

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

Methodologies to Measure Market Competition – Note by Mexico (IFT)

11 June 2021

This document reproduces a written contribution from Mexico (IFT) submitted for Item 3 of the 135th OECD Competition Committee meeting on 9-11 June 2021.

More documents related to this discussion can be found at
<https://www.oecd.org/daf/competition/methodologies-to-measure-market-competition.htm>

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JT03476623

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1. Abstract

1. This note aims to share methodologies and tools to measure competition in the Mexican telecommunications and broadcasting (T&B) sectors used by the Federal Telecommunications Institute (IFT). It also presents the Telecommunications Information Bank (BIT, by its acronym in Spanish) as one of the tools that allows the IFT to estimate those measures.

2. About the IFT

2. IFT is an autonomous competition authority and regulator of the T&B sectors in Mexico. Since its foundation, efforts have been made to measure market competition for the purposes of obtaining a diagnostic of the current state and evolution of competition in the different markets within these sectors.

3. Some of the main services markets that the IFT monitors are mobile voice and data, pay TV, fixed voice and data, open-air TV and radio. Fixed services (wired or wireless) have been usually considered to be local and mobile services, to be national.

3. Market competition measurements commonly used by the IFT

4. The IFT uses market competition measurements that the OECD recommends, including indicators such as market shares, the Herfindahl Hirschman Index (HHI), the erosion of shares through time, price indexes and profit margins, among others. The estimation of those indicators are highly dependent on the kind and quality of information available to the IFT in each instance.

5. Since Mexico is a geographically large country, measuring competition in many local markets has been a challenge because for many of the local markets there is no official registry of market performance. For example, the IFT does not collect data of prices of these local markets in the broadcasting sector and there are no trade associations or other private entities that make reliable registers of them.

6. Typically, the methodology employed to measure competition in the broadcasting sector has been the use of concentration indexes with regard to assigned concessions at a national, regional or local level. Also, in those locations where there is available information, market shares in terms of audience have been used. The following information about these measurements has been recently published in a couple of diagnostic studies, namely the Diagnostic Study of Radio Services and the Diagnostic Study of Open-Air TV Services¹.

7. In the commercial radio services, the IFT considered 244 geographic zones in the FM band. In 136 of these zones in which there was more than one provider, the IFT

¹ These studies are available in Spanish at: <http://www.ift.org.mx/industria/competencia-economica/competencia-economica/estudios>.

calculated the HHI based on the share of concessions held by different groups of economic interest. In 56 of these zones, the HHI decreased in the period from 2014 to 2018; in 63, it remained unchanged; and in 17, it increased. In 40 geographic zones, FM radio services were provided for the first time in the same period. These changes in the overall competition conditions in this service are the product of the implementation of the first public bid of radio spectrum concessions in Mexico in 20 years and an important number of secondary market transactions.

8. In the commercial open-air TV services, the IFT considered information from 88 geographic areas throughout the country; 74 of them in metropolitan areas. In 72 of these, the HHI calculated based on the share of concessions held by different groups of economic interest decreased in the period from 2014 to 2019; and it remained unchanged in the rest of them. At the national level, the HHI based on audience share decreased from 5,299 to 4,346 points and the HHI based on terms of concessions decreased from 4,573 to 3,215 points. These changes in the overall competition conditions in this service are the product of the implementation of two public bids of new radio spectrum concessions carried out by the IFT in this period.

9. Another kind of methodology typically used to measure competition is the use of price indexes. These are used to identify the dynamics of price setting in a given market, and the level and trend of the index is compared to a benchmark, that may be a previous period of time of the same index or the index from another service or geographic market. These price indexes are constructed by the National Institute of Statistics and Geography (INEGI, by its acronym in Spanish) and reported in the BIT.

10. In the mobile service, considering an advocacy use of the measurement, the IFT has used the mobile telephony price index to measure the improvement in competition conditions in this service at a national level, as a result of different regulatory measures established in the Telecommunications Reform of 2013 and the Federal Telecommunications and Broadcasting Law enacted in 2014, the main of which is the regulation of the mobile termination rate of the preponderant economic agent in the telecommunications sector (also declared an agent with substantial market power (SMP) in that market) and the elimination by law of long distance rates.

11. For example, in the document called Results of the Telecommunications and Broadcasting Reform², updated to track the period from 2013 to 2018, the IFT identifies a decrease of 25.3% in the telecommunications services index in the period from June 2013 to March 2018, in comparison with an increase of the overall national consumer price index of 21% in the same period. The telecommunications services index includes prices of mobile and fixed telephony, internet, national and international long distance and fixed telephony terminal equipment. The mobile services index had a greater decrease of 43.1% in the same period.

12. A similar methodology was used by the IFT in a declaration of an agent with SMP in 35 local pay TV markets.³ This kind of declaration has the purpose of enabling the imposition of specific regulation over the agent, aimed at controlling the exercise of such market power.

² Available in Spanish at:

<http://www.ift.org.mx/sites/default/files/contenidogeneral/estadisticas/resultadosreformatyrmrzo2018.pdf>.

³ Resolution file DC-002-2019 available in Spanish at:

http://apps.ift.org.mx/publicdata/VP_181120_436.pdf.

13. In this proceeding, the IFT used the pay TV price indexes of six cities that comprised the 35 markets in the period from July 2015 to June 2019, in comparison with the price indexes of fixed broadband and telephony (that included the mobile and fixed telephony price indexes). The first one showed an average increase of 45.37% and the second and third a 26.67% and 43.9% decrease in that period. This was taken as direct evidence of the capacity of the economic agent to fix prices in the markets without the competitors being able to counteract it.

14. It is worth noting that in this proceeding, the IFT explicitly declared that in the market power analysis, specifically the analysis to determine if the agent has the capacity to fix prices or restrict the output of the market without the competitors being able to counteract it, the main evidentiary role was left to the indirect evidence conformed of the joint review of the position of the competitors in the market (e.g. their market shares) and the structural conditions of the market that allow these competitors to maintain their position (e.g. the existence and nature of barriers to entry). The direct evidence, mainly arising from information on prices and profit margins, was given a secondary support role.

15. In the analysis of mergers and acquisitions, it is less common for the IFT to use direct evidence of this kind and it relies mainly in the analysis of indirect evidence for determining the unilateral effects of the transactions. This may be a result of the shorter time it has for conducting merger and acquisitions reviews in comparison with other proceedings.

4. Telecommunications Information Bank (BIT)⁴

16. The BIT is an interactive tool that shows a summary of economic indicators and the evolution of the T&B sectors at national level, and growth rates compared to previous periods, with quarterly updates. The BIT is used to consult, analyze, explore and download data, from which the IFT monitors the development of the T&B sectors.

17. The BIT was developed with an intelligence and business analysis perspective in order to generate knowledge about the performance of telecommunications in Mexico, to facilitate decision-making by the different agents that participate in the sector, and to strengthen telecommunications public policy design.

18. Likewise, the BIT allows data download with a graphic explorer to carry out personalized queries, generate variables, carry out complex sector analyzes, construct dashboards indicators and graphically analyze series in a period.

19. To navigate the BIT, it is not necessary to have any specific software or hardware; only a computer with an internet connection is required. In addition, the information available for download comes in open data format.

20. SAS Visual Analytics developed the BIT tool for the visualization and exploitation of data, internationally recognized and used in sectors such as banking or insurance and surety. In Mexico, SAS is used by Mexican institutions such as the Credit Bureau, the Service Tax Administration (SAT) or some areas of the central bank (Banco de México). At the time that the IFT launched this tool in 2016, no public, private or international institution in the world had made the SAS graphic browser freely available to the public.

21. With the BIT, the IFT is at the forefront in matters of transparency, open data and availability of information from T&B sectors in the international level.

⁴ Available at: <https://bit.ift.org.mx/BitWebApp/>

4.1. Variables reported in the BIT available to measure market competition

22. In order to share the indicators used by the IFT to measure competition in the T&B markets, an Excel file is attached.⁵ This file contains a series of variables that allows measuring the degree of participation of each of the economic agents⁶ (concessionaries, in terms of the Federal Telecommunications and Broadcasting Law). Each of the spreadsheets reflect a different variable, which can be analyzed in isolation or which can be used to create a combination of these.

Table 1. Description of the variables in the IFT's BIT

Variable	Description
Lineas_Telef_Fija	It contains the total lines of the Fixed Telephone Service
Suscripciones_Internet_Fijo	It contains the total subscriptions of the Fixed Internet Access Service
Suscripciones_Telef_Movil	It contains the total subscriptions of the Mobile Telephone Service
Suscripciones_Internet_Movil	It contains the total subscriptions of the Mobile Internet Access Service
Suscripciones_TV_Restringida	It contains the total subscriptions of the Restricted Television Service
Ingresos	It contains the total of Trunking identifiers
Trafico_Telef_Fija	It contains the minute traffic of the Fixed Telephone Service
Tráfico_Telef_Movil_min	It contains the minute traffic of the Mobile Telephone Service
Tráfico_Telef_Movil_sms	It contains the text message traffic of the Mobile Telephone Service
Tráfico_Internet_Movil	It contains data traffic in Terabytes of the Mobile Internet Access Service

Source: IFT

23. This way, information regarding the macroeconomic environment of T&B in Mexico; the degree of number portability; operators' incomes and investments; indicators related to different services (fixed and mobile telephony, fixed and mobile broadband, and restricted television), among other information is available for consultation.

⁵ Information available on demand by sending an email to: asuntosinternacionales@ift.org.mx.

⁶ It is important to note that data is identified by groups and by concessionaires, not by tradenames.