Competition in Telecommunications: Global Lessons for Policy Development in Mexico

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Executive Summary

The last fifty years have witnessed a massive transformation in the telecommunications industry around the world. Integrated telecommunications monopolies in the United States (U.S.) and Europe (EU) have become vibrantly competitive industries, supported by a deep-seated institutional commitment to sustaining that competition. In this Policy Paper, we reflect on the U.S. and EU experiences over a period of several decades, with an eye toward identifying policy experiences that could be relevant for Mexico as it seeks to capitalize on the potential of its recently adopted constitutional reforms in the telecommunications sector. We find that with a commitment to “stay the course” in its reform efforts over a sufficient period to durably reform industry structures—which takes several years, based on experience in other countries—Mexico will benefit from greater competition, more choices, robust investment, substantial innovation and lower prices, all of which contribute to larger economic growth.
I. Introduction

In a world populated by billions of mobile telephones and numerous providers of telecommunications service, it is easy to forget that only a few decades ago telecommunications markets were drastically different. Prior to the mid-1990s and with few exceptions, telecommunications services around the world were provided by entities wholly-owned by national governments. In most European countries, the liberalization of wireline and wireless telephony started from a situation in which state-owned enterprises operated a national monopoly. Similarly, in Latin America, privatization of state-owned telecommunications services began in 1988 in Chile, followed by Argentina and Mexico in 1990, and then Peru (1994) and Brazil (1998). And even in the United States (which generally has always had private ownership of its telephone assets), until the late 1970s fully regulated monopolies supplied the entire portfolio of telecommunications services ranging from customer premises equipment (CPE) to local telephone service to national and international long-distance services.

The past years however have witnessed dramatic policy changes, with country after country opening telecommunications markets to competition by reducing regulatory barriers to entry and establishing rules to encourage and sustain the emergent competition. The results have been dramatic. Incumbent market shares have fallen, prices have fallen while utilization has surged, investment and innovation have soared, consumer welfare has improved and productivity has been enhanced.

In this paper we seek to provide an abbreviated account of the most important and effective decisions that were taken during this transformation of opening telecommunications markets to competition while reforming and tailoring regulation to ensure the sustainability of this competition. We do so aware that while there are numerous and ongoing issues of telecommunications policy development in a number of countries, perhaps none are more central at the moment than the set of issues confronting the Mexican telecommunications marketplace, which only recently has shifted its policy and legal trajectory towards a fully pro-competitive one that has so benefitted consumers elsewhere in the world. Consequently, we briefly review developments in the United States and Europe with an eye toward extracting common experiences and time-frames that led to durable competitive telecommunications markets. We then turn to a focus on the implications of these experiences for telecommunications policy and sustainable market reform in Mexico.
II. Opening Telecommunications Markets and Reforming Regulation: The Global Experience

The United States

Although pervasive today, competition first came to U.S. telecommunications markets in pieces. Against a backdrop of regulated vertically-integrated monopoly supply that existed since the early 1900s, the first industry sector to witness competition was CPE in the 1950s and 1960s.¹ Later in the 1970s, competition also began to develop in international and national long-distance service markets.² What began as modest steps, soon began to generate substantial consumer benefits. After opening CPE to competition, a flurry of innovation hit the market with consumers then able to enjoy substantially more choices for CPE than in the monopoly era. In the long-distance service market, the early 1980s saw the introduction of many important pro-competitive regulatory changes. These included mandates on the dominant carriers to offer network interconnection at discounted prices to entrants, to allow resale of their services and to reform price structures to better reflect cost-causation and competitive realities.³ These dominant carrier rules, together with complementary support of competition-enabling antitrust enforcement against the monopolist, permitted competition to expand. In turn, this led to substantial price reductions, an explosion of consumer choice and rapid innovation—all creating billions of dollars of annual consumer benefits.⁴ This positive experience with CPE and long-distance competition led to an even more general embrace of competition throughout the telecommunications sector. This embrace was embodied both in 1993 amendments to the Communications Act of 1934, as well as the Telecommunications Act of 1996 (1996 Act). The 1993 amendments permitted the introduction of more competition into the wireless services market by allowing regulators to distribute new spectrum licenses by efficient auction mechanisms. The 1996 Act was even more expansive in its reforms of regulatory policies to ensure that new entrants had the opportunity to enter all telecommunications markets (both fixed and mobile), to interconnect with dominant carriers at reasonable rates and to benefit from oversight by federal and state regulators that were committed to fostering the development of a robustly competitive telecommunications industry. Indeed, the 1996 Act established a portfolio of regulatory protections for new entrants, including number portability, dialing parity, access to rights-of-way, reciprocal compensation for the transportation and termination of telecommunications services, and restrictions on dominant carriers’ ability to prohibit resale.⁵

Today in 2017, more than fifty years since the first elements of competition were introduced into U.S. telecommunications markets, and twenty years since the 1996 Act, the telecommunications industry has become vibrantly competitive and has stimulated huge growth throughout the U.S. high-tech sector. Most significantly and durably, there has been a substantial transformation in market structure and former monopolists’ market shares, resulting in several classification

¹ The crucial decisions were Hush-a-Phone Corp. v. AT&T, 238 F. 2d 266 (D.C. Cir. 1956) and In the Matter of Use of the Carterfone Device in Message Toll Service, 13 FCC 2d 420 (1968).
² For a detailed discussion, see David E.M. Sappington and Dennis L. Weisman Designing Incentive Regulation for the Telecommunications Industry, MIT Press, Cambridge, Massachusetts, p. 31 ff.
³ These rules generally remained in place for ten to fifteen years before they began to be relaxed by regulators.
⁴ For a complete discussion, see David L. Kaserman and John W. Mayo Competition in the Long Distance Market in Martin E. Cave, Sumit K. Majumdar and Ingo Vogelsang, Editors, Handbook of Telecommunications Economics, North Holland, 2002.
decisions of non-dominance and effective competition. Importantly, competition within the telecommunications sector has proven to be a positive-sum game for market participants and the broader economy. That is, by ensuring a commitment to open, competitive market access regulators have promoted a competitive dynamic that stimulates both incumbents and new entrants to superior performance. This superior performance at the firm level, in turn, stimulates far broader economic gains throughout the economy. For example, a recent study found that facilities-based competition in the U.S. mobile broadband market conservatively adds more than $20 billion in total economic surplus each year, worth over $200 billion in total long-run benefits to the national economy.

In the wireless market, regulators have worked assiduously to promote spectrum availability and ease previous restrictions on resale of spectrum. Over the years, these and other regulatory commitments have fostered a diverse set of suppliers, with four nationwide suppliers, none with a market share larger than 38 percent, and which also compete with a number of regional suppliers. Competition in the development of advanced mobile broadband service has been particularly robust, with substantial investment, innovation, utilization and declining prices. Of course, telecommunications consumers benefit from this competition and the underlying institutional support for the development of competition, but because mobile broadband serves as a general purpose technology, its benefits disseminate throughout the economy.

The benefits from a commitment to competition are clear from the statistics. For example, in Figure 1, a variety of retail economic metrics for mobile telephony reveal the very tangible influence of competition over time. In panel (a) we see the massive investment that has been enabled in a competitive environment, particularly since the 1993 Amendments. Similarly, in panel (b) we see the evolution of prices for mobile services. As the figure reveals, the prices of wireless telecommunications services in the United States have declined significantly relative to the price path of all goods and services sold in the county. Finally, in panels (c) and (d) we see the manifestation of the exploding quality, affordability and breadth of services in both mobile subscription and usage data over time.

6 See e.g., Order, Federal Communications Commission, Docket 95-427, In the Matter of Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier, Adopted: October 12, 1995; and, Memorandum Opinion and Order, Federal Communications Commission IB Docket 12-311, In the Matter of Eastlink International (USA) Inc. Petition to Modify Classification from Dominant to Non-Dominant on the U.S. Bermuda Route, Adopted June 11, 2013.


9 These positive economic metrics extend beyond the mobile sector, and beyond the US, when sufficient competition-enabling policies are in place. See, e.g., OECD data provided in http://www.oecd.org/sti/deo-tables-2015.htm.
Europe

The effort in Europe to promote durable competition in telecommunications started nearly 30 years ago. Beginning in 1988, the European Union (EU) began the process of liberalizing all segments of its telecommunications marketplace: for CPE, value-added services, satellite equipment and services, cable TV networks and mobile telephony. This movement began to accelerate following the 1997 WTO General Agreement on Trade in Services. With several important directives in 1998, EU voice telephony and infrastructure were opened to competition—with the introduction of a requirement for incumbent players to open their essential network elements to new entrants at regulated prices. Beginning in 2002, a new regulatory framework was implemented with more aggressive provisions that sought to promote both entry of new service providers in the short term and the development of sustainable competition between alternative infrastructures in the longer term. The regulatory framework adopted included both ex ante rules and ex post protections.

In Europe additional challenges arose beyond those faced in the United States. For instance, the absence of alternative incumbent infrastructure (e.g., cable TV) in many member states made inter-modal entry less immediate. And given the federal nature of the European Union, the regulatory framework needed to strike a suitable balance between the attempt to harmonize rules across countries and the need to leave sufficient discretion to national regulators in choosing the remedies that best fit the peculiarities of their national markets.
The results of Europe’s move to introduce competition and to establish a regulatory framework to protect that competition were immediately visible. Then EU-Commissioner Erkki Likkanen reported that in 2000, the EU telecommunications sector was exhibiting a rapid growth rate, with 60 newly licensed mobile operators offering GSM services, and that prices had already fallen dramatically especially for international and long-distance calls. Incumbent operators, formerly state-owned and mostly focused on their own national markets, started evolving into global players with investments in various parts of Europe and beyond. For example, Telefonica, Deutsche Telekom, Telecom Italia, France Telecom and British Telecom all undertook steps to expand beyond their traditional geographic and product footprints. As a result, the whole European economy gained in competitiveness.  

In 2009 the EU again revised its regulatory framework, continuing its regulatory oversight and maintaining its commitment to promoting competition, but also placing more emphasis on fostering private-sector investment to satisfy the expanding substantial investment demands of the telecommunications sector. Most recently in September 2016, the European Commission issued a comprehensive proposal for a further reform of its regulatory framework. The proposed revisions continue to anticipate the need to maintain asymmetric regulation for the former state-owned telecommunication providers, despite the fact that in many markets the market share of these firms has fallen to less than 40 percent. The proposed revisions also introduce a number of pro-investment provisions, including in particular the possibility for national regulators to rely on co-investment and risk-sharing measures to promote investment in very high capacity networks in less densely populated areas.

In sum, with the EU’s regulatory framework in place and growing competition, both traditional voice telephony and emergent broadband services have continued to see substantial economic benefits and these sector-specific gains have broadly improved economic welfare throughout Europe. Prices for both fixed and mobile telephony have fallen and the adoption of mobile broadband has soared. For example, the penetration of mobile broadband (3G and 4G) approached 80 percent by the end of 2015, up from approximately 13 percent in 2008. The broader benefits of Europe’s investment in information and communications technology (ICT) together with complementary investments in intangible capital provide spillover benefits that have enhanced productivity across Europe.

In sum, considering the decades-long experiences in both the United States and Europe, it is apparent that their enduring commitment to rules and institutions that support open and sustainable competition in the telecommunications industry has produced not only benefits within the telecommunications industry narrowly-defined, but also across the broad spectrum of total economic activity in these economies.

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11 See Likkanen’s speech 01/356, “The European Union Telecommunications Policy”, Telecommunications Seminar, Sarajevo, 16 July 2001 http://europa.eu/rapid/press-release_SPEECH-01-356_en.htm. In 2000, incumbents’ prices fell by more than 10%, and almost 5% for residential users for national calls. For international calls, the same figures were 15% for business users and 13% for residential users. These price declines tend to understate the benefits to consumers as the prices offered by new entrants are usually lower than those of incumbents.

12 See the figures provided by ETNO, the association of EU’s largest telecom operators, at https://etno.eu/datas/ETNO%20Documents/Facts%20%20Figures_final.pdf


Mexico

Mexico initially moved to privatize its telecommunications sector, along with a number of other sectors of its economy in the 1990s. While such privatization efforts in other countries were typically accompanied by both the strengthening of regulatory policies to protect emergent competition and vigilant antitrust oversight, these supports were largely absent in Mexico. Indeed, in Mexico there were no antitrust laws, sectoral regulation was virtually nonexistent, and the judicial amparo process effectively nullified regulatory efforts. By using the amparo procedure, which aims to shield persons and companies against abuses of power by the state, economic agents in the sector, and the incumbent in particular, managed to put most significant regulatory actions on hold—sometimes indefinitely.

Even after the Federal Law of Economic Competition (LFCE) came into effect in 1993, and the Federal Telecommunications Law (LFT) was enacted in 1996 efforts to regulate the sector were mostly ineffective. While nominally adding institutional teeth, the two agencies charged with regulating the sector—the Federal Competition Commission (CFC), charged with determining economic agents with substantial market power (SMP), and the Federal Telecommunications Commission (COFETEL), charged with enacting asymmetric regulation once SMP was determined—were unable to effectively enforce the numerous investigations and regulatory actions they opened.

In the first set of SMP decisions by the CFC during the 1990s, CFC and COFETEL coordinated poorly in exchanging information, in agreeing on the remedies that should follow a finding of SMP, while the incumbent was remarkably able to circumvent an inexperienced judiciary. The result was that telecommunications prices in Mexico remained relatively high, connectivity among operators was problematic which made services among different networks very poor and choices remained limited. This in turn negatively affected network deployment, investment and adoption of service.

In the case of COFETEL, which was operating under a modern law partly inspired by the U.S. Telecommunications Act, the realities of a weak institutional design that forced it to coordinate with the Ministry of Communications and Transport (SCT), severely limited its enforcement powers. The SCT was required to listen to COFETEL (a technically independent agency), but was not required to act on any of its opinions.

17 The amparo—recurso de amparo or juicio de amparo—is a remedy that seeks to protect constitutional rights in Mexico. It is seen as an effective and inexpensive instrument for the protection of individual rights, and has evolved as a protection of broader rights including the protection against judicial review of: (i) the constitutionality of certain statutes, (ii) the constitutionality and legality of a judicial decision, and (iii) administrative actions. It is in these terms that the amparo recourse has been used and abused in the telecommunications sector over the last twenty years.

18 Telmex was the incumbent at the time, but it later included its mobile company, Telcel, and finally both became part of an economic interest group under the brand América Móvil.

Further, SCT retained powers to undertake its own investigations, to revoke concessions or impose fines, regardless of COFETEL's recommendations. Given the lack of clarity in the institutional lines of authority, it is hardly surprising that virtually every player in the sector became embroiled in legal actions. As COFETEL proved to be ineffective at solving interconnection arguments and reining in a dominant player, economic agents found in the CFC another venue to bring complaints about the problems plaguing the sector. In time, all interconnection disagreements were being seen both by COFETEL and by the CFC as conduct investigations. For the competition authority, telecom cases eventually made up more than half of all its investigations. Figure 2 illustrates the growth of complaints in the telecom sector as measured by the CFC over time.

This litigious and uncertain environment was hardly conducive to the emergence of competition, investment and growth. In 2012, the OECD published a review, requested by the Mexican government, on the status of telecommunications in Mexico. This report was the product of numerous interviews with stakeholders in the telecommunications and related sectors as well as months of research. It confirmed the worst: investment in the Mexican telecommunications sector was chronically sub-par, prices were too high and deployment and adoption of modern telecommunications services was too low. It was clear that Mexican regulators had been unable to rein in the dominant incumbent, promote successful entry or provide an environment that was conducive to investment and innovation.

The principal losers were the users of telecommunications who had among the lowest penetration rates, the highest prices and lowest-quality services in the OECD community. The OECD concluded that "The poor development of telecommunication infrastructure in Mexico is due to in large part to lack of effective competition" and that the resulting "Inefficient telecommunication markets impose a significant cost on the Mexican economy and the welfare of its population." América Móvil had proven itself to be a powerful dominant incumbent with the ability to consistently out-maneuver attempts to restrict its exercise of market power.

20 “Cofeco oversees all sectors of the Mexican economy, but claims that as much as 54% of cases it has been involved with are telecommunication related... The number of cases attended by the Commission in 2012 amounted to 426.” (OECD.2012. p. 57)

21 The study's foreword notes that it was carried out by the OECD Directorate for Science, Technology and Industry ( DSTI) under the auspices of the Committee for Information, Computer and Communications Policy (ICCP Committee), and requested by the Government of Mexico, at the behest of COFETEL, through the Mexican Ministry of Transport and Communications, SCT. See: http://www.oecd.org/sti/broadband/49536828.pdf.

22 See OECD Review of Telecommunication Policy and Regulation in Mexico http://www.oecd.org/sti/broadband/49536828.pdf, which documents that Mexico was last among 34 OECD countries in investment per capita in the telecommunications sector (p.38). Among these same OECD countries, 2011 prices for mobile telephone service ranked the third highest in Mexico (p. 34), and adoption of mobile telephone service was at the very bottom of the OECD countries (p. 21).

23 Ibid, p. 17.
Recognizing many of the conclusions made in the OECD report, Mexico turned to constitution reform. This reform created two new regulators to replace the old CFC and COFETEL—granting them competition powers over the telecommunications and broadcasting sectors. The Federal Telecommunications Institute (IFT) was given power to fast-track more stringent, asymmetric regulation in the event that any firm was found to have more than a 50 percent market share in either the telecommunications or the broadcasting sectors. The reform also seriously curtailed the use of the amparo process. It prohibited any recourse during the course of an administrative process and only allowed “indirect” amparos, that is, those dealing with issues of constitutionality, or violations of individual rights—arguments dealing with issues of legality were not valid anymore.

With the presence of a more serious commitment to competition and with an institutional and regulatory structure in place capable of sustaining that competition, the future now appears brighter. New entrants and significant investments have begun to emerge. In 2015, AT&T entered Mexico with a plan to invest approximately US$3 billion to extend high-speed, mobile Internet service coverage to 100 million Mexican citizens by the end of 2018. These investments will provide some immediate consumer benefits through enhanced competition, increased choices and lower prices. Additionally, the new entry has created the first-ever North American Mobile Service Area to seamlessly connect over 400 million people and businesses across Mexico and the United States.

While these important but incipient steps toward the potential gains from the constitutional reforms are commendable, the long-run sustainability of these positive first steps is not assured. With continued commitment over the years to come, however, the positive trajectory of the constitutional reforms hold the promise of substantial economic gains not just for the telecommunications sector, but for the entire Mexican economy.

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24 The 2013 Telecommunications and Competition reform was presented by President Peña Nieto to Congress in March (http://gaceta.diputados.gob.mx/PDF/62/2013/mar/20130312-II.pdf) and enacted on June, 11th 2013. The Federal Telecommunications Institute (IFT)—the agency charged with enforcing the law—was created in September and by March 2014 had determined that América Móvil was a preponderant economic agent, and therefore subject to asymmetric regulation (http://apps.ift.org.mx/publicdata/P_IFT_EXT_060314_76_Version_Publica_Hoja.pdf). The actual reform can be accessed through the Federal Official Gazette at http://www.dof.gob.mx/nota_detalle.php?codigo=5301941&fecha=11/06/2013.

25 Reformed article 28, paragraph VIII, reiterated in Transitory articles 7 and 9, Mexican Constitution.

III. Conclusion

While the general lessons of the benefits from committing to competitive markets are apparent, the enforcement of policies designed to produce such competitive benefits are neither simple, nor can they be successful if they are short-lived. Specifically, the commitment to open, accessible telecommunications markets requires an enduring adoption and enforcement of specific, competition-enabling policies which can take years to reliably take hold. Moreover, it requires clear and consistent signals on the government’s commitment to maintain these policies to create a business environment conducive to investment in long-lived infrastructure improvements and innovation. Unfortunately, the history of telecommunications regulation in Mexico did not provide these signals nor this commitment until recently.

Mexico’s 2013 telecom reforms have the potential to set it permanently on the proven path to economic successes in this vital sector. The stakes could not be higher, for with competition consumers will enjoy more choices, greater investment, flourishing innovation and lower prices. Mexico’s commitment to competition-enabling policies should be unwavering and durable over time, even as the exact policies that govern market participants will necessarily evolve after market dominance begins to recede. For instance, the telecommunications sector reforms adopted in Mexico in 2013 smartly condition the relaxation of regulatory requirements on the emergence of effective competition for the incumbent provider, América Móvil. History indicates, however, that the emergence of such effective competition will not be quick or easy. In the United States, for example, competition for long-distance service began in 1974 and it was not until 1995 that the historical incumbent was declared non-dominant, effectively recognizing the presence of effective competition in this market.27 Similarly, in Europe, traditional regulatory protections to competition remain firmly in place even after decades of its commitment to opening markets. Moreover, both economic logic and history have shown that while the transition from monopoly to a durably competitive environment is inevitably opposed by the initial monopolist, the broad economic benefits to society from this transition assuredly exceed the narrowly-defined costs (if any) experienced by the incumbent through the transition.

With the substantial promise of new entry, robust investment, enhanced consumer choice and improved adoption of broadband services capable of accelerating Mexican economic growth, a resolute commitment to the path established by the 2013 regulatory reforms will have substantial economic returns for 2017 and beyond.
