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THE POLITICAL ECONOMY OF THE TELECOMMUNICATIONS REFORM IN MEXICO

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Abstract

The paper analyses the telecommunications and competition reforms implemented during the Peña Nieto administration in 2013-2014. It analyzes the economic impact as well as the political process that shaped the reform and the main rulings. It finds that broadcast TV has far more political power than the size of the industry shows. It also finds that the constitutional amendments were an attempt by politicians to control both media moguls and substantial market power in the telecommunications sector. It concludes that, after the Constitutional Amendments were passed, the market expected a bad future for the telecommunications sector; however, no such evidence was found for broadcast TV. The power of broadcast TV can be seen in several choices made by politicians and also in rulings by the Federal Institute of Telecommunications. There is not similar evidence for telecommunications. The economic outcome shows mixed results: a reduction in real prices for telecommunications services was observed, but after 2017 the downward trend disappeared. However, in international comparisons for mobile services, Mexico fares well among OECD countries. América Móvil stock was negatively influenced by both the constitutional amendments and by the legal changes, it was also affected by the ruling on preponderance. A reduction in real prices was not observed for pay TV. For fixed broadband services, a substantial increase in the share of América Móvil’s competitors was observed. The same could not be said for the mobile broadband services. Also, there is little evidence of the rival’s access to América Móvil’s infrastructure, showing that the constitutional mandate that the preponderant operator must share its infrastructure has not been fully satisfied so far. Given this, the IFT ordered in 2017 the functional separation of América Móvil into two firms, one for final services and the other for wholesale services (access to its infrastructure). The final court ruling is still pending.

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1. Introduction

At the beginning of the Peña Nieto administration, the government negotiated new reforms with the other major political parties to promote economic growth in Mexico. These included reforms on competition, telecommunications and broadcasting, energy and education.

On 11 June 2013, Congress passed constitutional amendments that changed the legal framework for competition and telecommunications and broadcasting. The aim of these changes was to foster economic growth and to enhance the efficiency in markets operation. Approximately one year later, the Federal Telecommunications and Broadcast Law passed with the aim of accommodating the constitutional changes.

In a paper published by Gordon Hanson in 2010 titled “Why Isn’t Mexico Rich?”\(^1\), the author mentioned some factors that might have affected the performance of the Mexican economy. Among others, Hanson cited the failure of credit markets, the persistence of informality, the lack of an efficient supply of key economic inputs that had an impact on the whole economy (electricity and telecommunications among others), a bad educational system and external shocks (such as the entry of China into the World Trade Organization). Some of the reforms implemented by Peña Nieto’s administration addressed the criticisms in Hanson’s article.

The aim of this paper is to assess whether the legal reforms and consequent regulation had an impact on markets, and whether the political economy of the process yielded a better regulatory framework to counterbalance the market power that existed in certain sectors, particularly telecommunications and broadcasting.

The analysis suggests that media power is strong in Mexico. The power of broadcast TV was shown when the legal changes adapted to the new constitutional principles were implemented. Transitory Article 9 of the law clearly benefited the main media firm, Televisa.\(^2\)

The information that media disperses through the news has been historically important for Mexican politicians: viewers’ visions of political success and failure are influenced by these information gatekeepers. In Mexico, if a media firm has market power, it will surely have political power. This fact is illustrated through the so-called “Ley Televisa” briefly reviewed in this text. Also, it was confirmed in this reform with the passage of Transitory Article 9.

Even for telecommunications, a synthetic control approach shows that, at least for investors, the constitutional reform did change perceptions of the performance of América Móvil, a large firm with market power. However, when the legal changes were approved, investors adjusted expectations and returned to the view before the constitutional amendments. The analysis suggests that both Televisa and América Móvil were strongly affected by the constitutional changes, but that the harm was ameliorated by the legal changes. Nonetheless, the legal changes did affect the América Móvil stock price in the long term.

The paper is organized as follows: first, it reviews the constitutional amendments and their main changes and mandates. Then it discusses the background that generated these chang-


\(^2\) This refers to Transitory Article 9 in the Law enacted in the Reform: As long as there is a preponderant economic agent in the broadcasting and telecommunications markets, concentrations between economic agents will not require approval from the IFT.
es. It discusses the legal changes that accommodated the constitutional amendment. This section ends with a statistical exercise that uses stock market data and analyzes the market expectations after the reforms by using synthetic control data. Afterwards, it looks at the empirical evidence that summarizes the impact of the reform. This section makes international comparisons on the average revenue per user with data gathered from the public reports of the telecommunications firms, we also use the OECD data to make international comparisons. The following section discusses the main rulings by the IFT, concluding with the statistical impact. The paper ends with concluding remarks.

2. Constitutional amendments

The constitutional amendments of 2013 were published in the Official Journal of the Federation on 11 June 2013. In Article 28, the Constitution establishes that the Mexican State will have the Federal Economic Competition Commission (COFECE) as an autonomous entity with judicial autonomy and with its own resources. This Commission will investigate and fight monopolies, monopolistic practices, economic concentration and further restrictions to the efficient operation of markets. Most importantly, the Constitution also mandates that the Commission may order the removal of barriers to competition and regulate access to essential facilities. The same article gave the Federal Institute of Telecommunications (IFT) the discretion to regulate telecommunications and broadcasting, and, at the same time, made it the sole entity in charge of overseeing the competition issues in those industries. Thus, the amendment removed the power to supervise the competition aspects of the telecommunications and broadcasting industries from the COFECE and gave it to the newly created IFT.

As mentioned above, the IFT also regulates, with traditional tools, the telecommunications and broadcasting industry. The fact that a sole entity oversees two different aspects of the industries (regulation and competition) may generate a conflict of interest for the IFT. As a regulator, the IFT may be concerned with the viability of the telecommunications and broadcast industry, which may entail the intention to restrict competition for viability purposes; they also supervise the competition aspects, and are therefore interested in restricting market power. Thus, this new design may not be optimal.

A significant change in the constitutional amendment was the change in the appeal process. In the new legislation, a ruling by COFECE or the IFT cannot be suspended by the appeals court in the appeal process. Thus, the effects of any ruling (by COFECE or the IFT) are maintained while the appeal process continues. In the past, the parties would ask for a suspension of the effects of the ruling while the appeal process continued.

The reader may notice that the incentives of the agents change dramatically with this modification. In the past, the agent that was found in violation of the competition law had the incentive to delay the appeal process because the effects were suspended. By delaying, the agents would be able to affect the competition process more dramatically and, in the end, even if the agent were to lose in the final ruling, it has had enough time to affect the competition process. The damage to the industry might have been permanent. In contrast, with the new appeals process, the agents cannot suspend the effects, and thus have more incentives to accelerate the ruling. The background section of this paper will discuss how TELMEX benefited from the old appeals process. Thus, this change had the intention to diminish opportunistic behavior by dominant agents.
The constitutional amendments included some other changes. A very important one was that the commissioners had to pass an exam, based on scientific knowledge of the field, to be considered eligible. This requirement became very useful because it gave more autonomy to the bodies. The candidates cannot be chosen at will by the president, who can nominate a candidate to become a commissioner if and only if the candidate tests among the top five spots. This process is significant for the entity’s autonomy. Furthermore, the president nominates a candidate and the Senate approves of the commissioner with a supermajority vote. The whole exam process is managed by the Bank of Mexico (the Mexican Central Bank) and the National Institute of Statistics and Geography (INEGI), both of which also have constitutional autonomy from the federal government. In the end, they send the list of the five top candidates to the president.

An additional significant change is the creation of specialized courts for the appeal process. The first and second stage appeal process are managed by judges and circuit court tribunals that have some experience on these (highly technical) regulatory issues.

Finally, for the first time, economic agents violating the law could be criminally charged, and people that are proved to form a cartel could go to jail.

3. Constitutional amendments related to specific regulatory issues

3.1. Must carry and must offer

Transitory Article 8 of the constitutional amendment obligates “must carry” and “must offer” in relation to the provision of content from broadcast TV to pay TV. “Must offer” obliges the broadcast operators to provide their signal to pay TV providers. “Must carry” forces pay TV providers to carry the signal of broadcast operators. The conditions under which these transactions occur will be regulated by the legal changes (the adjustments at the law level).

3.2. Preponderant operator

One of the most controversial and important changes to the Constitution relates to the definition of preponderant operator. It appears to be a multi-industry (multiproduct) definition of market power and as such, it involves the prescription of asymmetric regulation by the Constitution. The definition of preponderant operator is written in section three of Transitory Article 8:

“Para efectos de lo dispuesto en este Decreto, se considerará como agente económico preponderante, en razón de su participación nacional en la prestación de los servicios de radiodifusión o telecomunicaciones, a cualquiera que cuente, directa o indirectamente, con una participación nacional mayor al cincuenta por ciento, medido este porcentaje ya sea por el número de usuarios, suscriptores, audiencia, por el tráfico en sus redes o por la capacidad utilizada de las mismas, de acuerdo con los datos con que disponga el Instituto Federal de Telecomunicaciones.”

3 Constitución Política de los Estados Unidos Mexicanos, p. 235.
“For the effects of this decree, [an entity] will be considered a preponderant agent, given its share at the national level in the provision of the telecommunications or broadcast services, any agent that has, directly or indirectly, a share that is larger than 50 percent, whether measured by the number of users, subscribers, viewers, or by the network traffic or network capacity used, according to the data available from the Federal Institute of Telecommunications.”

The amendment gives discretion to the IFT to apply the necessary regulation to the preponderant agents that have an impact on the process of free competition and concurrence. The Constitution allows for asymmetric regulation of tariffs and network infrastructure, including the unbundling of network elements, accounting separation and functional or structural separation of preponderant operators.

Moreover, in case the IFT finds an operator to be preponderant in the telecommunications sector, the amendment establishes a limited timetable for the IFT to impose asymmetric regulation. Specifically, it orders the unbundling of the local loop and gives a limited period of time to the IFT to establish the parameters for this regulation. The Constitution establishes explicitly that all the necessary network elements for local unbundling will be considered essential facilities, meaning (according to the Constitution) that the competitors of the preponderant operator should have access to the technical, physical and logical means to connect any terminal point of their network to the access point of the telecommunications' preponderant operator. Furthermore, the competitors may select what network elements they may require as well as the access point to the network of the preponderant operator.

The Constitution also establishes that the IFT will regulate prices and tariffs. It is surprising to find a constitutional amendment that devises with that level of detail, the regulation process. The background section will show how TELMEX took advantage of the former legal framework to delay asymmetric regulation for 15 years, up until the constitutional amendments were approved.

It is important to note that the text is vague enough to allow for the definition of preponderance at the industry level (and not at the sectoral level). Thus, the passage generated some uncertainty on how strictly América Móvil (the preponderant operator) would be regulated.

3.3. Broadcast TV

With broadcast TV, the Constitution mandates the auction of spectrum for new networks. The incumbents with networks that have concessions at the national level and more than 12 MHz of allocated spectrum in any geographical area will not be allowed to participate in the auction. The Constitution explicitly prohibits those concessionaires with more than 12 MHz of spectrum from participating in the auction. This proposal comes from the political power associated with market power exerted by the owners of the broadcast networks. The background section will discuss these issues further.

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4 See section IV of Transitory Article 8, Mexican Constitution, p. 235.
5 See fraction II of Transitory Article 8.
3.4. Backbone

The constitutional amendment orders the Federal Electricity Commission (the state-owned electricity firm) to transfer the concessions on telecommunications to another government-owned firm—Telecomunicaciones de México. It had the largest dark fiber network in the country after América Móvil.

3.5. Wholesale reseller

The Constitution mandates that 90 MHz of the valuable 700 MHz band should be allocated to a wholesale reseller. This firm would not be allowed to sell retail services and would sell capacity to other network operators or virtual mobile operators.

3.6. Foreign investment

The amendment also establishes that any telecommunication operator could be fully foreign owned. The only restrictions on foreign investment were imposed on broadcast radio and TV. The Constitution set a limit date for the transition from analog to digital TV.6

3.7. Procedural changes

The amendment also orders that the investigation stage and the ruling stage be separate in competition cases. According to the Constitution: The law should normalize this process. Before the amendment, a single entity (the former Federal Competition Commission) would implement both stages under the commissioners.

The Constitution allows those agents found to have violated the competition law to be charged with criminal conduct.

4. Background

4.1. Telecommunications

The briefly summarized constitutional amendments were the result of the continued failure to regulate the market power of the main telecommunications operator, América Móvil. Also, in broadcast TV, there was a sense that the regulation of these large firms was not appropriate. The transition to digital TV was taking too much time and the networks were behaving opportunistically; the second major broadcast firm was offering pay TV on spectrum allocated for the digital transition in clear violation of the law. The evidence for this will be documented in this section.

6 See Transitory Article 5.
Also, the government did not use the transition to digital TV to devise a more competitive industry. This concentration translated into political power for the media moguls. In 2006, the whole political system followed Televisa’s order to pass a law that clearly benefited the broadcast operators.

The regulatory history of telecommunications in Mexico starts with the privatization of TELMEX in 1990. TELMEX was privatized as a fully integrated monopoly that offered all telecommunication services that were available at that time: local service, long distance service, paging and cellular services. This created a humongous firm with monopoly power. There was competition from regional cell service providers, but no other national network, and there was competition from paging services too. However, at that time TELMEX was the only provider of local fixed services and long-distance services.

It is surprising that the Mexican economists in charge of the process privatized a fully integrated monopoly. Some of them were trained in the best universities in the world. The antitrust case against AT&T had been initiated by the U.S. Department of Justice in 1982 and the divestiture had already happened. Brazil, a country that also privatized its telecommunications company, had split long distance service from local service in the privatization. Despite happening long after the AT&T divestiture, the TELMEX privatization did not take that ruling into account, and the Mexican technocrats privatized a fully integrated monopoly.

Some authors like Roger Noll (2000) argue that the aim was to obtain part of the stream of monopoly profits that the firm would earn in the future. Mexico was exiting the debt problems that overwhelmed the country during the 1980s, and the aim of the privatization process was to collect fiscal resources to alleviate the intertemporal budget constraint of the government.

Thus, from a fiscal collection perspective, it was better to privatize a monopoly. An alternative and complementary explanation is that the outcome was the result of strong pressure from local entrepreneurs who were used to rent-seeking behavior from past economic policies.

There was no national cellular network competing with TELMEX and no competition in long distance and local service. Only its paging services faced competition. Furthermore, competition in long-distance was only allowed after 1997, seven years after the privatization, and competition on local service was allowed after 1999.

Casanueva and del Villar studied the price cap imposed on TELMEX for the first years of the privatization. The methodology was a standard RPI-X. That is the rate of inflation minus an adjustment for productivity growth. They found that during the first six years, the X-factor was set to 0, in spite of the firm’s huge productivity gains. In 1997 and 1998, the X-factor was set a very low level.

TELMOEX was privatized without updating the existing legal framework for the new conditions that the privatization established. Most of the regulatory aspects were imposed on the concession title. For example, section 5.4 of the concession title ordered the interconnection with long distance operators in January 1997. This section implied that competition in long distance would start that year.

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The new law was issued in 1995, five years after privatization. Transitory Article 11 of that law ordered the creation of the Federal Telecommunications Commission (COFETEL), the body in charge of regulating the whole telecommunications industry. However, the decree that created this body did not give it enough autonomy. The commissioners could be removed at will by the Secretary of Communications. Article 62 of the new telecommunications law allowed for the enforcement of asymmetric regulation in case a firm is found to have substantial market power. This ruling had to be decided by the Federal Competition Commission (COFECO).

In February 1998, COFECO ruled that TELMEX (at that time Telcel, the mobile services operator, and TELMEX, the fixed services operator, were two firms owned by the same holding company) had substantial market power in five markets: local service, interconnection services, national long distance, international long distance and intercity transport. TELMEX challenged the resolution and the trial lasted until May 2001.

In September 2000, COFETEL issued special regulations that mandated the telecommunications law of that time (Article 62). COFETEL’s resolution was justified by COFECO’s 1998 resolution on substantial market power. In December 2000, TELMEX appealed the COFETEL resolution in court. The procedure and the special regulation were suspended.

In May 2001, COFECO issued a new resolution on TELMEX’s substantial power. In July 2002, a judicial resolution was issued which annulled the 2000 COFETEL resolution. In April 2004, a court ordered COFECO to issue a new resolution on substantial market power. By this time, six years had passed since the first resolution, without any impact on TELMEX. In 2007, the court annulled the 2004 COFECO resolution, almost 10 years after the first COFECO resolution, leaving TELMEX in the same condition as it was before 1998. By 2011, no special regulation had been implemented for TELMEX based on the declaration of substantial market power.

4.2. Broadcast

Direct TV was a satellite company that offered satellite TV services. The firm entered the Mexican market at the end of 1995. Since the beginning of operation of the new firm, it did not have access to the content of Televisa’s broadcast television channels. Additionally, Televisa was vertically integrated with Direct TV’s direct competitor, SKY, a satellite operator that always had access to the content of Televisa’s broadcast television channels.

In a study carried out by the Federal Competition Commission to authorize the purchase of Cablemas by Televisa, it was concluded that broadcast television was an essential input for the providers of pay television services. Thus, if either of the two television networks denied their content to pay television operators (cable and satellite), these operators would face a competitive disadvantage. The argument was based on the fact that the proportion of consumption of broadcast television channels in the pay television audience was 43 percent.

The same study indicated that of the 40 highest-rated pay TV channels, the top five channels were broadcast television. This illustrates how broadcast television was (at the time of the resolution) a necessary input for pay television to be successful.

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The constitutional changes in the previous section were the Mexican State’s response to this problem. The constitutional amendment did include a “must offer” obligation. With “must offer”, Direct TV would acquire access to Televisa’s content.

It is surprising that regulations with this detail were added to a constitutional text. The legislators thought that if they did not draft specific regulation in the Constitution, firms like Televisa could affect competition conditions in pay TV through its advantage in broadcast TV. The careful inclusion of regulatory conditions in the Constitution also shows the legislators’ distrust of the courts or even the Mexican legal system. This system had allowed the exertion of market power by these two large firms in the past. By including this regulation in the Constitution, the whole court (and legal) system would be avoided, as the Constitution cannot be legally challenged.

The behavior of viewers has changed in recent years—people are watching more streaming content. However, in 2017, the IFT published a survey on consumption pattern of viewers. The survey shows the continued importance of broadcast television. According to the IFT survey, 96 percent of households have a television. 74 percent of these people report viewing broadcast TV. Newscasts are the most watched content, followed by movies and soap operas. The survey also shows that 65 percent of people who have a pay television service contract watch broadcast television channels.

Broadcast television channels are the most viewed channels among Mexican consumers who have a contract for pay television service. Therefore, broadcast television continues to be very important and constitutes a competitive advantage for pay television operators that have access to this content.

This is why “must offer” levels the playing field. This paper will show how the number of pay TV accesses offered by Televisa’s competitors increased substantially after Televisa was forced to offer its broadcast television channels to pay television operators. This showed that the provision of television broadcast may be essential for the provision of pay TV.

4.3. Political power of media broadcast

Political science has shown that democratic outcomes depend heavily on the information acquired by voters. Martinelli (2006) shows how societies with more informed voters achieve higher levels of welfare than societies with less informed voters.

The degree of information that voters acquire depends heavily on the institutions through which information is transmitted. Media institutions play a fundamental role in transmitting information to voters.

Media institutions generate information about government performance, political plans of incumbents and the profile and plans of challengers (new politicians). The media also report on public meetings between politicians and their followers, the content of speeches and how people acclaim them in public. This information is particularly important in election times.

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The degree of accuracy of the information depends heavily on the degree of competition in the media industry. The degree of competition in media is of paramount importance in providing correct news to the voters.

In the economics literature, there is a tradition that studies the relationship between media power, democracy and government power. Besley and Pratt (2006) discuss a political model that studies the incentives of governments to capture media (through bribing or other means like economic favors to their firms). The control of media power allows governments to influence the public’s perception of government performance, thus helping governments in the electoral process. Besley and Pratt (2006) argue that media pluralism is an efficient safeguard against the possibility that governments capture the media.

There is also the possibility of inverse capture, that a government affected by a highly concentrated media industry would get substantial benefits in election times. Castañeda and Martinelli (2018) show that a media firm with full market power can auction its political influence among politicians, generating a situation in which the voters lose and social welfare is lower. However, this is completely rational for the profit maximizing firm.

An example is the analysis of the events in election times in Mexico in the years 2006 and 2012. A law on broadcast TV was approved by the Chamber of Deputies at the end of 2005 and then passed by the Senate in March 2006. The legislation had substantial benefits for TV incumbents, including asymmetric regulation that favored incumbents over new entrants. The legislation also allowed incumbents to use the spectrum allocated for analog TV for telecommunications services without compensation.

In contrast, the spectrum needed to be auctioned for new entrants. Its passage in the Chamber of Deputies was unanimous—the vote was over in seven minutes. However, several members of the Senate opposed the legislation. Nonetheless, the majority passed the minutes approved previously by the Chamber of Deputies with no change. Among the opponents to the legislation was Javier Corral from the National Action Party (PAN). The press, citing him, published the following statements:

“Corral señaló a Javier Tejado Dondé, Director Jurídico adscrito a la Vicepresidencia Ejecutiva de Televisa, y a Javier Orozco Gómez, diputado federal del PVEM y presidente de la Comisión de RTC, como los principales orquestadores del dictamen de reforma.”

“Corral said that Javier Tejado Dondé, Director for Judiciary Affairs attached to the Executive Vice-presidency of Televisa, and Javier Orozco Gómez, a congressman from the Ecological Green Party of Mexico and Chairman of the Radio and Television Commission, were the main actors behind this reform” [Reforma, 3 December 2005].


National elections were going to occur in July 2006.
Furthermore, the newspaper *Reforma* quoted him as follows:

“La iniciativa (presentada) por (el diputado priista) Miguel Lucero, esto lo puedo docu-
mentar, reproduce íntegramente textos de la autoría del licenciado Tejado Dondé y
del propio licenciado Orozco Gómez, escritos en otra fecha, en otras circunstancias y
obviamente textos dirigidos al público. De ahí que el dictamen sea parcial y dentro de
ello insuficiente y tramposo.”

“The initiative (sent) by (the PRI congressman) Miguel Lucero, and I can prove it, is an
exact copy of documents authored by Tejado Dondé and Orozco Gómez, written on a
different date, in another circumstances, and obviously aimed at the public. Thus, it’s clear
that the legislation is biased, insufficient and devious” [*Reforma*, 3 December 2005].

To understand the last quotes, it is important to know that Televisa is the major broadcast
network operator in Mexico. It operates four channels with nationwide coverage. Mr. Tejado
Dondé is an employee of this firm.15

This legislation was approved near election time. The presidential election was going to take
place in July 2006. The law’s passage had such large impact that it was named the “Ley Te-
levisa”. In the end, the Supreme Court ruled the law unconstitutional. Andrés Manuel López
Obrador was a candidate at that time and never said anything against the law.

For the 2012 elections, candidate Peña Nieto visited Universidad Iberoamericana, where
he was severely mistreated by the students. On national television, Televisa reported that
the protest was organized by opposition parties, in particular the Party of the Democratic
Revolution (PRD). The network showed a PRD flag waving in the wind with an image of the
university’s buildings behind.

This manipulated information gave rise to the movement #YoSoy132. 132 students from Uni-
versidad Iberoamericana appeared on YouTube showing their IDs and stating that they did
protest against the visit and were not part of the PRD, arguing that the protest was student
led and not influenced by parties opposed to the Institutional Revolutionary Party (PRI). The
movement accused the media in general, and Televisa in particular, of not reporting about
the candidates with objectivity.

The influence of the media can also be seen in a ruling on the spectrum auction by the
regulators at that times. For example, in July 2010, auction 21 was implemented by the tel-
ecommunications regulator, COFETEL. The spectrum caps were devised by COFECO. The
spectrum caps were set at a level that would make it impossible for an incumbent to partic-
ipate in the auction. Neither TELMEX, Telefónica nor Iusacell were allowed to participate in
the auction at the national level.

Only Televisa, in association with Nextel, was allowed to participate. The incumbents were
only allowed to participate in regional licenses. So, the only bidder for a national license was
the consortia Televisa-Nextel. When you compare the amount paid by the incumbents versus
what Televisa paid, the difference amounts to 28 times more for the incumbents. Because
the outcome was such a big scandal, Televisa withdrew its intent to merge with Nextel.

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15 Not any employee, but the Vice-president of the Office of Information to the Presidency of Grupo Televisa.
A second example is the ruling by COFETEL about the multiplexed programming in September 2012. COFETEL did not have autonomy, thus it obeyed the executive branch. First, during the digital transition initiated by the Fox administration, there was no aim to change the concentrated structure of broadcast TV. Thus, the same number of channels were granted to the main concessionaires.

Given that the transition took a long time, the concessionaires operated in the traditional spectrum for analog services, and were given the mirror spectrum, for the operation of digital channels—free of charge. Due to the more efficient operation of the digital channels, the concessionaires did not use all the spectrum. In September 2012, COFETEL allowed them to provide pay TV on that spectrum without pay. The concessionaires did not have to bid for the spectrum used as channel mirrors. Thus, it was clearly a favor to concessionaires during election times.

This brief discussion shows the media’s political power and how a major broadcaster can influence political outcomes in election times and use that leverage to its benefit. There are several responses by the State to this threat.

One was a change in the electoral law, which was reformed in January 2008. There were also changes in the broadcast law in November 2007. With these changes, the networks were obliged to run political parties’ publicity for free. The time allocated to this publicity would increase in election times. Paid publicity for political purposes was forbidden. All political parties and individuals were forbidden to pay for publicity on radio and TV broadcasts. Only the free time allocated to the political parties could be used for publicity.

The Federal Electoral Institute manages the time allocated to the parties in broadcast radio and TV and has the discretion to verify that the networks are following its orders. Before this law was passed, the parties would use their budgets to buy publicity from broadcast radio and TV. Thus, the networks had the power to deny a candidate publicity or withdraw news about that candidate in the main newscast. This was the leverage used by Televisa to induce legislators to approve the Televisa law.

The second response were the constitutional changes which mandated the auction of a nationwide broadcast TV network. The purpose of this policy was to increase competition and decrease dependence on a highly powerful network for news.

The constitutional changes regarding “must offer” and “must carry” were aimed at solving problems similar to those experienced by Direct TV, as mentioned before, one of the factors that induced Direct TV to go into bankruptcy was the lack of access to the content produced by Televisa.

The importance of this brief summary is to highlight how market power in news provision becomes strong political power, allowing a single network to change telecommunications legislation during an election.
4.4. Market power in broadcast TV

A 2011 study by the Centro de Investigación y Docencia Económicas (CIDE)\textsuperscript{16} compared the Herfindahl-Hirschman Index (HHI) of different countries:

Table 1. National HHI in broadcast TV, international comparison

<table>
<thead>
<tr>
<th>Country</th>
<th>HHI viewers</th>
<th>HHI publicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>5868</td>
<td>5612</td>
</tr>
<tr>
<td>Brazil</td>
<td>3403</td>
<td>-</td>
</tr>
<tr>
<td>Argentina</td>
<td>2608</td>
<td>-</td>
</tr>
<tr>
<td>Spain</td>
<td>1690</td>
<td>2346</td>
</tr>
<tr>
<td>UK</td>
<td>2624</td>
<td>3230</td>
</tr>
<tr>
<td>France</td>
<td>1920</td>
<td>3689</td>
</tr>
</tbody>
</table>

Source: CIDE study, 2011.

Mexico was, by far, more concentrated than the other countries. COFECE considers that a merger has to be carefully revised if the HHI is larger than 2500 points and/or the index is larger than 2000 points and the increases in the index is larger than 100 points.

Mexico's index is far larger than the average index of Latin American countries, European countries and COFECE's thresholds. The fact that the digital transition was not used to increase the degree of competition is an indication of how this market power was able to capture the regulator.

The CIDE study shows how the market structure (in terms of number of operators and the number of different channels) changed after the digital transition was implemented in several countries.

For example, it shows that in Spain, the number of channels increased from 6 to 29 and the number of operators (number of firms) passed from 5 to 6. In the United Kingdom, the number of channels increased from 5 to 43 and the number of operators increased from 4 to 20. For France, the number of channels changed from 6 to 23 and the number of operators went from 5 to 10.\textsuperscript{17}

The Constitution ordered the auction of a new national broadcast operator and blocked Televisa and TV Azteca from participating in the auction. But the digital transition did not intend to change the market structure—another indication of media political power.

\textsuperscript{16} Telecom CIDE (2011), “Condiciones del Mercado de Televisión Abierta”. Commissioned by the COFETEL study named: “Estudio sobre el Mercado de Televisión Abierta en México”.

\textsuperscript{17} See Telecom CIDE p. 44.
5. Legal changes in competition and telecommunications

5.1. Competition reform

A major change was the legislation on incremental discretion. The Constitution and the new laws gave discretion to COFECE (and the IFT) to start market investigations and to search for essential facilities in markets whose access is not well regulated or to look for the existence of barriers to competition. This is Article 94.

Additionally, the secondary law implemented the mandates of the Constitution. For example, Article 26 specifies that the investigating authority will have technical and managerial autonomy and may decide autonomously on its investigations.

Additionally, Article 33 emphasizes the independence of the investigating authority. The appointment of the investigating authority requires a supermajority from the commissioners. For the appointment and removal of the investigating authority, five of the seven commissioners are required to agree. The appointment of the investigating authority is for four years. This allows for separation between the investigation and the resolution, obeying the mandate of the Constitution. Competition reforms also increased sanctions for violating the law. An efficient immunity program was also implemented.

In relation to the regulation of collusion problems (absolute monopolistic practices) and abuse of market power (relative monopolistic practices), the law maintained the spirit of previous legislation.

5.2. Telecommunications reforms

As mentioned above, the Constitution included the concept of preponderance. The law, however, interpreted the constitutional mandate on preponderance as a concept applied to an entire sector (telecommunications or broadcasting) and not to a particular industry.\(^{18}\)

Usually, concentration or market share indices are instrumental in the analysis of competition within an appropriately defined relevant market (an industry). This type of measure is used because oligopoly theory, usually some static model of competition, predicts that market power is proportional to market share.

However, the concept of market share does not make much sense when different industries in one sector are aggregated. The telecommunications sector clusters industries as diverse as cell phones and pay television. There is no economic model that justifies this approach. Despite this, the Constitution’s wording allowed for this interpretation, and the telecommunications law imposed asymmetric regulation on preponderant operators. Regulatory changes implemented asymmetric regulation for preponderant operators in two sectors.

In the case of broadcast television, the most important measures are the obligation of the “must offer”, the passive infrastructure sharing and the prohibition of exclusive acquisition of

\(^{18}\) In fact, there was a debate about the interpretation of the constitutional mandate. Some commentators argued that the concept of preponderance could be applied to particular industries.
highly relevant sporting events. In the case of telecommunications, the most important measures are passive infrastructure sharing, the obligation of a public interconnection offers, the leasing of links and the unbundling of the local network, as well as electronic access to the preponderant operator’s infrastructure.

Furthermore, the legal reforms imposed two additional regulations that are very relevant: the first is that the preponderant telecommunications operator in must charge a zero price for its interconnection rate. This legislation was recently reversed by the Supreme Court on the grounds that the imposition of a zero rate is an excess of discretion by the legislative branch. Since the determination of the interconnection rate is a technical issue, it must be decided by an expert (in this case the IFT), and not by legislators.

The Court's ruling on excessive regulation is similar to criticisms about the predominant operator. Technical criteria are put into law and applied, when it is the regulator who must reason and apply technical principles. The reason preponderance is not open to challenge is because the legislators put these principles into the Constitution.

Likewise, Transitory Article 9 established an exception to the regulator’s authority (in this case the IFT) to review mergers within a sector if the following conditions are fulfilled: 1) There must be a preponderant agent in the sector; 2) The merger should generate a reduction in the dominance index (in the sector) and the Herfindahl Index (in the sector) should not increase by more than 200 points; and 3) The merging agent must not have more than 20 percent participation in the sector and the predominant agent must not be a party to the merger.

In fact, this article has allowed Grupo Televisa to increase its share in the pay television sector without limit. It is very difficult for a firm that is not preponderant in a sector to exceed the limits established by the article. It is a measure that clearly favors other operators in the market, particularly Televisa.

América Móvil is preponderant in the telecommunications sector; however, it has zero participation in pay television (an industry included in the telecommunications sector). Televisa has more than 60 percent of this industry and, thanks to Transitory Article 9, it could acquire virtually all pay TV companies and reach 100 percent of the market without the IFT being able to review the acquisitions.

In relation with the preponderant operator in broadcast TV, Televisa, the reform mandated the “must offer” service for free. As a consequence of this, the preponderant broadcast television operators are obliged to offer their signal to all pay TV operators free of charge (provided that the operators of pay TV do not have substantial market power in the pay TV market).

5.3. Empirical impact of the reforms on operator performance

The following graphs use a synthetic control approach to analyze TELMEX stock with all the other firms in the Mexican stock market as controls. The first graph shows the performance of América Móvil’s stock the day the constitutional amendment was announced (13 February 2013).

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19 In the concession title, TELMEX is forbidden to provide TV (broadcast and pay).
Graph 1. Synthetic control approach to América Móvil’s stock (constitutional amendment date)

Source: Bolsa Mexicana de Valores (Mexican Stock Market). Processed by authors.

The next graph shows América Móvil’s stock the day the new law was announced (10 July 2014).

Graph 2. Synthetic control approach to América Móvil’s stock (legal reforms date)

Source: Bolsa Mexicana de Valores (Mexican Stock Market). Processed by authors.

The market responded to the constitutional amendment by punishing América Móvil’s stock, whereas the announcement of the legal changes generated very positive expectations for América Móvil’s stock. The main reason was that the constitutional amendment signaled a very tough stance against the preponderant operator.
However, the definition of preponderance at the sector level (and not at the industry level) ended up benefiting América Móvil. For Televisa, the constitutional amendment affected the firm in several ways (although there is no clear indication with synthetic control techniques as there is with América Móvil). However, the legal changes did favor Televisa with Transitory Article 9 (again, synthetic control techniques will not show the same clear-cut result as with América Móvil). The next graph plots the stock performance of several telecommunications operators on a longer-term basis. It shows an increasing trend for Televisa and a steady performance by América Móvil.

Graph 3. Stock index for several telecommunications operators

![Graph 3](image)

Source: Bolsa Mexicana de Valores (Mexican Stock Market). Processed by authors.

A long-term view for América Móvil’s stock is shown in the next graph. Even though synthetic control indicates that the market anticipated a positive outcome from the legal changes, the long-term view indicates that América Móvil did suffer a structural change in its stock price.

Graph 4. AMX stock price index

![Graph 4](image)

Source: Prepared by authors with data of the NYSE.
The dotted line indicates the day the IFT ruled that América Móvil was a preponderant operator—6 March 2014. Around the time the telecommunications reforms occurred, the average stock price of América Móvil changed from 24.16 MXN to 16.87 MXN. In summary, the immediate impact of the legal changes did not affect América Móvil (the synthetic control result illustrated above). However, in the long term, the stock price of América Móvil falls. After the section on main rulings, their impact will be analyzed.

6. Assessment of the reform and some data

6.1. Fixed services

This section presents evidence that reviews the impact of the changes. Regarding fixed broadband connections, there is a decrease in América Móvil’s share. Between 2013 and December 2019, América Móvil reduced its share of fixed broadband connections.

On the other side, Televisa and Megacable have dramatically increased their shares. This indicates that there is a high level of access deployment by the various operators and there is a change in the shares of the operators.

At the national level, increased access by other operators has been significant. The following graph shows the shares of the operators (defined according to the IFT) with the highest share in fixed broadband accesses.

The graph clearly indicates how América Móvil (TELMEX, TELNOR) continues to be the operator with the highest share in total fixed-band accesses (50 percent). This dominance has an impact on competition for digital convergence, as the firm has control of an essential input and may affect value added services. However, the participation of other operators has shifted towards a more symmetrical structure (although still quite asymmetrical).

Two competitors, Grupo Televisa and Megacable, have increased their shares of broadband links. From a slightly larger share of 10 percent in 2013, Televisa had close to 25 percent of broadband links by December 2019. Megacable started 2013 with slightly more than 5 percent of broadband connections, but by December 2019 reached close to 16 percent market share. Both competitors increased their market share dramatically.
From January 2013 to December 2019, connections went from 11.9 million to 19.35 million, an accumulated growth of 63 percent in almost seven years (with an annual growth of approximately eight percent). The following graph illustrates the estimated monthly growth rate based on a semi-logarithmic regression model for the four operators with the largest market share. The data is in percentages. The graph indicates how the monthly growth rate of Megacable and Televisa has been much stronger than that of América Móvil. Total Play stands out.

Graph 5. Participation in terms of BAF accesses, main groups (monthly, 2013-2019)

According to the data, América Móvil has twice as many broadband connections as Televisa and three times more than Megacable. However, the evidence shows that there is very strong dynamic growth in broadband connections among América Móvil’s competitors.

The picture changes if the share in terms of speed provided by the connections are analyzed from a historical perspective. América Móvil has increased the number of connections with speeds between 10 Mbps and 100 Mbps from 40 percent to 50 percent. However, this increase has not been monotonic; in the first years after the reform, América Móvil’s market share in this range of speeds increase dramatically.

However, in recent years the competitors have increased their market share. América Móvil’s market share in slow speeds (2 Mbps to 9.99 Mbps) decreased dramatically and later stabilized around 23 percent. Televisa has the largest share in these speeds, while Megacable has also a significant share. For speeds above 100 Mbps, América Móvil had the largest share as of December 2019 with 65 percent, followed by Total Play with 18 percent. Televisa and Megacable had 9 percent and 7 percent respectively.

In conclusion, competition in fixed broadband connections has increased. Although América Móvil still dominates, its dominance has been reduced lately, even at higher speeds. In ultra-high speeds (above 100 Mbps), América Móvil’s dominance is still significant.

**Graph 7.** Participation in terms of BAF accesses, main groups (monthly, 2013-2019). From 2 Mbps to 9.99 Mbps

*Percentages don’t add up to 100 because the remainder is divided among several small participants.*
Graph 8. Participation in terms of BAF accesses, main groups (monthly, 2013-2019). From 10 to 100 Mbps

As can be seen in the next graph, the most prevalent speeds in broadband connections are between 10 Mbps and 100 Mbps. Although América Móvil is heavily dominant in high-speed connections, these make up a relatively small number of total connections.

Graph 9. BAF accesses by speed (monthly, 2013-2019)
6.2. Pay TV

With regard to pay TV, a notorious fact is the increase in penetration. The following graph shows the density of pay television connections. Household access rose from 46.02 connections per 100 households in January 2013 to 57 connections per 100 households in December 2019. However, after a peak in 2017 of 65 percent of households, there was a decrease in the number of connections. At the beginning of 2019, the number reached 60 percent of households with TV connections.

Graph 10. Penetration of pay TV per 100 households (monthly, 2013-2019)

Source: Prepared by authors with data of the IFT, BIT.

The next graph breaks down connections by technology type: cable or satellite. As can be seen in the graph, the reduction in connections is basically a reduction in satellite connections. Cable connections have remained steady in recent years and are is close to their maximum level. As for satellite connections, they increased dramatically until 2017 and then decreased very fast. This may be due to the increase in streaming services and the replacement of satellite connections in urban areas with cable connections that allow for both internet services and pay TV.
**Graph 11.** Accesses of pay TV by technology (monthly, 2013-2019)

Source: Prepared by authors with data of the IFT, BIT.

**Graph 12.** Participation of main groups in terms of accesses of pay TV (monthly, 2013-2019)

Source: Prepared by authors with data of the IFT, BIT.

* Percentages don’t add up to 100 because the remainder is divided among several small participants.
As can be seen in the last graph, Televisa has increased its share and Megacable has maintained its participation. Dish (a satellite operator) has seen its share fall slightly from its peak in 2016.

Televisa did take advantage of Transitory Article 9 in the Federal Telecommunications and Broadcasting Law, which allows for a merger without regulatory oversight if there is a preponderant firm in the sector. In this case, the sector is telecommunications and the preponderant firm is América Móvil, who was ruled as preponderant by the IFT in 2013. This provision allowed Televisa to buy Cablecom and Cablevisión. Total Play also increased its share. By December 2019, Televisa had 65 percent market share in pay TV. However due to the Transitory Article 9, Televisa can still acquire other firms in the industry and there is no discretion for the authority (IFT) to review the purchases.

It should be noted that América Móvil is preponderant in the telecommunications sector, yet its market share in pay TV (an industry included in telecommunications) is zero. In the concession title, América Móvil is forbidden to provide TV services.

The graph clearly illustrates how Televisa has maintained a market share larger than 60 percent. This share is an indication of substantial market power in the national market. It could be further discussed whether the market is national or local. There are national (satellite) operators that have the capacity to respond to changes in the conditions of competition in local markets. If there is evidence of price disparity in local markets, then competition could occur at the local level. There is also evidence that several geographical areas of the country were only served by Televisa for several years.20

The following graph compares the subscriptions gains or losses for each of the companies that provide pay television. The graph highlights Televisa’s annual gains between December 2013 and December 2014. The gains were almost 1.5 million subscriptions the year it acquired Cablecom. In 2015, it acquired Cablevisión Red and its December-December increase was 1.4 million. The gain in subscriptions is due to the two mentioned takeovers. However, the two strongest competitors, Dish and Megacable, also had substantial subscription gains after the Telecommunications Reform. Dish is a satellite provider and Megacable is a cable operator.

The last graph highlights the effect of “must offer”. The gains by both Dish and Megacable were slim before the reform. Once the reform took effect in 2014, the gains in subscribers from these two participants are substantial.

On 31 March 2014, Grupo Televisa was ruled as preponderant in broadcast TV. Dish had the strongest increases from December 2013 to December 2014, and also had very large gains in subscriptions the following year. In contrast, between January 2013 and December 2013, the company’s gains were very marginal. It is quite possible that these substantial gains in subscriptions are associated with the obligation of the “must offer”.

The same could be said for Megacable. However, since 2016 there seems to be a reduction in connections (as can be seen in the graph on accesses per 100 households). This behavior had an effect on the gains of subscriptions shown in the last graph. Both Dish and Televisa have experienced a loss in subscriptions beginning in 2016, whereas the firms that only work in cable TV, Megacable and Total Play, continually gained subscribers.

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20 See the discussion below on the ruling about Televisa having substantial market power in pay TV.
Graph 13. Change in number of subscribers (December of each year)

Source: Prepared by authors with data of the IFT, BIT.

Televisa has both cable TV and satellite TV. Graph 10 shows the loss in satellite connections for the latest years, indicating that the loss in subscriptions for Dish and Televisa may be explained by a reduction in satellite connections and possible substitution by cable connections in urban areas.

The Herfindahl-Hirschman Index is an indicator of the level of aggregate market power in an industry, usually used by competition agencies. The following graph illustrates how this has evolved. Herfindahl-Hirschman Indices are included for September 2013, a period in which the IFT began its regulatory work; June 2014, the period prior to the notification of the acquisition of Cablecom by Grupo Televisa; September 2014, the period after notification of that merger; December 2014, the period prior to the notification of the acquisition of Telecable by Grupo Televisa; and March 2015 period after notification of the Telecable acquisition. Finally, there is an observation for March 2017, for comparison purposes.

Graph 14. Herfindahl-Hirschman Index, pay TV

Source: Prepared by authors with data of the IFT, BIT.

The graph above illustrates very clearly what has happened with pay television. The index for March 2017 is higher than the one in September 2013. The data for September 2014 com-
pared to June 2014 shows a 496-point change in the HHI—the index goes from 3385 to 3881. This change is due to the acquisition of Cablecom by Televisa. Both the level and the change indicate that the operation has competition problems (assuming that the relevant market is national). The COFECE concentration guide warns of possible competition problems with these levels of indices and this level of change.

The other significant change in the market concentration index corresponds to the period between December 2014 and March 2015. Here the index changes from 3851 to 4116, a change of 265. Again, according to traditional parameters, the operation indicates problems for the competitive process. None of these operations were reviewed by the IFT. Transitory Article 9 exempted Grupo Televisa from authorization.

The next graph shows the index on a quarterly basis. In recent years the index has ranged around 4500 points. The U.S. Department of Justice considers that markets with an index larger than 2500 points are highly concentrated and deserve careful review in a merger.

Graph 15. Herfindahl-Hirschman Index, pay TV (quarterly)

![Graph showing Herfindahl-Hirschman Index for pay TV]  
Source: Prepared by authors with data of the IFT, BIT.

The price index on pay TV has had a slim reduction in real terms, as the next graph illustrates. This is the only telecommunications service that decreased at such a slow pace in real terms after the reform.

As explained above, the main reason is the increase in concentration and the increase in Televisa’s market share. According to standard oligopolistic theory, concentration and larger shares by participants do increase market power and prices. The result of this outcome is the power that Televisa has in broadcast media and in the news.

Given this impact, although the reform did impose asymmetric regulation to Televisa at the constitutional level (basically the “must offer” restriction), at the legal level, it gave it the discretion to acquire pay TV competitors without the oversight of the IFT.

This was legally justified by Transitory Article 9 which allowed any non-preponderant agent in an industry to acquire whatever firm it wants if there is a preponderant operator in the sector. In this case, the sector is telecommunications, the preponderant operator is América Móvil, and the industry is pay TV, which is an industry that belongs to the telecommunications sector. As mentioned before, América Móvil has zero market share in pay TV, because the concession title for América Móvil forbids the provision of any kind of TV.
As argued above, media broadcast has a very important role in the shaping of public opinion. This happens all around the world. However, according to the media survey by the IFT, broadcast TV channels are the most viewed among pay TV subscribers in Mexico. The most viewed content is news.

The so-called Televisa law forced both chambers (representatives and Senate) to accept a law that was drafted by that firm. No presidential candidate (at that time) challenged the imposition. The example illustrates the power of media in Mexico, especially in election times. Thus the approval of Transitory Article 9 is not surprising.

This would also help Televisa acquire most of the broadband services technology without oversight by the IFT. In summary, the legal reform suggests that an increase in market share by a non-preponderant operator in any service is pro-competitive—an assertion difficult to prove in theoretical models of oligopoly and surely contradicted by the evidence on prices in pay TV. At least in pay TV, the welfare of consumers has not increased.

The influence of Televisa in legislation is important if the capitalization value of Televisa is compared to América Móvil. On 22 October 2020, Televisa’s capitalization is less than nine times the value of América Móvil, yet the level of influence on legislation may be similar or even more powerful.21

6.3. Mobile services

In the case of mobile services, there is no major change in América Móvil market share for mobile broadband accesses. The following graph plots the shares in mobile wideband accesses by operator.

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21 The capitalization value of America Móvil for October 22 was 635.384 billion pesos and the capitalization value of Televisa 70.319 billion pesos.
In January 2014, América Móvil had an 81 percent share in mobile broadband accesses and by December 2019 it had a little bit less than 70 percent. So in five years, América Móvil has lost only 11 percentage points in mobile wideband accesses. AT&T, which bought Iusacell and Nextel networks in 2015, increased its share from 10 percent to 17 percent, while Telefónica increased its share from 8 percent to 13 percent.

The market is still very concentrated and asymmetric regulation in interconnection (see below) has not helped that much, nor has the unbundling of the local loop (which has not happened so far). It is worth mentioning that the neutral operator (Altán Telecommunications) has just started to provide service in major cities. This operator can only sell in the wholesale market, and virtual private operators are beginning to emerge that buy capacity in the wholesale market (from Altán Telecommunications) and sell to end consumers. This is happening in 2020.

**Graph 17. Participation in terms of lines with Mobile BroadBand (monthly, 2014-2019)**

Source: Prepared by authors with data of the IFT, BIT.

* Percentages don’t add up to 100 because the remainder is divided among several small participants.
At the same time technology has rapidly changed to 4G, with no expectations of 5G. 79 percent of traffic is transmitted through the 4G network.

In summary, América Móvil is still dominant in mobile broadband services.

### 6.4. Interconnection and markups

This section studies the impact of the reduction of termination rates on prices. A surrogate for markup is calculated to visualize this change.

The retention margin approximates a Lerner index estimation by using the interconnection rate as a proxy for marginal cost. The retention margin is calculated as price minus interconnection costs over price. \( \text{retention margin} = \frac{\text{price} - \text{interconnection cost}}{\text{price}} \). As the definition suggests, it is the margin that a telecommunications operator keeps after paying for access to a third-party network. In a calling party pays system, this measure may be indicative of the degree of competition, and it may show how a change in the interconnection rate is accompanied by a change in prices.

Given that there is no appropriate measurement of an average price-per-minute call, this study looks at average income per minute per operator for any call initiated on a mobile network (with local, national, international or fixed-network destination). The ideal measurement would be the average income from off-net calls, but there are also calls to fixed networks, national and international. There is no measurement of pure off-net calls.

The behavior of this margin should be measured over time to see if it has accompanied movements in the interconnection rate. We consider the margin as a surrogate measure of market power.
The interconnection rates by date and operator are shown in the next table:

**Table 2. Regulation on mobile termination (pesos/minute)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Rest</th>
<th>América Móvil</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Jan - 13 Dec</td>
<td>$0.314400</td>
<td>$0.314400</td>
</tr>
<tr>
<td>14 Jan - 14 Mar</td>
<td>$0.319900</td>
<td>$0.319900</td>
</tr>
<tr>
<td>14 Apr - 14 Jul</td>
<td>$0.319900</td>
<td>$0.204500</td>
</tr>
<tr>
<td>14 Aug - 14 Dec</td>
<td>$0.319900</td>
<td>$0.000000</td>
</tr>
<tr>
<td>15 Jan - 15 Dec</td>
<td>$0.250500</td>
<td>$0.000000</td>
</tr>
<tr>
<td>16 Jan - 16 Dec</td>
<td>$0.186900</td>
<td>$0.000000</td>
</tr>
<tr>
<td>17 Jan - 17 Dec</td>
<td>$0.190600</td>
<td>$0.000000</td>
</tr>
<tr>
<td>18 Jan - 18 Dec</td>
<td>$0.112799</td>
<td>$0.028562</td>
</tr>
<tr>
<td>19 Jan - 19 Dec</td>
<td>$0.112623</td>
<td>$0.028313</td>
</tr>
<tr>
<td>20 Jan - 20 Dec</td>
<td>$0.099287</td>
<td>$0.025771</td>
</tr>
</tbody>
</table>

Source: Prepared by authors with data of the IFT, BIT.

**Graph 19. Income per minute América Móvil vs Interconnection Rate (quarterly, 2013-2019)**

Source: Prepared by authors with data of the IFT, BIT.

For the preponderant operator, the price per minute fell 33.6 percent from 2013 to 2019, and the interconnection rate that she pays to the competitors fell 91 percent. Thus, the margin has not been reduced and it is 97 percent.

For the other operators (mainly AT&T and Telefónica), the ruling by the IFT to establish the rate at zero reduced the interconnection rate by 100 percent and the price per minute by 33.7 percent. Thus, their margin increased considerably.
It is important to point out that the retention margin calculated in the next table for the other operators is based solely on the interconnection rate for the preponderant operator. By the same token, the retention margin for Telcel is the difference between the average income per minute and the termination rate of the other operators. Summarizing, the next table indicates retention margin with certain assumptions that highlight the most representative number of calls, but they do not include certain destinations, such as international destinations.

Table 3. Retention margin for off-net calls for the preponderant operator and for other operators

<table>
<thead>
<tr>
<th>Date</th>
<th>2013 q4</th>
<th>2019 q4</th>
<th>Change%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Income</td>
<td>América Móvil</td>
<td>1.43</td>
<td>0.96</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>1.90</td>
<td>1.39</td>
</tr>
<tr>
<td>Termination Rate</td>
<td>América Móvil</td>
<td>0.31</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>0.31</td>
<td>0.11</td>
</tr>
<tr>
<td>Retention Margin</td>
<td>América Móvil</td>
<td>95.40%</td>
<td>97.45%</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>86.93%</td>
<td>98.40%</td>
</tr>
</tbody>
</table>

Source: IFT Data, prepared by authors.

The retention margin for Telcel has increased slightly. For the competitors, it increased dramatically, although it decreased after 2017.

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22 The calculation assumes that they all terminate in the preponderant operator network. No retention margin is calculated when the destination network is a fixed or an international network.
Given that the IFT ruled in August 2014 (following the new telecommunications law) that the interconnection rate for the preponderant operator should be put at zero, the retention margin for the other operators went up to 100 percent. By the end of 2017, this ruling was reversed by the Supreme Court of Justice and the retention margin for the other operators was reduced.

With regard to prices, as proxied by average income per minute, the reduction for América Móvil was 33 percent, while the reduction for its rivals was 27 percent. América Móvil’s interconnection rate fell by 91 percent, while the termination rate of its rivals fell 64 percent.

The reduction in interconnection rate was not accompanied by a reduction in average income per minute (price). If the ratio for the preponderant operator was calculated at (Δ% price/Δ% IR)=0.52, while the same ratio for its competitors is 0.3, it means that a 10 percent reduction in the interconnection rate paid by the preponderant operator will translate to a 5.2 percent reduction in the average price it charges. For the competitors, this will translate to a 3 percent reduction.

It is important to note, when discussing average price per minute, that operators do not charge the same price to all customers. Usually, operators will price with non-linear schedules. Thus, there are a lot of different schemes that vary with customer preferences. This is just a summary the final average impact.

However, some observations can be made. One is the heterogeneity among operators as the marginal costs of them will be affected by a reduction in the interconnection rate. There are different costs among operators.

One important note is economies of scale. Firms may face different sources of variation in their marginal costs, which, in a standard pricing world, would compel the firms to have different pricing changes.

A second source of variation in average pricing may be the structure of consumer contracts that operators manage. In post-payment schedules, there is a fixed contract length in which the consumer commits to pay on a certain schedule. The committed contracts may have an impact on the elasticity of demand, making it less elastic. Thus, there is a lower incentive
to reduce prices. There may also be switching costs, which usually translate to an inelastic residual demand for the operators, making price reduction less profitable.

However, the evidence from calls is different than the evidence from broadband services. For broadband, this paper uses the net average income per megabyte reported by the telecommunications firms in the years studied.

The following graph depicts the average revenue per megabyte (Mb) for Mexican mobile telecommunications operators.

**Graph 22. Average Revenue per MegaByte, Mobile Broadband (ARMB, quarterly, 2015-2019)**

![Graph 22](image)

Source: Prepared by authors with data of the IFT,BIT.

The next graph is a closer look at the last graph for the most recent years:

**Graph 23. Average Revenue per MegaByte, Mobile Broadband (ARMB, quarterly, 2017-2019)**

![Graph 23](image)

Source: Prepared by authors with data of the IFT,BIT.

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23 The units in the graph are MXN pesos per Mb.
24 The units in the graph are MXN pesos per Mb.
The reduction is dramatic: in five years América Móvil went from MXN $1,600 per MB to less than MXN $80 per MB. All firms saw a dramatic reduction in their income per MB. AT&T was consistently ranked as the firm with the lowest average income. It appears that AT&T initiated a long effort to offer services with large availability of broadband MB. However, as seen above, this has not translated in lines market share, maybe in MB the story is different.

6.5. Average revenue per user

The average revenue per user tells a different story. The following graph shows that AT&T is the firm with the highest revenue per user. However, there seems to be a convergence among the three competitors. Telefónica was the operator with the largest reduction in revenue per user. Telcel started from a much lower basis.

The two measures do not have to coincide. There are some possible explanations for AT&T having the highest average revenue per user and the lowest average revenue per megabyte: AT&T users could use more megabytes or AT&T could offers plans with more data.

Graph 24. Average Revenue per User of Mobile Broadband (ARPU, quarterly, 2014-2019)

6.6. International comparisons

6.6.1 International average revenue per user

The reported income of the main telecom providers in Latin America was analyzed to compare the average revenue per user with other Latin American countries. The comparison is for América Móvil and its subsidiaries in Latin America, as well as other competitors.

Source: Prepared by authors with data of the IFT, BIT.

25 The units in the graph are MXN pesos per user.
As far as these authors know, there is no international database to compare the Average Revenue per Users (ARPU) at the firm level. The number of users (lines) for each firm for most Latin American countries was found in a database of international comparisons from the IFT.\footnote{https://bit.ift.org.mx/BitWebApp/} The incomes of the main telecom providers were not in a database; they had to be manually captured from public financial statements, then adjusted for purchasing power parity (PPP). PPP and exchange rates were retrieved from the OECD.\footnote{https://data.oecd.org/conversion/purchasing-power-parities-ppp.htm}

The final database is at the firm level, half-yearly from 2015 to 2018. The income was transformed from each local currency to USD, and then adjusted for PPP to better compare incomes.

**Graph 25.** Income of the main telecom providers in Latin America, PPP-adjusted

![Graph showing income of main telecom providers in Latin America, PPP-adjusted](image)

Source: Prepared by authors with data of the IFT, OECD and financial statements.

América Móvil in Mexico has the largest income in the region, except in 2016 and the first half of 2017, where TIM in Brazil had much higher incomes.
In terms of ARPL (Average Revenue per Line), América Móvil in Colombia (Claro Colombia) has a much higher revenue per line than the rest of the firms. However, TIM in Brazil and América Móvil in Mexico hold the second and third place among the biggest telecom providers in Latin America.

### 6.7. Price evidence

The next graph illustrates the impact of the reform on prices:

**Graph 26. Income per line of the main telecom providers in Latin America, PPP-adjusted**

![Graph 26](image)

Source: Prepared by authors with data of the IFT, OECD and financial statements.

**Graph 27. General CPI and the sub-index CPI-Communications (Base = 15 Jul 2018)**

![Graph 27](image)

Source: Prepared by authors with data of the INEGI, INPC.
While the general index increases, the index price for telecommunications does decrease. There is a real decrease in the price of telecommunications in general.

The Consumer Price Index (CPI) for telecommunications was analyzed to see whether the reform changed the trend of the price index, thus benefitting consumers. Several analyses were made depending upon the length of the series. The log likelihood of structural change was used as a measure of the strength of the break in the trend.

Usually in a series, the larger the log likelihood, the stronger the structural break. The analysis finds a structural break in January 2015, following the IFT decision in December 2014 about the interconnection rates.

Given that the law issued in July 2014 ordered a zero-interconnection fee for the preponderant operator, the IFT followed suit and stated that América Móvil would charge a zero-interconnection rate for any traffic terminating in its network. In January 2015, there was a possible structural break. Thus, apparently, a major reduction in telecommunications prices was funded by TELMEX.

In 2017, there is a major structural break, but this shows that the decreasing trend has stopped—the decrease in prices ends in that year. In other words, the most important structural break after the reform occurred in 2015. By 2017, the advantages in price reduction had been eliminated. Still, an analysis of price trends shows structural breaks in February 2011, so the reform did give an additional impulse to an already decreasing trend in prices. By the end of 2015, the decrease in prices was already slowing. So, there is not strong evidence of reduction in prices for all telecommunications services.

Graph 28. Unknown structural break in telecommunication services

Source: Prepared by authors with data of the INEGI, Consumer Price Index.
The structural analysis of the price index for internet services is shown in the following graph:

**Graph 29. Unknown structural break of the CPI of internet services**

![Graph 29. Unknown structural break of the CPI of internet services](image-url)

Source: Prepared by authors with data of the INEGI, Consumer Price Index.

As seen in the last graph, the log likelihood suggests that the largest change occurred before the reform. There is no indication of a structural break after the reform.

### 6.8. International comparisons. Comparison with OECD

Nevertheless, prices in mobile broadband in Mexico, in general, have stayed low in comparison with other OECD countries. In fact, Mexico has lower prices than the OECD mean.

The OECD has a database of prices of certain basket products, divided between low, mid and high-end users of mobile broadband. The prices are in USD, PPP-adjusted.\(^{28}\)

Surprisingly, Mexico has low prices for mobile broadband among the OECD countries, as seen in the following graphs.

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\(^{28}\) As mobile broadband is rarely sold as a single product, the low user’s basket has 100 calls + 500 Mb, the mid user’s basket has 300 calls and 1 Gb, and the high user’s basket has 900 calls + 2 Gb.
This result must be emphasized. Before the reform and for many years, Mexico was consistently in the upper echelons of mobile prices in OECD comparisons.

6.9. Mobile broadband penetration and usage international comparisons

With regard to broadband penetration, the OECD database indicates that Mexico is in the lower echelons of mobile lines per 100 inhabitants:

Source: Prepared by authors with data of the OECD.
Mexico has the second-lowest mobile broadband subscriptions per capita among selected OECD countries, with rates considerably lower than the OECD average. Only Colombia has a lower penetration per capita. The following graph illustrates Mexico’s place in terms of usage:

**Graph 32. Mobile data usage per mobile broadband subscription**

For usage, Mexico started with a very low position which improved by 2019.

### 7. Main rulings

The most important rulings made by the IFT on telecommunications were the declaration of the preponderant economic agent in telecommunications on 25 March 2014 and the asymmetric regulation that accompanied it, as well as the resolution modifying and expanding it in March 2017.

On 14 March 2014, the IFT ruled that América Móvil was preponderant in telecommunications. Therefore, it imposed a termination charge on América Móvil’s network based upon long run average incremental cost, with no more specifics. For example, it was not clear whether or not the long run incremental costs were going to include avoidable costs.

In the ruling, the IFT also requested that América Móvil provide a proposal for a framework for an interconnection agreement. The framework had to include procedures, conditions and technical specifications for interconnection services. It also requested a wholesale leasing offer for dedicated links (data transport devices). The tariffs would be negotiated between América Móvil and the concessionaire. If in 60 days, an agreement had not been reached, the IFT would rule on the basis of an avoided costs methodology. The order also mandated the share of any necessary infrastructure deemed necessary to share the links.

The ruling also established the obligation for América Móvil to share its passive infrastructure. The order mandated América Móvil to set up a framework for access to dedicated links and for access to passive infrastructure.
The order demanded the implementation of an electronic management system: That system had to have (almost) real-time information about the network of the preponderant operator as well as information about passive infrastructure. With this system, the concessionaires had the ability to contract any element of the network and access passive infrastructure. The preponderant agent had six months to implement the system after a technical committee presided by the IFT would rule about formats, interface, encrypted protocols, etc. The ruling also had guidelines for the unbundling of the local loop.

With regard to mobile services, the order mandated the offer of roaming services to any concessionaire. The order also forced América Móvil to give virtual mobile operators (basically resellers) access to its network. The order said that the tariffs should be negotiated between América Móvil and the concessionaire. If there was no agreement in 60 days, the IFT would rule based on a tariff calculated using the retail minus methodology.

Significantly, the order established ex-ante regulation to avoid ex-ante predation behavior by América Móvil. The ex-ante regulation would be oriented towards forbidding América Móvil to establish very low on-net tariffs. This regulation was absurd because competition law and well-established legal principles can be used to punish this behavior. From a competition analysis point of view, predatory behavior should be punished ex-post, because it looks very similar to aggressive competitive behavior. Thus, an appropriate inquiry should be implemented to tell them apart.

During the consultation in June 2016, the IFT asked the stakeholders about the effectiveness of the competition measures taken in 2014. Several operators argued that there was no information on the services available from the preponderant operator. The electronic management system had taken far more time to become operational. Among the complaints were the lack of information on the availability of network elements.

They also highlighted that it was impossible for the IFT to verify that its 2013 orders were actually being enacted. It cannot be verified whether the contracts for the provision of services to third parties are offered under the same conditions as itself or its subsidiaries.

According to the 2016 OECD report, the preponderant agent services were barely in use (two years after the original resolution). By the time the IFT consultation was launched (mid-2016), the electronic management system was not operational and effective. This explains, according to the OECD and industry participants, the low use of the preponderant agent infrastructure by the other concessionaires.

With this background, the IFT issued a new regulation in March 2017. This regulation was much stronger and much better devised. First, the IFT ordered functional separation schemes:

i) A legal entity must be constituted to provide wholesale services related to elements of the local network or access and passive infrastructure;

ii) This legal entity must be independent in its functionality, decision-making bodies, administration, and corporate governance with respect to the people under the control or influence, direct or indirect, of the preponderant economic agent providing other telecommunications services;

iii) The legal entity must have decision-making and management bodies or equivalent that exercise corporate governance that are not sole proprietorships and have independent members;

iv) The legal entity must have a different address and facilities than those of other people
under the control or influence of the preponderant economic agent;

v) The legal entity must establish its own brand that is different from that used for the wholesale services offers of the other telecommunications services offered by the preponderant economic agent;

vi) The legal entity must operate and management systems independent of those of any company under the control or influence, direct or indirect, of the preponderant economic agent that provides other telecommunications services;

vii) The legal entity must have personnel and contracting and remuneration schemes independent of those of any company under the control or influence, direct or indirect, of the preponderant economic agent that provides other telecommunications services;

viii) The legal entity must have procedures and codes of ethics to guarantee the independence of operation of the new company in relation to any company under the control or influence, direct or indirect, of the preponderant economic agent that provides other telecommunications services.

As seen in this brief summary, the IFT made a drastic decision, even by international standards. Substantial corporate autonomy is given to the new regulated wholesale service provider. The new firm must have its own brand, independent management and operating systems, as well as a code of ethics that guarantees independence from the preponderant operator. Only the property is preserved.

The 2017 resolution also mentioned that the new firm offering wholesale services must respect the principles of input equivalence and technical and economic replicability. Equivalence of inputs means “that both the dominant operator and its competitors have access to the same wholesale services (including delivery methods, information systems, electronic equipment, etc.) for the provision of retail services.”

The principle of replicability refers to the ability of preponderant competitors to, when they have access to the new firm wholesale services, replicate the preponderant offers in retail services. This avoids the occurrence of relative monopolistic practices that displace competitors through cross-subsidies and predation.

Replicability refers to wholesale access services and not passive infrastructure sharing. In other words, competitors must have the ability to replicate the preponderant economic retail offers when they obtain wholesale access services from the new firm and not when they have access to passive infrastructure.

### 7.1. Audience rights

An important political issue included in the Constitution was so-called audience rights. According to Articles 5, 6 and 7, the IFT has the discretion to regulate audience rights. This is very important because the political reform issued in January 2008 prohibits the broadcast networks from selling political advertising.

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29 OECD, “OECD Study on Telecommunications and Broadcasting in Mexico 2017” (p. 254).
Political advertising was supposed to be managed by the Instituto Federal Electoral, and all networks were supposed to provide advertising free of charge. However, in order to circumvent the regulations, networks started showing political advertisement from governors and even the federal government as news. What appeared to be news content was in fact pure political advertisement in disguise.

In order to combat these practices, the Constitution ordered the IFT to regulate these procedures. Thus, in 2016, the IFT issued principles regulating the networks to force them to respect audience rights. Implicitly, misinformation broadcast through disguised advertisement was violating the audience rights. After these legal guidelines were issued, the executive branch and the Senate initiated a constitutional appeal to establish who had the discretion to establish the guidelines.

Given the history of market power and the associated political power of broadcast networks, the attempt by the executive branch and the Senate illustrates how important it was for them to be able to negotiate with the networks. Favors from them can have huge political benefits. Neither the executive nor the Senate want an autonomous entity regulating these firms with large market and political power. The political benefits are too large to leave that up to an autonomous entity. The incentives are the same for broadcast operators.

Just recently, President López Obrador has given the official advertising time that, by law, must be given to the government for free back to the main broadcast networks. This constitutes an income windfall to these networks (now they can sell that time) in a time in which the president needs friendly coverage of the pandemic.

In contrast, the president has denied any support to the private sector in general to help them endure the economic crisis. Mexico is the country with the lowest level of government resources allocated to alleviate the economic crisis in the Americas—about 0.7 percent of GDP.

7.2. Televisa’s market power in pay TV

In September 2015, the IFT ruled that Televisa did not have market power in pay TV despite evidence that it had more than 60 percent of the market and that it was the only provider in a lot of geographical areas in the country. It was also considered a major provider of TV content. The board of the IFT was cherry picking to justify its ruling, finding that between September 2013 and March 2015, Televisa lost 1.9 percent of its market share and claiming that this indicated Televisa was losing share to its competitors and an absence of market power.

7.3. Empirical evidence related with main rulings

What follows is a simple counterfactual analysis about what could have happened if the América Móvil stock had kept the behavior that it had before the regulatory changes. The

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30 The order is being challenged by INE (Instituto Nacional Electoral), the manager of the free time provided by the networks.

The graph below illustrates the four major milestones in regulatory changes that could have affected América Móvil.

**Graph 33. AMX stock price index**

First, on 11 June 2013, the telecommunications reform took place. On 6 March 2014, the IFT ruled that América Móvil was preponderant in the telecommunications sector, although the actual consequences of this were still unclear as there was still no telecommunications law.

After that, on 14 July 2014, four months after the ruling, the Federal Telecommunications and Broadcasting Law was issued. In the law, it was clear that one of the consequences of being a “preponderant” was asymmetric regulation. On 1 January 2015, the IFT imposed an interconnection rate of zero, in accordance with the law.

This section studies the price of América Móvil stock in order to determine if its behavior changed before and after the regulatory changes. A simple model was developed to first explain the price behavior before the regulatory changes and then to predict what would have happened if those regulatory changes had not taken place.

The model works with the close price (the price of the last transaction at the end of each day), and determined that it is $I(1)$. Thus, it must work with the series in first differences. The model is as follows:

$$
\Delta p_t = \alpha + \beta_1 \Delta p_{t-1} + \beta_2 \Delta vol_t + \beta_3 \text{trend} + \beta_4 \text{neg}_t + \text{seasonal dummies}
$$

Where $\Delta p_t$ is the first difference of the close price of América Móvil stock, $\Delta vol_t$ is the first difference of the volume of transactions each day, $\text{trend}$ is a linear trend, $\text{neg}_t$ is a dummy =1 if the price change between $t-1$ and $t$ is negative, and some seasonality dummies.  

This model was fit with the observations before the regulatory changes. Then it was used to predict what trend the price would have taken if it had kept the previous behavior. The results are presented in the following graphs.

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32 Day of the week (4 dummies) and month of the year (11 dummies).
For the first graph, the model is fitted until 11 June 2013, when telecommunications reform was enacted at the constitutional level.

**Graph 34.** 11 June 2013, Constitutional Reform. Prediction if AMX stock had kept its behaviour pre-dominance declared

![Graph showing stock price prediction vs. actual price](image)

Source: Prepared by authors with data of the NYSE.

For the second graph, the model is fitted until 6 March 2014, when the ruling on preponderant operator occurred.

**Graph 35.** 6 March 2014, Ruling on preponderant operator Prediction if AMX stock had kept its behaviour pre-dominance declared

![Graph showing stock price prediction vs. actual price](image)

Source: Prepared by authors with data of the NYSE.
For the third graph, the model is fitted until 14 July 2014, when telecommunications reform was enacted at the legal level.

**Graph 36.** 14 July 2014, New Telecommunications Law. Prediction if AMX stock had kept its behaviour pre-dominance declared

The same analysis was performed for the day in which the zero-interconnection rate of zero was imposed by the IFT on 2 January 2015. No structural change was found.

It can be concluded that the constitutional changes, the legal changes and the ruling on preponderance had an impact on the behavior of América Móvil’s stock price. It can be safely inferred that there were structural changes at those times, and that all of them affected the performance of América Móvil stock.

The inference on structural change for América Móvil’s stock in relation to the legal changes appears to be contradictory with the evidence found above, which uses synthetic control techniques and finds that the legal changes did benefit América Móvil. The contradiction disappears when accounting for the fact that synthetic control analysis is a very short-term measurement of a policy change, whereas the analysis used here has a long-term perspective.

### 8. Remarks

There is a complex political economy relationship between the telecommunications and broadcast industry and economic policy. In telecommunications, Mexico privatized a vertically integrated monopoly that was hard to regulate during the first 23 years of existence. A constitutional amendment in 2013 was intended to improve regulation and competition in the industry.

There has been consistent evidence in broadcast of the media’s influence on economic pol-
icy decisions that have benefited the industry. This still happens today when the president makes economic and political decisions that benefit them. One important example of the media influence is the so-called “Ley Televisa” which was briefly reviewed in this paper.

The 2013 constitutional amendments, the 2007 changes to broadcast TV and the 2008 changes to electoral law attempted to neutralize the political power that broadcast TV had in Mexico. An important inference of this process is that, usually, regulations benefit the media conglomerates whenever an election is coming or the president needs support in times of deep crisis (see the recent example of the advertisement time allocated to the government that the government returned to the networks).

For telecommunications and broadcast, the constitutional amendment appears to be a very strong attempt to neutralize the powers of the media moguls and the power of América Móvil. By drafting the Constitution with such a degree of detail, the legislators attempted to neutralize both the media moguls and América Móvil with legislation that was not going to be challenged in the Mexican legal framework. Apparently, the legislators did not consider it very trustworthy.33

The changes needed to be implemented as quickly as possible; an alternative, less-detailed path might have taken more time because of legal proceedings (in any country with a due legal process). This legislation was supported by all political parties. The synthetic control method indicates that the market expected a reduction in América Móvil’s monopoly power. There is no similar evidence for Televisa or TV Azteca.

An important point of comparison between the aim of the Constitution and the political economy of regulation of the media moguls is the discussion about audience rights. The Constitution did establish the framework for the IFT to regulate the issue of disguised advertisement. However, when the political actors realized the power that had been given to the IFT, they immediately changed the laws to regain control of the most important issues, which gives them leverage in negotiations with the media moguls.

With regard to the impact of the changes, the decrease in prices was significant. The reduction in the preponderant operator’s telecommunications interconnection rates appeared to fuel the reduction in prices. This process started in January 2015, but by 2017, the impetus of the reduction was erased. In certain services, such as pay TV, the reform did not impact the prices in real terms. Prices for internet services (which do not separate between mobile and fixed networks) experienced a major decline before the reform.

In certain markets, Televisa and Megacable increased their market share of fixed broadband services. The growth in fixed broadband lines increased dramatically and the rate of growth of América Móvil’s competitors was much stronger. There seems to be better competition in these markets. More competition in broadband fixed access may be also due to Transitory Article 9. It allowed Televisa to increase its share in cable connections which are complementary to broadband connections. However, pay TV is the only service that has not seen a reduction in real prices. The concentration index has also increased. Care must be taken with the last comment, about the increase of Televisa in broadband connections. Megacable did not use the Transitory Article 9 and increase its broadband connections on a larger scale than Televisa.

33 The Supreme Court ruled on 1 October that the president can have a referendum that asks the question of whether former presidents should be judged. This is an indication of the poor performance of the Supreme Court.
América Móvil continued to be dominant in mobile wideband services. The increase in market share by its rivals has been marginal. By 2016 there was an important reduction in América Móvil’s markup; however, the markup for 2019 is very similar to the one in 2013. The markup for the large competitors is larger, perhaps because of economies of scale or because they do not compete as strongly. The increase in their markup has also been larger than for América Móvil. América Móvil has also a slight increase in its markup. This may explain why there was not an increase in market share by América Móvil’s competitors in mobile services. International comparisons with other Latin American countries that use average revenue per user as the standard for comparison indicate that Mexico is still in the upper echelons. However, a comparison of baskets made by the OECD shows that Mexico is consistently a lower price country. This contrasts with pre-reform assessment of Mexico’s prices, which consistently showed that Mexico was an expensive country for mobile services. In comparison with other OECD countries, Mexico’s penetration and usage of mobile services is low.

Given the lack in progress in competition from mobile services and América Móvil’s still-significant share of fixed broadband services, and the problems that its competitors had accessing its network, the IFT ordered the functional separation of América Móvil. The 2017 ruling is still in litigation as of this writing. Even though the Constitution maintains the ruling the appeal process continues, in the case of functional separation, the order does not stand while the appeal process continues, because it is considered as an irreversible decision that would be costly to reimplement in case the defendant wins the case.

It is unknown how the functional separation order is being litigated or whether the current government is exerting influence on the IFT regarding América Móvil. It appeared that the 2017 ruling was not lobbied intensely by the federal government because it appeared as a strong solution on its face. This has not happened with media moguls.

The evidence shows that the constitutional amendment, the telecommunications law and the ruling on preponderance did negatively affect América Móvil’s stock. However, the synthetic control analysis does show that the legal changes benefitted América Móvil. The synthetic control approach measures the impact at the time of the reform, while the structural change analysis has a longer-term view.

In September 2015, the IFT ruled that Televisa was not dominant in the pay TV market based on the argument that its market share decreased by 1.9 percentage points from September 2013 and March 2015, from 64.1 to 62.2 percent. As can be seen in Graph 11, this reduction was temporary. The board of the IFT was cherry picking to justify its decision. An appeals court reversed the decision.

Even though the board of the IFT was formed by members that had passed an exam and therefore, were more independent from political pressure, the ruling was hardly justified on economic terms and showed the clear influence of politics on the the IFT board. The ruling by the IFT was made under strong pressure from the government.

The ruling was later reversed by the IFT under an appeals court order. The drafting judge was later removed from his position in the competition court and reallocated to another court with no discretion on competition issues.

It is interesting to note that América Móvil’s market capitalization for 22 October 2020 was 635,384 billion pesos, while Televisa’s was 70,319 billion. Thus, América Móvil is almost 10 times larger than Televisa. However, Televisa had a more influential effect on economic policy decisions that benefitted it. Media power translates into political power.
<table>
<thead>
<tr>
<th>Working paper 01</th>
<th>Working paper 08</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Changing Picture of Inequality in Latin America: Evidence for Three Decades</td>
<td>The Political Economy of the Telecommunications Reform in Mexico</td>
</tr>
<tr>
<td>Leonardo Gasparini / Guillermo Cruces</td>
<td>Alejandro Castañeda / Daniel Ruiz</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working paper 02</th>
<th>Working paper 09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intergenerational Mobility in Latin America in Comparative Perspective</td>
<td>The Impact of Labor Market Institutions on Markups and Markdowns: Evidence from Manufacturing and Service Sectors in Uruguay</td>
</tr>
<tr>
<td>Florencia Torche</td>
<td>Carlos Casacuberta / Néstor Gandelman</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working paper 03</th>
<th>Working paper 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guido Neidhöfer</td>
<td>Álvaro García-Marín</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working paper 04</th>
<th>Working paper 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Latin American Growth Shortfall: Productivity and Inequality</td>
<td>Poder de mercado, desigualdad y productividad en Latinoamérica</td>
</tr>
<tr>
<td>Eduardo Fernández-Arias / Nicolás Fernández-Arias</td>
<td>Marcela Eslava / Marcela Meléndez / Nicolás Urdaneta</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working paper 05</th>
<th>Working paper 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Business and the Inequality Trap in Latin America: Taxes, Collusion, and Undue Influence</td>
<td>The Effects of Violence on Inequality in Latin America and the Caribbean: A Research Agenda</td>
</tr>
<tr>
<td>Ben Ross Schneider</td>
<td>Ana Arjona</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working paper 06</th>
<th>Working paper 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lobbying for Inequality? How Different Business Elites Navigate the Policy-Making Process in Central America</td>
<td>Inequality and Crime in Latin America and the Caribbean: New Data for an Old Question</td>
</tr>
<tr>
<td>Mónica Pachón / Javier Brolo</td>
<td>Ernesto Schargrodsky / Lucía Freira</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working paper 07</th>
<th>Working paper 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do Labor Unions Affect Inequality and Efficiency in Latin America and the Caribbean?</td>
<td>¿Informalidad o exclusión? Mercados fragmentados bajo el sistema de protección social colombiano</td>
</tr>
<tr>
<td>Lucas Ronconi</td>
<td>Francisco Alvarado / Marcela Meléndez / Marcela Pantoja</td>
</tr>
</tbody>
</table>
COMPLETE LIST OF BACKGROUND PAPERS OF THE UNDP LAC REGIONAL HUMAN DEVELOPMENT REPORT 2021

Working paper 15
¿Cuán eficaz es la protección social en Chile?
Matías Morales / Camila Olate

Working paper 16
Proteccion social, formalidad y subsidios cruzados: evidencia para Argentina
María Laura Alzua / Ana Pacheco

Working paper 17
Políticas de protección social y laboral en el Perú. Una espiral de buenas intenciones, malos resultados y peores respuestas
Hugo Ñopo

Working paper 18
Políticas de protección social y laboral en la República Dominicana
Sócrates Barinas / Hugo Ñopo

Working paper 19
Políticas de protección social y laboral en Ecuador
Hugo Ñopo / Alejandra Peña

Working paper 20
Social Protection in Jamaica: Strengths and Limitations of its Redistributive Mechanisms
Manuel Mera

Working paper 21
¿Cuán efectiva es la protección social en Honduras?
Andrés Ham / Sergio Membreño-Cedillo

Working paper 22
Sergio Firpo / Alysson Portella

Working paper 23
El sistema de protección social y laboral en México: contribución paradójica a la lucha contra la desigualdad
Alejandra Correa / Maite García de Alba / Alejandra Martínez / Cynthia Martínez / Annabelle Sulmont

Working paper 24
Time for a New Course: An Essay on Social Protection and Growth in Latin America
Santiago Levy / Guillermo Cruces

Working paper 25
Implications of Minimum Wages Policies in Labor Markets with High Informality and Frictions
Luca Fiabbi