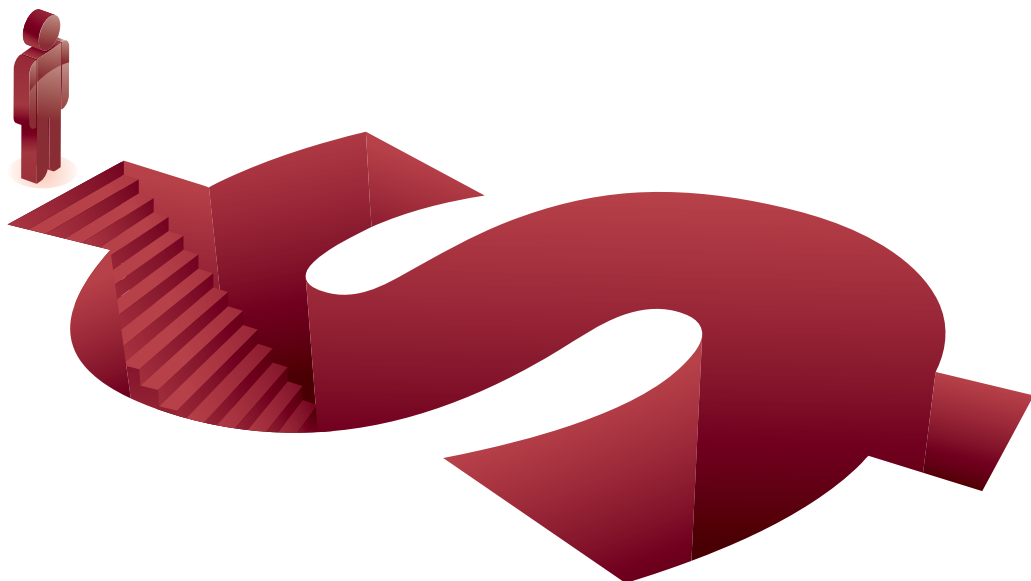
Secondly, we have the euro, with signs of progressive weakening considering the fiscal questions currently faced by several European countries, also being devalued in relation to the dollar, which causes new concern for the world scenario. And we have, lastly, the case of China, which by keeping a fixed parity against the dollar creates an unfair situation from the viewpoint of foreign exchange parity with the rest of the world.

## CHINA'S UNFAIR COMPETITION

By the way, China is sequestering jobs from other countries that operate with floating exchange rate, given a foreign exchange disparity of 30-40% in relation to what could be the relative exchange rate of the yuan with other currencies. This creates an insurmountable condition of competitiveness for the Chinese product. I think that the question of China will be soon faced at a multilateral level, either by the USA or Brazil or Europe. I must say that in the US we are in a very ambiguous situation: some businessmen complain about China's exchange rate, they think that the American treasury has to complain about China's exchange rate, and others say that the cheap Chinese product is good. Both at the level of American consumption and that of the American industries importing from China with American brands are addicted to the cheap Chinese product. This gives rise to a stronger level of concern, because the competition of Chinese products in the large developed markets is alienating developing countries, such as Mexico. It is an even more serious situation than that of Brazil.

I have a figure that gives an idea about the relation between Mexico and China. The former country exports to China 4 billion dollars and imports 34 billion dollars, which means a deficit of 30 billion dollars on the bilateral trade with the country. The Mexican businessmen with whom I talk are desperate, and ask Brazil to help them. We need to do something on an international collective level for China to change its attitude. Otherwise, as Minister Guido Mantega said very lucidly, we will all be dead in the mid-term.

In São Paulo State Industries Federation (Fiesp) we have studied in depth the question of how to approach the Chinese problem pragmatically, objectively and legally, because it is not the case of formulating any artificial measure against China and let alone proposing a fixed exchange rate regime in Brazil. We believe that China needs to join the floating exchange rate. But how can the Chinese be convinced and encouraged to join the floating exchange rate? International trade regulations are the World Trade Organization (WTO) rules, which has



been ommissive and negligent on this point. We think that the WTO could have raised this problem since it has the mission, obligation to strive for the good discipline of international trade.

But in the clause for China's joining the WTO, there is an opening that we can use. China, when joining the WTO, agreed to the imposition of a special safeguard until 2013, unilaterally, by the importing countries, if there is a glut of imports, a risk and loss for local industry. These are the rules to safeguard international trade. There is no doubt that this is what is happening but there is no point in Brazil placing a special safeguard for Chinese goods, and the other countries do not do the same at the same time. We would run the risk of retaliation by the Chinese. Remember that in the recent past the Chinese were here asking Brazil to acknowledge China as

a market economy, which would be really absurd. However, the Chinese wanted this precisely not to apply such a special safeguard, almost in their strategic view, much better than ours, that they could eventually be faced with this type of problem when they are in fact "sequestering" jobs from other competing countries around the world and making a point of increasing their economy 8-10% a year.

Fortunately, Brazil and other countries did not formalize this recognition of China as a market economy, because in fact it would be false. The G-20 could discuss the matter of a special safeguard against China of 25-30%, so that the Chinese would practice at least a decent exchange rate, reliable from the parity viewpoint. Otherwise, job sequester will continue in the world in an absolutely scandalous manner.

## EMPLOYMENT OVER EXPORTS

I have studied the question of employment over exports in Brazil. To give an idea of the seriousness of the ratio of exports with industrial employment, the weighted average of the industry for one billion dollars of manufactured goods is 60,000 direct jobs. So when we talk about a 20-30 billion dollar drop in exports of manufactured goods, we are talking about the loss of millions of jobs. Of course agriculture, commodities, services and the public sector itself employ without fixed jobs with this employment rate over manufactured goods. This is why we do not have such a serious employability crisis. But if we were an economy with a broader opening than we are and had, for example, 30% or 40% of exports over the Gross Domestic Product (GDP) and the same impact that the crisis had on exports in the world

market, the employment problem in Brazil would be extremely severe, as it is today in Mexico, Spain and Italy, countries that have employment rates of over 10% of the active population.

I think that we have to focus on this question of China with much more seriousness than had been done so far. Fiesp has talks with class associations, such as the Confederation of British Industry, Patronat Français, Mexican Federation of Industries and the Italian Cofindustria, among others, to form a global business consensus and take to the G-20 a manifesto that we need to solve the problem of China in the short- and mid-term, because it is not possible to survive with this disparity of the Chinese exchange rate.

## MEASURES FOR FOREIGN EXCHANGE APPRECIATION

With regard to Brazil, I would like to give some suggestions on what could be done so that the exchange rate does not appreciate much. Minister Mantega spoke of a number of quite commendable measures, such as accumulation of reserves, Financial Operations Tax (IOF), but did not mention one very important measure, which is also his merit and I would like to emphasize: the resolution of the National Monetary Council (CMN), which authorizes the Brazilian exporter to keep 100% of the export revenue overseas. We have a study that estimates that the physical-financial gap in exports today is 20 billion dollars. In other words, around 20 billion dollars of export revenue has not yet been brought into Brazil, because it is no longer mandatory for exporters to sell the foreign exchange by a fixed deadline. I ask what the exchange rate today would be if this money had already been brought into Brazil.

I claim that there are measures to modernize the foreign exchange legislation that need to be continued, which is being done very slowly, even lazily, by the Central Bank. Recently, we had a meeting of several institutions - Fiesp, Brazilian Federation of Banks (Febraban) and others - with the Central Bank to modify the 40-year old Law no. 4131. The laws referring to foreign exchange in Brazil are still with reverse sign; they date from the time when Brazil wanted to facilitate the inflow and hinder outflow. Nowadays it is the opposite: we have to hinder - or at least control - the inflow and facilitate the outflow, because we need to have demand. This modernity of the foreign exchange legislation is imperative, and the Central Bank needs to be more agile on this matter.

Another of my criticism has to do with the Central Bank's role in the foreign exchange market. The Central Bank explains its role in the foreign exchange market each day, when it says that it will sell 500 mil-

lion, or buy 300 million. But I think that the monetary authority, like in other countries, should not explain its position; it should buy and sell several times on the same day and create an imponderable risk for the speculator. Foreign exchange operators say that they operate the market because the Central Bank plays with "cards on the table". If the Central Bank was slightly more subtle in the positions, buying and selling numerous times the same day, the market would not speculate so much on the foreign exchange question. Moreover, the Central Bank should also restrict future market positions; the future market is very free in Brazil. The rules are very generous from the viewpoint of sold and bought positions in terms of term and value, and very often these positions are not even in Brazil but offshore, which makes it even harder to control.

On the matter of volatility, this is a major concern for the entrepreneur, because it is not only a matter of foreign exchange valorization but also the risk of volatility. Very often in one day or a short period of a week or month, there is 4-5% volatility, prices change, which can give an uncertain profit or loss margin, depending on the position that the exporter or importer has at that moment in the foreign exchange market.

And why is volatility in Brazil high? This is an empirical fact, but the reason is very clear: because in Brazil the trade foreign exchange flow from foreign trade operations is very small in relation to the financial flow, considering the little opening of our economy. Accordingly, the influence of the financial market in Brazil in forming the exchange rate is much stronger, which attracts volatility. The control of capital flow may also, consequently, prevent high volatility, in detriment to the financial planning and difficulty for Brazilians to form their international prices. ■

## Deindustrialization and savings

Samuel de Abreu Pessôa

### ■ Samuel de Abreu Pessôa

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## ABSTRACT

In his lecture, Professor Samuel Pessôa defends the idea that the foreign exchange rate is the relative price of tradable goods (in general, manufactured goods, agricultural commodities and minerals) and domestic assets (mostly services). On this backdrop, he signals the importance of a factor resulting from exchange rate appreciation, the increase in the value of services, and discusses the Dutch disease in order to explain the consequences of an expensive service economy. With the services being costly, the tendency is for capital and workers to leave industry to boost the production of services. Hence, the reduction of industry's share in GDP. In the reverse process, when there is a devaluation of the foreign exchange rate, manufactured goods increase their share in GDP and the economy goes through a process of industrialization. Starting from the principle that there is a strong link between savings and industry, the Professor points to the existence of a dilemma with respect to obtaining economic balance under conditions of higher growth and savings rates: what would be needed is to devalue the exchange rate and lower wages for sometime. There are other costs associated with growth, including reduced consumption and increased savings. Since Brazilian society has not shown a willingness to pay the price in order to get gains in the future, the reality of having an overvalued currency and a diminished share for industry in the overall economic product appears to be momentarily irreversible, unless alterations are made in the political balance.

Foreign exchange is a very complicated price because it determines the location of goods and real resources in the economy while at the same time indicating returns of assets in the financial market. This duality creates huge complexity when determining the exchange rate and for economists to be able to say something more positive about it.

I will limit myself to a concept of mid- and long-term equilibrium exchange rates and look at foreign exchange as the price between two goods. We can classify all goods produced in the economy in two major types. There are those that we can buy or sell abroad and, in this case, the international market pulls some power over determining the domestic market of such goods. Generally manufactured goods have this characteristic. And some goods cannot be influenced by the international market, which are the domestic goods and services in general. Essentially, foreign exchange is the relative price of these two goods. This is because we suppose such goods do not exist. What would happen if all goods were tradable? The Central Bank would not require a director of the foreign area. Simply, altering the nominal exchange rate would be equivalent to taking away zeros from the currency or changing the monetary standard.

In an economy in which all goods are tradable there is no mid-and long-term role for foreign exchange policy. This has no impact on allocation of factors, savings, investment and growth. Therefore, foreign exchange is only important because it is the relative price between transacted and domestic goods. When foreign exchange devalues, Brazil becomes a cheap country - when we travel abroad we think everything is expensive. Services here are cheap; tradable goods can be exported because in foreign currency our goods are competitive. On the other hand, when the exchange rate valorizes, the Brazilian economy becomes expensive, especially services.

Suppose that the world's gives us a gift - and this is the problem of Dutch disease, which I will discuss because it is a very simple way of understanding this question. Suppose that nature decides to give us a flow of perpetual income, for example, the pre-salt layer. Suppose that overnight every Brazilian will have an extra thousand reais to spend. We have a consumer basket; we take our thousand reais and spend part of it on domestic goods and another on tradable goods.

Immediately the demand for these two goods increases, but the production capacity of the economy is in the short-term. A surplus of both goods is produced and what happens is that, due to the surplus demand for tradable goods, we will import more. However, it is not possible to increase the import of domestic goods because of a surplus demand. In the case of domestic goods the surplus demand will raise the price.

When the price of services rises, the Brazilian economy becomes an expensive service economy, equivalent to a valorized exchange rate; therefore, it will involve a process of structural economic adjustment. What happens, after everyone receives the check, is that the services become more expensive; service providers begin to pay higher wages; and production factors, such as workers and capital, move from industry to increase service production. Industry's share in the Gross Domestic Product (GDP) declines. Savings drop because, with this gift, they save less (as a proportion of the available income). This is Dutch disease.

The only way to prevent it is to throw the gift away. To enjoy it and not de-industrialize we need to take everything we are given as a gift and demand tradable goods. We cannot increase the demand for services. When we receive the gift, the economic policy needs to take every measure to either make services more expensive or manufactured goods cheaper, so that we are induced to spend the entire gift on industrialized goods.





What has happened to the Brazilian economy? It underwent a political transition. We moved from a dictatorship to a democracy. The 1980s was a period in which we digested this transition, which cost us dearly. When we tidied up our home we were in another world: a democratic world, in which decisions were no longer taken by a centralized government. We changed the way of socially negotiating the economic policy. I think that democratic Brazil is a country that built institutions - beginning with the 1988 Constitution and its progress to date - which produce low savings and, consequently, a valorized exchange rate and deficit in current transactions.

It is not strictly an irreversible reality in the sense of being a mechanical or natural question. It is political economy equilibrium that is being negotiated in our society since 1988. These sixteen years of social-democratic governments that we had did not alter this political equilibrium, and all elections until now have continued with this situation. Valorized foreign exchange, low savings and the reduced importance of industry in the GDP is a result of this political equilibrium. This happens because society has a series of demands that have created the institutions that produce low savings.

We have had a policy to valorize the minimum wage for over fifteen years and I think that the voters have a positive view of it. This policy guarantees benefits for a large part of the population occupied in the labor market. In other words, the minimum wage in Brazil has risen much faster than the average earnings of the active worker. As a result, everyone with a lower income in the private market will not save for retirement because it makes no sense. Not to mention that a large part of our formal workforce consist of public servants who have full pension and do not run the risk of unemployment; so this population also does not save.

Family savings in Brazil is relatively low. Not as low as the American, which oscillates around zero. If we were to go to Brazilian Institute of Geography and Statistics (IBGE), however, we will be informed that family savings in Brazil is around 5% of the GDP. How do we break down the savings in Brazil? In recent years the country has been saving around 18% of the GDP; companies save 15%; families 5%; and the State has a negative savings of 2%. If we are to do the same for China and other Asian countries, the figures will be as follows: for China, 50% of the GDP; 22.5% of this percentage is family savings, 22.5% corporate and 5% government. If we compare the two countries, the biggest difference lies in the family and government. Such differences in savings, as we understand it, are caused by the legal institutional benchmark, the political economy.

How do Dutch disease and China's savings talk to each other? I commented earlier on the oil check gift we were given. Suppose that today we do something that means that in the next ten years each Brazilian will consume a thousand reais less. Every argument about the check we were given is inverted: consumer demand will immediately drop by a thousand reais; people will consume less internationally negotiable goods and less internationally non-negotiable goods; the result will be a surplus supply of both goods. The surplus supply of negotiable goods can be exported and the surplus supply of services will create a drop in service prices. The Brazilian economy becomes an economy of cheap services and, therefore, a devalued foreign exchange economy.

The drop in the relative price of services from this process will cause production factors to move out of the service industry toward manufacturing and will increase the manufacturing share in the GDP and the economy will undergo an industrialization process. Therefore, there is a close link between savings and industry. Because when we save more, we consume less and, when we consume less, we release resources for export. We can only export what is internationally negotiable. Industry is internationally negotiable; services are not. This is the point.

This raises the question of causality of savings for foreign exchange. Will foreign exchange causality be possible for savings? From empirical evidence there exists foreign exchange causality for savings. It is possible to have a policy that devalues the nominal exchange rate, and this devaluation causes new equilibrium of the economy, with higher growth and more savings. Empirical evidence shows that this is possible when there is a wage squeeze. The nominal exchange rate is devalued and, when this happens, there is certain inflation in the country. The wholesale price index races in front of the Consumer Price Index (CPI). Actual wages drop because a portion of the wholesale goods is part of the workers' consumer basket. There are higher profits for the corporate sector; this sector has a marginal propensity to save more, so savings increase, investment increases and the economy increases.

This growth may be very strong, if we think the industry is a sector with many externalities and earns a lot for the economy by adopting more modern technologies. It is possible that this leverages the growth rate and, in a few years, this policy may be reversed; later, much higher wage increases may be granted than if we were to keep the previous policy. What I intend to emphasize, however, is that this alternative is complex, because it returns economic development to the question of intertemporal choice. In other words, there are costs associated with growth - costs of our accepting for some time reduced consumption, increased savings and our negotiating this type of policy on the home front. Farther ahead, we will gain but we must pay the cost today.

We have recovered the basic question of the economy - that of political economy. How can the cost of economic development be distributed internally in society? When the letter from the Brazilian Institute of Economics of Fundação Getulio Vargas (IBRE/FGV) says "irreversible reality", we look at how society is voting. Today I see no candidate defending policies to increase domestic savings. No campaigning candidate states that we have to stay six or even ten years with a minimum wage increasing Amplified Consumer Price Index (IPCA) but with no real minimum wage increase; or that we have to have a more conservative policy toward public servant wage increases; or even that we have to increase some kind of tax to increase public savings and converge on this other equilibrium.

In Brazilian society, no one is willing to find for some time this other possible equilibrium, with more savings, higher growth and more devalued exchange rate. On the contrary, Brazilian society has been seeking the equilibrium that we have had for the last few years. In this sense, the reality could be considered irreversible. As long as the political economy does not change, this reality will not change. Any attempt to alter the real exchange rate "by force" will result in accelerated inflation.



# Exchange rate: one variable, many problems

Márcio Holland

## ■ Márcio Holland

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## ABSTRACT

In his lecture, Professor Márcio Holland raised several concerns related to the foreign exchange rate in Brazil. He starts from the idea that there is no balanced exchange rate and that Brazil may be forced to maintain an appreciated exchange rate because its economy's domestic savings are low and growth will depend on the use of foreign savings. He raised two main points for discussion: first, the question as to whether the exchange rate is indeed appreciated and whether or not its level is compatible with the current macroeconomic equilibrium, and second, whether the use of foreign savings is truly an "irreversible reality". He also alerted to the fact that the Brazilian economy's standard of consumption is high and that an exchange devaluation associated with such a standard would exert pressure on prices and inflation. He showed that the Brazilian Real (BRL) is much more volatile than the US dollar, which does not justify the explanation of the appreciation of the domestic currency by the reverse movement of the US dollar. Various indicators presented show that the BRL is one of the most volatile currencies in the world. One consequence of this may be the "process of insourcing" of the Brazilian economy, due to our increase in commodities exportations. Finally, he talked about the prospects for 2010, such as maintenance of low international interest rates, China's growth, which should raise the price of commodities, and the increasing current account deficits in Brazil.

The basic idea is that we're not talking about a trivial variable. I used this title because I think it quite suggestive. The idea is consensual that there is no ideal exchange rate for all countries and all periods. Yet, at the same time, the Brazilian economy may need to live with the appreciated exchange rate since it is an economy with a low savings level.

We are talking about a variable for which there is no ideal rate and regime, nor a consensus between economists and econometrists on "stylized" facts of the exchange rate. And what would that be? We have many problems and few answers.

Essentially, the economists disagree on the causality between the exchange rate and savings level, or even on the use of foreign savings. Some believe, since Brazilian savings are very low, that we need foreign savings and, for this reason, an appreciated exchange rate. Others claim that we have an appreciated exchange rate which is why we use foreign savings; as a result, we cannot achieve high domestic savings in Brazil. They are completely different causalities, which lead to different prescriptions of economic policy.

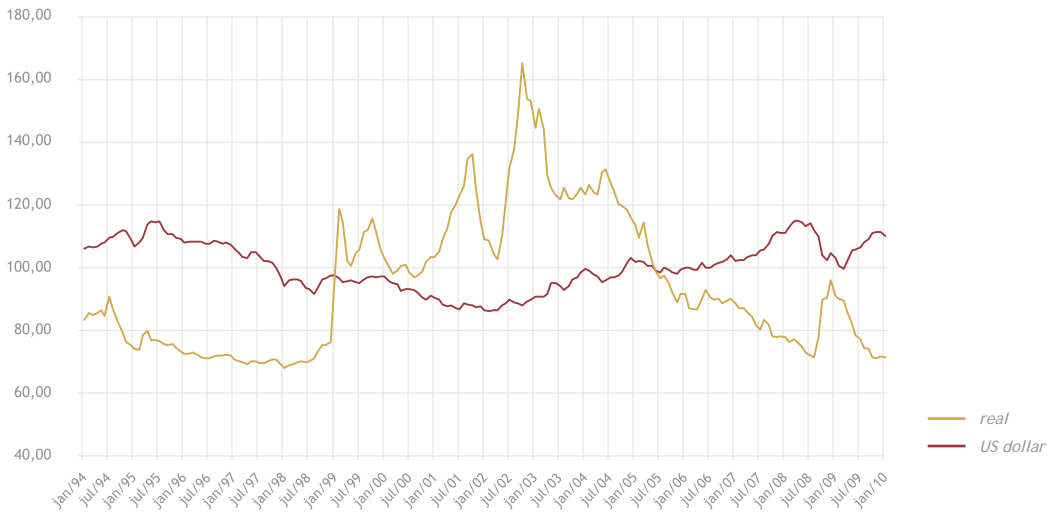
The other issue in dispute is whether the real is actually appreciated. Many economists claim that our exchange rate, even having undergone a very strong appreciation process between 2003 and 2008 is still aligned. Others, using different data and variables, such as relative productivity and barter terms and foreign liquid assets, find evidence that the exchange rate is appreciated.

Some economists even talk about "irreversible reality", referring to our having such a low savings level that we will need to coexist permanently and structurally with an appreciated exchange rate, so that, in order to grow, we depend on the use of foreign savings. This entails another problem. When we speak of an exchange rate in a country that has a history of inflation, we need to be very careful because, when the exchange rate devalues, it begins to create inflationary pressure. This gets worse due to the fact that the Brazilian economy has grown anchored in the expansion of domestic consumption; so, exchange rate devaluations associated with this new consumer pattern certainly pushes up prices, costs and inflation.

Now I will dwell on what many want to know: what is the 2010 exchange rate? I will begin by showing this graph with some tales to tell. One of them is that we have our currency - the real - on a yellow line, strongly valorizing in a currency basket from 2003 to 2008, a movement temporarily interrupted by the 2008 crisis; on the red line we have the dollar in a currency basket. A number of questions are associated with this graph. The first is that it is very common in Brazil to associate our appreciation to the dollar's devaluation. After all, the dollar devalued largely to correct the high deficits in US current transactions, which actually exceeded US\$ 850 billion, more than 6% of the American Gross Domestic Product (GDP). Note from the graph that the real appreciates much more than the dollar devalues.

**Graph 1**

*Behavior of the real and dollar in the currency basket (1994-2010)*



Source: BIS, elaboration EESP/FGV.

**Table 1**
*Appreciation and depreciation of selected currencies (in real exchange rate) 2005-2009*

	Argentina	Brazil	Chile	China	Euro	India	Indonesia	Japan	Russia	South Africa
Three Years Before the Crisis (2005:07-2008:07)	14,03	-24,67	-3,34	-9,61	-7,15	3,52	-12,45	20,43	18,74	22,40
Acute Fase (2008:08-2008:12)	-10,64	18,98	10,07	-6,72	4,38	6,23	15,02	-23,25	-4,12	21,15
The "Adjustment" (2009:01-2009:08)	23,10	-21,57	-10,03	2,68	-0,13	0,68	-10,02	9,60	9,14	29,41
Final Effect of the Crisis (2008/2009)	12,47	-2,59	0,04	-4,04	4,25	6,91	5,00	-13,66	5,01	-8,27
Historical Effect (2005/2009)	26,50	-27,26	-3,30	-13,65	-2,90	10,43	-7,44	6,78	-13,72	14,14

Source: BIS, elaboration EESP/FGV.

Our currency appreciates much faster than the dollar devalues and, when it devalues, it is the same thing. In other words, it has a much more volatile movement than the dollar. Empirical evidence shows that our currency is ten times more volatile than the dollar, and is one of the most volatile in the world. The following table helps understand the strong movements of the real's appreciation and depreciation.

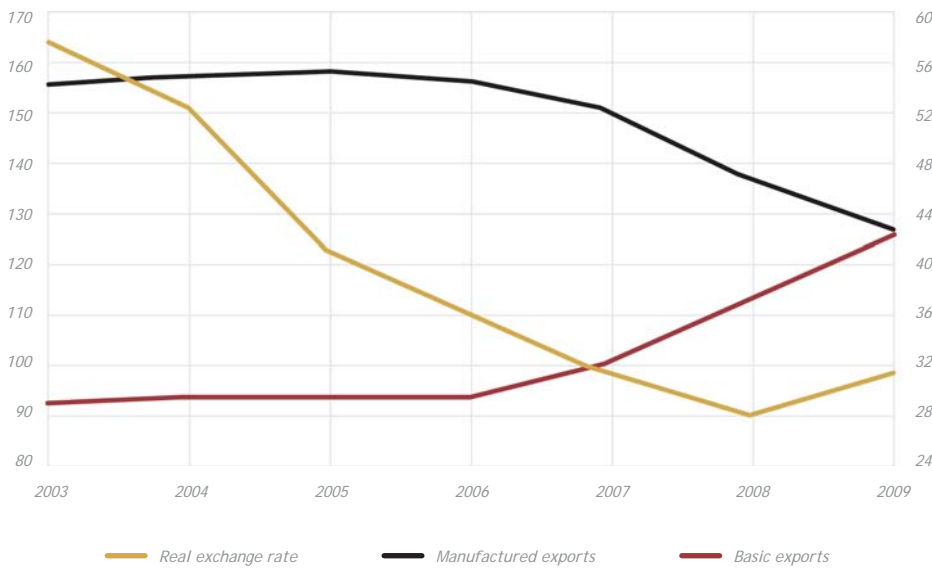
Another interesting point is the curve of appreciation, which in the opinion of many economists is considered a natural movement of the exchange rate. This appreciation movement would not imply, according to these economists, the exchange rate out of alignment. The problem of this kind of assessment of exchange nonalignment has to do with the use of a set of macroeconomic variables and whether the exchange rate is in line with this set of macroeconomic variables. This exchange rate, therefore, may be in macroeconomic equilibrium, but not necessarily in equilibrium with industry.

From this a major discussion emerges, which former Minister Bresser-Pereira has been addressing. So far we know that there is a "primarization" process of the Brazilian economy. Recent studies show that this "primarization" is much stronger in foreign trade than in Brazilian domestic production. Brazilian domestic production has had, moreover, a respite because of the growth of the domestic market, which is booming; we are increasingly demanding durable and non-durable consumer goods; we have good industry focusing on the domestic market; but we are exporting more and more commodities, primary products.

Many now talk of “de-industrialization”. Perhaps this is not the most relevant question, perhaps it is only a problem for Brazilian exports, which can be seen from Graph 2 below. The yellow line shows the path of exchange appreciation; the black line shows the portion of manufactured goods in the total exported; and the red line shows the participation of primary goods in total exports. Everything indicates that Brazilian exports are undergoing a strong “primarization” process. I do not know, however, if it is the primary cause of the exchange rate, and this is an empirical problem - as an academic, I need a more robust study. But the exchange rate is behaving exactly in the same direction as the “primarization” process. Perhaps it involves in this process the absence of industrial policies, or the lack of incentives for investments with greater intensity on technology (even those direct foreign investments), or the difficulties in generating technical progress from research centers and Brazilian universities. The problem may be greater than a mere question of exchange.

**Graph 2**

*Participation of primary and manufactured exports relative to total exports and exchange rate (2003-2009)*



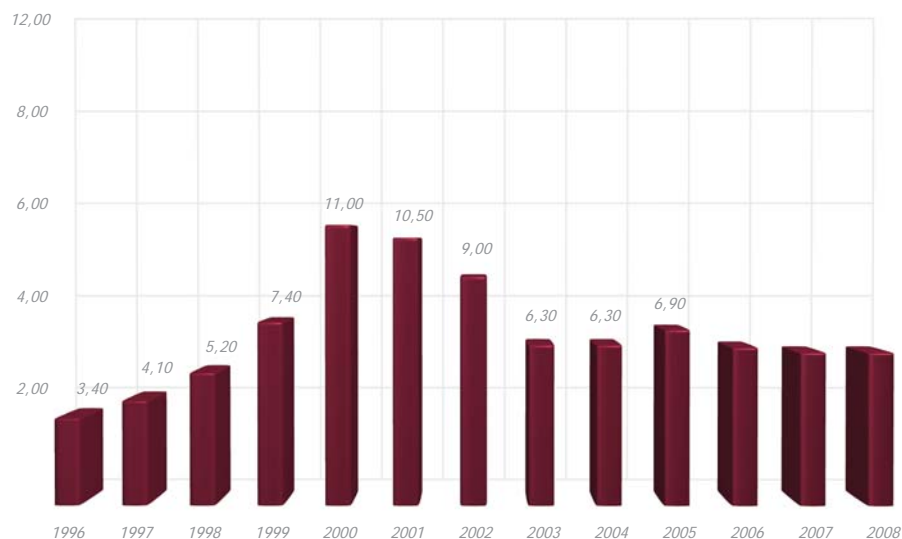
Source: Bacen, elaboration EESP/FGV.

The graph below also shows participation of the high technology exports. We have now reached the scenario in Brazil of larger participation of high-tech exports. Perhaps because of that appreciation movement, our high-tech exports have practically come to a standstill at 6%. In China, this share exceed this 6% ten or twelve years ago, and today in around 35%, even more in fact than the high technology content of US exports, today at 30%.



**Graph 3**

*Participation of high technology exports relative to total exports (1996-2008)*



*Source: Secex / MIDC, elaboration EESP/FGV.*

Maybe this is not a Brazilian natural vocation. Our vocation is to produce intensive goods in natural resources. Where does this desire to generate high-tech intensive goods in Brazil come from? Apparently we are endeavoring to do so but in vain, because this is not our natural endowment of factors, it is not our vocation! Or is it?

I return to the question of the real as one of the currencies that is most valorizing in the world, and also one of the most volatile. In periods of strong global prosperity and periods of acute crisis, our currency is extremely volatile, extremely appreciated. Why is this? Is it because we have very low domestic savings? Or is it because we have, an exchange rate that appreciates too much, and low domestic savings? This answer is not clear, which is why I will provide some data.

“Irreversible reality” is a term from a letter from the Brazilian Institute of Economics of Fundação Getulio Vargas (IBRE/FGV) in February this year. A debate between FGV Rio and FGV São Paulo has been historic. What does a country mean with “irreversible reality”?

From 1947 to 2000, approximately, Brazil had a sharp drop in consumer participation in relation to the GDP and a substantial increase in savings. The decrease in savings has been happening from the 1990s to date, because Brazil now has a strong consumer pattern, associated with income policies, price stability and other factors.

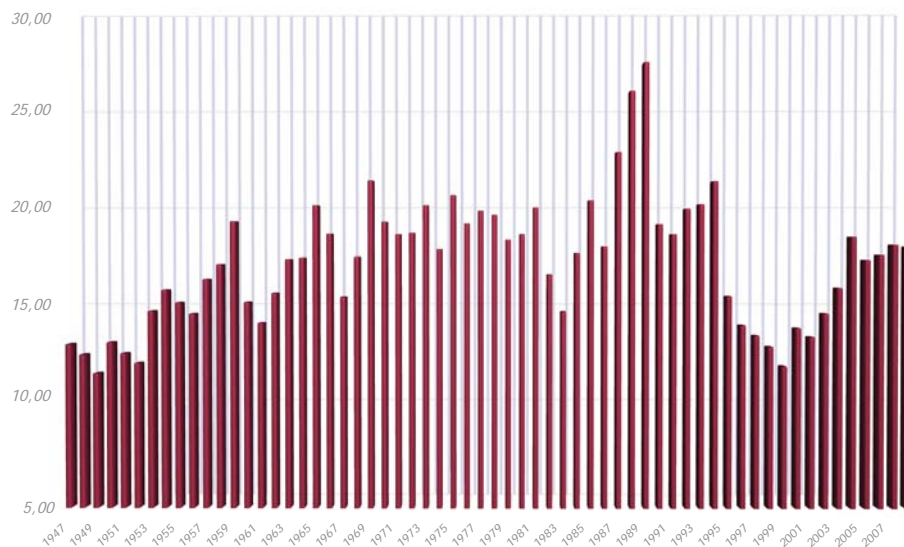
In other words, it seems that our low domestic savings problem is only a recent phenomenon, which did not accompany the Brazilian economy during the stages of its fast growth, as in the 1950s to 1970s. Another key point is the fact that even at a very high level, the level of domestic savings never went beyond 27% of the GDP, while in Asian economies this percentage can be 50% of the gross domestic product.

From 1950 to the early 1980s, Brazilian savings was around 20-24%, and in the 1990s fell to 10%. This break in the level of Brazilian domestic savings was probably caused by this new Brazil that we are striving to understand, with an extraordinary domestic market. Another element is family consumer: perhaps family savings has been dropping because family consumption has been increasing even more.

National savings, on the other hand, has now risen again. In Graph 4, we see the upward indicative in the last lap. Our savings level was 20% and we have reached almost 27%. The savings level rose sharply then plummeted. The question is whether this level of savings is inexorable or structural, as said in the February 2010 IBRE Letter. Is living with the structural deficit of current transactions an inexorable Brazilian problem? From 1947 to 2009, in most of the years, we had a deficit of current transactions in Brazil. Hence the question: why do we have appreciated exchange when we have a deficit?

**Graph 4**

*Participation of high technology exports relative to total exports (1996-2008)*



Source: IBGE, elaboration EESP/FGV.

One question associated with the previous one is the problem of savings complementarity. Empirically, based on econometric estimates in temporal series, there is a correlation between national savings and the use of foreign savings (deficits of current transactions), but not causality in the Granger sense (idea of precedence) between these two variables. In those terms, there is no empirical support for the idea that a low domestic savings level causes the use of foreign savings, or vice-versa. So, why do economists argue about this causality? What kind of economic policy do they suggest? Policies to increase the level of domestic savings to reduce the deficits of current transactions? Or policies to reduce foreign deficits and thereby increase the levels of domestic savings?

Another major discussion is about the level of reserves. There is lively discussion on the optimum level of foreign exchange reserves. We know that the Central Bank can intervene, but these interventions have been restricted. In fact, the Central Bank interventions to control the exchange rate and prevent its appreciation movement are limited in the actual daily financial flow. If it goes beyond this daily financial flow, such interventions are not effective, creating an opposite effect, that is, more appreciation. In the textbook, interventions in a foreign exchange market usually function, but in the Brazilian economy, with the world's highest real interest rate and a well developed derivative market, these interventions have a precise limit. Not that they have not been important (after all, we have already accumulated more than US\$ 230 billion in foreign exchange reserves), but they do not prevent the tendency to foreign exchange appreciation, or because our level of domestic savings is low, or because our interest rate is high. Here economists diverge once again.

It seems that the Finance Ministry can even extend its capital controls in qualitative and quantitative terms, see the recommendations of the economists at the International Monetary Fund (IMF) economists, who show that, in this environment, exchange controls can be used temporarily, because even these controls have problems of efficiency if used in the long-term.

Today we basically have two forces. One to keep the international interest rates relatively low, at least until the middle of next year, given the situation of weaker world economies. Any increase in the near future in US and European interest rates will be insignificant close to the expected rises for interest rates in Brazil. On the other hand, the strong growth in China should lead to the price increase of commodities on the world markets, and increased investments due to the exploration of the pre-salt layer, as well as the World Cup and Olympic Games. All this has an appreciative force on foreign exchange.

On the other hand, the upward deficits of current transactions are alarming, moving to 50 or even 60 billion in the next year, which should also exceed the level of foreign direct investments. In other words, they could not be financed through the balance of payments accounts. It is still worth considering the effects of a presidential election year on Brazil that in 2002 were by no means negligible for the movement of the exchange rate. For 2010, everything indicates that it will be nothing like 2002 but, even so, the presidential candidates can cast a little doubt on market expectations about possible alterations in the directions of the economic policy.

Finally, what tendency prevails? In my assessment, the appreciation movements seem to prevail over those of foreign exchange devaluations, however temporarily they may occur. Thus, foreign deficits tend to worsen, which may in the mid-term be detrimental to Brazilian economic growth.

This is why I believe that policies that have even more control over the exchange rate, keeping the current inflation targets, can be important for sustaining mid-term growth. ■

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- [5º] Libertad y Desarrollo - Chile
- [6º] Center for the Study of State and Society - Argentina

## Top Think Tanks Internacionais (exceto EUA)

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- [17º] Kiel Institute for World Economy - Alemanha
- [28º] **Fundação Getúlio Vargas - Brasil**
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