Playing Monopoly with the Devil

Playing Monopoly with the Devil

Dollarization and Domestic Currencies in Developing Countries

Manuel Hinds

A Council on Foreign Relations Book

Yale University Press

New Haven and London

A Council on Foreign Relations Book

Printed in the United States of America.

Library of Congress Cataloging-in-Publication Data

Hinds, Manuel.
Playing monopoly with the devil : dollarization and domestic currencies in developing countries / Manuel Hinds.
p. cm.
"A Council on Foreign Relations Book."
Includes bibliographical references and index.
ISBN-13: 978-0-300-11330-3 (cloth : alk. paper)
ISBN-10: 0-300-11330-7 (cloth : alk. paper)
1. Money—Developing countries. 2. Currency question—Developing countries. 3. Monetary policy—Developing countries. I. Title.
HG1496.H56 2006
332.4'91724—dc22 2006006465

A catalogue record for this book is available from the British Library.

The paper in this book meets the guidelines for permanence and durability of the Committee on Production Guidelines for Book Longevity of the Council on Library Resources.

10 9 8 7 6 5 4 3 2 1

Council on Foreign Relations

Founded in 1921, the Council on Foreign Relations is an independent, national membership organization and a nonpartisan center for scholars dedicated to producing and disseminating ideas so that individual and corporate members, as well as policymakers, journalists, students, and interested citizens in the United States and other countries, can better understand the world and the foreign policy choices they face. The Council does this by convening meetings; conducting a wide-ranging studies program; publishing *Foreign Affairs*, the preeminent journal covering international affairs and U.S. foreign policy; maintaining a diverse membership; sponsoring independent task forces; and providing up-to-date information about the world and U.S. foreign policy on the Council's website, http://www.cfr.org.

The Council takes no institutional position on policy issues and has no affiliation with the U.S. government. All statements of fact and expressions of opinion contained in its publications are the sole responsibility of the author or authors.

Para Carmen Beatriz, Eleonora y Eva María
Y para sus esposos,
Martin, John y Matthew,
que son también mis hijos
Y para sus hijos, mis nietos
Y Para Marielos

Contents

Acknowledgments

I am indebted to the Council on Foreign Relations. While writing this book, I was the Whitney H. Shepardson fellow at the Council, and benefited from the encouragement and comments of many of its associates. Chief among them, I would like to thank Council President Richard N. Haass and Director of Studies James M. Lindsay for their support, as well as Benn Steil, then acting director of the Council's Geoeconomic Center, who first invited me to become a fellow and guided me through all the steps needed to write and publish a book under the Council's imprint. He also provided valuable comments and ideas throughout the process. I also would like to mention the support I received from Janine Hill, the institution's associate director of studies.

Part of the process involved the formation of a study group to read my draft, discuss it, and provide comments in a meeting that convened on February 8, 2005, at the Council's headquarters in New York. The meeting was quite lively with useful comments and exceeded the three hours allotted for it. The group met under the competent chairmanship of Sergio J. Galvis. I am quite grateful to

all of them for the time they took to read the draft and for the excellent comments they provided to improve it.

Before the study group, I presented the main ideas contained in the book to a distinguished audience on November 17, 2004, also at the Council's main offices. The meeting was chaired by John H. Biggs and the attendees were Wilder K. Abbott, Henry H. Arnhold, Frederick C. Broda, Robert J. Chaves, Jill M. Considine, D. Blake Haider, Jon K. Hartzell, J. Tomilson Hill, Nisha Kumar, Herbert Levin, Fritz Link, Michael S. Mathews, Irene W. Meister, Charlotte Morgan, Brian D. O'Neill, Diego Perfumo, Michael P. Peters, Thomas L. Pulling, Susan K. Purcell, Frank E. Richardson, Arthur M. Rubin, Benn Steil, Scott L. Swid, Paul A. Volcker, and James D. Zirin. The strong support I received from the Honorable Paul Volcker meant a lot to me.

In addition, I received detailed written comments from Millard Long and from one anonymous referee appointed by the Council.

Prologue Playing Monopoly with the Devil

This is the tale of what happened to Dema Gogo, ruler of a poor country in an underdeveloped area of the world, when he discovered that he could issue his own currency. The tale starts with a conversation he had with the Devil himself, the day after his inauguration as President of the Republic. Drinking a glass of cognac and smoking a Cuban cigar on the veranda of the Presidential Palace, enjoying the sight of the luscious tropical plants that grew in the garden one floor below, he was pondering what he could do to assure his reelection five years down the road. He had many ideas but no money. It was in that placid moment that he saw a familiar character approaching him.

"Hello, Devil!" he said. "Join me in a cognac and a cigar."

"Hello, Dema!" said the Devil, helping himself to a glass of cognac and taking a seat alongside the ruler, so that both were looking at the garden. Sitting in this way, seeing not each other but instead

This prologue was first published in *International Finance*, Spring 2005. It is reproduced here with permission from Blackwell Publishing Ltd., Oxford, UK.

some common object, gave both of them a sense of intimacy, of common purpose.

"I have a proposal for you," said the Devil.

"A proposal? Maybe you mean a deal. That's what you're known for."

"A deal? I wouldn't dare. Your campaign said that you are incorruptible," the Devil said.

"Well, don't pay much attention to campaign language," said Gogo. "A politician always listens to proposals. That's politics, you know. I'd sell my soul for a reasonable price—say, the combined price of all the assets in the country. No credit, mind you. Cash only."

"I don't mean to sound offensive, Mr. President. I'll remember your kind offer but it'd be too much for me at this moment. Not much cash on hand at the moment. You'll understand."

Gogo laughed. "We share that problem. Let's drink to it!"

"If you'd allow me to address that problem," said the Devil, sipping some cognac, "let me tell you that I was just with Dr. Werner von Bankrupt down below, in my dominions. He has just arrived. Bright individual. Not quite reliable, though. He was a macroeconomist when on earth, you know."

"They're worse than us politicians. Never repeat this, please."

"I know, I have plenty of them down there. A great team, really. They have accomplished many a feat for me," said the Devil. Then he continued, "Well, in any case, he had a bright idea. I told him about my cash problems, and he said that I should issue Hell's own currency. I told him I didn't need a local currency because there are no transactions in Hell. I only needed cash for my operations abroad. That means dollars, you know. But, then, when he explained his ideas to me, I thought that maybe you could use them. You should issue your own currency, the gogo, with your face on each coin and bill."

"Oh, that's not such a brilliant idea. What's in it for me to print my own currency? I'm not quite sure I want my face all over the place. It's one of my weaknesses, you know, according to my Miami-based campaign advisors."

"Dr. von Bankrupt explained the benefits you could get. This is what he said. Imagine your country is a gigantic Monopoly game. You use Monopoly money to play Monopoly, right? Now imagine you force people to give you their dollars to get the money they need to play in the country. You get the dollars, they get Monopoly bills, and you can print as much as you want! It'd be as if you had the Monopoly bank for your exclusive use! You could land on Boardwalk with hotels and not worry at all. You just take money from the bank. If you want to buy property, just take more money. Get it? And on top of that, you can use their dollars! You can deposit them in New York and get interest on them. And that's real money. Dr. von Bankrupt told me it's called seigniorage: the ruler's right to extract an income from allowing people to use the local money. You win, Dema, no matter what!"

Gogo, openmouthed, turned his head to look at the Devil. "That's a brilliant idea!" Then he turned his eyes up, thought for a moment, and asked, "But what's in it for you? You've given it to me and I've signed nothing!"

The Devil looked at him with sweet innocence. "Consider it a bonus for a long and profitable relationship."

And so Dema Gogo created the gogo, and issued a decree mandating that all transactions in the country had to be denominated in the new currency. A central bank, managed by the eminent financier Don Santiago De la Insolvencia, was established to issue the gogos and manage the dollars obtained in the operation. Governor De la Insolvencia established the rule that the Central Bank would issue gogos only when the citizens surrendered their dollars to it. The exchange rate was 1 to 1, so that the Central Bank held one dollar for every gogo in circulation.

Dema Gogo was very happy when he saw the enormous amount of dollars going into the coffers of the Central Bank as the citizens exchanged them for gogos. His happiness turned into fury, however, when De la Insolvencia told him that he could only use the interest on the dollars, and not the total amount, for his pet projects.

"Why not the entire amount?" asked the ruler, suspecting that the governor was playing a trick on him.

"Because we have to hold reserves of true dollars, Mr. President. This Monopoly board is not self-contained. Not all the things that people need can be bought inside the board. We have to import things, people need to travel, and for this they need real money. Nobody takes gogos if not forced to do so. Therefore, we have to be ready to sell dollars back to them whenever they give us gogos."

"But I still can print as much local money as I want!" said Gogo, recalling what the Devil had told him.

"Not quite," said the governor. "The more you print, the more economic activity you have, and the more imported things are needed. So, the more money you print, the more dollars you need."

"So, what's the advantage of having gogos?"

"You still get the interest on the real dollars that remain in the country, which amounts to 5% of these. That's a lot of money, Your Excellency. The interest is so important that it has a name. It's called seigniorage: the ruler's right to charge for the use of money inside the country."

"I don't want to scale down my projects by 95%!" roared Gogo.

He called the Devil again. "This is a fraud," he said, "a mirage! I'm only getting 5% of the Monopoly bank."

The Devil smiled. "That's because Santiago De la Insolvencia is out of date. He established what's known as a currency board. This is not what Dr. von Bankrupt had in mind. De la Insolvencia is ignoring something that the experts call the 'float.' Not all the money leaves the country; there is always a certain amount that is left inside, which they call the float. You can spend that money, sure that nobody will ever withdraw it. Issue gogos against that float, and you'll see that nothing will happen, except that you'll be able to spend more money."

"And how much would that float be?"

"Von Bankrupt estimates that, on average, it's only 20% of the reserves that fluctuate. You can use the other 80%."

"I'm starting to develop a liking for you, Devil," said Gogo.

"You've always liked me. I know it in my heart," answered the Devil.

Gogo called De la Insolvencia and told him to get rid of the currency board and immediately issue a loan to the government equivalent to 80% of the reserves. The loan would finance the Gogo bridges, the Gogo roads, the Gogo statues, and so on—all the things that Gogo had dreamed of building to perpetuate his memory and win the next election. Within a few months, all these works were started. Not only that, the country was awash with money and a real estate boom was in progress. The Property Owners' Association gave him a golden decoration. The ruler was satisfied and enjoyed his late afternoon cigars more than ever.

Governor De la Insolvencia, always apprehensive, called him to say that dollar reserves were going down.

"Who cares, De la Insolvencia? Don't be a chicken. We knew they would decline. It's the float! Everyone loves gogos now!"

Gogo loved to say *float*. It was a technical word, like *seigniorage*, but he couldn't pronounce the latter.

One day, however, the Minister of Public Works, Mr. Rodrigo Diez Porciento, visited him. "Your Excellency," he said, "I'm having problems buying property and materials. Private citizens are demanding those as well, and they are offering increasingly higher prices. There have been a lot of gogos going around since the currency board was terminated. To ensure that we can buy these properties and materials, we have to offer higher prices."

"Don't worry, Diez Porciento, just pay a little more than the citizens are offering. That will suffice."

A few months later, Diez Porciento came back. He showed him a ledger with numbers. "Your Excellency," he said, "I come with bad news. Costs are outstripping our budgets considerably. We won't be able to finish any of your projects if we don't get more money. We're 25% short."

"How is that possible? I told you to pay only a little more than the citizens were offering for what you needed. Now you show me a 25% shortfall!"

"I've been paying just a tad over the private sector bids. But those bids have been increasing steadily. To outstrip them, I have had to bid increasingly larger amounts." Gogo called the Central Bank governor.

"Your Excellency, I've been trying to reach you. We're losing more reserves than we thought. The country is importing more than ever. I'm worried we might lose more reserves than we can afford. Also, with the continuous monetary creation, prices of everything are going up and people are protesting. They're calling your policies 'inflationary.' Could you tell Diez Porciento to cut his expenses?"

Then Gogo read a statement the Property Owners' Association had published in the newspapers. "President Gogo is playing the 'One million dollar cat for two half-a-million dollar dogs' game on us. We sold our properties at very high prices, but when we went into the market to replace them we found that all properties were equally expensive, and that the higher prices were only a mirage. We are as poor as ever."

Gogo summoned the Devil again. "Look at what's happening here! We've got inflation and we're losing reserves. Now Santiago De la Insolvencia says we should cut back expenditures while Diez Porciento says he won't be able to finish my projects unless he gets more money. I knew I couldn't trust you!"

The Devil feigned offense. "Dema, old friend, how can you tell me this? Dr. von Bankrupt says that all you have to do is devalue your currency."

"Devalue? What do you mean?"

"Today, you're selling one dollar for each gogo when people import things. Tomorrow you should charge two gogos for a dollar. People won't be able to buy all the dollars they're buying now."

Gogo looked at the Devil with wild eyes. "You're right, Devil! That's the solution."

And the next day he devalued the currency. Demand for dollars dropped immediately. Early in the morning, he got a call from the president of the exporters association. "We're very happy, Your Excellency. The gogo-equivalent of our export revenues has doubled. Since salaries have not gone up, exporting has become more profitable."

The ruler was elated, until he got a call from Ms. Tessa Bono, the Minister of Finance. "Your Excellency, we're in deep trouble. I enthusiastically endorsed the devaluation, but now I have realized that the burden of the external debt has increased twofold. Yesterday, we needed one gogo to pay one dollar, now we need two gogos, and our taxes are all in gogos. We have to keep on inflating the economy, so that our tax revenues increase enough to service our debts. What I'm saying is that you must tell the Central Bank to lend me more money. Of course, you can't devalue again. Just inflate, don't devalue. If you do, the dollars will be dearer again."

"Happiness is never complete," thought Gogo, one second before he got a call from Mr. Jaime Hoffa, the Minister of Labor.

"Your Excellency, we're facing a labor revolt. The workers claim that we've effectively lowered their salaries with the devaluation and demand an immediate adjustment, which would mean doubling their wages, so that they remain the same when measured in dollars."

Then it was the Central Bank governor's turn. "Your Excellency, interest rates are going up, way up. They've reached 100%, almost twice those of Brazil. Banks say they have to increase them because, if they don't, people will take their deposits abroad. They think you'll devalue again. We can't afford this capital outflow. We don't have enough reserves, as you know."

"Reduce printing. Do as you want," said Gogo, tired of all this currency chaos.

The day proceeded with a call from Diez Porciento. "Your Excellency, Santiago De la Insolvencia tells me that you told him to stop lending to the government. Tessa Bono tells me that without such lending she can't give me the money I need. I'm sorry to say that we need further budgetary increases. The cost of all imported materials has doubled, and they represent a high percentage of the cost of new construction. Just think of oil."

Tessa Bono called immediately thereafter. "Your Excellency, the fiscal deficit is increasing rapidly because of the soaring interest rates. Our Treasury bills are paying 105%. We can't afford this."

"Sir, there is a demonstration coming to the Presidential Palace," interrupted his Chief of Security. "They say they want your head."

At 5 p.m., the ruler called the Central Bank governor and commanded him to increase the printing of gogos in order to lend more resources to the government. Immediately thereafter, he decreed that all salaries would be increased by 100%, effective immediately.

That solved most of the problems of the day, except the interest rates. Gogo was happy he had been able to find a solution without consulting the Devil. He then took a week's vacation on the beach.

When he came back he found the Central Bank governor waiting for him. "Your Excellency, we have a serious problem. Since we increased salaries, all prices have increased and we're in the same position as before, when we originally devalued the currency. Dollars are twice as expensive as they were before the devaluation, but incomes in gogos are also twice as much as they'd been before that date. We're losing reserves again, and quickly. Interest rates are also increasing rapidly, not because we've devalued but because people *think* we will devalue. Some of them are taking their money abroad, regardless of the interest rate. We have to devalue again."

Gogo looked at the governor. "But, De la Insolvencia, if we devalue today, we will have to devalue again tomorrow. This is like bicycling downhill without brakes."

"Yes, Your Excellency, I suppose it is."

Gogo's eyes went down to the newspaper that his assistant had left on his desk. The president of the exporters association was in the headlines. He looked indignant. The paper quoted him: "The government's policies are reducing the competitiveness of the country. Our labor costs are increasing fast and the prices of our exports remain the same. We demand another devaluation, and soon."

On the second page, there was a picture of the national labor leader. He also looked indignant. He was saying: "We'll strike if the government devalues further and doesn't increase our salaries proportionally."

Gogo steadied his nerves. He would talk with the Devil. The Devil always had solutions. He wished the Devil could be the governor of the Central Bank. It was a pity that he couldn't, on constitutional grounds. The Devil wasn't a national. He met all other requirements.

"Of course I have a solution," said the Devil. "Float the currency."

"What do you mean?"

"Don't have any official price for the currency. Just let the market set it. If you do this, you can keep on printing as much money as you want without having to announce that you'll devalue the currency. People selling and buying gogos will set that price in every transaction. Nobody will blame you."

The next day Gogo announced the flotation of the gogo. International institutions praised him. The *Timely Times*, the most influential newspaper in the country, published an editorial saying: "Our eminent President Gogo has entered the realm of enlightened rulers by adopting the most flexible of all monetary regimes. Now, according to what our macroeconomic advisors say, we will be free from the comings and goings of the international monetary markets. We are, at last, sovereign in monetary matters. We can exert what the experts call 'monetary policy' and let the market take care of itself."

Gogo felt happy again. But not much time passed before his calm was interrupted by a call from the governor of the Central Bank. "Your Excellency, our currency isn't floating but sinking. Inflation just keeps on increasing and interest rates are doing the same. Since the currency keeps on devaluing, the interest rates are too high for lending. Only bad customers borrow at these rates, and we face the prospect of a financial crisis, as bad loans are accumulating. At the same time, savers are taking their money abroad. We have to reduce the cost of money and give confidence to the people."

Gogo had never thought of such a possibility. "I don't want to go back to the Devil. I get into deeper trouble every time I do it. Besides, I don't want to give him the impression that I can't manage the country without his advice."

"I have a solution," said Mr. De la Insolvencia, "let's allow savers to deposit their money in our banks in dollar accounts. With that, they'll be protected against inflation and devaluations. The deposit interest rates on those accounts will fall. Then the banks will be able to lend at lower rates to good companies, in dollars of course."

This was done. Deposits increased in the dollar accounts, which paid interest rates much, much lower than those in gogos. People, however, didn't want to borrow in dollars, because as the gogo devalued the value of their debt increased in gogo terms. This time, Gogo forgot his pride and called the Devil again.

"Don't worry," said the Devil, "they'll soon discover that domestic inflation will allow them to repay their loans. If the currency falls by 100% and wage inflation is 100%, they can do it. Since the currency floats, it'll happen automatically."

Gogo felt happy, but he had the eerie feeling that something was wrong.

A voice told him, "You have gone back to square one. This is the same as not devaluing and having zero inflation. It is the same as when you didn't have a currency of your own, except that everything is more complex now."

Still, he called Mr. De la Insolvencia. He was already speeding downhill and there was no point in wishing he had never started doing so. "Preannounce the rate of devaluation, which will be the same as expected inflation, 100%. This will be the rate at which you'll create money," said Gogo, repeating the detailed instructions he had received from the Devil.

The Governor was impressed. "This is what the international organizations say is best."

The Minister of Public Works called one month later. "Your Excellency, I need more money to finish the projects. Inflation is running ahead of me. When I try to buy things, prices increase before I have a chance to pay. One of my advisors tells me it's called rational expectations. At this rate, we won't be able to finish the public works in time for the election."

Gogo was seriously worried. He called the Devil again.

"Give them an unexpected shock to catch them off guard, something they wouldn't expect," the Devil said. "Give Diez Porciento a lot of money, so that he can finish the public works, but time this move so that the effect on inflation is delayed until after the election. This is called lags, you know."

In spite of the reassuring tone of the Devil, it was during those days that Gogo began to have a recurring nightmare of dismemberment. He was riding in between two bicycles, one called inflation and the other devaluation, and he had to keep them going at the same speed to avoid disaster. Later on, he began dreaming that the number of bicycles increased. In one of these dreams, he was holding inflation and devaluation with his hands, while he kept the other two going with his legs. Those were called interest rates and the debt service abroad. The worst nightmares came when he became an octopus, with a bicycle tied to each of his tentacles, which by now controlled the rate of capital flight, the spreads between loans denominated in dollars and gogos, the gains and losses to banks resulting from different rates of devaluation, the acquisitive power of wages, the levels of international reserves, lags, floats, rational expectations, seigniorage, unexpected shocks, and so on.

With only two months to go until the election, Santiago De la Insolvencia called again. There was anxiety in his voice. "Sir, we're in a mess. People can't repay their gogo debts. Interest rates are too high because people think that the rate of devaluation will accelerate. They can't repay their debts in dollars because inflation is depressing business and, for this reason, the gogo value of the dollar debts is increasing faster than their incomes with each devaluation. Depositors are changing from gogos to dollars and our reserves are plummeting. The black market is booming and there the price of the dollar is going up very fast. Now the official exchange rate is one billion to one, and in the black market 1.5 billion to one. I think the risk of a banking crisis is high and we don't have enough dollars to avoid it."

"But, why? We have guaranteed that we won't devalue the currency faster than 100%. And call me 'Your Excellency'!"

"The problem is that people don't believe that you'll be able to honor your word—Your Excellency. The crisis will explode if the public perceives that the government doesn't have enough dollars to back the gogos."

The Devil was back. "Don't worry. The Ministry of Finance should issue short-term dollar-denominated debt and pass the proceeds on to the Central Bank. This will give you the foreign exchange you need. This is more or less what Mexico did in 1994."

Since Gogo didn't know what Mexico had done in 1994, and didn't know what happened there afterwards, he felt optimistic. The Ministry of Finance issued 30-day notes paying 12% in dollars while U.S. Treasury Bills were paying 2%. Minister Tessa Bono, in a fling of vanity, called them Tessabonos. The government got a new influx of dollars.

Three days before the election, however, there was an editorial in the *Timely Times*. "As this paper went to print, the gogo fell off its predicted course by more than 200% and then went into a free fall in the black market, which is the only working one in the country, as the government has stopped selling dollars. Five years ago, we had a stable currency and, even if our growth rates were not sensational, we were making steady progress. Now, we have runaway inflation; there are no dollars to pay for our imports; interest rates are sky high; the value of the private sector dollar debts to the banking system is ballooning as the currency devalues, leaving the private sector as bankrupt as the government; and the government has defaulted on its dollar-denominated Tessabonos. Of course, the banks have plenty of gogos, which are printed by the Central Bank on demand, but cannot deliver what their depositors want: dollars. So much for the much advertised capacity of the Central Bank to act as a lender of last resort. We supported Gogo five years ago. We want to compensate the country for our mistake by offering a prize for his soul: one trillion gogos."

The phone rang as Gogo finished reading the editorial. "Gogo," said Mr. De la Insolvencia, "we have a run on the banks. People believe that the currency will devalue by more than any amount that you announce and they continue changing their gogos into dollars, now at a terrifying rate. I'm on board a plane that has just taken off, headed to a place I prefer to leave unknown. When I left, your reserves were fifty cents. There are riots in front of the banks. Please accept my resignation."

Gogo heard a deep rumble. First it was a faraway sound, but soon he realized that it was approaching him fast. The floor was vibrating with increasing force. Then he heard the horrible sound of windows breaking and pounding footsteps, thousands of pounding footsteps, running up the stairs. "What's going on?" he asked his assistant.

"A mob wants to get you," she said, rushing to the presidential helicopter, which took off as soon as she boarded, with Gogo's entire corps of bodyguards and the secret stash of dollars that Gogo had kept in his office for dire situations like these.

Gogo jumped into the garden and ran quickly, looking for a hideout. He found it inside a little grotto where he used to have drinks with friends. He sat there for a moment, head in hands, and then let out a muted cry. There was someone else there. It was the Devil.

"You really scared me!" he said.

"What's going on, my friend?" asked the Devil, smiling maliciously.

"A mob is chasing me."

"What did you do to them?"

"Nothing! They're unreasonable. They don't understand how difficult it is to manage the macroeconomy."

"What do they say?" asked the Devil.

"Look!" said Gogo, handing him the wrinkled page of the newspaper with the editorial printed on it.

"What can I do?" asked Gogo while the Devil read with deep concentration. "How can I make people trust my currency?"

"Oh, you should just abolish it at this point," said the Devil, "although I suppose it's a bit late for that." And before Gogo could respond, the Devil walked to the entry of the cavern and shouted, "He's in here!"

A startled Gogo ran from the grotto but, in his rush, stepped on a slippery stone, fell backwards and broke his neck. He died instantly.

Gogo woke up in another world. He expected to see a Court of Judgment, with God presiding, but he saw only his old friend, the Devil, who was tying him up with steel ropes while giving instructions to the minor devils as to the particular furnace he should be carried to. Once he finished tying him up, the Devil put a sign on top of him. " 'Devil's property," it said.

"Hey!" said Gogo, "I deserve a trial! I never sold my soul to you."

The Devil smiled. "Last night I bought out the *Timely Times* and, as you know, I tendered a public offer for your soul, which was delivered by the mob that chased you this morning. I paid a trillion gogos, which, when added to the trillion I paid for the newspaper, Dr. von Bankrupt tells me, is the combined price of all the assets in your country."

"I never signed anything!"

"There's no need for such trifling formalities. I have you on tape saying that you'd sell me your soul if I paid that amount. I just exercised the option."

As Gogo was being carried away by the minor devils, the Devil told him, "At today's exchange rate in the black market, I paid about a buck-fifty. That was a fair price."

Introduction

Why should a developing country surrender its power to create money by adopting as its own an international currency?

This book addresses this question.

For most economists, the book should be very brief, a few paragraphs long. It should limit itself to state the conventional answer to this question, which would be that a country should never surrender this power. Such an answer would be based on impressive theoretical and institutional foundations.

Theoretically, there are arguments on trade, finance, and fiscal management grounds. On the side of trade, the argument is that flexibility to modify the exchange rate allows domestic authorities to shift domestic relative prices by devaluing the domestic currency in such a way that imports are discouraged and exports encouraged. This, an advantage in itself, also gives countries resilience against external shocks, such as negative turns in the terms of trade and natural disasters. On the financial side, the arguments are several. All are linked to the ability of central banks to print money and change the price of the currency, allowing them to keep their interest rates low even if they are high in the international market. The ability to print money would also ensure a plentiful supply of credit even if credit is tight abroad. Most important, the power to create money turns central banks into lenders of last resort when a crisis threatens the domestic financial system. On the fiscal side, the argument is that having a domestic currency allows the government to charge a tax on demand for money, called seigniorage. Whenever demand for money increases, the government can print it and spend the proceeds. All these theoretical advantages are lost when a country dollarizes. Moreover, the ultimate argument against dollarization is that a country can choose not to print money without having to resign from its ability to do so in the future.

The sad story of Dema Gogo's adventures contained in the prologue contradicts all these predictions. To Dema Gogo's chagrin, the local currency brought about high interest rates and runaway inflation, and far from turning financial resources plentiful, these dwindled as he printed more money. Quite dramatically, he was brought down not by an external shock but by one that he himself had engineered domestically through the manipulation of his own money. In addition, his central bank, which was supposed to be the lender of last resort, failed miserably when it ran out of the currency that people wanted when running against the banks: dollars.

Devil aside, his story is quite realistic. It contains the main elements of the path that many developing countries have taken to financial crises and political upheaval throughout their histories. Its realism illustrates the wide difference that exists between the sedate predictions of conventional theories and the crude monetary realities faced by people in those countries.

Many would suggest that the ultimate source of Gogo's fall was not the creation of a local currency in itself but its abusive manipulation to finance the government. This is partially true. Yet, the existence of a local currency not only provided the temptation to abuse it but also gravely complicated matters as the exchange rate acquired a dynamic of its own. While Dema Gogo was fiscally irresponsible and kept financing his pet projects throughout his adventures, he increasingly had to take actions to compensate for problems that the devaluations themselves were spurring in all dimensions of the economy. Each of these actions created new complications until everything got out of control.

Dema Gogo learned this lesson the hard way. Before he decided to create his own currency, things were quite predictable, even if they were not great. The economy was transparent. Prices gave reliable signals of the value of things. He knew that he had to increase taxes if he wanted to spend money. Debtors, including the government, knew the burden that debts imposed on their incomes. If overextended, they could plan to adjust their debts in a linear fashion, reducing their expenditures by a certain amount. They had no sudden increases in the amount they owed.

Suddenly, when he created his own currency, Dema Gogo found himself living in a nonlinear world where all the magnitudes that had been certain now moved wildly with each shift in the exchange rate. He also discovered that he had become a prisoner of the law of unintended results, as each of the actions he took to manage the exchange rate could have negative impacts on multiple variables. These included, among others, the level of output and the rate of inflation, the interest rates, the level and currency composition of bank deposits, the debtors' ability to service their obligations, and the health of the financial institutions. All these variables reacted so pronouncedly to movements in the exchange rate that he had to take all these and many other things into consideration each time he decided to pursue a certain monetary or exchange rate policy. As the population's standard of value and the value of the gogo drifted apart, the reactions of the population to these policies became increasingly weird, to the point that Gogo saw the effects of the same causes reverse themselves. In this way, he watched how increasing the amount of money in circulation led initially to a boom and then to depression. Interest rates increased when he devalued and when he did not, depending on what people thought would be his future devaluation policy.

With time, the unintended reactions of the economy to Gogo's monetary manipulations became treacherously sudden. Before the introduction of the gogo, for example, a bank with bad loans representing, say, 5 percent of its portfolio, knew that it had a problem of that magnitude and could plan its solution with reasonable certainty. With the gogo and its exchange rates in place, this amount could explode to 20, 30, or 50 percent as a result of a single devaluation. This happened, if not because their loans were denominated in dollars, then because the interest rates on the gogo loans increased so much that the borrowers could not afford to service them. Thus, as it has happened in so many developing countries, banks could find from one day to the next that they were bankrupt, not by actions they have taken but by decisions made in the central bank.

Dema Gogo realized that the divergence between the inflation and devaluation rates introduced serious complications because the gogo was no longer the population's standard of value. Then he tried to keep the two rates going at the same pace, although he did not understand why keeping the two variables moving at the same pace was better than stopping both of them.

Yet, keeping the balance of the rates of change was also hard because the possibility of having the rates of inflation and devaluation diverging opened the door for political pressures coming from groups that could benefit or suffer from such divergence. In this way, for example, workers found that just keeping the level of salaries constant in real or dollar terms required continuous pressure on the government to keep wage inflation ahead of devaluations. At the same time, he had the pressure of the exporters, who demanded reductions on the real wage, which required higher rates of devaluation than inflation.

These problems are alien to the current generations living in developed countries, even if their currencies routinely devalue and appreciate against each other. Being large and widely diversified economies, the main impact of currency depreciations on their economic activity is a substitution, not an income, effect. That is, if the dollar depreciates relative to the yen, producers using inputs imported from Japan can replace them with inputs produced in the United States at similar prices and quality. People can realize this substitution in consumption as well. For this reason, the inflation rate does not increase with currency depreciations and wages, while reduced in foreign currency terms, remain constant in real terms. Thus, the currency retains its domestic value even if losing it in terms of other currencies for very long periods. Because of these reasons, people in developed countries think of value in terms of their own currency, so that the public in general does not even notice the fluctuations of the exchange rate. By contrast, developing economies are weak and poorly diversified, so their ability to replace imports with local products is very limited. Therefore, the domestic currency prices of imported goods increase when there is a devaluation. The main effect is an income, not a substitution effect. Because of these reasons, people in developing countries use the domestic currency but think of value in terms of a foreign one, most often the U.S. dollar.

This difference is crucial to understand the monetary behavior in developing countries. People in developed countries have two services provided in one single currency—the standard of value and the means of exchange. In developing countries, these two services are divorced, the first being provided by a foreign currency and the second provided by the domestic currency. Because of this divergence, people think in terms of ratios of domestic to dollars prices and adjust their behavior to the rates of change of these ratios. This gives the local currencies of developing countries their nonlinear behavior, which in turn results in the endemic financial and macroeconomic instability that characterizes most of them. That is why, for example, savers demand a compensation for the risk of devaluation in the interest rates in local currencies. The result is that, rather than falling, equilibrium interest rates tend to increase when the currency depreciates. The ultimate loyalty to a foreign standard of value is also the reason why people in these countries rush to exchange their local currency for dollars whenever there is a crisis or the prospect of one. This does not happen in developed countries. If banks fail, people rush to get their deposits cashed, but they do not turn around to buy foreign currencies with them, as they do in developing countries. The difference is that people in the developed countries do not think that the failure of a bank will negatively affect the currency. People in developing countries do, and frequently the reason why they withdraw their deposits from the banks is not that they are afraid that the bank will fail but that the currency will be devalued. They want their deposits to buy dollars, not to put their local currency in another bank or to store it under their mattresses, as they do in developed countries.

The costs of the divorce of standard of value and the local currency are staggering even when countries do not slip into crises. These costs include high interest rates, very low levels of financial intermediation, high dependency on foreign credit to finance their long-term investments and, ironically, high vulnerability to external shocks. Sadly, countries that desperately need financial resources to finance their development lack access to the international financial markets, where they could get resources cheaply at the long maturities needed for productive investment. They are also left out from the services now offered by the globalized financial markets. This happens because creditors and investors get scared at the possibility of currency crises and the endemic instability of domestic currencies. It also happens because governments in developing countries are quite reluctant to allow the private sector to get too close in touch with the international markets. Their reluctance comes from two sources. First, they are afraid that allowing this would create dangerous exchange rate risks. Second, having such access would free the population from the grip of the currency monopoly they enjoy inside their countries. Governments would then turn around to make sure that the competing standard of value would be kept outside the borders of the countries, banning the contact of all sectors with such currency.

Of course, this means that people wanting to have a stable standard of value must be encircled in a maze of controls that would prevent their access to save and enter contracts denominated in a currency that would provide a reliable link connecting past, present, and future. Perversely, the problem becomes worse the more the central bank exercises its powers to create money. This is one of the highest costs of the ability to print money in the developing countries.

Central banks could live by these rules in the fragmented world of the mid-twentieth century. In those days, central banks enforced their monopolies through strict controls imposed on the flows of capital and could deny their citizens access to foreign exchange. Exporters were forced to surrender their dollars to the central bank at the price it established, and importers, even if they were also exporters, had to buy their dollars from the central bank as well, also at its fixed price. For everything else, they had to use the domestic currency. This was the ideal setting for a local currency. Of course, for decades, people exported their savings to developed countries and even those who could not do it kept in mind the value of the dollar as their measure of value. However, the restrictions imposed by these leakages on the management of the currency were not visible.

Today, however, the power of central banks to enforce their monopolies is being eroded by financial globalization, which facilitates the transfer of money at very low costs of transaction. As this process advanced, domestic banks in many developing countries created offshore facilities to carry out domestic financial transactions in dollars. They were very successful in attracting customers. Faced with the reality that people preferred to use dollars, many central banks of developing countries allowed the creation of dollar-denominated deposits and credits in their local financial system. These deposits have taken over substantial portions of the banking operations in those countries in a very short time, even if many countries impose substantial restrictions on them. In the last few years, the ratio of foreign currency–denominated deposits to total deposits has surpassed 25 percent in most regions in the developing world. In three regions—Latin America, the formerly communist countries of East Europe and Central Asia, and the Middle East—the ratio has gone beyond 40 percent. In South America, it is 56 percent.[1] In all countries where this practice is allowed, the interest rates on the foreign currency operations are much lower than on those in the domestic currency, showing clearly where the standard of value resides.

The coexistence of two currencies in the same domestic market, one weak and the other strong, complicates monetary management, presents high risks of currency mismatching, and drastically reduces the power of the central