Five

BOLIVIA'S HIGH-ALTITUDE HYPERINFLATION

As with many events in my career, it was an accidental path that first brought me to the tarmac of the La Paz airport, thirteen thousand feet above sea level. I had first seen extreme poverty up close during my first visit to India in 1978, but my early academic work was very much about the U.S. and European economies, not the problem of extreme poverty and the puzzle of why it persists in a world of increasing wealth.

In the early 1980s, development economics was a fringe topic in U.S. Ph.D. programs, studied mainly by students from the poor countries. Although I was interested in the questions of development, my formal training focused on international economics, especially international finance. When I joined the Harvard faculty as an assistant professor in the fall of 1980, I was working mainly on problems of the rich countries, and on the flows of international financial capital between the rich and poor countries. When the developing-country debt crisis hit in 1982, I began to write theoretical papers on how to account for the onset of the debt crisis. I studied some of the historical precedents for such debt crises, particularly the Great Depression, and some of the mechanisms used to help extricate countries from bankruptcy. Little did I know that I would be the first to apply these mechanisms in the 1980s.

My work was theoretical and statistical, rather than immediately practical. At the time, I thought that I knew just about everything that needed to be known about the subject. As a young faculty member, I lectured widely to high acclaim, published broadly, and was on a rapid academic climb to tenure, which I received in 1983 when I was twenty-eight.

And then my life changed. A note arrived from a former Bolivian student of mine who asked if I would come to a seminar on campus to be given by a group of visiting Bolivians. The student, David Blanco, had been the finance minister of Bolivia in the 1970s. He had delighted me during my first year of teaching when he had introduced himself as a former finance minister, and said that he was taking the course to try to understand exactly what he had done while in office.

I was scheduled to give a development seminar at the World Bank soon after the scheduled seminar, and I thought hearing about Bolivia might bolster my knowledge. Of the Harvard faculty who were invited, only two of us showed up. It was probably one of the luckiest things that ever happened to me. A young Bolivian, Ronald McLean, who was a Kennedy School graduate and would later become mayor of La Paz and my dear friend, stood up and opened the seminar with the most mesmerizing portrait of Bolivia's hyperinflation that I could have imagined. His talk, I still remember, opened with a scene of the burgeoning black market for foreign exchange in which huge stacks of Bolivian pesos were being traded for dollars at an ever more frenetic pace in a street market on Avenida Camacho in La Paz, the capital city.

For a finance specialist like myself, Bolivia's crisis was riveting. I had studied the German hyperinflation of 1923, as well as some of the other hyperinflations. Those long-ago events were legends to economics students. We chuckled and groaned at Keynes's quips about those hyperinflations (always order two beers at the start, lest their price go up while you are sitting at the bar; take buses rather than taxis, because in a bus you pay at the start; and so forth). But we never expected to come across real hyperinflation other than in the history books.

Many academic economists in the early 1980s had been using the hyperinflations of the 1920s as bases for theoretical analysis of some of the current debates in macroeconomics. So I had read some recent papers. At one point in the seminar I raised my hand and took issue with a statement that had been made. Walking to the blackboard with great confidence, I said, "Here's how it works." After I put down the chalk, a voice at the back of the room said, "Well, if you're so smart, why don't you come to La Paz to help us?" I laughed. And he called out again, "I mean it." This was Carlos Iturralde, a key political figure who in the coming years became a friend and eventually minister of foreign relations and ambassador to the United States.

The group told me that they wanted an economic adviser. I was
taken aback. I did not know exactly where Bolivia was in South America, and I certainly did not know whether it was safe or wise for me to get involved. I told them that I would get back to them. The next morning I told them that although I had never done anything like help a country, I would be willing to give it a shot if they were really interested. I also told them I would not work for their political party, but only for a government after the forthcoming elections. I did not want to get involved in partisan politics, since I knew it would prevent me from being effective. Throughout my work in Bolivia and elsewhere, this approach has allowed me to advise governments of different political parties as a trusted, impartial outsider.

The group agreed they would call me again if they won the elections. That was May. In early July, I got a call from Ronnie McLean. "We’ve won the election; pack your bags." I asked a colleague, French economist Daniel Cohen, and a graduate student, Felipe Larraín, to join me. We embarked for La Paz on July 9, 1985.

Designing a Stabilization Plan

From the moment I walked off the plane, I began to understand what real economic development was about. It was the beginning of twenty years of grasping the need for a new clinical economics, one up to the task of helping countries such as Bolivia. All I had with me at the start was an empty notebook and a few articles on hyperinflation. Fortunately, I had a basic theoretical understanding of what we would be up against.

First, I understood the basic monetary forces that led to hyperinflation. The government was printing money to finance a large budget deficit. Initially I did not understand the origins and dynamics of the budget deficit, nor the politics of the budgetary process. But I did understand that the Bolivian government was not creditworthy enough to sell bonds to the private sector at home or abroad. Instead, it had to sell its bonds directly to the Central Bank of Bolivia (or BCB in its Spanish acronym) in return for fresh cash to pay the army, miners, and teachers. The Bolivian hyperinflation was in this sense no different from others from economic history. Like those before it, the government was printing money to pay its bills, and as it printed the money it was driving down the value of the currency—and driving up the price of goods.

As the government paid the salaries, the injection of new pesos into circulation fueled the precipitous rise of prices. With each injection of Bolivian currency, people would take their pesos to the black market to buy dollars. The price of a dollar in terms of pesos soared: about 5,000 pesos per dollar in June 1983, about 10,000 pesos per dollar by January 1984, about 50,000 pesos per dollar by June 1984, about 250,000 pesos per dollar by December 1984, and 2 million pesos per dollar by July 1985, when a team of three inexperienced economists arrived. The goods in the shop by this time carried dollar price tags, even though the purchases were still made in pesos. A one-dollar item, therefore, cost almost 2 million pesos in July 1985, up from 5,000 pesos just two years earlier. In the single year between July 1984 and July 1985, prices had risen by more than 3,000 percent (thirty times).

Second, I knew that the end of a hyperinflation tended to be very rapid, and would occur as soon as the peso could be stabilized relative to the dollar. This would happen when a government could end its dependency on borrowing from the BCB. The concept of a sudden end to a 24,000 percent inflation was not intuitive. Some people thought that if you stopped the hyperinflation abruptly, it would necessarily lead to economic collapse. They thought that a better way would be to try to reduce the inflation gradually from several thousand percent per year to several hundred percent the next year, to a couple hundred percent the third year, and so on. Although no hyperinflation had ever been stopped that way, some of the consultants to the outgoing government had recommended such a policy.

Within a couple of days of arriving, I was asked to give a talk to the Bolivian-American Chamber of Commerce, and I went armed with my theoretical and historical knowledge. I displayed a figure from a recent paper by Thomas Sargent to stress that Germany’s hyperinflation had ended in one day, November 20, 1923, and that I predicted the same for Bolivia. The crowd was startled, and delighted, at the prospect.

My small team, bolstered by assistance from Bolivian colleagues, started doing the numbers. We looked for a package of fiscal measures that could quickly weaken the government away from its dependence on Central Bank financing of the deficit. We soon realized in discussions with our Bolivian colleagues and in looking through the books that the budgetary key lay in the price of oil. Government revenues depended heavily on taxes on hydrocarbons, mainly paid by the state petroleum
company, YPFB. The YPFB set the price of oil and gasoline (in pesos). Generally, the oil price was changed only every few months, so the price of oil fell sharply in comparison with other prices and in terms of the U.S. dollar during the period in which the peso price was held constant. The low price of oil, in turn, was destroying the budget.

Here's an illustration: Suppose that the gasoline price is temporarily set at 250,000 pesos per liter on a day when the peso-dollar exchange rate is 1 million pesos per dollar. The U.S. dollar price of gas is therefore $0.25 per liter. Now suppose that the exchange rate depreciates by 50 percent per month. In thirty days, a U.S. dollar will cost 1.5 million pesos. In sixty days, it will cost 2.25 million pesos. If the peso price of gasoline remains unchanged for sixty days (not uncommon back in 1984 and 1985), the price of a liter in dollars will fall to just $0.11 (250,000 pesos per liter multiplied by $1 per 2.25 million pesos). Since the government budget depends on oil taxes, the tax base has collapsed.

The actual situation regarding oil prices was more dramatic than the illustration. By August 1985, the U.S. dollar price of a liter of gasoline in Bolivia had plummeted to around $0.03 per liter. Whole truckloads of gasoline were being smuggled over the border to Peru. The budget revenues had collapsed. The budget deficit was on the order of 10 percent of GDP, all financed by printing money (technically by "borrowing" the money from the BCB). We calculated that if the price of gasoline (and other fuels) was raised around tenfold, back to the actual world price of around $0.28 per liter, this increase by itself would close most of the budget deficit. A package of other measures on the spending and revenue side could close the rest.

My team therefore proposed a sharp one-time increase in oil prices as the key element in stopping the hyperinflation, combined with a package of other fiscal measures. Our Bolivian colleagues viewed skeptically the idea that a massive increase in oil prices could end the hyperinflation rather than trigger yet another acceleration. To the untrained eye, indeed, it seemed preposterous to propose price increases as the key to price stability. It made sense only in the context of a theoretical understanding of the problem, which diagnosed hyperinflation as being caused by the underlying monetary and budget conditions. In a way, I was taken aback by the skepticism. This part of the problem, after all, seemed rather straightforward. John Maynard Keynes, I decided, had it right in 1923 when he noted how little the process of inflation was understood, and how hyperinflation was all the more destructive as a result:

There is no subtler, no surer means of overturning the existing basis of society than to debauch the currency. The process engages all the hidden forces of economic law on the side of destruction, and does it in a manner which not one man in a million is able to diagnose.

We wrote our report in two weeks and left La Paz on July twenty-fourth. Though we had come on the assurance that our friends were about to take power following the elections, in fact the electoral results proved to be a deadlock, which meant that the next president would be selected by the congress, not by the outright vote. Back in Boston I received word that the political party with whom I had worked, the ADN, had not won. As of August sixth, the new president would be Victor Paz Estenssoro, of the opposing MNR party. I had met Paz Estenssoro's key economic advisers, especially a leading businessman, Gonzalo ("Goni") Sánchez de Lozada. I had no idea whether I would have any relationship at all with the new government, although I was happy to hear that the ADN had shared a copy of our stabilization plan with the new president and his team.

In fact, the new president moved quickly. He asked Goni to lead the effort to write a plan for bold and broad-based economic reforms, including but well beyond currency stabilization. The draft plan was revolutionary, calling for Bolivia to move from a statist and closed economy—tropical of third world countries of the day—to a market-based, open economy. The plan prefigured the changes that would take place later in the decade in Eastern Europe, albeit on a more limited scale. The plan included the ideas about stabilization—including the central tactic of raising energy prices—but went well beyond stabilization to issues that our team had not even discussed.

As a wily politician, back as president for his fourth time since 1952, Paz Estenssoro pulled off something that only an experienced backroom dealer could accomplish. With Goni's plan in hand, he brought the new cabinet to the presidential palace and told them, "Nobody leaves. No one talks to the press. We're going to debate and then agree on an economic strategy. And we're all going to sign it. If you want to resign, you can resign. But otherwise, you're in the government, and you're going to be part of this." They debated around the clock for the better part of three days, and adopted what became known in Bolivia as Supreme Decree 21060, a blueprint not only for ending the hyperinflation but also for a thoroughgoing transformation of Bolivia's economy.
The program was initiated on August twenty-ninth, starting with a sharp rise in oil prices. As gasoline prices soared (a gasolinao in Latin American slang), the budget deficit closed. Money poured into the state oil company and from the state oil company into the budget coffers. The sudden end of the budget deficit led to an immediate stabilization of the exchange rate. Since prices were set in dollars and paid in pesos, the sudden stabilization of the Bolivian peso-U.S. dollar exchange rate meant an equally sudden stability in peso prices. Within a week, the hyperinflation was over.

Figure 1 shows the monthly price level for the period 1982 (at the onset of the hyperinflation) until 1988. We see the sudden stop in the rise of the price level in September 1985. Figure 2 shows the same thing in finer resolution, on a week-to-week basis during August and September of 1985. There would be tense moments in the early months of the stabilization program, and a near collapse of the stability at the end of 1985, but the hyperinflation as it turned out was over for good. It had lasted for three years, and was ended in a day.

Had events proceeded quietly from that point on, I might never have had a further engagement with Bolivia. Sooner rather than later, however, I came to understand that Bolivia’s hyperinflation, and the budget deficit that had caused it, were symptoms of much deeper ills.

My understanding of Bolivia was quite superficial at the time—good enough to help assess how a stabilization plan could be launched, but not good enough to understand why the hyperinflation had occurred in the first place, and why a long cascade of wrenching changes lay ahead. Circumstances were far more fragile and difficult than I imagined.

CRACKS IN THE EDIFICE

On October 24, 1985, the London Metal Exchange suspended trading on tin, marking the beginning of a crash in prices. Over the next nine months, tin prices plummeted by about 55 percent after the tin cartel, of which Bolivia was a member, went bankrupt and was no longer able to buy tin stockpiles to hold the price at the earlier targeted rate. Bolivia was a tin exporting country, and the state-owned tin mines were an important source of jobs, political support, social support for workers, and taxes. Thus another huge hole opened in the deficit of this impoverished and stricken country, and what had been an early start to stability was suddenly thrown onto the shoals once again. Soon afterward, I got a call: President Paz Estenssoro wanted me to return to Bolivia.

By then I was more familiar with Bolivia’s economic history. Amazingly, I had found an obscure book in Harvard’s library written by George Eder, a foreign economic adviser to the Bolivian government in 1956, who advised the Bolivians on ending the high inflation that had
followed Bolivia's 1952 Revolution. George Eder had set up a government committee for economic stabilization and had advised the committee. Eder had had lots of good ideas. Even the cast of characters was familiar, including Victor Paz Estenssoro himself, who had led the 1952 revolution and was Bolivia's president between 1952 and 1956.

When I returned to La Paz, I met Paz Estenssoro for the first time, and presented him with a memo on recommendations that harked back to 1956. The president was quite taken with the memo, and asked if I would continue as his adviser. I accepted, knowing it would give me the chance to watch the continuing drama, make suggestions, and learn from the experience. I went home, planning to return in a couple of months.

At Christmastime, a month later, I got another urgent call: the hyperinflation was back. Could I return immediately? I arrived immediately after the new year. On a brief stop in Lima, I heard the news that Bolivian Planning Minister Guillermo Bedregal had resigned, and on his way out had called for a 50 percent increase in wages so that Bolivians could keep up with a new explosion of prices. It sounded as if the hyperinflation was off and running once again. I knew that a new round of hyperinflation would trigger a new cycle of political instability. Upon arriving in La Paz, I went straight from the plane to the Central Bank. Sure enough, there had been a tremendous spike in the money supply in December.

A technical team at the Central Bank explained that the budget has to cover two monthly salaries in December as part of the Christmas package. This could have been accommodated through better monetary management, but as one central banker told me wistfully, "We've never had a finance minister who lasted two Christmases." The government simply did not know how to handle the extra monthly wage in a manner that was not financially explosive!

I quickly worked out a trick after the fact. I said that the Central Bank should sell its foreign exchange reserves into the currency market in return for the pesos that had just been issued. This foreign exchange operation would thereby mop up the newly issued pesos. The peso exchange rate would strengthen, peso prices would stop rising, and the just-announced wage increases could be obviated. This approach was unusual because Bolivia risked throwing away its scarce foreign exchange reserves for a situation that seemed already to be going down the drain. I thought that it was worth the risk, however. A return to hyperinflation would have been devastating. I took the idea to Goni, who was just then becoming the new planning minister. Goni bought the idea. We went to the president, who also accepted it.

The foreign exchange operation began. Just as monetary theory said, the exchange rate stabilized and then started to strengthen. This time was the first in a long while that the Bolivian currency had actually strengthened. The president announced, "There will be no wage increase. We are committed to stability and will make sure that our monetary policy is consistent with that." So the government took a strong line and won a lot of credibility with the public as a result. After this skirmish the hyperinflation was never to return, even as a threat.

The turnaround succeeded, at which point, ironically, I was called to the International Monetary Fund in Washington to explain why I was encouraging the Bolivian government to "waste" its scarce foreign exchange reserves. I explained the logic. The IMF could not see it and felt that the sale of foreign exchange was unwarranted. The opposition came too late. The operation was already finished and had succeeded. I happily left Washington on the evening flight, having had my first skirmish with the IMF. I was coming to realize that "official advice" coming from Washington could have its weak points. Little did I know at the time!

Consolidating the Victory over Hyperinflation

I also began to discover that there is no moment of peace in such crises. Bolivia had four huge obstacles that remained before the stabilization was finally consolidated. First, the October 1985 collapse of tin prices was eating away at the budget and macroeconomic stability. The tin mines were no longer profitable. The mining sector was throwing the entire budget into a huge deficit. The Bolivians undertook a massive cutback of the tin-mining labor force, one that was shocking in scale and heartrending for those affected. Almost five sixths of the tin workers eventually lost their jobs. An era of large-scale tin mining in Bolivia had ended with the collapse of the tin cartel.

The second obstacle was facing up to the debt crisis. The Bolivian government was bankrupt. It could not service its foreign debts owed to international banks and to foreign governments, and had, in fact, suspended payments more than a year earlier. Now that Bolivia had stabilized, the IMF was pressing for a resumption of debt servicing. I felt that such a step at this point would simply send Bolivia into political crisis
and back to hyperinflation. It would require politically explosive and socially unacceptable burdens on Bolivia's poor through further cuts in government spending and further increases in taxation (if those were even possible to collect). Upon my strong advice, and Goni's strong concurrence, Bolivia said no to the IMF: it would not restart debt servicing. Bolivia's opposition to the resumption of debt servicing, and its insistence on debt cancellation, helped to set in motion the process of debt cancellation for the poorest countries.

How the debt debate played out was another eye-opener for me. The IMF team and I opened the debate one evening in Goni's living room. I held forth vigorously that renewed debt servicing would crush the living standards of already impoverished people, and would also destabilize the country politically. The IMF, on its side, said that there was no alternative; debt service must resume. After a heated exchange, we agreed to continue the debate the next day at lunch. As lunch started, I gave a little sermon about how renewed debt servicing was completely inappropriate, and how debt crises in the past had been resolved by substantial reductions in the debt through one contrivance or another. Indeed, Bolivia and many other countries had defaulted in the 1980s and had had their debts canceled in the 1940s. I announced, rather brazenly, that this was just the way it was going to have to be again in the 1980s.

The IMF team, of course, had instructions to the contrary. The Reagan administration had not yet acknowledged the need for debt cancellation, and was apparently content to squeeze Bolivia, if only to set an example for other much larger debtors, such as Argentina, Brazil, and Mexico. As I was talking, the IMF mission chief turned redder and redder. He was deeply annoyed to hear this kind of radical talk by an advisor. Finally, in exasperation, he said, "That is unacceptable, Professor Sachs. We will never send such a program to our board for approval." To my further protests, he then declared, "When I get home, I will call Bill Rhoades, who will also say that this is completely unacceptable." I nearly fell out of my seat because Bill Rhoades was a senior Citibank executive with responsibility for Latin American debt. Here was the IMF mission chief, in a broken country with hungry people, closed mines, hyperinflation, and disarray, saying that Citibank would have a veto over an IMF policy on debt cancellation.

I paused, and then replied scornfully, "Oh, now I really do understand. Let me explain to my Bolivian friends what you've just said. You are going to call Citibank to find out whether Bolivia's policies are appropriate? So the IMF's debt strategy is going to be determined by the international banks?" He became furious, closed his book and stood up, declared the meeting over, and walked out of the room with everyone scrambling behind him. The amazing fact, however, was that after that the IMF never again asked Bolivia to repay its debts. I think they were taken aback by their acknowledgment that the creditor governments that controlled the IMF were setting debt policies according to the wishes of major international banks rather than the dictates of good macroeconomic policy and international commitments to the needs of extremely poor countries. The IMF had finally acknowledged that Bolivia was truly broke, and needed to have its debt written down if it was going to get back on its feet.

From that point on, Bolivia remained in suspension of its debt. In 1987, I helped Bolivia to negotiate a debt cancellation agreement with its major commercial bank creditors, which became a template for later debt-cancellation operations. The concept was radical, but it was the only sensible and realistic way to face the economic circumstances of the country. It has made sense in the long term for the creditors as well as the debtors, since—when applied wisely—it has allowed countries to get back on their feet and either repay part of the debt (where that is possible) or at least be less of a burden to the international system in terms of future foreign assistance. The strategy of debt cancellation has now been applied in dozens of countries, but far too often the international community has been too late and too grudging in the debt relief to enable really impoverished, debt-torn countries to reestablish economic growth and development.

John Maynard Keynes, as usual, had many important things to say about debt servicing. In the period following World War I, Keynes understood and wrote brilliantly about the political economy of societies in deep economic distress. He understood that there was little advantage in pushing countries over the brink, either by demanding war reparations from Germany or the repayment of wartime debts to the allied victors of the war. Keynes warned that political systems could snap. In The Economic Consequences of the Peace, he boldly called for the cancellation of the post–World War I claims in an eloquent plea that I would find invaluable three quarters of a century later.

It might be an exaggeration to say that it is impossible for the European Allies to pay the capital and interest due from them on these
debts, but to make them do so would certainly be to impose a crushing burden. They may be expected, therefore, to make constant attempts to evade or escape payment, and these attempts will be a constant source of international friction and ill-will for many years to come. . . .

There will be a great incentive to [the debtors] to seek their friends in other directions, and any future rupture of peacable relations will always carry with it the enormous advantage of escaping the payment of external debts. If, on the other hand, these great debts are forgiven, a stimulus will be given to the solidarity and true friendliness of the nations lately associated. The existence of the great war debts is a menace to financial stability everywhere. . . .

We shall never be able to move again, unless we can free our limbs from these paper shackles. A general bonfire is so great a necessity that unless we can make of it an orderly and good-tempered affair in which no serious injustice is done to anyone, it will, when it comes at last, grow into a conflagration that may destroy much else as well.

Keynes warned that the failure to address the debt crisis could eventually lead to calamity, as indeed overtook Europe with the rise of Bolshevism and Nazism:

The bankruptcy and decay of Europe, if we allow it to proceed, will affect every one in the long-run, but perhaps not in a way that is striking or immediate.

The third critical obstacle was tax reform, the great drama of the spring of 1986. It was time for Bolivia’s upper class to contribute to the tax system. I pushed friends within the government and political supporters of the government. Many of Bolivia’s richest landowners could not quite understand why their thousand-hectare cattle ranches also needed to be taxed. The political debate was touch and go, but in the end, the tax reforms passed and they helped to consolidate a fairer fiscal base. Bolivia remains a place of great inequality. But the country took a step forward to greater fairness in 1986, and one that was extremely important in maintaining monetary stabilization and political civility in the country.

The final major initiative that year was to establish an emergency social fund that could address at least some of the urgent social conditions of the country. I was beginning to understand that the end of hyperinflation did not mean the end of suffering or extreme poverty. Far from it. I said ruefully to the government’s economic team that if they were brave, heroic, steadfast, earnest, and honest, they could hope to turn their impoverished, hyperinflatory country into an impoverished country with stable prices. The end of the hyperinflation would at least provide the foundation for economic development.

Goni Sánchez de Lozada understood that Bolivia would have to reinvent itself, since tin mines could never again offer prosperity. But transformations and reinventions take time. Until then, Bolivians had to survive. People needed jobs, health care, and schools for their children. Canceling the debt was part of the answer. Working hard for more foreign aid was another piece. And finding new ways to direct emergency help to the poorest people was absolutely essential. One day in Goni’s office we were brainstorming and hit on the idea of establishing an emergency social fund that would direct money to the poorest communities to help finance local infrastructure like water harvesting, or irrigation, or road improvements. I picked up the phone and called the World Bank. Katherine Marshall, the head of the Bolivian team at the Bank immediately responded, “You’re right, let’s do this.” Within a very short period of time we were able to get the emergency social fund started with World Bank backing. The fund offered a bit of a safety net—jobs, village-level infrastructure—in extraordinarily difficult and fragile circumstances.

My last intensive involvement in Bolivia in this period came a year later when a U.S. military effort to interdict Andean drug trade hit Bolivia very hard. The arrival of U.S. military forces sent Bolivia’s drug traffickers scurrying. A financial crisis quickly ensued. Goni and I decided to seize the opportunity by pushing for a much deeper eradication of the coca crops (which provide coca leaf used in the manufacture of cocaine). We believed that if the United States would invest meaningfully in alternative development options for the tens of thousands of organized, politically mobilized cocaleros (coca cultivators), it would be possible to shift Bolivia to other agricultural and manufacturing exports.

Goni and I got together a group of anthropologists, agriculture specialists, and coca cultivation experts to work out a program to use increased foreign assistance to offer realistic economic alternatives to coca production, partly to help move people out of coca-growing regions with alternative employment, and partly to substitute other crops.
As with many other cases, the U.S. government ended up adopting some of these ideas, gradually and fitfully, over the next fifteen years. It did so, as so often happens, only after dividing the scope of U.S. funding by ten. The United States, then and now, was looking for the cheap way out, trying to push the costs onto the very poorest people, never making enough of an investment to underwrite a solution.

I went with Goni to Washington to present the analysis. The U.S. lack of support for Bolivia was appalling. In essence, Goni was told there was no money available to accomplish anything other than through military means. The worst meeting of all was with George Shultz, secretary of state at the time, who spent half an hour explaining to the Bolivian planning minister how the United States had budget problems and that there was just no money to help the Bolivians. This lecture came from a country whose per capita income was perhaps thirty times higher than Bolivia’s, at a time when Bolivia was doing the United States’ bidding on coca interdiction at great risk to its own economic and political stability.

**Waking Up to Geography**

Perhaps three years into my work in Bolivia, I received a wake-up call on economic realism in the course of a conversation with David Morawetz, a genial and insightful World Bank consultant. Morawetz was an international trade expert who had written a wonderful book on the collapse of Colombia’s textile and apparel sector in the 1970s. He was attuned to the practicalities of business. The bank had sent him to address one major issue: what could Bolivia export after tin and coca?

Morawetz began the conversation with a straightforward observation: “This is a landlocked country, up in the Andean mountains, facing incredibly high transport costs. The only products that Bolivia has ever been able to export are commodities with a very high value per unit weight because only those commodities can successfully overcome the high transport costs.” Morawetz observed that as a nation, Bolivia had been born in the Spanish colonial period first as a silver exporter, then as a gold exporter. It experienced a rubber boom in the middle of the nineteenth century, the tin boom early in the twentieth century, a brief hydrocarbons boom in the 1960s and 1970s, and the coca boom in the 1980s. All of Bolivia’s exports were indeed commodities with a very high value per weight. “What can this country export now?”

Morawetz’s point about Bolivia’s geographical distress was truly (and incredibly) something new for me. Of course I knew that Bolivia was landlocked and mountainous. The mountain vistas added immeasurably to Bolivia’s charm, the high altitude to my chronic shortness of breath in La Paz, and the landlocked status to Bolivia’s lingering suspicions and hard feelings concerning Chile, which had stripped away Bolivia’s coastal territory in 1884. Yet I had not reflected on how these conditions were key geographical factors, perhaps the overriding factors, in Bolivia’s chronic poverty. In all of my training, the ideas of physical geography and the spatial distribution of economic activity had not even been mentioned.

Problems of geographic distress became a centerpiece of my thinking over the next fifteen years because once I started thinking about the economic forces of geography, it was hard not to think about it. Countries are shaped profoundly by their location, neighborhood, topography, and resource base. Adam Smith had thought widely about it, but I had not read Adam Smith for years. My conversation with Morawetz really got me thinking, and I realized that almost all the international commentary and academic economic writing about Bolivia neglected this very basic point. It bothered me greatly that the most basic and central features of economic reality could be overlooked by academic economists spinning their theories from thousands of miles away.

Fortunately, in my first foray into country advising, this serious mistake did not cause too much disruption. My assignment had been largely about ending a hyperinflation and reestablishing a fiscal and financial base for economic development. Monetary theory, thank goodness, still worked at thirteen thousand feet above sea level. My basic insights about how to end a hyperinflation and how to overcome a debt crisis still worked. When I turned my attention from stabilization to development, however, a renewed focus on physical geography and its economic consequences became crucial.

**Early Lessons in Clinical Economics**

Bolivia gave me my first insights into the problems of economic development. I began to understand vividly how much I would have to learn to be able to give sound guidance on critical issues of development. I would never again be an economist who could neglect a crucial "detail" about a
country, such as its being mountainous or landlocked or at war with a neighbor. I became ever more attuned to a country's resource base, climate, topography, political relations with neighbors, internal ethnic and political divisions, and proximity to world markets. In short, I started realizing that I needed to be a clinician with the skills of differential diagnosis. I was not yet thinking explicitly in these terms, but the general notion that I was an economist making house calls began to take hold.

I learned several specific points that would prove useful in the future.

- Stabilization is a complex process. Ending a large budget deficit may be the proximate step, but controlling the underlying forces that caused the budget deficit is a more complex and longer-term process. Many factors in Bolivia had to change to consolidate its new price stability: domestic oil prices, the closure of unprofitable tin mines, reform of domestic taxation, debt cancellation, and social funds to reduce the crisis of extreme poverty.

- Macroeconomic tools are limited in their power. Even with the success of macroeconomic stabilization, Bolivia continued to experience great long-term difficulties because of its intrinsic problems: its geography; the great social and economic inequalities that divide the country; and regional political relations fraught with difficulty, particularly with Chile, Brazil, and Argentina.

- Successful change requires a combination of technocratic knowledge, bold political leadership, and broad social participation. Without technocratic knowledge, there would have been no successful stabilization or debt cancellation. Without the strong leadership of President Víctor Paz Estenssoro and González Sánchez de Lozada, the very same plans would have failed.

- Success requires not only bold reforms at home but also financial help from abroad. Bolivia needed to make bold, coherent, and complex reforms. The international community needed to give adequate aid and debt cancellation.

- Poor countries must demand their due. Bolivia would have suffered years of further anguish from external debt had Goni and I not pushed relentlessly for a cancellation of Bolivia's debts. The IMF, certainly, was not coming to Bolivia's rescue. Perhaps because of my inexperience, I believed that a very different approach to debt reduction was not only needed but also possible. This outlook proved to be correct. Since then, I have strived to be clear about what is needed, and have paid much less attention to what I am told is "politically possible." When something is needed, it can and must become possible!

<table>
<thead>
<tr>
<th>Table 1: Bolivian Progress Since 1985</th>
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<tbody>
<tr>
<td>1985</td>
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<tr>
<td>GDP per capita (constant 1995 $)</td>
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<tr>
<td>Adult literacy rate (% of people ages 15 and above)</td>
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<tr>
<td>Primary school enrollment (%)</td>
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<td>Secondary school enrollment (%)</td>
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<td>Tertiary school enrollment (%)</td>
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<tr>
<td>Infant mortality rate (per 1,000 live births)</td>
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<tr>
<td>Under-5 child mortality rate (per 1,000)</td>
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Note: Where 1985 or 2002 data are not available, they show lowest available year.

* Source: Data from World Bank (2004).

Bolivia has improved significantly since 1985, with social and political stability, constitutional rule, low inflation, and positive per capita economic growth (albeit growth that has been much too slow to consolidate public support), major improvements in literacy and school enrollment, and major reductions in infant and child mortality rates. Table 1 shows some of these improvements. During the early 1980s, the path of per capita income was on a steep decline; after stabilization there was a significant increase, shown by the V-shaped curve in figure 3. González Sánchez de Lozada was much praised for this turnaround, and won election as president, serving from 1993 to 1997. Bolivia’s growth, however, stagnated at the end of the 1990s and the first years of the new century, part of a generalized economic crisis throughout South America.

Bolivia remains poor and divided to this day. Stabilization and open markets did not end poverty, even a generation later. Deep ethnic divisions remain. After Sánchez de Lozada won a second round of the presidency in 2002, protests exploded in 2003 over the government’s acquiescence to U.S. demands to eradicate coca production and over the government’s plans to sell natural gas to the United States. Sadly, in the midst of violence and bloodshed, Sánchez de Lozada was forced to resign. Despite the notable achievements since 1985, the burden of geography and the relative neglect by the United States and other donor countries still weigh very heavily on Bolivia, as does the continuing economic crisis throughout the rest of the Andean region.
The story of Bolivia thus shows the successes of macroeconomic reforms as well as their deep limitations. Price stability and market reforms reestablished growth, but the growth was too little and too uneven in its impact to lift the entire population from extreme poverty. The economic transformation in Bolivia remains only partially accomplished. Bolivia has gotten one foot on the development ladder, but the step up to the next rung has been excruciatingly slow and uncertain.

Bolivia’s successes in the mid-1980s in stabilization and the restoration of growth attracted international notice for my evolving ideas on debt relief, stabilization, and social programs. I was invited to work with national leaders in Argentina, Brazil, Venezuela, and Peru, and I rapidly got to know more about the history, physical geography, social conditions, and economic trends of South America. This work, in turn, led to an unexpected call and invitation to Poland in early 1989 that began another chapter in my career.

In early 1989, I got a call out of the blue from Krzysztof Krowacki, an official in the Polish embassy in Washington, to ask if he could visit me at my office at Harvard. I agreed. I did not know what it was about, but it would turn out to be an invitation to participate in the epochal events starting to unfold in Eastern Europe.

A few days later, Krowacki was in my office explaining the economic disasters that had hit his country, and asking whether the advice I was giving in Latin America might be of relevance to Poland. He described a country in deep trouble: Poland had long ago partially suspended its international debt payments, the economy was suffering from high and rising inflation, and there was a deepening political crisis. He said that the government wanted to make reforms.

Poland had long been known as the most liberal of the communist states, but after the rise of Solidarity in 1980 and the military crackdown the year afterward, it was the only Soviet-dominated country of Eastern Europe under martial law. But even during martial law between 1981 and 1989, Poland was a kind of freewheeling, almost chaotic country and economy, with tremendous black marketing and smuggling. Although many people were arrested and jailed, there were still dissident voices being heard.

I listened with fascination to my guest for more than an hour. We talked about the developing-country debt crisis and what I had recommended in South America. At the end of the discussion he asked me if I would be willing to go to Poland to discuss these issues with some of his