Privatization of Telecommunications in Guatemala
A Tale Worth Telling

Carlos Sabino
Wayne Leighton

THE ANTIGUA FORUM
A Place of Learning for Reformers

CASE STUDY
May 2012

Privatization of Telecommunications in Guatemala

A Tale Worth Telling

Carlos Sabino
Wayne Leighton

384.6065 S116

Sabino, Carlos
Privatization of telecommunications in Guatemala : a tale worth telling / Carlos Sabino and Wayne Leighton. -- Guatemala, Guatemala : Universidad Francisco Marroquín, 2013.

79 p. : il. ; 23 cm.

ISBN: 978-9929-602-13-7 - Guatemala

1. Telecommunications – History - Guatemala
2. Telecommunications policy
3. Telecommunications companies
4. Privatization of public services
5. Decentralization in government – Telecommunications companies

I. Title. II. Leighton, Wayne, coauthor

LOC: HE8701-9680.7 DDC.22

First edition, January 2013
ISBN 978-9929-602-13-7

Cover design
Tipos Diseño

Cover photo
Wayne Leighton

Diagramming
Universidad Francisco Marroquín

antiguaforum.ufm.edu

Contents

Preface

This case study is part of **The Antigua Forum**, a project at Universidad Francisco Marroquín. The Antigua Forum seeks to promote market-liberal reform in order to improve human well-being. It does this by serving as a "place of learning" for those who are committed to advancing such reform and are in a position to do so.

The project has two core components. The first is an annual gathering of a small group of experienced and current reformers, along with a few prominent intellectuals and entrepreneurs whose projects effect reform by disrupting existing inefficient models and institutions. Here, critical questions are discussed and lessons drawn from past successes and failures, which can raise the probability of success for future reforms.

The second component is a set of complementary resources designed to aid reformers as they study particular experiences, communicate with fellow reformers, and help others in their reform efforts. The case study is one of these resources. It is structured to dig deep into the reform of a specific country at a specific moment and to outline the process followed, obstacles overcome, key decisions made, and ultimately, lessons learned.

This first case study focuses on Guatemala's market-liberal reform in telecommunications. In 1996, Guatemala put into place among the most (quite probably *the* most) pro-competitive, market-liberal telecommunications policies in the world. The benefits to consumers have been immense. At the time, however, prospects for such significant reform in Guatemala were bleak. What was the process by which reform was achieved? What lessons can be learned? Some answers emerge on the following pages.

Wayne Leighton

Prologue: Far-off Adventures

A century ago, in December 1911, Norwegian Roald Amundsen and a handful of companions reached the South Pole, achieving the last great goal that had fascinated explorers throughout the ages. Mankind had conquered the earth's last great frontier, perhaps the harshest and most challenging environment on the planet. In the account he wrote a few months later, which is both humorous and optimistic, the Norwegian warns that what we call "luck" in such endeavors is actually nothing more than the coming together of experience, good planning, and courageous thought and action.[1] And yet, while Amundsen's success was certainly due to the combination of creativity, preparation, team spirit, and unwavering determination, it also required the imponderable concurrence of disparate elements, which, when everything turns out well, we call "luck"—a force of good, operating beyond our control, to steer things in our favor.

This was not the same luck that Englishman Robert Falcon Scott had when he led the larger and better funded expedition that arrived at the pole just a few weeks later, in January 1912. Much to his dismay, Scott arrived only to find that the Norwegian flag already had been raised on the desolate landscape. While some of this was due to Scott's own decisions—his expedition had chosen a somewhat longer route using a less adequate means of transportation—they also were beset by terrible storms beyond their control. As a result, they were unable to return to the base where the rest of their team awaited them. Tragically, Scott and

1. Roald Amundsen, *The South Pole* (Adelaide, Australia: University of Adelaide, 2006), eBooks@Adelaide.

his companions were overcome by hunger and cold and perished on Antarctica's frozen terrain. They too were led to their destination by sheer determination, yet they failed in their effort to plant their flag first and, worse, in their effort to merely stay alive.

At that time, expeditions did not enjoy the technology that is so common to us today. There were no reliable motorized means of transportation, no ways of communicating across large distances, no satellites to fix their position, and no light gear made from synthetic materials. While the Englishmen did take internal combustion vehicles and primitive phone lines to Antarctica, these incipient technologies were of little use to them in this extreme environment. Weather and rough terrain that could change by the hour—depending on the wind and temperature—coupled with a wrong decision or two by Scott, created their "bad luck" and prevented them from completing their mission. Scott's journals reveal the bittersweet emotions upon reaching the pole second and, several pages later, the slow agony of someone who realizes that he will not survive to tell the tale.[2]

These two competing far-off adventures that unfolded one hundred years ago can help us to understand events that took place at the end of the twentieth century, when reformers in countries around the world attempted to change the frustrating economic policies that had dominated. Some of these reformers were successful. Others accomplished their goals in the short run but their efforts did not stand the test of time. And still others were unable to move beyond the initial idea and planning stages. Luck, which in the case of these reformers had more to do with political climate than weather conditions, favored some more than others. The other decisive factors, though, were intellectual creativity, courage, painstaking preparation, and the patient work of disseminating new ideas.

2. Robert Falcon Scott, *Journals: Captain Scott's Last Expedition* (New York: Oxford University Press, 2005).

The story we are going to tell here does not have the harrowing, adventurous dimensions of Amundsen's and Scott's journeys a century ago. Nevertheless, it analogously demonstrates how the right conditions, determination, and original thinking can come together to achieve goals, once believed to be impossible, that can change human lives.

Carlos Sabino

The Story in Context

The end of the twentieth century saw important economic reforms take place in Guatemala. They were driven by people with clear views who were determined to see their ideas put into practice. Taking advantage of a somewhat favorable climate, these individuals were able to break with entrenched traditions that stretched back more than half a century. Recognizing the critical role of individual liberty—both philosophically and in everyday life—they developed viable projects, defended them tenaciously, and carried them out. How and why did they do it? How were they able to face their critics and bit by bit build a new environment that would favor the daily lives of millions of people? This account is a synthesis of the complicated process that illustrates how to handle hostile environments that are very often suspicious of change.

Latin America: From crisis to reform

It is easier to understand the story of how telecommunications was reformed in Guatemala if one looks at it within the framework of the changes that took place in Latin America during the last two decades of the twentieth century.[3] The problems that existed then and the solutions that were proposed—and ultimately adopted—to address them are part of the general climate that we need to understand in order to identify the keys to this reform process and to distinguish which elements are unique and which are common to other experiences.

3. Because of their geographic and cultural proximity to Guatemala, from this point on we will refer to situations and reforms that took place in Latin America. However, readers should keep in mind that the majority of these ideas, problems, and solutions were also found in a large number of other countries around the globe.

The region we refer to today as Latin America is made up of the group of countries that two centuries ago gained independence from the Iberian empires of Spain and Portugal. These colonial powers had greatly restricted trade and imposed strict mercantilist policies that discouraged, and even prohibited, trade within the colonies and the creation of industries.

Note

Mercantilism and neo-mercantilism

After the economic system of feudalism disappeared, mercantilism became a very common economic practice in Europe in the sixteenth to eighteenth centuries when travel and new discoveries sparked the first colonial expansion. The mercantilist philosophy stated that foreign trade surplus—in silver and gold—should be the key measure of wealth. This encouraged the growth of government, which would protect the country's merchants so they could export as much as possible while keeping imports low. The practices at the time included limiting foreign trade and granting privileges and monopolistic preferences to private commercial companies. With the wide availability of precious metals it was possible to increase the size of the state and also state expenditures, primarily to expand the military.

Today, the term neo-mercantilism (authors sometimes omit the prefix "neo," which creates obvious confusion) is used to refer to practices that encourage monopolies and preferential treatment for certain domestic companies. These practices are designed to promote industrialization through protectionism and they encourage the growth of government and its interference in the economy. Such policies, particularly in Latin America and other developing countries, are combined with controls over the exchange rate, prices and wages, as well as all kinds of subsidies.

After independence, and faced with a lack of stable political institutions, the region found itself in a turbulent period of conflict and struggle. It wasn't until the second half of the nineteenth century that it fully joined the world market and began to prosper economically. But the world economic crisis of the 1930s and the impact of the Second World War brought an end to economic openness and a return to economic nationalism, which attempted to create an industrial base through strong protectionist measures and extensive state intervention. After a few years, the terrible consequences of this model were clear.

The 1980s brought more crises to Latin America. Everything that had been accomplished previously appeared weak. Economic indicators became alarming and long-held convictions, which had not been questioned for decades, slowly became less credible, less solid, and less trustworthy. Something had happened. An unexpected challenge had plunged almost all of the countries in the region into a new environment, which, despite uncertainty and misfortune, also offered opportunities for new intellectual pursuits and change.

In truth, what occurred was neither surprising nor unpredictable. For years, the governments of Latin America had grown at excessive rates, convinced that their intervention in the economy was essential to development and to unlocking the potential that would finally allow them to take their place among the developed, industrialized, and wealthy nations of the world. A so-called "growth model" had been adopted, with varying degrees of intensity, based on the creation of industries that would replace imports. Because it was oriented towards the domestic market, the hope was to rival the world's most advanced nations in just a few years.

Following CEPAL guidelines (United Nations Economic Commission for Latin America and the Caribbean), rigid measures were put in place to protect emerging industries, while the state regulated and intervened in the principal economic sectors. It was a period of high tariffs, subsidies, tax exemptions, price controls, arbitrary exchange rates, and government-regulated interest rates. This general policy—which was popular with both right and left wing administrations, as well as civilian and military governments—placed a huge chunk of the economy in the hands of the state. Increasingly, state-owned companies assumed control over what were considered to be "strategic" sectors: water, electricity, telecommunications, transportation, mining, petroleum, and steel. Numerous other activities also ended up in state hands, which resulted in the creation of countless companies which, in nearly all cases, were run politically and with no regard for efficiency.

This "growth model" triggered a crisis at the beginning of the 1980s when it proved to be unsustainable, forcing the state to spend even more than it could take in through taxation. Furthermore, after several decades, it had failed to achieve any substantial success in terms of establishing a solid industrial base or generating wealth. When interest rates rose even slightly, governments were unable to pay off their debts and international markets were closed. Fiscal deficits became unmanageable and severe inflationary episodes broke out amidst deep recession.

After a period in which many countries attempted to resolve this crisis through even more intervention, support for a new approach began to take root in the region, one that would demand significant fiscal and economic adjustments. Important changes that minimized the role of the state and increased confidence in the market were encouraged by the policies of Margaret Thatcher and Ronald Reagan, by the collapse of the Soviet Union—clearly imminent by 1989—and by the steady progress of the Chilean economy after the Chicago Boys began to institute their reforms in that country in 1975.[4] The union of these factors resulted in a number of countries partially dismantling the strict interventionism that had been in place until then. The so-called Washington Consensus was the symbol of this wave of reforms that extended over virtually all of the countries in the region. However, the pace of the reforms and the depth they achieved would vary greatly.

Beginning with Bolivia in 1985—then Mexico, Venezuela, Peru, Argentina, and several other countries—governments began to reduce spending in an attempt to balance budgets that were wildly out of control. At the same time, they optimized the tax structure, eliminated subsidies, and looked for ways to sell off state-owned companies, which were almost always losing money. Controls on foreign currency exchange rates were eliminated and interest rates in general were liberated. Prices for many goods and services were no longer controlled by decree, and import tariffs were reduced significantly. Restrictions were lifted on foreign investment, which until then had been viewed with bitter distrust as exploitative and a threat to national sovereignty. By the second half of the 1980s a new climate prevailed that inspired an era of reform that would reduce fiscal deficits, improve the handling of foreign debt, reduce or eliminate inflation, and quickly create an environment that was once again conducive to economic growth.

Reforms: Significance and opportunity

The process of change in many Latin American countries at the end of the twentieth century was not guided by a specific ideological program and a determined effort to structurally modify national economies. Much of the left (and public opinion in

4. During Augusto Pinochet's administration, a group of economists from the University of Chicago promoted a series of economic reforms in Chile that liberated the socialist economy in place in 1973 and encouraged the country's subsequent stability. The reforms eliminated price controls, reduced tariffs, allowed foreign investment, eliminated subsidies, and radically changed the country's social security system. For more information, see Ernesto Fontaine, *Mi visión* (Santiago, Chile: IDM/UDD, 2009).

general) attacked these processes, pejoratively referring to them as "neoliberal." Critics portrayed them as a deliberate attempt by the right and business groups to reverse social gains, impose unrestricted capitalism, and reduce the role of the state to a minimum. The reality was quite different, and it is worth analyzing what the goals really were and how change came about.

The reforms sprang from an immediate and temporary response to the crisis of the moment, rather than from a philosophical conviction or a well-defined and structured program. When a state can no longer pay its debts or continue to hand out large subsidies, when state-owned companies become an unsustainable burden and the tax base can no longer be expanded, when money that has been issued uncontrollably results in massive inflation, any official with a minimum of good sense understands that something must be done.

To remedy a situation that brutally affects the daily lives of the country's citizens and threatens to disintegrate into chaos, governments must adopt radical measures. They have to reduce the fiscal deficit drastically and, in order to do so, restrict spending, optimize sources of revenue, eliminate unnecessary activities, and cancel controls that impose a heavy burden on government accounts. This is why, during these harsh times, many administrations that had opposed a market economy in the past began to implement market-liberal reforms.

The first leader to understand the need for this type of change was Bolivia's Víctor Paz Estenssoro.[5] Estenssoro implemented market-liberal reforms despite the fact that he had led an almost socialist revolution in the 1950s and was a firm believer in the guiding hand of the state in both the economy and society. Other leaders who initiated similar reforms during this period were Peru's Alberto

5. The reforms that took place in Chile a decade earlier will not be considered here because they sprang from circumstances and ideas that were very different from those in the rest of the region.

Fujimori, Argentina's Carlos Menem, and the Social Democrat from Venezuela Carlos Andrés Pérez who, only fifteen years earlier when oil prices rose sharply, had undertaken the largest program of state expansion in his country's history. Like Mexico's Carlos Salinas de Gortari and Brazil's Fernando Henrique Cardoso, not one of these politicians held liberal convictions or believed in the virtues of a market free of constraints and controls. In fact, Fujimori won the election against Mario Vargas Llosa—who did hold these views—with lukewarm, left-of-center policies, and Menem was a regional Peronist leader, a party that consistently attacked liberalism both economically and politically.[6]

In no way does this detract from the reforms that were put in place, nor does it imply that the high-ranking officials in charge of their design and execution were all populists, leftists, or Social Democrats. Clearly, highly qualified intellectuals with market-liberal views or leanings were also among their ranks. However, these reforms—which were significant and subsequently bore fruit—were handicapped by the crises these countries faced and political restrictions imposed on their implementation. For many leaders, whether the deficit was reduced through spending cuts or increased taxation was irrelevant. Furthermore, it was beyond the scope of their interests to modify laws that gave considerable power to labor unions or to deregulate to favor free competition and eliminate monopolies.

Guatemala: Winds of change

Like the rest of the countries in the region, until the 1980s Guatemala's economy was marked by heavy state intervention. At the time, it was considered the only way to achieve economic growth. Countless controls were in place and many state-owned companies—generally monopolies—ran vital industries,

6. See Carlos Sabino, *El fracaso del intervencionismo: Apertura y libre mercado en América Latina* (Caracas: Editorial Panapo, 1999); Mario Vargas Llosa, *El pez en el agua: Memorias* (Barcelona: Seix Barral, 1993).

including rail and air transportation, electricity, petroleum, steel, and telecommunications.

But Guatemala was one of the few countries in Latin America to handle the 1980s crisis relatively well. Its public finances had been managed fairly prudently, avoiding unwieldy foreign debt and severe economic recession. Although GDP fell between 1982 and 1985, by 1987 it appeared to be recovering slowly. Inflation grew between 1985 and 1990, peaking at an annual rate of 60 percent in 1990. Unusually high for Guatemala, it was still much lower than the out-of-control situation in other Latin American countries during the decade, including Argentina (4,923 percent), Bolivia (8,170 percent), Brazil (close to 2,000 percent), Peru (more than 3,000 percent), and Nicaragua (around 17,000 percent).

After decades of bloody fighting between Marxist guerillas and government forces, Guatemala began to return to normal during the 1980s. By the end of that decade, the few insurgent groups that were left were relegated to isolated areas and lacked widespread support. After coups in 1982 and 1983, Guatemala was back on the path to democracy with a new constitution and the election of Vinicio Cerezo Arévalo, who took office in January 1986. Cerezo, like many heads of state in the region, was a Christian Democrat who remained strongly influenced by the interventionist schemes of the previous era. He did not handle the crisis period particularly well, although at the end of his administration he did introduce several fiscal and monetary measures that proved beneficial: eliminating price controls and harmful restrictions on currency exchange rates.[7]

Cerezo was followed by Jorge Serrano Elías in 1991, who came to power in a climate very different from that of his predecessor. The implosion of the communist system—which indirectly ended

7. Carlos Sabino, *Guatemala: Dos paradojas y una incógnita* (Guatemala: CIEN-ATLAS, 1999), pp. 40–41.

the Sandinista experiment in Nicaragua—and the apparent failure of statist policies forced countries in Central America, and Latin America in general, to consider reforms that would open up economies, get finances on sound footing, and do away with inefficient and unnecessary public companies. During this period, reforms began to push through in Bolivia, Mexico, Peru, Venezuela, and Argentina. Although they followed Chile's lead to a certain extent, the focus and pace of these reforms varied.

At the beginning of his administration, Serrano concentrated on lowering the deficit (for example, by reducing the number of public employees), which lowered inflation considerably during his first year in office. With the increased economic stability, he then turned his attention to reducing import tariffs and foreign debt, which during his administration fell from almost $2.5 billion to less than $2.2 billion. He began privatization efforts in the electricity sector (which had ended up in state hands a few years earlier) with an eye to gradually privatizing other sectors. But Serrano's administration ended abruptly in May 1993 when he attempted to concentrate political power in his own hands through a self-organized coup—much like Fujimori did in Peru the previous year. Public opinion in Guatemala was overwhelmingly against this attempt to violate the constitution. Lacking military support and with practically the entire country against him, Serrano was forced to resign and he went into exile. The peaceful resolution of the crisis demonstrated the critical roles the army and the principal political and social powers played in upholding the constitution, maintaining the democratic system, and consolidating and purging the country's institutions.

Serrano was followed by a transitional government led by Ramiro de León Carpio, who concentrated on restoring institutional order and did little with regard to the economy. He named Manuel Ayau—a businessman and intellectual known for promoting free-market principles—presidential commissioner for privatization. However, he gave Ayau neither an office nor a budget. Along with Eduardo Mayora and several others, Ayau explored ways to privatize state-owned companies. Faced with the government's lack of interest and cooperation, he eventually resigned his grandiose sounding post. The seeds of change, however, had been planted; a general change in economic policy was necessary. This hesitant attempt to privatize state-owned companies thrust the issue into the arena of public opinion and, as we will see, encouraged the work of Ayau and others who would propose concrete solutions to end state intervention.

Álvaro Arzú, former mayor of Guatemala City (1986–1990), won the presidency in January 1996. His political party—the National Advancement Party (PAN)—had formed in the mid-1980s and enjoyed a strong presence in the capital. The party had grown in recent years from twelve congressional representatives in 1990 (about 10 percent of the total) to twenty-four in the following election in 1994, when the total number of seats in congress had been reduced to just eighty (Guatemala has a unicameral legislature). The party was vaguely centrist and Arzú had been one of its leading figures since the beginning. It was also aligned with Jorge Serrano during his short presidency, when Arzú was appointed minister of foreign affairs (1991–1992).

Arzú did not win the presidency with a commanding majority of the votes, and his party held only a slim majority in congress. Like many countries in Latin America, Guatemala requires the president to win a majority of the vote. In a multi-party contest, this regularly requires a runoff between the top two from the first round. During the 1995 election, Arzú faced several candidates in the first round. He received 36.5 percent of the votes, while his party won forty-three of the eighty seats in congress. He assumed the presidency in January 1996 after narrowly winning the runoff (51.2 percent) against populist candidate Alfonso Portillo (FRG political party).

Above all else, Arzú considered himself a pragmatist—as he stated shortly after taking office. He distanced himself from extremism and was uncomfortable with political stereotypes. In fact, he still claims, “The left doesn’t like me and the right doesn’t understand me.” His record did not put him in the same camp as the leftist or populist politicians who had instituted reforms in other countries. Nor could he be considered a man with strong classical liberal convictions who firmly believed in the free market.

However, the new president understood that the country could not prosper without first meeting two key conditions. The first condition was political: a peace agreement with what remained of the guerilla movement that had pummeled Guatemala for several decades. Although isolated and politically defeated, the rebels continued to hold out in remote parts of the country and could still carry out operations effectively. Arzú believed it was impossible to completely defeat them and decided instead to accelerate negotiations to reach a peace agreement—talks that had been ongoing for several years. At the end of his first year in office, on December 29, 1996, the agreement for a “secure and lasting” peace was finally signed, formally ending the internal conflict that had long afflicted Guatemala.

The second condition was economic, and as important as the first: modernizing and expanding the country’s infrastructure, which was completely inadequate. This required significant capital, which Guatemala clearly didn’t have—thus the imperative to privatize the state-owned companies that provided basic services such as telephones, electricity, railroads, and mail. Investment by private companies would then finance the modernization of Guatemala’s infrastructure.

Determined to begin privatization efforts immediately upon taking office, the National Advancement Party (PAN) already had worked intensely to develop plans and create teams to carry out a complex program that would lead to the influx of foreign capital required to modernize the country's infrastructure—the basis for economic growth in general. The program was ambitious. President Arzú and Vice President Luis Flores Asturias—who oversaw the privatization process—sought to sell off the postal service, the electricity company (Empresa Eléctrica de Guatemala), the railroad (Ferrocarriles de Guatemala or FEGUA), the state telephone monopoly (GUATEL), and several other smaller companies. With the exception of the telecommunications reform, all were limited in scope and undermined by political concessions, falling far short of significant market-based liberalization. Not surprisingly, these more tepid privatizations had less impact in terms of consumer benefit.

Note

Privatization in a time of crisis

Privatizing a state-owned enterprise in a time of crisis—in telecommunications, electricity, railroads, airlines, or several other areas—presents both short-term and long-term advantages.[8] Specifically, privatization is a valuable tool to reduce fiscal deficits. It eliminates the ongoing expenditures of the public company and also generates revenue that can be very advantageous during financially hard times. When state assets are sold exclusively for these reasons, it is referred to as *fiscal privatization*, because the purpose is to improve the state's fiscal accounts. In such cases, governments are primarily concerned with securing the highest possible price for the liquidated assets. This is often a response to public opinion or political opposition, which tend

8. Adapted from Sabino, *Fracaso del intervencionismo*, pp. 285–88 passim.

to believe that the companies are worth more than the financial realities suggest.

But privatization has another, broader purpose that transcends the improvement of fiscal affairs. Selling public assets represents a simple method of reducing the role of the state in a civil society. It means opening the economy to markets to give individuals a greater voice in economic decisions, attracting foreign capital, and lowering the possibility of price manipulation of essential goods and services. To accomplish these objectives, however, the implementation process must be careful to protect certain things that are not normally taken into account in the case of fiscal privatization.

If the goal is to distribute the property and truly benefit consumers, the sale price will be just one factor to consider. The market characteristics that come into play after privatization will be even more important. Often public companies operate as a monopoly because the state prevents entry by competitors. Before it is privatized, the monopoly often is expanded or granted monopoly status by law in order to obtain a higher price by increasing its expected future earnings.

This policy provides short-term gains to the treasury and reduces political costs to governments beset by critics of privatization. However, it is counterproductive in the medium term (and opens the door for a long-term problem). First, not much changes for the consumer, who continues to be subject to a monopoly. The monopoly, as economic theory suggests, always reaps added benefits from its status. The goods and services it offers will be more expensive, the lack of competition will slow innovation and, in the end, the privatization will only temporarily improve the state treasury. Second, by maintaining or creating a monopoly, companies that could have competed with the one that was privatized are prevented from entering the market, reducing foreign investment and creating no benefit for the country.

If the goal is to reduce the state's role in the economy, privatization can also be applied to state-owned companies that yield a profit. These companies almost always exist in a monopolistic market that limits innovation, responds poorly to market demands, and over time tends to lead to operating losses. Some companies, such as petroleum producers, are highly profitable, have little monopoly power—at least in the international context—and operate with efficiencies roughly similar to those of their private counterparts in the rest of the world. The problem in these cases is not the potential loss of competitiveness; rather it is the outsized dimensions of the companies with respect to the local economy and the power that this places in the hands of sitting governments.

Together, these reasons give weight to the argument against any form of "state enterprise."[9]

Privatization should proceed cautiously to prevent undesirable political and social consequences. In that sense, the sale price obtained is a lesser problem. The greatest problem, experienced in several countries, is when buyers are limited to a small group of people linked to power, who often receive special credit to enable them to purchase the assets. The process often involves corrupt practices that reinforce the neo-mercantilist relations that have to be eliminated in order to truly open the economy.

Any privatization that aims to contribute to the expansion of the market economy must try to distribute the property as widely as possible, appeal to open capital markets to the extent feasible, and avoid unnecessary social unrest. In this last case, it would make sense to give workers stock option packages, gradually lay off excessive personnel, and always take special care not to infringe on people's rights or make them feel trampled upon.

9. See Madsen Pirie, *Teoría y práctica de la privatización* (Guatemala: CEES, 1997); Gerver Torres, *¿Quiénes ganan? ¿Quiénes pierden? La privatización en Venezuela* (Caracas: Artes Gráficas Consolidado, 1994).

A conceptual problem associated with the word "privatization" is often overlooked. As the term suggests, privatization is the transfer of the actual possession of public property to *private* hands. This definition does not encompass the transfer of assets from a central government to local governments or administrative changes that now require payment for services that public companies had previously provided at no charge. For example, a state university is not privatized when it charges tuition, nor is a state power company privatized when transferred from the federal government to a municipality. In the same sense, we must make a precise distinction between the privatization of public assets and the granting of a concession for services, where private actors manage assets that continue to be owned by the state.

To privatize a railway or a road (transfer the actual possession of land, improvements, and rights to a private company) is not the same as granting a concession to administer such assets for a determined fee and a set number of years.[10] In the first case, the buyer is responsible for actually running the business and assuming all risks and obligations derived from any economic activity. In the second, the concessionaire only takes on very limited risks and responsibilities, the same as happens when leasing a building. The difference is important not only because in the second scenario the concessionaire is much less likely to incorporate new technology or make other capital investments, but also because the state will retain certain rights that perpetuate its position as the possessor of property. This ultimately guarantees the state a decisive role in the functioning of the economy. Finally, and just as importantly, these concession contracts have a high moral hazard associated with them, which arises from the possible collusion between the government and the purchaser of the concession, a sure source of corruption.

10. See Alberto Benegas Lynch (h) and Martin Krause, *Proyectos para una sociedad abierta* (Buenos Aires: Abeledo Perrot, 1993).

Push for Reform in Guatemala

Importance of the telecommunications sector

Arzú was ahead of his time in recognizing that improvement in infrastructure required attention to more than roads and bridges, and that one of the most important sectors to improve was the telecom market. This insight was rare among political leaders in Latin America (and in the developing world in general) at that time, though it has since become common among politicians and economists.

The economic benefits of improved communications are especially significant for developing countries. During the decade and a half since Guatemala's telecom reforms, several studies have demonstrated these benefits in Africa and India. For example, an influential study by Leonard Waverman, Meloria Meschi, and Melvyn Fuss examined ninety-two countries across the world, both developed and developing. They found that increased mobile telephone use generated the greatest benefits in developing countries.[11] In contrast, in developed countries, many of the benefits of improved communications systems already exist because of their previously established fixed wireline networks.

For developing countries, the benefits from increased telephone subscribership are hugely important. Per Waverman et al., for example, a 10 percent increase in telephone penetration (e.g.,

11. Leonard Waverman, Meloria Meschi, and Melvyn Fuss, "The Economic Impact of Telecoms on Growth in Developing Countries," Vodafone Policy Paper Series, no. 3 (March 2005).

from 5 percent to 15 percent of the total population) increased GDP growth by more than half a percent. Such growth is especially significant in economies that may be growing only 1–2 percent or less each year.

Subsequent research focused on overall productivity gains due to enhanced communications services in various countries in Africa,[12] and gains in specific industries such as agriculture and fishing in India.[13] These results are not surprising: economic theory predicts that the benefits of increased telephone subscribership, such as lower search costs for consumers and improved operating efficiencies for producers, lead to increases in economic growth. Industry-specific studies such as Robert Jensen's research on coastal fisherman in India—where mobile phones allow fishermen to call ahead to various ports and thus better match supply and demand and earn a higher income doing so—provide a clear illustration of this link between improved communications capability and a higher standard of living.[14]

Although Arzú recognized that the Guatemalan economy needed infrastructure improvements in a host of sectors, he understood that investment in telecommunications would yield especially large benefits. Thus, he doggedly pursued reforms that would attract substantial investment in this critical sector.

Situation in 1996

When Arzú took office, Guatemala had over one hundred years of experience in telephone service, but coverage had always been meager, limited mostly to the capital and a few urban areas. In 1890 the private Teléfonos de Guatemala was established and

12. Jenny Aker and Isaac Mbiti, "Mobile Phones and Economic Development in Africa," *Journal of Economic Perspectives* 24, no. 3 (Summer 2010): pp. 207–32.
13. Rajat Kathuria et al., "India: The Impact of Mobile Phones," Vodafone Policy Paper Series, no. 9 (January 2009). Available at www.vodafone.com/publicpolicyseries.
14. Robert Jensen, "The Digital Provide: Information (Technology), Market Performance and Welfare in the South Indian Fisheries Sector," *Quarterly Journal of Economics* 122, no. 3 (August 2007): pp. 879–924.

later nationalized as two companies: Dirección General de Teléfonos and Proyecto Telefónico. In 1926 Tropical Radio & Telephone—a foreign operator offering domestic and international services—entered the market and was nationalized in 1966. The government merged the three state-owned companies into a single entity in 1971. The new company was called GUATEL.

The next quarter century showed little growth in telephone service; on average GUATEL installed fewer than 12,000 lines per year. In 1971 the company had 60,000 lines installed and operating; in 1996 there were only about 290,000 telephone lines for a country with twelve million people.

The GUATEL inherited by the Arzú administration was overloaded with personnel—the result of political and labor union influence. In fact, there were only fifty-six lines for every employee, one third the Latin American average. The telephone network remained heavily concentrated in the capital: 80 percent of telephone lines were installed in Guatemala City, provincial capitals had approximately 19 percent, and only 1 percent could be considered rural (and even these were usually not in the countryside, rather in smaller, less important urban areas).

Aggravating the situation further was the fact that Guatemala was still a predominately rural country; less than 40 percent of the population lived in urban areas. At the time, telephones were a rarity in most of the country. While larger communities might have one or two functioning telephones, those living in rural areas usually had to travel long distances to get to a phone. Then they would have to wait hours in line just to place a call. No one counted on resolving urgent matters by phone.

The situation in the capital wasn't much better. Optimistic estimates indicate that it took about three years to purchase a telephone line and get it installed. Houses for sale or for rent that had phone service would emphasize this fact since it increased their market value. In order to get a line installed, it was not unusual to have to pay GUATEL employees substantial bribes—these could amount to $3,000, more than the annual income of the average Guatemalan at that time. Anyone who managed to acquire service in only a few years was considered extremely lucky. It was so exciting to finally be able to communicate by telephone that many families even threw parties to celebrate the installation of a new line.

But having a telephone didn't necessarily mean one could use it to communicate. It was normal to have to wait up to ten minutes for a dial tone. And obtaining a dial tone didn't guarantee a successful call. Very often calls wouldn't go through or the caller would be connected to a number different from the one dialed. International calls, though, were the real nightmare. Not only were they extremely expensive, at several dollars per minute, but it could take hours of dialing just to get a call to go through. Some companies with close ties abroad were forced to buy dedicated satellite lines to stay in touch with the outside world (the first ones cost $10,000).

In 1996 the country had just 3.4 telephone lines for every one hundred inhabitants. This was fewer than the Latin American average of 10 percent, and it was far fewer than in developed countries, where coverage generally exceeded 50 percent.[15]

Unlike other state-owned companies, however, and despite its excessive number of employees, GUATEL did not turn out losses; rather it produced profits. This was due, in part, to its particular pricing structure and to the small amount it invested in expansion and modernization of services. Rates for local calls were very low, while international calls were expensive. Long-

15. Centro de Investigaciones Económicas Nacionales (CIEN), "Comunicaciones," *Infraestructura para el tercer milenio* (Guatemala) año 1, edición 3 (1999).

distance service subsidized local calls, allowed the company to meet its payroll, and appeared to favor lower-income consumers who could make calls within an urban area almost for free.

From a social standpoint this income and spending structure had the completely opposite effect. First, urban residents (who enjoyed higher incomes in general) held an advantage over the rest of the country, which either struggled with very limited service or had none at all. Second, despite what one might think, the demand for international service didn't come just from high-income consumers; it also came from the enormous portion of the population that had close relatives living abroad. By this time large numbers of immigrants from low-income families were working in the United States and other countries. Thus, GUATEL's pricing structure hurt immigrant families at the same time its limited coverage failed to serve rural consumers.

The market for mobile (wireless) telephone service in 1996 was no better. In 1989 the government had auctioned a single license to provide this service. The winner, COMCEL, operated as a privately owned monopoly and had a close relationship with GUATEL, to which it was required to pay a percentage of its profits (officially 10 percent of gross billings, though in reality the amount usually transferred was less). In exchange, GUATEL stayed out of the wireless market.

No other provider entered the mobile telephony market because the rules to obtain spectrum usage rights essentially prevented it. Thirty years earlier the Guatemalan government had bifurcated its regulatory responsibilities for assigning spectrum frequencies that could be used for communications, under the Radio Communications Law of 1966.[16] Frequencies below 800 MHz—which included bands commonly used for radio and television

16. Ley de Radiocomunicaciones, Decreto-Ley Número 433 (March 10, 1966).

broadcasting—were regulated by the Dirección General de Radiodifusión y Televisión Nacional, with authorizations granted by and maintained at an office in the Ministry of Defense. The frequencies above 800 MHz—including those used for the emerging mobile voice services—were regulated by an office within GUATEL. Unsurprisingly, no new provider of commercial mobile service received rights to operate on these frequencies in the years leading up to the reform.

Like its state-run cousin in the wireline market, and similar to providers in many developing countries at the time, COMCEL failed to expand wireless subscribership at a rate that would come close to satisfying demand. From 1989 to 1996, COMCEL acquired only fifty thousand subscribers.

In short, the telecommunications market in the period leading up to reform was truly deplorable and represented an obstacle to the country's economic development. The unmet demand for approximately one million telephone lines stymied commercial transactions, practically isolated all of the country's provinces, and impeded growth. The new administration was well aware that something had to be done—and soon—to correct the situation and that failure to do so would seriously compromise economic growth. The sector's de-monopolization and liberalization program was aimed at attracting the private capital required to quickly and effectively expand service.

Strategy and Implementation

Genesis of a team

The conventional reform approach that the most prominent international organizations promoted to developing countries called for the state-run monopoly to be sold as a private monopoly. The government would gain much-needed funds and the buyer would receive a presumably temporary monopoly that would be regulated by the national authorities. This state-centered approach mirrored the mentality prevalent in the region over previous decades.

Those in charge of telecommunications reform in Guatemala understood that this conventional approach would maximize revenue for the state treasury, but it wouldn't solve the underlying problem: the need to rapidly expand service and ensure competitive rates for customers. Meeting these needs would require more competition. But it was not an easy situation. Bold action had to be taken in order to open the market and promote competition right away.

The job of dissolving the monopoly and opening up Guatemala's telecommunications sector would fall to an engineer named Alfredo Guzmán, a young member of congress and graduate of Universidad Francisco Marroquín (UFM). As a legislator, Guzmán had focused on housing policy, but he also had been trained as a systems engineer and thus readily grasped the issues in telecommunications reform. One of the first steps he took was to draw on the ideas of others who shared his principles and had previously grappled with similar questions. Among these was

Giancarlo Ibárgüen, an electrical engineer (Texas A&M) and provost of UFM.

Note

Universidad Francisco Marroquín

In 1959, when the tide of economic statism throughout Latin America was at its peak, a group of Guatemalan businessmen and thinkers had founded CEES (Center for Social and Economic Studies), a think tank committed to classical liberal thought and market-based economics. Manuel Ayau, the most enthusiastic of its founders, gained prominence during the following decades as CEES gradually grew and took on new commitments and activities.

Ayau went on to become founding president of Universidad Francisco Marroquín, a unique educational institution whose mission is to "teach and disseminate the ethical, legal and economic principles of a society of free and responsible persons." Giancarlo Ibárgüen, friend and disciple of Ayau, would later become the university's president. Eduardo Mayora—another key player in the reform—would serve as dean of UFM's law school. From UFM's classrooms, an entire generation of young professionals with excellent academic backgrounds emerged. Among them were Alfredo Guzmán and others who would play a key role in Guatemala's telecommunications reform, all of whom were committed to principles of individual liberty.

Ibárgüen offered an idea that would decisively change the strategy for reforming telecommunications in Guatemala. While studying the radio spectrum during the first half of the nineties, he concluded that this important resource should be managed by markets—not subject to arbitrary or burdensome government regulations—in order to promote emerging technologies, such as mobile phones and the Internet, which could dramatically improve lives in Guatemala. Fixed networks that used copper wires to connect phones and other devices were quickly becoming a thing of the past. This was especially true in developing countries due to the high costs to deploy wireline (fixed) services and the relatively low cost to deploy wireless (mobile) services. Thus, it had become crucial to create a flexible and open system that would allow all stakeholders to use the spectrum so that the country could develop modern communication media available to everyone.

The Coase connection

The idea to develop market-based mechanisms to assign spectrum frequencies was radical, but it was not new. Ibárgüen drew upon a literature that had started almost four decades earlier with the work of economist Ronald Coase, who wrote a famous paper on the regulation of radio frequency spectrum.[17] The question addressed by Coase in 1959 was how best to assign rights to use the spectrum resource, given that it was useful, scarce, and subject to conflicts among users. The accepted wisdom of the day was that the government—in the United States, the Federal Communications Commission (FCC)—should control access to and use of the spectrum so as to minimize harmful interference.

Coase challenged the conventional wisdom. He asked why the spectrum couldn't be managed the same way other scarce and valuable resources are managed—via property rights and the price system. Under such a system, those who valued a particular spectrum band most highly would pay to acquire rights to use it. The problems of users in neighboring bands that interfered with each other would be similar to that faced by neighboring property owners. Indeed, Coase's consideration of this interference problem led him to investigate other issues related

17. Ronald Coase, "The Federal Communications Commission," *Journal of Law and Economics* 2 (October 1959): pp. 1–40.

to competing uses of property, such as pollution. This research led to a paper published in 1960 on the issue of externalities, one of the most cited papers in all of economics and work for which Coase eventually would be awarded the Nobel Prize.[18]

Coase's argument that spectrum could be treated like property eventually would have a deep impact on ideas about the best rules to regulate its use. Reformers in a handful of countries—Australia, El Salvador, Guatemala, and New Zealand—proceeded to test this hypothesis. In some cases, they had not even read Coase, but nonetheless were motivated by a respect for markets and a need for reform. Guatemala would provide perhaps the clearest example of how such reform could work.

Prior to the 1996 reform in Guatemala, the approach to spectrum regulation—which had produced the slow-growing COMCEL—was similar to the regulatory policies seen in the United States, the United Kingdom, and many other countries around the world. A concession would be granted, usually specifying both the type of service to be provided and the type of technology to be used in a given spectrum band.[19]

Important but more limited reforms were taking place in other countries at about the same time. In the United States, the FCC had for many years tried assigning licenses via administrative hearings ("beauty contests") and later using lotteries. Eventually, the Omnibus Budget and Reconciliation Act of 1993 granted the FCC authority to use auctions to assign spectrum licenses for certain services, such as mobile telephony.[20] This

18. Ronald Coase, "The Problem of Social Cost," *Journal of Law and Economics* 3 (October 1960): pp. 1–44.
19. For a review of these practices and the inefficiencies associated with administrative allocation see Thomas W. Hazlett, "The Wireless Craze, the Unlimited Bandwidth Myth, the Spectrum Auction Faux Pas, and the Punchline to Ronald Coase's 'Big Joke': An Essay on Airwave Allocation Policy," *Harvard Journal of Law and Technology Policy* 14, no. 2 (Spring 2001): pp. 335–567; and Thomas W. Hazlett, "Assigning Property Rights to Radio Spectrum Users: Why Did FCC License Auctions Take 67 Years?" *Journal of Law and Economics* 41, no. 2 (1998): pp. 529–76.
20. Omnibus Budget Reconciliation Act of 1993, Pub. L. 103-66, Sec. 6002, available at http://www.gpo.gov/fdsys/pkg/BILLS-103hr2264enr/pdf/BILLS-103hr2264enr.pdf

was a critical (albeit incomplete) step towards Coase's vision of allocating rights to use spectrum via market processes.

Auctions helped remove some of the inefficiencies of these approaches. In terms of *who* got licenses, auctions would be more efficient by assigning them to the highest valued user from the start. However, the US government still would dictate *how* the spectrum would be used—commercial mobile telephony, TV broadcasting, or other services. When this happened, the spectrum might not be put to its highest valued use, leaving the consumer worse off. Therefore, significant flexibility in *how* the spectrum is used would be required to create maximum value for consumers.

Though unaware of Coase's contributions at the time, Ibárgüen saw the value of assigning property rights to the spectrum. As a strong believer in limited government, he was interested in the privatization of a variety of state-owned assets. As an electrical engineer, he viewed the spectrum as a perfect candidate.

The system he envisioned would be very different from the standard regulatory approach in almost every other country. It would provide the same freedoms and flexibilities associated with land or similar goods. However, the Guatemalan constitution did not allow the government to grant full title to the spectrum. (Article 121 of the constitution provides that "property of the State includes . . . radio frequencies.")[21] Ibárgüen felt the easiest and fairest solution would be to grant "usufruct titles," called TUFs (*títulos de usufructo de frecuencia*, similar to the legal concept of beneficial ownership). This would provide title holders nearly full property rights, allowing them to use, transfer, divide, attach, or lease the spectrum, similar to any other economic good.

21. Constitución Política de la República de Guatemala [Constitution of the Republic of Guatemala], Art. 121.

It was Manuel Ayau who first introduced the two engineers at a memorable breakfast. Ibárgüen had not only studied communications but was also an expert in economic theory. Guzmán had studied the fundamentals of market-based economics at UFM and, like Ibárgüen, understood the technical issues, which would be indispensable in meeting the challenge of a reform. Ibárgüen drafted a "law of radio frequencies" and gave it to Guzmán the following week, in the spring of 1995. They met several times thereafter to discuss the ideas in depth. The preliminary ideas were so clear and innovative that they captivated Guzmán's attention, and he adopted them as the basis for his policy positions.

Note

The mysterious electromagnetic spectrum

We are all familiar with electromagnetic waves. Light, for example, is simply the radiation of electromagnetic waves: the propagation of electric and magnetic fields through space. They can carry on indefinitely, traveling in a vacuum or any appropriate physical media. That's why we can see light from stars even though they are an enormous distance from us, separated by the vast emptiness of the cosmos. These waves—these electromagnetic vibrations—oscillate like pulsations at a rate difficult to imagine (visible light, for example, oscillates at millions of times per second). The frequency at which they oscillate determines the colors we perceive.

Outside the visible spectrum, electromagnetic waves can also vibrate at lower frequencies. These can be modulated so that sound, images, or digital information can be transmitted through them and then converted back into sounds and images by the receiver. A radio station, for example, can use frequencies for their transmissions ranging between 100.10 and 100.15 million vibrations or cycles per second (100.10

and 100.15 megahertz). This interval is called a "band," a specific section of the spectrum used by each transmitter, which can be radios, televisions, or mobile phone operators.

In Ibárgüen's proposal, the liberalization of the airwaves would be achieved by means of the TUFs, granted with little paperwork to whoever applied. These titles would last for fifteen years, be renewable without charge, and also be freely negotiable. They would specify only the frequency to be used, the geographic location, coverage area, and hours of operation. If there were several parties interested in the same frequency, an auction process would be used, with a public entity created to administer the system. The basic problem of interference—the superposition of two users on the same frequency—would be resolved by a straightforward method that protected the initial right-holder from interference by other parties.

Importantly, instead of having a regulatory body control all of the possible frequencies, an inverse system was suggested; it was modeled on the principle that whatever is not expressly prohibited is permitted to individuals. This was explicitly provided for in Article 9 of the Ibárgüen proposal, which read:

> No authorization is required for the establishment or use of radio frequencies intended for intercommunications, telecommunications, data transmission, or radio messages in digital, analog, or another form, within and outside of residences, buildings, public or private property, or any other facility provided they are environments completely isolated in terms of radio frequencies and they do not intercept or interfere with the units of the radio spectrum granted through titles of beneficial ownership [TUFs].

Although this statement was not included in the law that was finally approved, it served as a frame of reference to significantly open the market and establish best practices in the new legislation.

A two-stage strategy

From the beginning phase of conversations and brainstorming, the general strategy was embodied in a two-stage plan that would make the Guatemalan reforms unique. The first stage would pursue a new telecommunications law to make spectrum readily available, which would allow the creation of a competitive, non-monopolistic communications market. The second stage would pursue a more conventional privatization of GUATEL, but only after the law making spectrum available was in place and the market had been opened.

To achieve competition, however, it was necessary to complement the easy availability of frequencies with a measure that would facilitate network connections and prevent GUATEL from exploiting its market position when it became privately owned. Guzmán was especially concerned with a scenario in which GUATEL, the lone operating company at the time, would be able to exploit its ownership of the only existing network and deny access to emergent competitors. This would severely limit the ability of competitors to expand, most likely restricting them to service only in the most profitable markets, which were concentrated primarily in the capital city.

The challenge was to address this issue without falling into the traditional, highly regulatory approach. A flexible mechanism was devised that established one simple condition. All players were required to enter into network connection agreements upon request from other providers, and these agreements would have to include access to the essential resources necessary for their implementation. This would keep GUATEL, or any new player, from shutting others out. What makes the Guatemalan story different is that companies would first freely negotiate network connection agreements. If the parties could not come to agreement on their own, they would be obliged to do so through an arbitration mechanism. There would be no detailed set of terms and conditions outlined by a regulator, only the condition that all providers grant access to their networks, with mandatory arbitration when agreements could not be reached.

The strategy and a clear sequence of steps to follow had been defined. However, much remained to be done. The aspiring reformers still had to win an election, confront opposition by many experts, and convince a skeptical public, always suspicious of privatization initiatives.

The political process

The PAN party won the elections with narrow margins. It had actively prepared for the reform effort prior to inauguration and the new government took office on January 14, 1996 with a well-studied plan in hand. However, it soon discovered that the treasury lacked funds for even the most basic needs. President Arzú applied for a personal loan to solve the unexpected setback. Although some plans had to be deferred, the area of telecommunications reform proceeded.

Immediately after the election victory, Guzmán asked to meet with the president-elect to reconfirm his proposal for the reform. Arzú met with him in his trademark hasty style. During a meeting that barely lasted a couple of minutes, Arzú offered him the position of director of GUATEL. When Guzmán asked if he had a green light to make all of the changes discussed months before, the new president simply said, “Sure, go ahead,” with only a warning to proceed carefully to avoid setbacks.

Although preoccupied with the responsibilities that come with leading a new administration, Arzú understood that improvements in telecommunications infrastructure offered a highly leveraged way to improve the economy as a whole. His brief instruction to Guzmán was clear: “I want a lot of lines, everywhere, fast.”

Only thirty-one years old, Guzmán began his formidable task. He took control of the public telephone company with great enthusiasm and the confidence of someone who has duly prepared himself for the job at hand. He resigned his congressional seat on January 16 and immediately focused on building a team of supporters that would help him in his new role.

Guzmán wished to combat the pervasive sense that in Guatemala "nothing ever happens," at least nothing of importance, no real and profound change. All efforts to reform seem to get stuck somewhere between apathy and a cancelling out by vested interests. The need for reforms that are solid, well-structured, and long-lasting had been written in the history of telecommunications in Guatemala—a series of failed attempts by previous governments to restructure or liquidate the state-owned company.

This attitude that "nothing ever happens" in Guatemala (in telecom or in any other major sector) was based on experience. Reform efforts by three previous presidents included the appointment of someone from outside GUATEL to lead the effort. But this time would be different. Arzú made sure that the person to lead his reform effort did so from the inside, as head of GUATEL. Guzmán would later reflect that this detail was critical.

Guzmán knew that he would have to overcome tough opposition, as people held to vested interests and preconceived ideas. But he was ready to fight with determination—and good advisers—for lasting change. He would have to face the powerful GUATEL unions and patiently convince the company's staff with ingenuity and good ideas. He focused on creating a good team of people who were loyal, technically capable, and committed to his ideas—to his original strategy—which now would actually have a chance for implementation.

Assigning tasks

To handle the many challenges and still keep his eye on the ultimate goal of significant reform that would benefit consumers, Guzmán created three informal teams. The first team was tasked with opening the market. They would focus on working with congress to draft a telecommunications law to do this. Monopoly was not an option. Ease of entry was the order of the day, along with strong, well-defined rights for users. Eventually, these broad policy outlines would be forged into law.

The second team was in charge of determining how to privatize GUATEL. While sale of the state-owned telecommunications provider had to wait until legislation opened the market, many questions had to be addressed early on. This team would work with a variety of experts, including investment bankers and financial advisers.

The third team was responsible for managing the day-to-day operations of GUATEL. Guzmán hired Giovanni Musella as assistant director of GUATEL, the second in command in the organization. Musella had studied systems engineering with Guzmán at UFM and the two were close friends. This high-trust relationship was very important. Musella personally read every memo, contract, and all other business documents, which freed Guzmán to focus his energies on the work of the first two teams.

Part 1: Deregulate to open the market

In 1995, before Arzú was elected, new players joined the effort to address specific problems that would need to be resolved before reform could become reality. The Center for National Economic Investigation (CIEN) assumed an extremely important role in the project, concentrating on the actual viability of the plan in the works to liberalize telecommunications. CIEN was a well-known, non-partisan think tank, established in 1981, that conducted research on public policy issues. Its positions were clearly oriented in favor of market-based policies and it was made up of highly qualified professionals who stayed abreast of the latest research.

Throughout 1995, CIEN had worked on economic reforms that Guatemala needed to get on the path to growth. Its goal was to provide specific, viable, and well-developed proposals that could be implemented by the new administration that took office in January 1996.

Carmen Urízar joined the team at CIEN at the beginning of 1995. She had also graduated from UFM (with a degree in economics) and had just earned a master's in economics in the United States from Clemson University, where she specialized in public policy in electricity and telecommunications. She had already been offered a job at an important international company, which was to begin in March, but she was interested in what CIEN was doing at the time and decided to accept its offer to work for a few months on telecommunications reform. She quickly became engrossed in the subject and decided to turn down the attractive job offer so she could work full-time to understand the problem and design a solution.

Urízar began by contacting Ayau and Ibárgüen, at CEES, and Guzmán, who at this time was still a congressman and member of the congressional committee in charge of telecommunications. She also examined telecom laws in other countries, including Chile, the United Kingdom, and New Zealand. In March, thanks to another UFM graduate named Ileana Pinto, who worked at the Inter-American Development Bank, she got in touch with Juan Belt, from USAID/Guatemala (United States Agency for International Development). Belt, a graduate of University of Chicago, was an expert in privatizations and open to new ideas that could improve what was being done in various countries at the time. Although by midyear the strategy to be followed was clear, it was still necessary to finalize the proposed law. Something else also needed to be done, which was considered indispensable to the success of the project: the endorsement of international experts had to be secured. Their backing was essential for generating local support, and so talks began on these new ideas with well-known experts in the United States.

Belt arranged for Urízar and Guzmán to travel to University of California at Berkeley in November of 1995 to discuss their ideas for reform with economics professor Pablo Spiller. A native of Uruguay with a doctorate from University of Chicago, Spiller was a well-positioned and well-regarded international expert in telecommunications policy. His initial response to Urízar and Guzmán was cautious and closer to the traditional view. In particular, Spiller was concerned about the need for clear rules that would allow for competitors to interconnect with the state-owned telephone company. The idea of reform based on completely open entry—with no privileges for the former monopolist and no restrictions on the ability of new firms to enter the market—was unfamiliar and untested. However, a lively discussion with his two visitors from Guatemala soon convinced Spiller that this new idea for reform was worthwhile. With his intellectual support, the project was well-positioned to move forward and GUATEL contracted Spiller, with USAID paying a portion of the consulting fees. Later in the reform process, after a new telecom law was passed and as the team moved to privatize the state-owned monopoly, they would contract Thomas Hazlett, another well-regarded expert who previously had served as chief economist at the US Federal Communications Commission and was now a professor at University of California, Davis. A strong advocate of spectrum liberalization, Hazlett would provide further intellectual support for the bold effort underway.

Following the meeting with Spiller in California, additional meetings were held back in Guatemala to work on technical and legal issues. The team secured the support of a highly respected lawyer named Álvaro Castellanos, who had ties to the Guatemalan Chamber of Commerce and was a proponent of classical liberal ideas. He was responsible for the legal language in the bill that would become the new General Telecommunications Law.

As Guzmán talked about the innovative proposal with key agencies in the international community, it was clear that support by Juan Belt and USAID was the exception. Others were skeptical and pushed for GUATEL to be sold as a private monopoly that would be carefully regulated. Experts at the World Bank favored a model based on Costa Rica, which at the time had better telephone service than Guatemala but had continued to operate with a state-run monopoly. Experts at the International Development Bank were less hostile towards the new reform but nonetheless viewed it as unfamiliar and untested. In the end, the opinion of international agencies didn't matter. Guzmán made it clear that he was simply extending the courtesy of informing them what Guatemala was going to do, and that his country sought neither their approval nor their financial support.

Technicalities

The move from a conceptual model of reform—create property rights to spectrum—to a workable law posed daunting challenges. These included technical considerations, such as how to define and measure both the use of spectrum and interference with other users, as well as how to deal with international treaty obligations. There also was the politically tricky issue of what to do with existing users of the spectrum.

Guzmán knew that many spectrum users were scattered across the radio frequencies. Users of frequencies above 800 MHz were required to have authorization from GUATEL. Those below 800

MHz—the highly valuable spectrum used for radio, television, and various other communications—were required to have authorization from the Ministry of Defense. In short, the registry of frequencies with the most users was in the hands of the military.

The military's control of valuable frequencies had a long history. In 1996 Guatemala was formalizing the end of a bloody internal conflict that had begun over three and a half decades earlier. During this period, control of mass communications had been viewed as a political necessity. In this new era of peace and reform, however, military control of the frequencies was a political obstacle to reform.

What happened next illustrates the critical role played by a committed head of state. When Guzmán explained the situation in a meeting with Arzú, the president called the Minster of Defense and ordered him to transfer the registry of users of frequencies to GUATEL, which would now maintain the registry and control authorization for users of *all* frequencies. The next day, Guzmán and a team from GUATEL arrived at the Ministry of Defense. A stunned manager checked with his superiors and quickly learned of the presidential order. Weeping secretaries watched as GUATEL employees loaded box after box onto trucks and, under heavy guard, transported them to the telephone company's headquarters.

The stacks of boxes full of authorizations presented a tedious task. Guzmán recruited an experienced and scrupulous staff member to review them one by one. The staffer determined that the vast majority of these documents had no legal backing; those that had proper authorization would barely cover a small desk. For years, most users of spectrum had operated without legal standing, and virtually no one had known. The new law would change that.

Many users approached Guzmán. A few went directly to President Arzú. Their response was the same. Those who did not have proper legal backing to use the spectrum would have to get it under the new rules: A right to use the spectrum was freely available upon request. If more than one party wanted the same band for commercial use, an auction would assign the right to whoever valued it the most.

The General Telecommunications Law

The proposal for a new telecommunications law had been ready to go almost from the day Arzú assumed the presidency. Nonetheless, the effort to pass a telecommunications law required legislative coordination and leadership. The task fell to Mario Roberto Paz, an architect by profession, member of congress (PAN party), and—most importantly—chairman of the telecommunications committee in congress. It was Paz who would have to spur his colleagues' interest in the proposed law and ultimately get their votes to approve it.

Paz had two factors working in his favor. First, the PAN party held the presidency and a slight majority in congress. Thus, only a little party discipline would be needed to give Arzú a legislative victory for those elements of the law that required only a simple majority. Second, the nature of the proposed law did not raise the concerns that tax or budgetary matters tend to ignite. Rather, telecommunications reform addressed such abstract themes as radio frequencies, which lay beyond the interest of most lawmakers. Paz was successful and the law was passed as "Decree 94-96" on October 17, 1996 (minor modifications were adopted in 1998 and 2004).

Decree No. 94-96, or the General Telecommunications Law, has 101 sections. The preamble states:

> It is necessary to create a legal framework comprised of general regulations that will permit the efficient exploitation of the radio spectrum, prevent discretionary exploitation and use, and favor the supply of services through free competition.

Section 1 of the law elaborates on this purpose:

> To support and promote the efficient development of telecommunications, stimulate investments in the sector, promote competition among the different groups or people who offer telecommunications services, protect the rights of users and companies that provide telecommunications services, and support the rational and efficient use of the radio spectrum.[22]

This section provides the general guidelines for truly opening the sector. It recognizes the value of regulations that are general in scope, the need to create rules that favor competition, and the value of the market as a means to ensure efficiency and customer well-being. Subsequent sections address specific points that will guarantee that the guidelines are actually put into practice.

The law calls for the creation of the Office of the Telecommunications Superintendent (SIT);[23] defines procedures for network interconnection between different operators, as well as access to the essential resources required to do so;[24] liberates the radio spectrum through the system of usufruct titles mentioned previously;[25] establishes procedures to resolve cases of interference in the use of spectrum;[26] and creates a fund to subsidize rural service.[27]

Creating a new telecommunications regulator

The law establishes the SIT as a separate entity within the Ministry of Communications. While administratively independent, this regulatory agency is not entirely autonomous. Guzmán and his team had wanted autonomy, but this required the approval of a two-thirds majority in congress, a level of political support that

22. All excerpts are from the General Telecommunications Law, Decree No. 94-96 (1996). An English translation of the law is available at http://www.sit.gob.gt/uploads/docs/laws/TelecommunicationsLaw.pdf.
23. General Telecommunications Law, Title II, Sec. 5–21.
24. Ibid., Title III, Sec. 26–40.
25. Ibid., Title IV, Sec. 50–70.
26. Ibid., Title IV, Sec. 53.
27. Ibid., Title V, Sec. 71–77.

they couldn't achieve. This alternative configuration for the SIT only required a simple majority, which they could obtain to get the new law approved.

Guzmán and his team worked overtime to ensure that if the agency was not to be autonomous, its powers would be carefully enumerated and—this point is critical—highly *limited*. They were keenly aware of the power that most countries give to their telecommunications regulators, who can pick up the phone and get transferred directly to the heads of the largest and most powerful telecommunications providers in their country. Regulation in Guatemala would be different.

Requiring interconnection of networks

The law also established a clear policy with respect to promoting network interconnectivity. This was important to encourage intense competition in the sector from the beginning. Otherwise, every new entrant would have to build its own network from scratch. It was thought that such a result would greatly increase the required upfront investment, hinder the expansion of services, and allow GUATEL to take advantage of its market position. Accordingly, the law provides that interconnectivity be freely negotiated and if the parties do not reach agreement, it creates an ingenious system of arbitration. Both parties—the owner of the network and the applicant—make their bids. An expert is appointed to give an independent opinion as to the fair price for interconnection and the proposal closest to the expert's opinion is selected. By not averaging the bids, the parties are implicitly forced to make reasonable offers instead of extreme ones, which would give them an advantage if the amounts were averaged.[28] In the United States, this process is now referred to as "baseball arbitration."

28. Ibid., Sec. 33–38.

Opening the market

One of the most significant elements of the law is an open market structure that eliminates entrance barriers to different services as much as possible. The essential point—free competition—is set forth neatly in the section on Rules of Operation:

> **Freedom to compete**. The contractual conditions as well as the prices for every kind of commercial telecommunications service will be set freely by the parties and will not be liable to regulation or approval by the state authority, except in regard to access to essential resources, which is subject to the stipulations in this law.[29]

The critical component that makes freedom of competition possible is the creation of usufruct titles (TUFs), which give rights to use the spectrum. Granted upon request (or publicly auctioned in the case of multiple requests), they allow spectrum to be treated like any other economic good: to be bought, sold, leased, divided, used as collateral, etc.[30] It is no longer necessary for the government to decide who will be awarded frequency bands or how these bands will be used (with the exception of a few very general rules to prevent interference). Instead, it is possible to request and obtain access to these bands in a quick, simple, and straightforward manner.

Creating a property right to spectrum

With regard to the regulation of spectrum use, what distinguishes the Guatemalan law from those in most other countries is this creation of a quasi-property right to the resource through the use of TUFs. In the United States and a number of other countries, the government grants a much weaker right to spectrum use. In particular, with the traditional model, government decides when to make rights to certain bands available as well

29. Ibid., Sec. 22.
30. Carmen Urízar, “Un marco conceptual para la regulación económica en Guatemala (telecomunicaciones y electricidad),” *Revista de Estudios Sociales* (Universidad Rafael Landívar, Guatemala), no. 69 (2003): pp. 108–9.

as how that spectrum can be used. In Guatemala, the process is different.

The spectrum in Guatemala is divided into three categories of bands. One is designated for amateur radio operators, the second represents "reserved" bands for government use, and the third defines "regulated" bands for commercial use.[31] For commercial users operating in regulated bands—for example, providers of radio, television, cellular service, mobile Internet, and satellite communications—the user must hold a usufruct title (TUF) issued by the superintendent's office (SIT).

The requirements to obtain usufruct titles are simple: An application is submitted to the superintendent's office indicating the specific band or range of frequencies requested, hours of operation, geographic area of operation, and radiation strength. In the case that two or more parties are interested in acquiring a TUF for the same band, the SIT will invite all interested parties to participate in a "public auction of the requested band, and possibly divide it should it be considered necessary to promote competition in the telecommunications market."[32]

The TUF is a simple, one-page document, containing the date it was issued, name of the title holder and a blank space for endorsements, and basic technical information such as the hours of use, the geographic area of operation, and the radiation strength.[33] (See picture of a TUF in the appendix.) Titles are awarded for a period of fifteen years and are renewable (without payment) unless the SIT has evidence that "the title was not used in any way during the period that the owner exercised the right of usufruct."[34] Finally, but also important for the emergence of

31. General Telecommunications Law, Sec. 51.
32. Ibid., Sec. 61.
33. Ibid., Sec. 57.
34. Ibid., Sec. 58.

a competitive market, once issued, each usufruct title "may be partially or totally leased or transferred."[35]

Resolving disputes in the use of spectrum

The law stipulates that the SIT must respond promptly to cases of interference upon receiving a complaint from a legitimate user. A TUF holder may file an interference complaint, which must be prepared by an accredited technical expert.[36] The SIT then informs the party accused of causing the interference, and this party is given ten days to respond to the complaint by filing its own technical report. Upon receipt of the response, the SIT must issue a finding within ten days. Parties that are found to have interfered with the rights of a TUF holder may be required to cease radio transmissions and pay a fine.[37]

Grandfathering the broadcasters

In the case of radio and television broadcasters already using frequencies legitimately assigned through the previous system, the decision was made to convert their licenses into TUFs upon expiration of the current rights. Given the political power of these spectrum users and their staunch refusal to participate in auctions to secure TUFs over the bands in which they were operating, a political decision was made to accept the broadcasters' claim to vested rights to use this spectrum.

Note

Five freedoms and one obligation

Over time and multiple conversations, the new framework came to encompass what Alfredo Guzmán describes as "five freedoms and one obligation," applicable to all providers in the market and ultimately reflected in the new telecommunications law:

35. Ibid., Sec. 55.
36. Ibid., Sec. 53.
37. Ibid., Sec. 81–84.

The freedoms

- **Entry and exit**: No conditions would be placed on a provider to enter a particular market, nor would any provider be required to remain in any market for a given period.
- **Pricing**: Service prices would not be regulated by the government.
- **Technology**: Providers would be free to use the technology of their choice (only a decade earlier, the United States had specified the technology to be used for mobile telephony).
- **Geographic coverage**: Providers in Guatemala would be able to operate wherever they chose (at the time, many countries tried to extend coverage by requiring service in unprofitable areas).
- **Market/corporate strategy**: The type of business model used by providers would not be regulated.

The obligation

- Providers would be required to provide interconnection in order to limit potentially anticompetitive behavior by the incumbent GUATEL.

Creating a Fund for Rural Service

Finally, it should be noted that the new law attempted to address concerns that communications services might not extend to certain areas or certain groups under the new, highly competitive market structure. In response, the law created the Telephony Development Fund (FONDETEL) to "promote the development of telephone service in rural and/or low-income urban areas."[38] Funding came from "seventy percent (70%) of the earnings from the auction of usufruct rights of the radio spectrum" in the first eight years following passage of the law.[39] The money was to be

38. Ibid., Sec. 71.
39. Ibid., Sec. 72.

used to fund projects proposed by public or private entities designed specifically for telephony in rural and low-income areas, thereby creating a mechanism for effective evaluation and implementation of projects subsidized by the public auctions.[40]

Among the recipients of FONDETEL support was Servicios Satelitales, a private company that won a bid to install community phone service in remote, lower-income areas in several provinces using a satellite communications system. But increasingly, customer demand was being met by the rapid expansion of mobile phone service provided by operators already in the market. Today, these operators offer extensive local coverage in even the most isolated areas. FONDETEL now concentrates on providing broadband Internet to users in provinces that do not yet have access to adequate commercial services.

Note

Other market-based approaches that were suggested

Two other approaches to market-based reform were suggested, but ultimately not adopted in the Guatemalan telecommunications law.

The initial proposal by Giancarlo Ibárgüen established a right to non-interference. In contrast to the quasi-property right of the TUFs, a right to non-interference would not grant a party the *exclusive* right to use a specific band of spectrum. Rather, a party would have only a right to use a specific band of spectrum without harmful interference.

As Ibárgüen later observed, his proposal would allow even greater potential for innovation in the use of spectrum. Innovative users could develop new technologies to use

40. Ibid., Sec. 77.

the spectrum bands "owned" by other parties—on a non-interference basis—rather than request permission from the TUF holder. However, the proposal was considered too different from any known model and thus not accepted.

Regarding enforcement of spectrum use rights, Thomas Hazlett pointed out that the new telecom law was designed to remove as much discretion as possible from regulators, who are subject to oversight by politicians. Hazlett noted that enforcement of rules with little or no discretion best describes the role of a court, not a regulatory agency. Thus, he asked whether it would be more appropriate to assign this task to a specialized court. Hazlett's proposal also was considered too different and ultimately infeasible, as it required a reasonably well-functioning judicial system, something Guatemala lacks.

Part 2: Privatize GUATEL

When the General Telecommunications Law was passed at the end of the Arzú administration's first year, it was clear that great progress had been made to establish a regulatory framework that would allow the emergence of a thriving market. This was especially true for the mobile telephony market, which would open its doors to intense competition that would rapidly expand coverage and drive down prices. From this standpoint the basics were in place, but the second part of the strategy was required to truly open the market: GUATEL had to be privatized.

As the company's general manager, Guzmán faced an arduous task; to privatize GUATEL it would be necessary to reach the broadest consensus possible, otherwise serious political obstacles could arise that would threaten the sale. Guzmán focused on two goals. The first was to convince company employees that privatization was essential and that their workers' rights would be respected. The second was to sway public opinion and garner support for the idea; this would generate a political climate that could prevent any opposition from gaining ground.

Selling reform to the unions

Although Guzmán had both the legal backing and the economic arguments he needed to win the day, his negotiations with the GUATEL staff would not be easy. Legal support came from a law—passed by a majority vote of the congress early in the Arzú administration—that required public sector workers to follow a formal legal process before they could go on strike. Specifically, judicial review would be needed prior to any strike by public sector workers. Leaders of public sector unions who failed to follow this procedure risked prosecution and, if convicted, jail time. Workers retained their right to strike under the new law and administrators of public companies, such as GUATEL, gained room to negotiate.

Guzmán used this law to patiently lay out the economic arguments to GUATEL staff and the union leaders who represented them. To start, he enlisted the staff's help to make key calculations, using *their* experts and *their* data. The data provided powerful evidence.

The goal of the Arzú administration was to quickly meet the pent-up demand for one million new lines across the country. This was clearly unrealistic for a state-run monopoly that had barely installed 290,000 lines in twenty-five years, 80 percent of those in the capital. Even more shocking was the cost of installing a new line: approximately $2,000. In other words, an additional one million lines required some two billion dollars in capital investment (roughly equal to the government's entire annual budget). GUATEL certainly didn't have the funds, nor could it expect them from the government. There was simply no way to meet the goal of one million new telephone lines without capital investment by private firms.

Guzmán argued clearly and accurately that for the firm to survive, GUATEL would have to come up with most of the funds to reach the goal of installing one million new lines. And for GUATEL to raise its game, the staff and their union representatives would have to make the success of the firm a shared priority. In addition, Guzmán further addressed the fears of employees and their union leaders by creating incentives for them to support privatization. An ownership interest for employees would play a key role in aligning incentives between GUATEL and its employees.

Selling reform to the public

Guatemala in 1996 remained a market with a single seller of wireline telephony (GUATEL) and a single seller of wireless telephony (COMCEL). The previous administration, under President de León Carpio, had tried to assign a second license to be used for wireless telephony (the cellular B Block) and thus open the door for a competitor to COMCEL. A selection committee had chosen one applicant, but GUATEL's board of directors—which had ultimate authority over the process—rejected the selection.

The applicant with the second-highest rating claimed that the law required it to receive the license in the event the party with the highest rating was rejected. Instead, GUATEL's board of directors reinitiated the selection process and awarded the license to yet a third applicant. When Guzmán arrived as the new head of GUATEL, he found all three applicants suing to obtain the license, which remained unassigned. And as a result, the market remained uncompetitive.

While this legal battle over a single license delayed competition, it provided an opportunity to those who argued for reform. Guatemala's telecommunications market had *no* competition. It was a point Guzmán and his team would make again and again in their promotional campaign, to great effect.

While the sorry state of Guatemalan telecommunications provided a favorable backdrop for arguments in favor of reform, opposition was fierce. The term "privatization" was especially unpopular with the public. President Arzú knew well that his predecessor's use of the term explained much of the earlier failure to reform. For many, GUATEL belonged to Guatemala; it belonged to "the people." Selling the company was like selling grandma's jewels! It simply wasn't done!

Guzmán changed the message. Rather than emphasizing the benefits of privatization, he and his team launched a series of ads to educate "the people" on the costs of maintaining a telecommunications monopoly. The ads used simple dialogue to make a simple point—Guatemala didn't have phones. Why not? Because the country had a government-granted monopoly. After years of watching political leaders hand out monopolies, subsidies, and other privileges to their friends, most citizens knew that a monopoly tended to be inefficient and often corrupt. They also knew the limitations of the current service, which was characterized by long waits to have a phone line installed, long lines to use public phones, limited or no access to service in rural areas, and high costs for international calls.

The promotional campaign was extensive, covering the principal communications media in the country, including newspapers, radio, and television. Soon, privatization was seen not as the loss of a national asset, but rather as an opportunity that would liberate consumers, along with the promise of substantially better service. The well-executed, simple, and direct messages helped to overcome the reluctance many in the general public had about privatization and paved the way for the sale.

Establishing a New Entity

It was time to privatize GUATEL. But even as the political tide was turning in favor of the sale, other obstacles remained. For example, GUATEL wouldn't be sold as a protected monopoly, which would change the dynamic in terms of attracting investors. More challenging still, GUATEL could not be sold directly, primarily because the constitution would not allow a decentralized public company to be sold through a simple executive order. Several legal steps had to be taken before the sale could be made.

The first step was to transform GUATEL into a new entity: a joint-stock company. Then, ownership could be transferred by selling or granting shares in the new entity. While there was no legal prohibition to this approach, there was an obstacle. It was not a strictly legal obstacle, but it was politically crucial. Article 134 of the Guatemalan constitution states that a vote by a two-thirds majority in congress is required to create decentralized, autonomous entities.[41] It says nothing about transforming, selling, or liquidating them. But this passage in the constitution could be construed as prohibiting the transfer of assets of publicly owned companies without first obtaining that two-thirds majority vote. Although it does not specifically state this, it would be possible to interpret it this way, depending on how one understood the "spirit of the law" and whether or not a parallel was drawn between creating and selling. The National Advancement Party (PAN) did not have the required two-thirds majority in congress, so a series of meetings began with the second strongest group in congress, the Guatemalan Republican Front (FRG), to explore the possibility of that party supporting the effort to transfer ownership of GUATEL. But the talks failed due to delays and constant changes of plans. The president needed to find a legal mechanism that could be approved by a simple majority in congress.

Eduardo Mayora, an attorney acting as legal adviser to Guzmán, and well-versed in commercial law, would be the one to find a way

41. Constitución Política de la República de Guatemala [Constitution of the Republic of Guatemala], Art. 134.

out. Mayora came across the civil law concept of the "economic unit" in the legal systems of other countries. Borrowing from that idea, he proposed creating a unit of "bundled net assets" (*patrimonio unitario*) which, in the case of the public telephone company, could represent all or a portion of its assets. He then drew up a bill for the divestiture of state-owned property, which was passed by congress with a simple majority. The two-thirds majority required to create decentralized, autonomous entities did not apply. The bill, known as Reforms to the State Contracts Law (Decree 20-97), became law on May 3, 1997.[42]

The new law specified that "the sale of state property or of its autonomous or decentralized entities should follow the procedures of a transparent public offering,"[43] that awards them to the highest bidder. It clearly defined the concept of "bundled net assets" and how they could be disposed of. The law articulated how it would be possible to sell not only the state-owned telephone company, but also all the other companies or autonomous entities the government wished to privatize. Once this law was passed, the path was clear to convert GUATEL's assets into a bundled net asset and shortly thereafter create a joint-stock company. A new private company known as GUATEL, S.A. was formed under these provisions.

Problems arose almost immediately. The attorney general's office in Guatemala objected to transforming GUATEL into a private firm on the grounds that it simply bypassed legal regulations in order to privatize the phone company without due process. Arguing that GUATEL, S.A. was the same thing as GUATEL, the attorney general obtained a court order to block the measure.

Legal objections also came from several labor unions and even San Carlos University, the country's only public institution of

42. Decree 20-97 modifies Decree 57-92, Ley de Contrataciones del Estado [State Contracts Law].
43. Ibid.

higher learning. Some groups on the left, holding to a mentality that looked critically upon anything to do with markets, were unconvinced by the public relations campaign and criticized the privatization effort. Their ideological arguments attacked “neoliberalism” as an attempt to take apart the Guatemalan state and reduce it to a minimum. Others had fiscal arguments. They didn’t want to see the state’s wealth reduced. They argued that “grandmother’s valuable jewels” were being sold at a ridiculous price and that they would probably end up in the hands of buddies of the politicians in office. Plenty of examples throughout the region and in Eastern Europe fueled these fears.

Guzmán and the privatization team had to accept the court order that legally suspended the existence of GUATEL, S.A., and they dissolved the company. They created another firm with the same bundled net asset as the last one and named it TELGUA, S.A.—the same one that exists today, now in private hands. There were still objections, but no more court orders, and thus the sale could proceed.

To appease labor union objections, Guzmán and team clarified that 95 percent of the shares would be sold and the remaining 5 percent would be owned by the unions. In reality this didn’t change anything for the employees who, by contract, were still entitled to 5 percent of GUATEL’s profits. But the gesture reassured the union leaders and employees that they would not lose anything due to the sale. The two founding shareholders of TELGUA were the leaders of two of the most important unions at GUATEL, Ernesto Vásquez and Victor Durán. These union leaders held the new firm’s shares in their own names, which would help protect them later against lawsuits for actions taken in their official capacity. There was no risk that Vásquez and Durán would flee the country with millions in cash, since all they held were paper assets. Further, they were working hard to create a new company for their fellow employees, which at the moment was simply an entity on paper, but would soon come into being.

On August 31, 1996, the bundled net assets were transferred from GUATEL to TELGUA. The same day, over 6,500 employees voluntarily resigned from GUATEL and signed a new employment contract with TELGUA.

Preparing for the sale

Attention now turned to selling the new company, TELGUA, as soon as possible. Its market value could have dropped drastically at any moment because the General Telecommunications Law already allowed new firms to enter the market to compete. The team concentrated its efforts on two fronts. On one front, an intense promotional campaign was launched, designed to convince the public of the advantages of privatization. On the other, the international accounting firm Arthur Andersen LLP, then one of the five largest in the world, was hired in January 1997 to advise GUATEL on the selection of an investment bank, which would be responsible for conducting the negotiations regarding the privatization. In March of that year, J.P. Morgan was selected as the investment bank.

While the intense promotional campaign unfolded, GUATEL began to adjust its rates in order to shape up its accounts and prepare the public for what would happen in an open market. It lowered the price for international calls, simultaneously raising the price for local calls. This preliminary move was important, because the existing price structure was not attractive to potential buyers and would have left them with the politically uncomfortable job of adjusting the rates.

The Prosecuting Office for Human Rights objected to the rate changes and took the company to court. Once the reasons behind the changes were presented to the court, it ruled in favor of GUATEL and allowed the measures.

Auction: Round 1

Meanwhile, the team prepared the technical information that international operators would need in order to participate in an auction. Once this preparatory phase was completed—including the public opinion campaign and definition of the technical aspects of the process—a public call for bids was made, with the opening of bid envelopes scheduled to take place in December 1997.

Working with their investment bankers, Guzmán and team established what were considered standard criteria for bidders to participate in the auction. Only major telephone companies would be eligible to compete. A potential buyer of TELGUA would have to be an international operator with either a minimum of one million lines installed and in operation, or a minimum of $1 billion in equity.

Initially, several of the major international carriers were interested. However, because of the climate of legal uncertainty (with daily injunctions and lawsuits waged against the process), some began to lose interest. Lawsuits (at least forty in all) opposed the sale, the rate changes, technical aspects, even the entire philosophy of the process. While no legal objection to the auction was made, it was already an unattractive environment for most investors. They feared that the process could be aborted at the last minute for some reason or another. In the end, five firms prequalified to participate: GTE, MCI, France Telecom, Southwestern Bell, and TELMEX.

The auction took place on December 16, 1997. Despite great excitement in the country, feelings were divided. Some still believed it would wipe out the long-standing (and slightly profitable) state-owned company in exchange for a pittance. Others anxiously looked forward to finally ending the monopoly. To emphasize the transparent and public nature of the process, the presentation and opening of the bids took place at Guatemala City's National Theatre, famous for its magnificent architecture. On stage before the expectant crowd was a large group of government officials, led by the minister of communications, Fritz García Gallont.

The end of the auction was anticlimactic. Only one company had decided to make a concrete offer: Mexico's TELMEX, controlled by billionaire Carlos Slim. To top it off, the bid amount was extremely disappointing, since the government had expected to bring in some $700 million and TELMEX offered only $529 million. The gap was too large and the officials went backstage to consult with the president. Arzú was furious. He took just a few minutes to make a final decision, ordering that the offer be rejected. From a political perspective, his arguments were solid; he believed that the public would accuse him of giving away the company, which would ruin his image in Guatemala. García Gallont, Guzmán, Mayora, and the others had to convey the president's decision to the audience. They withdrew from the stage crestfallen and with a sense of defeat.

A few days later, the team met again and began outlining a new plan. They needed to sweeten the deal. An obvious possibility would be to offer some sort of monopolistic advantage to the bidders, a recommendation that officials from a variety of institutions around the world never tired of handing out. Many advisers insisted that this approach—already established by many other privatizations inside and outside Latin America—was the best way to achieve higher revenues.

Guzmán and his team refused even to consider the idea. Not only was their entire campaign based on the intent to end a monopoly and spur competition, it also was made up of people who based their decisions on the principle of individual liberty, applied to economics as well as to society as a whole. With a clear understanding of the principles at stake, the team tried to figure out practical ways to heighten interest in buying a not-very-competitive company that would soon find itself in a very competitive market.

Auction: Round 2

A viable solution (which required only a couple of rule changes) was prepared by the team in January 1998, approved by President Arzú in February, and then published a month later as legal changes to the auction process. First, they would not restrict the auction to operating companies. The auction would be opened up to investors of all kinds, but with the requirement that those who were not large international operators sign an agreement with an operator that could provide services. Second, the winning bidder would no longer be required to purchase the entire company up front, which provided some flexibility for deferred payments.

It fell to Guzmán to lobby potential investors, making sure they understood that their offer needed to be at least $700 million—the figure that the president had insisted on. If the offers came in low, they were sure to be rejected again. The greatest interest came from a group of Central American investors, led by Ricardo Bueso, who realized they would have to meet the president's expectations. They already had spent a great deal of time and money in the bidding process, and it made no sense to ignore political realities. The government already had proved it would walk away from a low bid. Bueso was chairman of the administrative board of the company these investors had founded, Luca S.A., but neither he nor any of the other partners owned a dominant share. Nobody controlled more than 5 or 6 percent of the total capital.

The auction was to take place in July, but this date was then pushed to August. Among the reasons for the delay were circumstances far beyond the control of anyone in Guatemala. Russia had defaulted on its debt, markets in Asia suddenly became problematic, and, as the fear spread, investors were hesitant to get involved in any developing country. J.P. Morgan said the auction would have to wait. Soon, however, it was back on.

The second auction took place on September 1, 1998, and this time it was a success. There was only one bidder—the group headed by Bueso—but this bid met the minimum price, which satisfied the political need to publicly show that state property was not being given away. Luca, S.A. purchased 95 percent of the shares of TELGUA, S.A. for slightly more than $700 million (the remaining 5 percent was retained for the workers). In addition, the buyers assumed $240 million of the company's debt.

Upon winning the auction, Luca had thirty days to meet the terms of the sale, which included informing the government which international operator would be its partner in providing service in Guatemala. But it was not as easy as simply reporting a name, since at the time Luca and its original operator partner were engaged in a dispute about the contract. The two firms negotiated privately while the press demanded to know who would partner with Luca to provide service, grumbled about a lack of transparency, and speculated as to whether Arzú and Guzmán had really succeeded in their auction.

But luck—combined with good negotiating by Luca—was on their side. TELMEX expressed an interest in teaming up with the new owner of TELGUA, and an agreement was quickly signed between Luca and the large Mexican telecom operator. The sales contract with the Guatemalan government was signed on November 5, 1998. The agreement stipulated immediate payment of $200 million, $150 million at eighteen months, and the remaining $350 million paid over the following three years, plus interest. With all payments and interest counted, the transaction exceeded $1.1 billion.

The Results

Was it worth all the effort? Did the telecommunications market in Guatemala really open up and meet unsatisfied demand at a reasonable cost, particularly in rural areas and among lower-income sectors? Could the same results have been achieved if the buyer had been granted a continued monopoly, similar to what happened in other countries in the region?

The data indicate conclusively that the telecommunications reform in Guatemala was successful, meeting the goal outlined by President Arzú—"a lot of lines, everywhere, fast"—and the needs of consumers. In a very short time, the reform opened and expanded a market that is now truly national in scope. Further, the data show few costs with pursuing this strongly market-oriented approach. The result was not chaos but competition and, ultimately, consumer benefits.

In a paper published in an academic journal in 2007, Thomas Hazlett, Giancarlo Ibárgüen, and Wayne Leighton analyze the economic effects of Guatemala's telecommunications reform.[44] They demonstrate the link between significant liberalization of the market and the significant benefits ultimately obtained by consumers. Building on their argument and considering the history described above, the effects may be summarized as follows:

44. Thomas W. Hazlett, Giancarlo Ibárgüen, and Wayne Leighton, "Property Rights to Radio Spectrum in Guatemala and El Salvador: An Experiment in Liberalization," *Review of Law & Economics* 3, no. 2 (2007): pp. 437–84.

- Access to spectrum (via property-like TUFs) was made available on demand.
- Readily available spectrum promoted entry by new competitors.
- Competition resulted in some of the lowest prices in the region.
- Lower prices resulted in extensive usage by (and benefits to) consumers.
- Competition also resulted in extensive coverage across the country.

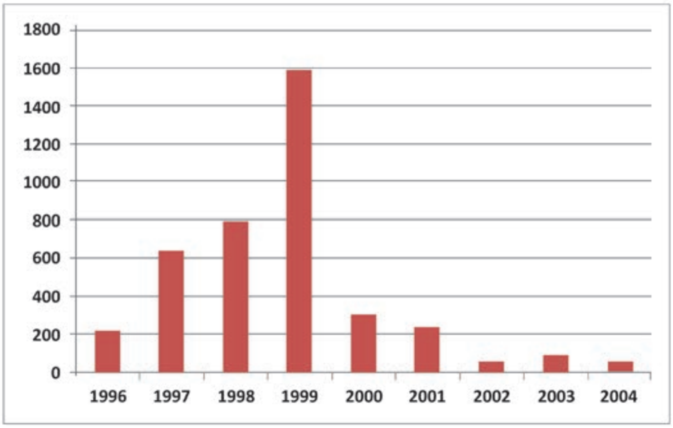
Access to spectrum

Under the new rules, any entity—foreign or domestic—could obtain a TUF with little difficulty. During the first decade after the law went into effect, 3,985 TUFs were issued to commercial users, including radio and television broadcasters, providers of fixed point-to-point communications services, and mobile telephone operators. Another 290 authorizations were issued to different types of government agencies, 590 to amateur radio operators, and some 1,000 licenses for satellite and other uses.

Of the 3,985 usufruct titles, 2,137 were awarded through auctions that took place within the first three years after the law was passed.[45] Since then, the majority of usufruct titles have been acquired through private transactions in a free secondary market. In a 2008 paper, Ibárgüen reports on this thriving secondary market. Between 1997 and 2001, more than 1,300 title endorsements were made.[46] The ease with which usufruct licenses could be acquired—and the relative speed with which they were issued after the reform—can be seen in the following chart.

45. Ibid., pp. 448–49.
46. Giancarlo Ibárgüen S., "La liberalización del espectro radioeléctrico en Guatemala," in *Constitución, socialismo y mercantilismo en América Latina. Ensayos en honor a Nicomedes Zuloaga*, ed. Hugo Faría B. and Leonor Filardo (Caracas: CEDICE, 2008), p. 235.

Number of TUFs Made Available in Guatemala (by Year)



More competition

With a fast, non-politicized process to acquire access to spectrum, along with a straightforward process to arrange interconnection between networks, competition flourished in the Guatemalan market. In the first years after the reform, fourteen telephone, Internet, and cable companies signed private interconnection contracts with TELGUA, effectively diversifying a market that until then had been monopolized and utterly deficient.

While competition in the market for fixed telephony has developed more slowly as compared to the market for mobile telephony, a number of service providers have entered this sector. These include a cable operator (CableNet), two mobile operators (COMCEL and Telefónica), and several other smaller providers. The competitors to TELGUA in this sector now make up about 30 percent of the market for fixed (wireline) service.

Not surprisingly, competition in the wireless (mobile) sector has been even more intense. At one point, five international operators offered mobile telephony in the Guatemalan market. Today, this number has fallen to three. Nonetheless, as described below, the three providers hold roughly equal market shares, and competition among them continues to be fierce. According to someone directly involved with the reform, "It is accurate to say that the competition is intense. Just look at all the advertising in print media, radio, television, and billboards. And the immediate reaction by operators any time the competition reduces its rates."[47]

The ease with which potential competitors could enter the wireless market—and their ultimate effect on consumers—is directly related to the country's reform. In a 2008 paper, Thomas Hazlett examined this issue.[48] He observed that liberalization allows service providers to use spectrum more or less as they see fit, which improves their productivity and potentially may raise their profits. At the same time, there is an opposite effect. Liberalization makes it easier for new providers to enter the market and compete, which may lower profits. Hazlett tested to see whether liberalization leads to higher or lower prices paid for spectrum usage rights at auction, which in turn would reflect providers' expectations of future profits. Examining the assignment of 1,400 licenses in twenty-seven countries, including Guatemala, since the mid-1990s, he finds that liberalization leads to prices at auction that are 38 percent lower than the prices paid under standard regulatory regimes.

Consistent with the results obtained by Hazlett, Guatemala's reforms created easy access to spectrum, which means that providers cannot earn monopoly profits. In other words, providers can get easy access to spectrum, but so can their competitors and this effect prevents high prices and high profits. In fact, prices have been remarkably low.

Lower prices

The price of telephone service in Guatemala is among the lowest—by some measures, *the* lowest—in the region. Hazlett, Ibárgüen, and Leighton test the hypothesis that a significantly

47. Carmen Urízar, "Competencia y regulación en las telecomunicaciones: El caso de Guatemala" (paper presented at IDRC (CDRI) and CEPAL, 2007), p. 19.

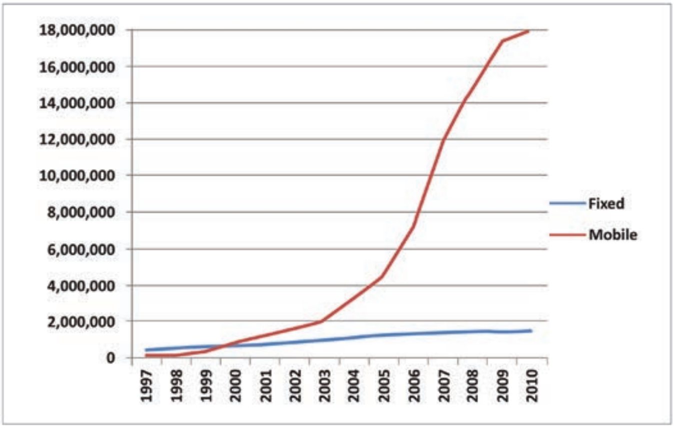
48. Thomas W. Hazlett, "Property Rights and Wireless License Values," *Journal of Law and Economics* 51, no. 3 (August 2008): pp. 563–98.

liberalized spectrum market in Guatemala produced these lower prices for consumers. To test their hypothesis, the authors used data from the World Bank, the International Telecommunications Union (ITU), Fraser Institute, and official regulatory agencies in each of the sixteen Latin American countries included in their study. Employing regression analysis to test correlations, they were able to verify that the data support their hypothesis. In particular, they found that spectrum liberalization increased the bandwidth available to mobile providers, that there was more competition between these providers,[49] that prices paid by consumers in Guatemala were lower than other countries in the sample (Guatemala tied with one other country for lowest prices in the region), and that these results were statistically significant.[50]

Higher usage

As prices for telecommunications service in Guatemala fell, usage increased dramatically, representing a huge benefit to consumers. The following chart, which contains official numbers from the SIT, clearly shows the rapid growth in both mobile and fixed line subscribers since the reform. It leaves no doubt that there was a massive expansion in service.

Number of Phone Lines in Guatemala (by Year)



49. Hazlett, Ibárgüen, and Leighton, “Property Rights to Radio Spectrum,” pp. 457–59.
50. Ibid., pp. 460–64.

As the chart makes clear, growth in mobile telephony was especially remarkable. The number of mobile phones in use grew by a factor of no less than ten in the short span of three years between 1998 and 2001, when the world's largest telecommunications operators came to Guatemala. Seven years after the reform, the number of mobile phone lines exceeded the country's total population. And between 1996 and 2010, the number of mobile connections grew by a factor of 275—a number that speaks for itself.

Hazlett, Ibárgüen, and Leighton found that use of mobile service was considerably higher in Guatemala as a result of the reform, and that this result was statistically significant. Ibárgüen also showed that in 2001, the average monthly use of cellular phone minutes in Guatemala was considerably higher than the Latin American average.[51] The difference was anywhere between 10 and 60 percent, depending on whether the service was pre- or postpaid.

The number of fixed lines also grew while GUATEL was still in state hands. This is because the firm was restructuring and investing to make itself attractive for sale. After that, growth in fixed lines slowed.

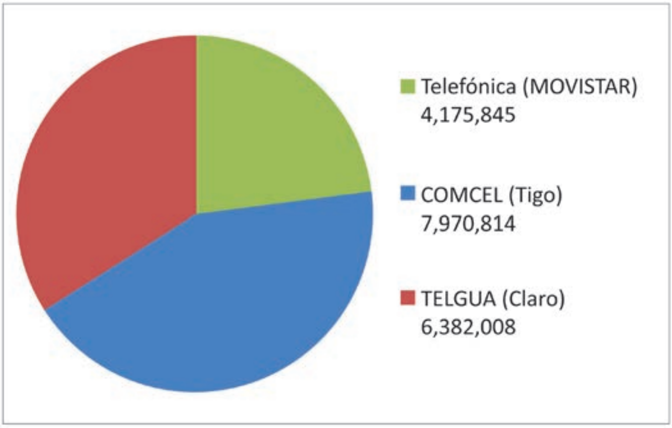
Beginning in 2007, growth in fixed lines is virtually at a standstill. Even so, the goal of providing one million new lines (the calculated volume of unmet demand in 1996) was achieved for wireline service within ten years, at a pace that a state-owned GUATEL would never have been able to match. Between 1996 and 2010 the number of existing land lines grew by a factor of 3.3, an impressive result compared to the progress of previous years.

In addition, as demonstrated in the following chart (using data provided by the SIT), no monopolistic concentration exists in

51. Ibárgüen, "La liberalización," p. 240.

the mobile sector. There is a roughly equal distribution of market share among the three major wireless providers: COMCEL, Telefónica, and TELGUA.

Market Share of Mobile Telephone Service Providers (2011)

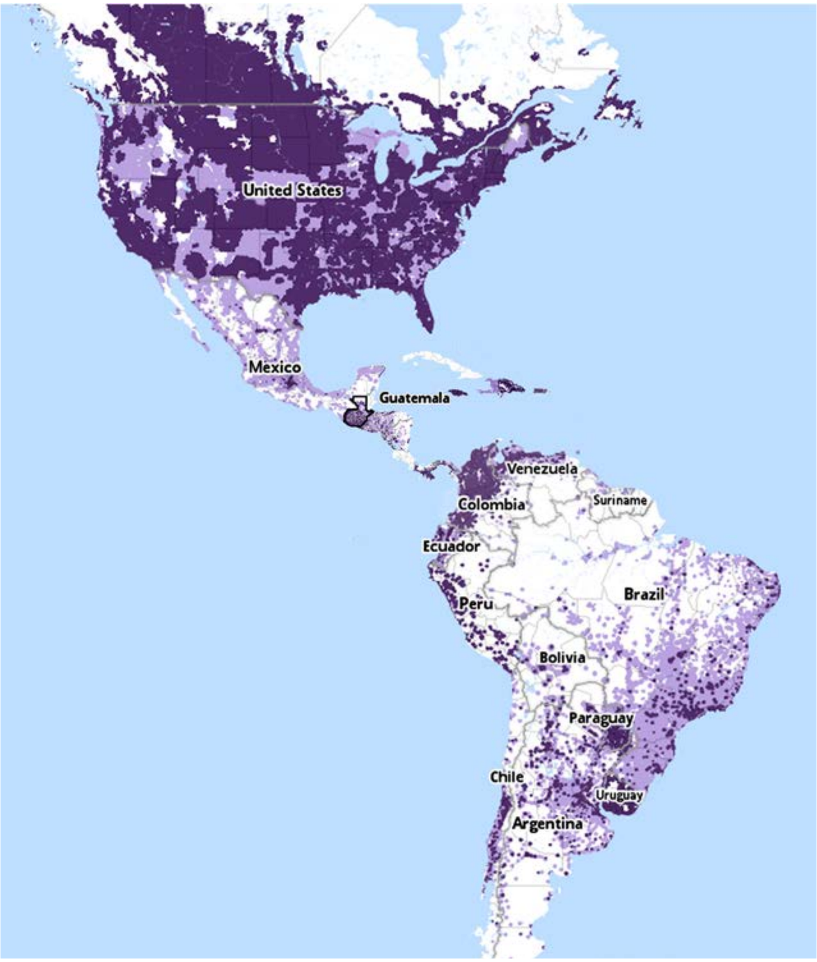


Extensive coverage

The benefits of the reform were not limited to Guatemala's largest cities. As competition intensified, the providers extended coverage to rural areas across the country. As a result, communications services were made available to consumers of every income level and in every region.

In addition, this extensive coverage across the country generally includes advanced services, such as 3G, used to provide broadband Internet access. As just one example, consider the 3G coverage associated with Amazon's Kindle service. The following map of the Americas demonstrates the availability of this advanced service from southern Canada to Argentina and Chile. The coverage in Guatemala exceeds that of its Latin American neighbors—including Mexico, which is notably wealthier, and all of Central America—and it compares favorably to the coverage seen in the densest geographic areas in the United States.

Estimated 3G Service Coverage (2012)



Encouraging reform abroad

The reform of the telecom sector in Guatemala did more than dramatically improve the well-being of the citizens of this country. It demonstrated to other countries that significant, market-based reform was possible.

Soon after the 1996 reform in Guatemala, Juan Belt, the USAID/ Guatemala official who had been instrumental in arranging the meeting between Alfredo Guzmán, Carmen Urízar, and Pablo Spiller, recommended the Guatemalan approach to contacts in El Salvador. Both Spiller and Thomas Hazlett would travel to El Salvador to offer advice. Concurrently, Ayau also reached out to his contacts in this neighboring country to describe the successful reform of Guatemala's telecom industry.

The timing was right. In El Salvador, reform-minded leaders at the highest levels of government already were working to reform the telecom industry. These included then-president Armando Calderón Sol and Juan José Daboub, head of the state-run telecom monopoly, ANTEL, who would lead the reform effort. In 1997, El Salvador adopted a telecom law which, like Guatemala's, would create one of the most open markets in the world. In 1998 ANTEL was privatized. By the end of the 1990s, four countries stood out as having the most liberalized telecommunications markets anywhere. They were Australia, El Salvador, Guatemala, and New Zealand.[52]

Challenges

Like most political endeavors, Guatemala's telecommunications reform was not perfect. Perhaps the most notable challenge has been in the enforcement of rights granted to TUF holders, particularly in bands used by FM radio broadcasters.

52. Hazlett, "Property Rights," pp. 563–98.

Well before the reform, pirate radio was a problem in Guatemala. Following the reform, the government has not been effective in protecting the rights of TUF holders from pirates who intentionally transmit in the bands used by FM radio stations. The General Telecommunications Law makes clear that the SIT is responsible for protecting the rights of TUF holders. At the same time, the SIT is a government agency within the Ministry of Communications and subject to political pressure. Given that some members of congress are sympathetic to illegal use of the spectrum by certain parties—a number of religious groups transmit over radio frequencies without holding a TUF—it is not surprising to find pressure for the SIT to do nothing.

Just as remarkable is the fact that the challenges of Guatemala's telecommunications reform have been limited to pirate radio, a problem that predated the reform effort. This result is *not* what many experts at the time would have predicted. Granting access to spectrum on request, establishing minimal rules for how that spectrum is used, and generally not using a regulatory agency to "manage" the use of spectrum was seen by many as a mistake. In particular, many international experts argued that such an approach would create very high transaction costs, if not outright "chaos" in the market. As the above discussion makes clear, the result was quite different and especially favorable to consumers.

The Lessons

The path to successful reform

The results indicate that Guatemala's telecommunications reform was a great success. Easy access to spectrum created a competitive market. Competition pushed prices down. These low prices have made affordable communications services available to users across the country, even for the lowest-earning sectors of the population. Moreover, affordable communications services have reached many of those who live in rural and remote areas, as competition has spurred providers to extend coverage in pursuit of more customers. These benefits have changed the lives of millions who previously were too poor or too isolated to have access to basic communications services and created economic and other opportunities that simply did not exist before. In addition, and easily overlooked, is the fact that virtually no one has suggested a return to the old system.

The people who made this reform happen acted much like entrepreneurs. They looked for ways to create value for consumers. Rather than serving consumers by innovating to provide better goods or services in the marketplace, however, they looked for innovative ways to reform the political and regulatory environment for the provision of telecommunications in Guatemala. Such reform, in turn, created the conditions in which competition would flourish and consumers would reap enormous benefits.

Four overarching elements contributed to the success of this reform and may offer lessons for those who wish to pursue such ventures in the future:

- The reformers shared strongly held *principles* and a vision for how to apply them.
- The reformers had an effective *strategy* to address political, legal, and technical challenges.
- There was a high degree of *trust* among those involved in the reform effort.
- There was political *resolve* to make change happen.

Principles

The reformers in Guatemala began with a clear set of philosophical principles and an understanding of economics. Their principles formed the basis upon which the reform would be centered and pushed them to go beyond the existing legal boundaries and routine solutions proffered by wealthier countries or international organizations that should be on the cutting edge of policy or by politicians who simply retouched what they had always done.

But principles are useless if they cannot be applied. Happily in this case, Giancarlo Ibárgüen and Alfredo Guzmán teamed up to forge the reform. Ibárgüen conceived the idea after much deliberation and within the environment that Manuel Ayau had cultivated at the CEES think tank. He went on to outline his plan and presented it as a preliminary bill. Guzmán, who was well-positioned to effectuate reform, took on the idea, rounded it out, and presented it to people who could assess it technically and put it in its final form.

Importantly, Guzmán and his team not only shared the principles on which the reform would be based, they also knew what this meant when applied to telecommunications policy: easy access to spectrum, as few restrictions on operators as possible, and no protection for the incumbent provider, who would face competition immediately, not at some undefined later date.

Strategy

The reformers in Guatemala thought creatively to link their principles to policies, translating an idea into a concrete formula that could be applied under the specific circumstances of the country at the time. They worked closely with another think tank, CIEN, to deliberate on technical issues and fine tune solutions to effectively reform the sector. During this phase, Guzmán and Urízar worked closely with technicians and lawyers who knew the subject, as well as several officials from international agencies. The proposal for reform, however, originated in Guatemala and almost all the work was done in the country. The reformers did not go to international agencies or experts to ask what they should do.

The strategy for implementing the reform was exceedingly important. They deregulated the market first and privatized the state-owned company second. This order matters. Privatizing a state-owned monopoly prior to deregulation of the market would have created incentives for the newly-formed private monopoly to lobby against a market-based, pro-consumer deregulation.

Just as important was the strategy for communicating this reform. The press and the public were skeptical of markets and privatization and had little interest in a multi-step explanation as to how the reform would benefit them. But the public also hated the existing state-owned monopoly, which had created a burden felt across the country. This dissatisfaction with the status quo provided the opportunity to tell a story that otherwise might not have been heard. The reformers told it well.

Trust

It is easy to overlook the value of a trusted team. For Guzmán, it was critical to have a deputy who shared his principles and who could be counted on. Giovanni Musella, a trusted and knowledgeable friend, managed the day-to-day operation of the telecommunications company while Guzmán was immersed in political battles. He then stayed behind to manage the remaining assets of GUATEL when Guzmán was appointed president and general manager of TELGUA, thus smoothing the transition and minimizing the risk of political mischief from the former state monopoly.

Similarly, Ayau, Ibárgüen, Mayora, and Urízar shared the principles of advancing markets to the benefit of consumers, and they were committed to basing the core of the reform process on these principles. This meant that Guzmán could turn to them for advice at critical moments.

Resolve

Finally, success would not have been possible without the resolve to carry out this novel project and to face the difficulties and opposition that would come up along the way. Most notably, Alfredo Guzmán held the conviction that finally "something would happen" in Guatemala. He never wavered in this belief and could count on the full support of President Arzú, Vice President Luis Flores Asturias, and their party at all times.[53]

This political backing was crucial in several instances: when president-elect Arzú appointed Guzmán to be head of GUATEL, when the new telecommunications law created property-like rights to spectrum and Guzmán insisted that commercial operators obtain these rights via auction, when it was time to privatize the state-owned provider and there was pressure to create a private monopoly in lieu of an open market, and when the outcome of the first auction proved unacceptable.

Final lessons

Finally, at a more general level, the experience of telecommunications reform in Guatemala provides a simple yet important

53. We are grateful to Carmen Urízar for her help with this analysis during the interview she gave us in Guatemala on March 2, 2011.

lesson for those who seek to improve conditions elsewhere. Market-based reform can provide tremendous benefits to consumers. How that reform is achieved will vary by country and era. Most likely, success will be a function of many elements, including vision, guiding principles, good ideas, serious preparation, alertness to opportunity, and working with a trusted team.

At the end of the day, success likely will depend on the happy combination of these elements and on being in the right place at the right time, what we called “luck” in the opening story about the Antarctic explorers. Like those explorers, the reformers in Guatemala did everything they could to raise their odds of success, in this case with the hope of achieving reforms that would improve the lives of their fellow citizens. It is both a story worth telling and an experience worth replicating.

Bibliography

Aker, Jenny, and Isaac Mbiti. “Mobile Phones and Economic Development in Africa.” *Journal of Economic Perspectives* 24, no. 3 (Summer 2010): pp. 207–32.

Amundsen, Roald. *The South Pole*. Adelaide, Australia: University of Adelaide, 2006. eBooks@Adelaide. First published 1912.

Benegas Lynch (h), Alberto, and Martin Krause. *Proyectos para una sociedad abierta*. Buenos Aires: Abeledo Perrot, 1993.

Centro de Investigaciones Económicas Nacionales (CIEN). “Comunicaciones.” *Infraestructura para el tercer milenio* (Guatemala) año 1, edición 3 (1999).

Coase, Ronald. “The Federal Communications Commission.” *Journal of Law and Economics* 2 (October 1959): pp. 1–40.

———. “The Problem of Social Cost.” *Journal of Law and Economics* 3 (October 1960): pp. 1–44.

Fontaine, Ernesto. *Mi visión*. Prologue by Arnold Harberger. Santiago, Chile: Instituto Democracia y Mercado / Universidad del Desarrollo, 2009.

Hazlett, Thomas W. “Assigning Property Rights to Radio Spectrum Users: Why Did FCC License Auctions Take 67 Years?” *Journal of Law and Economics* 41, no. 2 (1998): pp. 529–76.

———. “Property Rights and Wireless License Values.” *Journal of Law and Economics* 51, no. 3 (August 2008): pp. 563–98.

———. “The Wireless Craze, the Unlimited Bandwidth Myth, the Spectrum Auction Faux Pas, and the Punchline to Ronald Coase’s ‘Big Joke’: An Essay on Airwave Allocation Policy.” *Harvard Journal of Law and Technology Policy* 14, no. 2 (Spring 2001): pp. 335–567.

Hazlett, Thomas W., Giancarlo Ibárgüen, and Wayne Leighton. “Property Rights to Radio Spectrum in Guatemala and El Salvador: An Experiment in Liberalization.” *Review of Law & Economics* 3, no. 2 (2007): pp. 437–84.

Ibárgüen S., Giancarlo. “La liberalización del espectro radioeléctrico en Guatemala.” In *Constitución, socialismo y mercantilismo en América Latina. Ensayos en honor a Nicomedes Zuloaga*, edited by Hugo Faría B. and Leonor Filardo. Caracas: CEDICE, 2008.

———. [Legislative bill proposal] “Ley de Radiofrecuencias.” Guatemala, n.d.

———. “Liberating the Radio Spectrum in Guatemala.” *Telecommunications Policy* 27, no. 7 (2003): pp. 543–54.

Jensen, Robert. “The Digital Provide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector.” *Quarterly Journal of Economics* 122, no. 3 (August 2007): pp. 879–924.

Kathuria, Rajat, Mahesh Uppal, Mamta, et al. “India: The Impact of Mobile Phones.” Vodafone Policy Paper Series, no. 9 (January 2009). Available at www.vodafone.com/publicpolicyseries.

Pirie, Madsen. *Teoría y práctica de la privatización*. Guatemala: CEES, 1997.

Sabino, Carlos. *El fracaso del intervencionismo: Apertura y libre mercado en América Latina*. Caracas: Editorial Panapo, 1999.

———. *Guatemala: Dos paradojas y una incógnita*. Guatemala: CIEN-ATLAS, 1999.

Scott, Robert Falcon. *Journals: Captain Scott's Last Expedition*. New York: Oxford University Press, 2005.

Torres, Gerver. *¿Quiénes ganan? ¿Quiénes pierden? La privatización en Venezuela*. Caracas: Artes Gráficas Consolidado, 1994.

Urízar, Carmen. "Competencia y regulación en las telecomunicaciones: El caso de Guatemala." Paper presented at IDRC (CDRI) and CEPAL, 2007.

———. "Un marco conceptual para la regulación económica en Guatemala (telecomunicaciones y electricidad)." *Revista de Estudios Sociales* (Universidad Rafael Landívar, Guatemala), no. 69 (2003). Vargas Llosa, Mario. *El pez en el agua: Memorias*. Barcelona: Seix Barral, 1993.

Waverman, Leonard, Meloria Meschi, and Melvyn Fuss. "The Economic Impact of Telecoms on Growth in Developing Countries." Vodafone Policy Paper Series, no. 3 (March 2005).

Interviews

Those interviewed for this project include Álvaro Arzú, Alfredo Guzmán, Thomas Hazlett, Giancarlo Ibárgüen, Eduardo Mayora, and Carmen Urízar.

Appendix

Example of a usufruct title (TUF) in Guatemala

No. Orden: **No. Registro:**

LA SUPERINTENDENCIA DE TELECOMUNICACIONES DE GUATEMALA

Con base en el Artículo 57 del Decreto 94-96

Otorga el Presente

Título de Usufructo de Frecuencia

A:

Banda o Rango de Frecuencias :
Horario de OperaciÛn :
Potencia m· xima efectiva de radiaciÛn :
M· xima intensidad de campo elÈctrico o potencia m· xima admisible en el contorno :

Fecha de EmisiÛn :

Fecha de Vencimiento :

Why Study the Guatemalan Telecom Reform?

In 1996, Guatemala adopted one of the most pro-competitive, market-liberal telecom laws in the world, granting property rights to spectrum and opening the market fully to competition. Critics said that such a radical approach to reform would cause "chaos" in the market. It didn't happen. Rather, competition surged, prices plunged, and consumers benefited. This case study tells the story of how this reform came about in the face of serious doubt and significant opposition.

About the Antigua Forum

The Antigua Forum is a project at Universidad Francisco Marroquín designed to promote market-liberal reform in order to improve human well-being. The project has two core components. The first is an annual gathering of reformers, intellectuals, and entrepreneurs with projects that disrupt existing inefficient models and institutions. The second is a set of complementary resources, including case studies.

Carlos Sabino

is professor of sociology and history at Universidad Francisco Marroquín (UFM). He has spent decades researching economic and political issues in Latin America. Among Carlos's acclaimed books are *The Failure of Interventionism*; *Building Consensus for a Free Venezuela*; and a two-part study of Guatemala's civil war, *Guatemala: The Silenced History*.

Wayne Leighton

is professor of economics at Universidad Francisco Marroquín and executive director of the Antigua Forum. He previously spent ten years in senior advisory positions at the U.S. Federal Communications Commission and the U.S. Senate Committee on Banking, Housing, and Urban Affairs. Wayne is co-author, with Edward J. López, of *Madmen, Intellectuals, and Academic Scribblers: The Economic Engine of Political Change*.

VERITAS • LIBERTAS • JVSTITIA

UFM
UNIVERSIDAD
FRANCISCO
MARROQUÍN

Our mission is to teach and disseminate the ethical, legal and economic principles of a society of free and responsible persons.

antiguaforum.ufm.edu

ISBN: 978-9929-602-13-7

9 789929 602137