Ministry of Economy of Mexico-OECD Co-operation to Strengthen Competitiveness in Mexico



The divestiture of assets as a competition remedy Stocktaking of international experiences

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THE DIVESTITURE OF ASSETS AS A COMPETITION REMEDY: STOCKTAKING OF INTERNATIONAL EXPERIENCES



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Foreword

In December 2014 the OECD signed an Agreement with the Ministry of Economy of the Mexican United States to strengthen Mexico's competitiveness through economic competition. The support provided by the OECD through this agreement aims to help the Ministry to promote competition in the Mexican markets that are affected by structural, conduct and regulatory features hindering competition.

Although structural measures have been included in the Mexican competition framework in the context of economic concentrations for a long time, certain recent modifications to the applicable rules have empowered the Mexican relevant authorities to apply structural remedies with a view to promoting competition.

The constitutional reform in telecommunications, broadcasting and economic competition of June 2013 modified Mexico's institutional landscape in these three public policy areas. The reform created two competition authorities – the Federal Economic Competition Commission (COFECE) and the Federal Telecommunications Institute (IFT)¹ -, formed specialised courts in these areas,² and produced a new Federal Economic Competition Law (FECL), applying to both authorities, which was enacted in May 2014.

These 2014 amendments to the Mexican competition legislative framework empowered the country's competition authorities to order the divestiture of assets, rights, partnership interest or stock pertaining to economic agents in the presence of barriers to competition and free market access, in order to eliminate anticompetitive effects stemming from them. This power could be exerted whenever other corrective measures were deemed to be insufficient to solve the identified competition concerns.

Considering the lack of precedents – in abuse of dominance cases³ – for the use of asset divestiture as a structural remedy in Mexico, the aim of the report is to serve as a reference

The Constitutional reform created the Federal Economic Competition Commission as an autonomous body with competition enforcement and advocacy powers in all sectors of the economy, with the exception of telecommunications and broadcasting, where the Federal Telecommunications Institute, also created as an autonomous body by the aforementioned reform, is the competent authority.

The Twelfth Transitory Article of the Constitutional reform provides for the establishment of specialised courts in competition, telecommunications and broadcasting by the Federal Judicature Council. In September 2013, the Council created two Specialised District Courts (the first and second), each presided by a judge; and two Specialised Collegiate Circuit Courts (the first and second), each comprised of three judges, known as Magistrates. See also General Agreement 22/2013 of the CJF Plenum of 07.08.13, published in the Federal Official Gazette on 09.08.13, by which the auxiliary Courts and Tribunals became specialised Courts and Tribunals, which took up duties 10.08.13. Available http://dof.gob.mx/nota_detalle.php?codigo=5309912&fecha=09/08/2013

³ Structural remedies have been largely applied in merger controls.

document to the relevant Mexican Authorities highlighting international experiences and best practices.

It describes the different types of remedies available and their objectives, advantages and disadvantages and the principles driving authorities in choosing this approach. Moreover, this report could also provide guidance to business and consumer groups about how the competition authorities may order asset divestiture as a structural separation remedy.

Key Concepts and Definitions

Barrier to competition: Any structural, regulatory or conduct feature of the market with the object or the effect of preventing or distorting competition in the relevant market.⁴

Behavioural remedy: A behavioural remedy is a measure that obliges the concerned undertaking(s) to act in a specific way or to omit specific anti-competitive conduct. Compliance with behavioural remedies has to be monitored and enforced (OECD, 2006_[1]).

Competition: The rivalry between market suppliers to obtain customers by offering products that have desirable price-quality characteristics (OECD, 2016[2]).

Essential facilities: Structural features or infrastructure whose access is essential for the provision of goods or services in a related market and where is not economically efficient or feasible for a new entrant to replicate the facility. The essential facilities doctrine, which is a matter of substantial debate, specifies when the owner(s) of an "essential" or "bottleneck" facility must provide access to that facility, at a "reasonable" price (OECD, 1996[3]).

Market failure: Situations where the allocation of goods and services is not efficient. Different circumstances could represent the source of market failure; for the purpose of competition policy, the most relevant are the existence of market power or the absence of perfect competition. Other examples are externalities and incomplete markets (e.g. goods and services are not supplied or supplied insufficiently). (OECD, 1993_[4])

Regulation: Broadly defined as imposition of rules by government, backed by the use of penalties that are intended specifically to modify the economic behaviour of individuals and firms in the private sector. These rules may take place by means of different regulatory instruments or targets, such as "prices, output, rate of return (in the form of profits, margins or commissions), disclosure of information, standards and ownership ceilings" (OECD, 1993_[4]). Regulation includes laws, formal or informal orders and subordinate rules, and rules issued by non-government or self-regulatory bodies.

Relevant market: The starting point in any type of competition analysis is the definition of the "relevant" market. There are two fundamental dimensions of market definition:

- (i) the product market, that is, which products to group together; and
- (ii) the geographic market, that is, which geographic areas to group together.

Market definition takes into account both the demand and supply considerations. On the demand side, products must be substitutable from the buyer's point of view. On the supply side, sellers must be included who produce or could easily switch production to the relevant product or close substitutes (OECD, 1993[4]). A third dimension of the relevant market is

See art. 3 of Ley Federal de Competencia Económica.

time. This is particularly significant when changing period of time has an effect on demand and supply of a good or service.

Remedy: Corrective or preventive measures imposed by competent authorities in order to create, maintain, restore or improve the competitive conditions in a given market.

Rule of reason: Legal approach adopted by competition authorities or courts where an attempt is made to evaluate the pro-competitive features of a restrictive business practice against its anticompetitive effects in order to decide whether or not the practice should be prohibited. Some market restrictions which prima facie give rise to competition issues may, on further examination, be found to have valid efficiency-enhancing benefits. In contrast, the per se approach establishes covered business practices as illegal in all circumstances.

Structural remedy: A structural remedy is a measure that effectively changes the structure of the market by a transfer of property rights regarding tangible or intangible assets, including the transfer of an entire business unit, and that eliminates or separates ongoing relationships between the former and the future owner. After its completion, a structural remedy does not normally require any further monitoring (OECD, 2006[1]).

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Executive Summary*

Competition is a cornerstone for well-functioning and competitive economies. It increases innovation, productivity and economic growth. However, competition can be hindered by different barriers arising from regulatory, structural or behavioural market features. The Mexican Constitution and the Mexican Federal Economic Competition Law are geared towards providing a response to these barriers to competition and free market access.

From its origins, the Mexican legal framework was able to address in a comprehensive way only two of these three barriers to competition. Regulatory barriers arise from the applicable legal framework, so it is within the power of the relevant authorities to remove them, while behavioural barriers (on the supply side) are addressed by the prohibition to carry out anti-competitive behaviour (be it illegal concentrations, anti-competitive agreements or abuses of dominant position). With regards to structural barriers, the 2014 reform has significantly reinforced authorities' capacity to effectively address them. The new legal framework strengthens their powers to remove structural barriers to competition through the application of structural separation measures that can create, preserve, improve or restore competitive conditions in the market.

While these new provisions allowing for the use of structural separation as a competition remedy have been applied in merger controls, the relevant authorities never apply them in abuse of dominance cases. The novel character of this possibility and the absence of applicable precedents in Mexico make it useful for the Mexican authorities to take stock of international experiences and best practices in the field. This report is intended to respond to this situation by offering an overview on the implementation of structural separation provisions in abuse of dominance cases, while providing related international examples and best practices from jurisdictions around the globe related to structural separation in merger, regulation and abuse of dominance. These experiences can shed light and provide valuable insights on the practical implications underlying the application of structural separation as an antitrust remedy, the challenges arising from it, and some of the ways in which these challenges can be addressed.

Structural remedies reduce or eliminate firms' incentives or ability to restrict competition by modifying the allocation of property rights and thus constitute a major intervention that is applied only in exceptional circumstances. Different types of structural remedies can range in intensity, from accounting separation to full ownership separation. Each type of

^{*} This report was produced at the request of the Mexican Ministry of Economy, under the framework of the agreement signed between the OECD and this Ministry of Economy in December 2014 to strengthen Mexico's competitiveness through economic competition. The support provided by the OECD through this agreement aims to help the Ministry to promote competition in the Mexican markets that are affected by structural, conduct and regulatory features. This paper was prepared by Niccolò Comini of the OECD Competition Division. The OECD Secretariat thanks the Ministry of Economy for its input, review and fruitful co-operation. The OECD acknowledges the valuable review, the quality of comments and the richness of information provided by COFECE, CRE and IFT.

remedy presents its own advantages and limitations, which the relevant authorities must consider when deciding on the application of structural remedies.

Full ownership separation is a very powerful and rarely-used tool for governments which face inefficient markets or industries characterised by the presence of a monopolist. This approach requires a careful assessment as it may end the market failure(s) in a more efficient way compared to other measures.

This report describes the various degrees of structural remedies highlighting advantages and disadvantages. Although each case must be assessed individually, there are certain principles that can help relevant authorities balance the benefits and costs of each type of remedy in every given scenario.⁵ Among these considerations, the principle of proportionality, the likely future development of the relevant market, the time to implement a remedy and the enforcement and monitoring options available are particularly relevant.

International experiences and best practices on the imposition of structural separation as a competition remedy are presented in the following section of the report. In particular, the description of each jurisdiction's experience is complemented by insights on the best practices that can be derived from the way in which structural remedies have been used in each particular case. The selected experiences come from jurisdictions from all over the world and span a number of different sectors, namely telecommunications, electricity, rail and gas.

Some jurisdictions have synthesised the basic principles underlying their use of structural separation as a competition remedy, issuing official guidance in this respect for the purposes of assisting the relevant authorities in the design, imposition and implementation of structural remedies. However, at this stage it is not possible to identify a unique approach around the world.

⁵ See OECD (2001).

Chapter 1. Introduction

The concept of competition can be defined as the rivalry between market suppliers to obtain customers by offering products that have desirable price-quality characteristics (OECD, 2016). Competition in a market refers to a situation where different firms compete against each other to secure business with clients by attempting to offer the terms that clients will find most favourable. When companies compete with each other in the market, and as they struggle to make their offerings more attractive to clients, they are forced to maximise quality, innovation and choice while minimising prices, to the benefit of consumers and of the economy as a whole. Competition law aims to promote competition in the market by removing structural, behavioural and regulatory barriers to competition, so that the economy can reap these benefits; and remedies constitute a tool for the achievement of this goal.6

1.1. Competition law and policy in Mexico

The following paragraphs describe the objectives and evolution of competition law and policy in Mexico, with a focus on the ways structural remedies have assimilated into the country's competition regime.

Competition policy in Mexico is part of a reform initiative that, since the 1980s, sought to develop a market-oriented economy that left behind the central government's control and protection (OECD, 2004_[5]). Mexico opened its economy to foreign trade and investment in order to foster competition at the national level. However, eliminating trade barriers was not sufficient to guarantee competition if negatively affected by private parties' behaviour, or if a market's structural features made competition difficult or impossible. These issues lay at the heart of the development of competition law and policy in Mexico.

Currently, the foundations of competition law in Mexico are laid down by the Mexican Constitution and the Federal Economic Competition Law (Ley Federal de Competencia Económica, DOF 23-05-2014, hereinafter FECL). However, the first Mexican Federal Economic Competition Act (FECA) dates back to 1992 and included provisions on structural remedies. Articles 19.II and 35.II of the FECA provided for the divestiture of assets in merger cases, although antitrust infringements could only be sanctioned with pecuniary fines.

The first major reform to this Act dates back to 2006. Article 24.XVI of the new Act provided that the competition authority (previously the Federal Competition Commission, FCC) had the power to "decide on the application of measures protecting and promoting economic competition in procedures for the divestiture of public entities and assets, as well as in procedures for the granting of concessions and permits carried out by bodies and entities of the federal public administration, in the cases determined by [the] Act's

⁶ Further information on the objectives of competition law and policy can be found in OECD (2003).

Regulation". Article 37 provided for structural remedies in case of recidivism. However, no explicit provision was made with regard to structural remedies in competition cases.

At the beginning of Mexico's LXIII legislature, the country's president Enrique Peña Nieto announced his intentions to implement a number of legislative reforms, with a view to, among other objectives, promote competition (mainly in the telecommunications sector). These changes, formalised in the Pacto por México agreement of 2 December 2012, were initiated by a number of constitutional reforms that took place in 2013. The most relevant modifications to the Mexican legal regime for the purposes of this report are those concerning competition rules, the telecommunications and radio broadcasting regulation and the energy reform.

Following these constitutional reforms, 2014 saw a subsequent major change to the FECL. The new FECL now included the concept of "barriers to competition and free market access", which will be discussed in the following section, as one of the situations that could result in a divestiture order from the competition authorities (COFECE and IFT).

In particular, Article 12.II of the FECL attributes to COFECE and the IFT the power "to order actions to eliminate barriers to competition and free market access; determine the existence of essential facilities and regulate access to them, as well as to order the divestiture of assets, rights, partnership interest or stock pertaining to Economic Agents, in the necessary proportions to eliminate anticompetitive effects". Article 94.VII.d elaborates on this provision, clarifying that the competition authorities' resolutions may order "the divestiture of the involved Economic Agent's assets, rights, partnership interest or stock, in the necessary proportions to eliminate the anticompetitive effects, [which] shall proceed when other corrective measures are not sufficient to solve the identified competition problem". Structural remedies remain available in case of recidivism.

With regard to the regulated telecommunications sector, the Mexican Federal Telecommunications and Radio broadcasting Act (LFTR) - established by the constitutional reform – includes specific provisions on competition, empowering the IFT to implement competition rules (including structural separation provisions) in the Telecommunications sector.

Title XII of the LFTR establishes the Institute's duty to determine the existence of preponderant or dominant agents, and to take the necessary measures to prevent them from negatively affecting competition conditions in the market. Whereas a number of behavioural remedies are provided for in Chapter I of this Title, Chapters II and III state that competition rules must be applied to all market segments within the telecommunications and radio broadcasting sector. The IFT is furthermore empowered to determine the existence of agents with substantial market power and to impose certain obligations upon them with the aim of promoting competition in the market. These measures include the limitation of cross-ownership on the part of companies that control several media outlets, acting as radio broadcasting and telecommunications concessionaries in the same market. In particular, structural separation is explicitly contemplated as a remedy in Article 288 of the Act. Article 303 of the LFTR provides for the withdrawal of concessions, among other cases, in situations where the concerned undertaking fails to comply with structural remedies imposed by the Institute. Transitory provision XII also provides for structural remedies as a voluntary undertaking that can be offered by dominant operators.

With regard to the gas market, the art.83 of the National Law of Hydrocarbons confers to the Energy Regulatory Commission (CRE) the power to issue accounting, functional and legal separation and to authorise cross-ownership between transmission and storage on the one hand, and producers, end users and marketers on the other (these activities are subject to the opinion of COFECE). In the electricity market, CRE can mandate accounting and functional separation while the Ministry of Energy can impose legal separation. ⁷ In case the latter is not sufficient to assure open access and efficient operation, the Ministry can also mandate structural separation.8

1.2. Barriers to Competition

Competition in the market (the relevant market being that in which certain product(s) or service(s) is sold and purchased) can be hindered by behavioural, regulatory or structural barriers that prevent or distort competition in the relevant market.

In the Mexican legal context, the FECL, in its Article 3, refers to this concept as "Barriers to Competition and Free Market Access", which it defines as "any structural market characteristic, act or deed performed by economic agents, with the purpose or effect of impeding access to competitors or limit their ability to compete in the markets, which impedes or distorts the process of competition and free market access, as well as any legal provision issued by any level of government that unduly impedes or distorts the process of competition and free market access". The following paragraphs will elaborate on these three types of barriers to competition.

1.2.1. Conduct features

Conduct features may be anti-competitive and potentially act as a barrier to competition (e.g. exclusive agreements between manufacturers and distributors that make it very difficult for an entrant in the manufacturing market to gain access to distribution outlets or collusion agreements). When these behaviours and practices by market agents constitute barriers to competition and have a negative effect on the competitive process or can directly harm consumers (for example, determining higher prices, less innovation, quality or choice, or hindering or preventing new entrance to the market, exploitative abuses), competition laws prohibit them, and public authorities seek to deter, prevent and counteract them. Barriers to competition created by conduct features may be favoured or even made possible by structural features of the market (which will be explained below), and therefore changes to market structure implemented by means of structural remedies may also be an effective response to them.

Although different jurisdictions around the world have set diverse competition law systems, these regimes prohibit overall anti-competitive conduct, such as cartels and abuses of dominant position, and assess mergers on the basis of their effects on competition. In the case of Mexico, the FECL establishes three types of anti-competitive conduct: absolute

See art.8 of the National Law of the Electric Industry.

See art.9 of the National Law of the Electric Industry.

[&]quot;The conduct that may harm competition, intentionally or inadvertently, is related to, but not exhaustively, that exerted by oligopolists, or facilitation of horizontal co-ordination, or involvement in vertical agreements (downstream or upstream), or industry or consumer practices or strategic reaction to regulation" (OECD, 2016).

monopolistic practices ("cartels"), relative monopolistic practices ("abuse of dominance"), and unlawful concentrations.

Cartels are considered a per se violation (i.e. they can never be justified for any reason) and are contracts, agreements, arrangements, or a combination of these, between market participants with the object or effect of: fixing/manipulating prices, constraining supply, segmenting the market, rigging bids, and exchanging information¹⁰.

Under Articles 54 to 56 of the FECL, abuse of dominance is considered as the conduct of individual or collective businesses with substantial market power, with the object or effect of unduly displacing other market participants or preventing access or granting exclusive advantages to one or several market participants, under any of the following assumptions: vertical market segmentation, vertical price restraint, tying sales or purchases, exclusive dealing, refusal to deal, boycott, predatory pricing, loyalty discounts, cross-subsidies, discrimination, rising rivals costs, denying access to an essential facility¹¹ or granting it on discriminatory terms, and margin squeeze in relation to an essential facility. This conduct is unlawful, unless demonstrated efficiency gains supersede its anti-competitive effects (i.e. abuse of dominance is not a per se violation). The type of conduct considered in the FECL as relative monopolistic practices includes the acts, contracts agreements, procedures or combinations thereof, on the part of one or several market participants, that fit the conduct description mentioned above.

The FECL deals with concentration operations in its Articles 61 to 65 and 86 to 93. Unlawful concentrations are those concentration transactions that have the object or effect of preventing, reducing or harming competition. The following criteria are considered an indication of an unlawful concentration (or intention to merge):

- The transaction confers or may confer on the merged or acquiring party an increased or significant market power to prevent, reduce or harm competition.
- The transaction may have the object or effect of imposing barriers to entry.
- The transaction impedes access to third parties to the relevant market, related markets or essential facilities, or foreclose other market participants.
- The transaction has the object or effect of significantly facilitating that merging parties carry out anti-competitive conduct or breach the FECL.

1.2.2. Regulatory features

The relevant authorities may intervene in markets to regulate the conduct of market participants, to prevent market failures, to oversee common public resources and public goods, to limit market power, or to reduce inefficiencies. Other objectives are promoting other public goods (OECD, 2016_[2]). Regulation can thus be generally defined as the "imposition of rules by government, backed by the use of penalties that are intended specifically to modify the economic behaviour of individuals and firms in the private sector", which can take place by means of different regulatory instruments or targets, such as "prices, output, rate of return (in the form of profits, margins or commissions), disclosure

¹⁰ The FECL deals with cartels in its Article 53.

Essential facilities are structural features or infrastructure of key importance to economic growth; see OECD (1996a), p. 72. Essential facilities doctrine specifies when the owner(s) of an "essential" or "bottleneck" facility must provide access to that facility, at a reasonable price.

of information, standards and ownership ceilings" (OECD, 1993[4]). Regulation includes laws, formal or informal orders and subordinate rules, and rules issued by non-government or self-regulatory bodies (OECD, 2016[2]).

Regulation may negatively affect competition influencing the market structure, the behaviour of market participants or both, by:

- "Imposing barriers to entry, expansion or to the flow of products across regions and states.
- Facilitating co-ordination of prices and production among market participants.
- Imposing higher costs on entrants and small market participants as opposed to actual market participants and large firms.
- Partially or completely sheltering firms from national competition laws" (OECD, $2016_{[2]}$).

1.2.3. Structural features

In other cases, barriers to competition can arise from the very structure of the market. Structural features determine the market environment in which operators act, and include concentration levels, differentiation degrees, conditions of entry, exit and expansion, the existence of vertical integration, economies of scale and scope, information asymmetries, switching costs, and the degree of buying power (Competition Commission, 2013_[6]).

For instance, public utilities industries often include a non-competitive component that is vertically integrated with a potentially competitive component or activity¹² (OECD, 2001_[7]). In this context, when the owner of a non-competitive activity also owns a related competitive activity, competition may be distorted, because the owner may have incentives to use its control of the former to strengthen its market power in the latter. Relevant authorities may intervene to prevent this distortion; a firm, be it public or private, is therefore considered to be regulated if it is subject to implicit or explicit economic regulation intended to constrain the exercise of any market power that it otherwise would have. (OECD, 2001_[8]) (OECD, 2001_[7])

1.3. Relevant authorities

The public authorities (hereinafter, the relevant authorities or the competent authorities) who are empowered to apply competition law, and in particular to create and impose structural remedies, or to monitor and/or assess their implementation, differ in each jurisdiction, as does the extent of their powers.

Firstly, legislators lay the foundations of competition law rules and may empower other public and private actors to develop and/or enforce them.

Competition authorities are usually the main public bodies in charge of implementing competition law and consequently of imposing structural remedies. They are generally in

Economic sectors are generally made up of distinct components or activities. These activities are related to each other, often producing intermediate goods or services to be used as input by other activities. A vertical relationship exists in this case. However, when these goods or services can act as substitutes or complements in the production of a final good or service, the relationship is horizontal (see Rey 2005).

charge of ensuring compliance with competition law by firms, for instance by carrying out investigations into anticompetitive conduct or market structures, authorising concentrations, and imposing sanctions or remedies in instances of harm to competition. The investigative and decisional functions of competition authorities can be integrated into one single body or separated so as to ensure impartiality (in these cases, the decisional functions may be vested on courts). Competition authorities may act on their own initiative, as a result of a third party's complaint or at the request of another public body. Competition authorities may also be in charge of issuing binding competition rules that develop or elaborate upon the more general rules issued by the legislator.

Sector regulators are public bodies in charge of the regulation and overseeing of a specific market sector (regulated sectors). These bodies may be empowered to apply competition law in the framework of the market sector of their competence. These powers may be exclusive (i.e. with the competition authority not having competence to act in the sector in question) or concurrent (with the competences being shared by both authorities).¹³ Depending on the jurisdictions, sector regulators may also be empowered to impose structural remedies and binding norms touching upon competition matters in the sector of their competence.

Courts will be in charge of applying competition law to the cases they hear. They may be called to review the acts of a competition authority. Sometimes they are empowered to modify the acts of a competition authority, for instance by imposing new remedies or modifying the ones imposed by the authority. For instance, the Australian Competition Tribunal (ACT) reviews appeals against the Australian Competition and Consumer Commission (ACCC) and it is entitled to exercise all the powers of the ACCC (OECD, 2016[9]).

Courts can also be empowered to receive private claims for damages caused by anticompetitive behaviour¹⁴, and they may also be called upon to solve disputes relating to compliance with remedies by firms. In some jurisdictions, a court may be empowered to exercise decisional functions with regard to cases instructed by competition authorities. The courts in charge of applying competition law can be courts of general jurisdiction or specialised tribunals (OECD, 2016_[9]).

Although the remaining two categories of actors cannot be qualified as authorities, they still play a role in the implementation of competition law in some jurisdictions. Trustees may be appointed by the relevant authorities (often in agreement with firms) to oversee and monitor the implementation of remedies. Moreover, many jurisdictions provide for the possibility of private parties to sue for damages suffered as a result of a competition law violation. In this sense, private parties may be considered as enforcers of competition law, since the threat of damages claims is a deterrent force that promotes compliance with the applicable rules.¹⁵

In the United Kingdom, the local Competition Authority (CMA) and the local financial regulator (Financial Conduct Authority) have concurrent powers for financial services.

¹⁴ See (OECD, 2018_[57]).

High Court of Justice judgment of 04 April 2012, case No HC08C03243 (National Grid v ABB Limited). The National Grid case concerned a long-running cartel in the gas-insulated switchgear market. In 2007, the European Commission fined Siemens, ABB, Alstom, Areva and others EUR750 million, although some of the fines were later reduced by the General Court.

Box 1.1. Relevant Authorities in Mexico

Legislators: Under the Mexican Constitution, the legislative power is vested on Congress, which is divided into two chambers (the chamber of deputies and the chamber of senators). Congress, among other attributions, is in charge of passing legislation.

Competition Authorities: As anticipated, in Mexico, the competition authority is COFECE, while the IFT is the competition authority for the telecommunications and broadcasting sectors. The investigative and decisional functions are separated within COFECE and IFT. These authorities may act of their own accord, while the Ministry of Economy may also request them to start enforcement and advocacy proceedings in competition matters.

Sector Regulators: In Mexico, the IFT acts as a competition authority in the telecommunications and broadcasting sectors, apart from being this sector's regulator. The Energy Regulatory Commission (CRE) regulates oil, gas, petroleum products, petrochemicals, biofuels and electricity.

Courts: Mexico has two District Courts and two Collegiate Circuit Courts specialised in competition, telecommunications and broadcasting cases, which are in charge of the judicial application of competition law. The decisions issued by the Mexican competition authorities can be appealed to the specialised District Courts (in the first instance), to the specialised Collegiate Circuit Courts (in the second instance) and to the Supreme Court (in the last instance) through the appeal procedure known as amparo indirecto.

Different jurisdictions have different systems set in place, and each of these systems attribute different powers upon its relevant authorities. For this reason, it is not always possible to compare different relevant authorities across jurisdictions. ¹⁶

National Grid brought a damages claim at the High Court in November 2008, seeking over £108 million in overcharges plus interest. The parties ultimately decided to settle, and the litigation dissolved in June 2014.

As an example, while the Mexican competition authorities can issue regulation on remedies (e.g. on access to essential inputs), in the United States it is only regulators who have that power, whereas the Australian Competition Authority has similar powers to those of the Mexican authorities in this regard.

Chapter 2. Remedies

As introduced in the previous section, barriers to competition may trigger the application of remedies by the relevant authorities. This section aims to provide an overview of the characteristics of each type of remedy, their economic rationale and the potential costs and benefits associated to each of them.

In the context of competition law, remedies are corrective or preventive measures imposed by competent authorities in order to create, maintain, restore or improve the competitive conditions in a given market. Remedies can be classified as behavioural or structural; both types of remedies may fall under the ex ante or ex post categories.

Ex ante remedies are applied in order to prevent an anti-competitive situation¹⁷ or market failure from occurring before they actually take place. Ex post remedies are used to rectify an anti-competitive situation or to improve the competition conditions existing in a market; i.e. they are applied *a posteriori* once the anti-competitive situation has already taken place.

Remedies may consist of an obligation to act in a way or to abstain from a given conduct, or they may mean the modification of a market structure. Sector-specific regulation can constitute a vehicle for remedies in competition law; in particular, structural separation may be imposed by the competent authority as a regulatory measure in order to preserve or modify competition conditions in a given market (OECD, 2011[10]). Ex ante remedies tend to be imposed mostly through sector-specific regulation, although their use by competition authorities in administrative concentration control proceedings is also very frequent (Geradin, 2003[11]).

2.1. Remedy objectives

There seems to exist a consensus among most academics and relevant authorities that remedies should put an end to the harm to competition, restore competition in the market and prevent the reoccurrence of the circumstances that gave rise to the competitive harm. However, there is no broad consensus as to whether the goals of competition remedies should additionally pursue other wider policy objectives, such as deterrence, shaping

As explained in Chapter 1, the Mexican Federal Economic Competition Law (FECL), in its Book II, distinguishes between three different types of anti-competitive conduct. Firstly, absolute monopolistic practices (cartels) are defined as "contracts, agreements, arrangements or combinations amongst competing Economic Agents", when their purpose or effect is to fix or manipulate prices, set up supply constraints, segment the market, rig bids or exchange sensitive information. Secondly, relative monopolistic practices (abuse of dominance) refer to the behaviour carried out by a market actor who holds substantive power with the purpose or effect of "unduly displacing other Economic Agents, substantially impeding their access or establishing exclusive advantages in favour of one or several Economic Agents". And finally, unlawful concentrations are those whose purpose or effect is to "obstruct, diminish, harm or impede free market access and economic competition". These definitions are in line with the equivalent concepts in most jurisdictions.

market dynamics in a welfare-optimising¹⁸ manner, dictating market outcomes (i.e. imposing price, profitability, quality or innovation conditions), punishing offenders or compensating victims. 19

Box 2.1. Examples of structural remedies following a market investigation and anticompetitive behaviour

BAA Airports Market Investigation

In March 2007, following an Office of Fair Trading (OFT) referral, the UK Competition Commission (CC) launched an investigation into the airports owned by the British Airports Authority (BAA).

In 1987 the UK Government decided to privatise BAA with the aim of guaranteeing adequate airport capacity in light of growing demand, and to promote airline competition. However, according to the CC, these objectives had not been achieved at the time of the investigation.

BAA's airports accounted for more than 60% of all passengers using UK airports. Heathrow, Gatwick, Stansted and Southampton accounted for 90% in south-east England, and Edinburgh, Glasgow and Aberdeen accounted for 84% in Scotland.

The study, concluded in March 2009, established that BAA's common ownership of airports together with other features of the relevant markets – generated adverse effects on competition.

The CC proposed the following remedies:

- a) The divestiture of both Stansted Airport (Stansted) and Gatwick Airport (Gatwick) to different purchasers.
- b) The divestiture of either Edinburgh Airport (Edinburgh) or Glasgow Airport (Glasgow).
- c) The strengthening of consultation procedures and provisions on quality of service at Heathrow, until a new regulatory system is introduced.
- d) Undertakings in relation to Aberdeen, to require the reporting of relevant information and consultation with stakeholders on capital expenditure.
- e) Recommendations to the Department for Transport (DfT) in relation to economic regulation of airports.

Source: http://webarchive.nationalarchives.gov.uk/20140402170726/http://www.competitioncommission.org.uk/assets/competitioncommission/docs/pdf/noninquiry/rep_pub/reports/2009/fulltext/545.pdf

Welfare is optimised in a society when no economic agents can be made better off without making other economic agents worse off.

See (Monti, 2013_[14]) Cf. with (Maier-Rigaud, 2013_[16]), and (Waller, 2003_[23]); for a commentary on the use of behavioural remedies in this regard in the US, see (Terzaken, 2014_[51]).

Box 2.2. RWE foreclosure case

In March 2009, the European Commission accepted the commitments offered by RWE AG for the infringement of EU competition law.

In particular, RWE was accused of abusing its dominant position in the German market of gas transmission through the following:

- a) foreclosure of RWE's competitors from access to the network; and
- b) margin squeeze of RWE's competitors

RWE offered to completely divest its high-pressure gas transmission network, including related employees and ancillary services, to an independent purchaser.

This is one of the few EU cases in which structural remedies where imposed following an anti-competitive conduct.

Source: http://ec.europa.eu/competition/publications/cpn/2009_2_7.pdf

It therefore falls to each jurisdiction to decide whether remedies should pursue further objectives, such as deterrence, compensation of injured parties, or punishment, among others. These objectives will naturally be also dictated by the source of the harm to competition. For instance, punishment or disgorgement could be considered in case the remedy is a response to firm conduct (e.g. abuse of dominant position), but would be out of place should the harm to competition arise simply from structural conditions of the market. This report will focus on the three essential objectives of remedial action mentioned above: stopping the anticompetitive conduct or framework, preventing its reoccurrence, and restoring competition.²⁰

Stopping the anticompetitive conduct or framework is the first and essential goal for any remedy. In order to achieve it, authorities may have to require firms to act or refrain from acting in a certain way, make changes to the regulatory environment in order to remove obstacles to competition, or impose structural measures. However, bringing the harmful circumstances to an end is not, in and by itself, sufficient. Should authorities fail to take any of the next two steps, their efforts to put an end to the circumstances harming competition would be in vain. Moreover, firms would have no reason not to engage in anti-competitive conduct if the only potential consequence would be a request to stop it (OECD, 2006_[1]).

Preventing the recurrence of the situation that harmed competition is the second essential goal. Authorities must ensure that the remedy also prevents competition from being damaged by a similar situation in the future. Depending on the circumstances, this may imply modifying the market structure (taking into account the ways it might evolve in the future, particularly in the presence of fast-paced high-tech markets where market dynamics are in constant evolution, as noted in Chapter 3), making it difficult for firms to act anticompetitively (for instance, by reducing their market power), or removing their incentives to do so.

See (James, 2001_[58]) noting that "[a]n antitrust remedy (...) must stop the offending conduct, prevent its recurrence, and restore competition".

Restoring competition is the third and last essential objective that remedies must pursue as a remedy's effectiveness is negatively affected in terms of consumer welfare if competition remains harmed or reduced. In fact, there are scenarios where even if the anticompetitive conduct has been stopped, a competitive outcome is still far from being reached. This is particularly relevant in cases where the harm to competition arises from firms' behaviour. In these cases, putting an end to the anti-competitive conduct and preventing recidivism does not always restore competition automatically, mostly if the harm caused to competition in the past remains unrepaired and if its negative consequences continue to spread. This is the case, for instance, in situations where a firm's behaviour has raised barriers to entry. An effective remedy in this case would not only have to prevent further anti-competitive behaviour on the firm's side, but it should also lower the entry barriers to the level they were before the violation (OECD, 2006[1]).²¹

2.2. Behavioural Remedies

Behavioural remedies aim to control firms' ability to hinder competition by imposing an affirmative obligation to carry out a certain action or by banning them from engaging in a certain conduct despite their incentives to do so remaining in place (OECD, 2001_[7]).

Behavioural remedies have several advantages. They can be tailored to the case-specific firms and market circumstances; for this reason, they can be very helpful in dealing with competition issues that do not occur homogeneously across the whole market, allowing competition authorities to target their intervention.²² They are less invasive and easily reversible than structural remedies; they can, therefore, operate only in specified timeframes, they are able to respond to changing market realities (such as new markets, network industries or technology markets), and can be modified during the course of the implementation if necessary (Ezrachi, 2005[12]) (OECD, 2006[1]).

However, behavioural remedies have drawn criticism for failing to attack the source of competitive harm directly at its roots, dealing only with its effects without correcting the market structure that resulted in precisely these effects. They can be challenging to design, to enforce and to monitor. Their execution often requires intervention from competent authorities²³, who may be forced to undertake market regulation functions they may not be

The debate remains open as to whether a remedy should go beyond restoring competition to its ex ante status, attempting instead to make the market even more competitive than it was before the harm to competition in question took place.

Ezrachi (2005_[12]) provides the example of a competitive detriment confined to a specific region of the European Union, which could be addressed through behavioural commitments "without resorting to a European-wide divestiture".

This is particularly the case for remedies requiring a company to grant its competitors or customers access to a key asset (which may force courts to embark in the complex exercise of setting access charges and quality terms, a task they may not be well-suited for; Kovacic, 1998), and for non-discrimination provisions (whose interpretation may give rise to controversy and which can be hard to sustain in the long term; (Posner, 2001_[26]) p. 273). See also (OECD, 2006_[1]), at pp. 8 and

responsible or prepared for (Ezrachi, 2005_[12]) (OECD, 2006_[1]).²⁴ Behavioural remedies are therefore more likely to be circumvented, which, apart from preventing them from achieving their objectives, can give rise to lengthy and costly administrative and judicial proceedings.²⁵ They may also entail a risk for market distortion, particularly when they involve a direct intervention in the market concerned over a prolonged period of time (OECD, 2006_[1]) (ICN, 2016_[13]) (Ezrachi, 2005_[12]). At the same time there is the risk of introducing an element of legal uncertainty, since it is difficult to gauge their exact duration from the outset.

Some jurisdictions have explored different ways to overcome the limitations of behavioural remedies related to enforcement and monitoring.

Box 2.3 contains examples of how the United States and the European Union have made use of monitoring trustees or pecuniary fines for these purposes.

In Mexico, the competition Authority can impose fines if firms do not comply with the established remedies. Box 2.4 shows an example of how not complying with a COFECE decision can lead to pecuniary sanctions.

Box 2.3. Overcoming limitations of behavioural remedies with regard to enforcement and monitoring. Examples from the United States and the European Union

One way to deal with difficulties relating to the monitoring of behavioural remedies is the appointment of a monitoring trustee who acts as a watchdog to ensure compliance with the remedies.

The US Department of Justice (DOJ) has turned to external compliance monitors to ensure compliance with behavioural remedies, for instance on the part of Apple (Baer, 2013[14]) or AU Optronics (Department of Justice, 2012[15]).

The European Commission has used the same mechanism to ensure compliance with certain behavioural commitments on the part of Microsoft (although, after Microsoft's successful appeal the Commission replaced the monitoring trustee with compliance advice from technical consultants).

Firms may also be forced to comply with behavioural remedies by means of periodic penalties, as is the case in the European Union, where a maximum of 5% of average daily turnover may be imposed for non-compliance.

However, it may be also worth noting that when certain conduct is required in connection with a specific regulatory regime, the monitoring function can be undertaken by a specialised regulatory agency, thus reducing the burden for the competition agency. See (ICN, 2016_[13]).

For instance, the Spanish Competition Authority has had to impose several fines, totalling more than EUR 22 5 million (Euros), in the context of a single merger, precisely for failure to comply with commitments. See (Azofra Parrondo, 2016_[62]), and, more generally, ICN (2016_[13]).

Box 2.4. The Asociación de Productores y Empacadores Exportadores de Aguacate de México case.

In 2011, COFECE launched an investigation on the market for export of Mexican avocados.

The Asociación de Productores y Empacadores Exportadores de Aguacate de México (APEAM) is the only entity recognised by the United States to perform specific essential services (e.g. phytosanitary verification) required to export avocados to the United States. The APEAM was found guilty of tying the sale of its essential services to a requirement to affiliate to the APEAM (which had a cost). Affiliation to the APEAM is not essential to export to the United States.

In 2015 the case was closed after APEAM offered to abolish the requirement of prior affiliation to the association in order to perform other services, allowing exporters to sustain only the phytosanitary verification costs.

In order to monitor APEAM's behaviour, the Authority required the former to present in the first two months of the year, a report highlighting some information such as volume of sales, costs and clients. In 2017, the APEAM did not present the report which led to a fine of MXN 40 7 million (Mexican pesos).

Source: DE-030-2011 a,b COMP-001-2015 (APEAM, A.C.) y COMP-001-2015-II (APEAM, A.C.)

2.2.1. Types of Behavioural Remedies

The most simple and clear-cut classification of behavioural remedies can be made by distinguishing between positive and negative remedies. Broadly speaking, behavioural remedies can consist of an affirmative obligation to perform certain actions (positive or affirmative behavioural remedies), or of a prohibition of behaving in a certain manner (negative behavioural remedies; see (OECD, 2006[1])).

Negative behavioural remedies, provide a direct means to bring the anti-competitive behaviour to an end, by requiring the firm concerned to stop the anticompetitive conduct that the authority considers unlawful. (OECD, 2006_[1]). Negative behavioural remedies are potentially simpler to design (the prohibited conduct being already defined by firms, without authorities having to devise it), than positive behavioural remedies, whose design and implementation pose more complex challenges both to the authorities and to the firms involved. However, merely obliging the parties to cease certain conduct might not be sufficient to restore effective competition in the market to the level it was at before the unlawful conduct took place (OECD, 2006[1]). Negative behavioural remedies often take the form of declaratory statements (i.e. declarations that a certain conduct is anticompetitive) or cease and desist orders (i.e. a binding mandate - issued by a competent authority - to halt certain conduct and refrain from repeating it in the future), and are frequently imposed together with fines. An example of a negative behavioural remedy is the order to terminate exclusive agreements.

In this context, it is important not only that the anti-competitive conduct ceases, but also that a level playing field is restored: the anti-competitive situation may have had effects that will not disappear by virtue of putting an end to an anti-competitive conduct (Monti, 2013_[14]), and that must be also dealt with. For example, a dominant firm may have implemented predatory practices to raise barriers to entry, which will remain even if the predatory pricing conduct stops. In this case, an appropriate behavioural remedy – such as a cease and desist order – will therefore not only ensure that the predatory pricing stops, but also that the dominant company will not abuse its position in the future.

Box 2.5. Example of a negative behavioural remedy: Deutsche Telekom

The European Commission imposed a negative behavioural remedy, accompanied by a pecuniary sanction in its Decision of 21 May 2003 in case COMP/C-1/37.451,37.578, 37.579 - Deutsche Telekom. The Commission found that Deutsche Telekom had charged its competitors and end-users unfair monthly and one-off charges for access to the local telecommunications network (margin squeeze). The EU competition authority issued an order that "Deutsche Telekom AG (...) immediately bring to an end the infringement (...) and (...) refrain from repeating any act or conduct described in Article 1". This order was accompanied by a EUR 12 6 million fine, which would act as a deterrent aiming to stop Deutsche Telekom from repeating a similar infringement in the future.

Positive or affirmative behavioural remedies, on the other hand, can serve a wider range of objectives, including restoring competition in the market, than prohibition alone (OECD, 2006₍₁₁₎. Positive behavioural remedies can consist of supply or licensing obligations, obligations to sell on a non-discriminatory basis, to license intellectual property, to provide access to information, to grant fair and non-discriminatory access to a firm's outlets, assets and infrastructures, to inform other parties of the cessation of the infringement or of any other matter, to periodically provide the competition authority with information, to establish an information firewall, or to set price terms in a certain way. However, they have their own limitations, as will be further explained below. Forcing firms to undertake certain conduct involves design and monitoring challenges; it furthermore entails the risk of introducing inefficiencies into the market concerned and of reducing firms' incentives to innovate (as can particularly be the case when firms are obliged to grant access to intellectual property).²⁶

2.3. Structural remedies

A structural remedy is a measure that effectively changes the structure of the market by a transfer of property rights regarding tangible or intangible assets, including the transfer of an entire business unit, that does not lead to any ongoing relationships between the former and the future owner. After its completion, a structural remedy does not normally require any further monitoring (OECD, 2006[11]). In principle, structural remedies are not intended to be used as punishment (ECN, 2013[15]).

For instance, according to Rev and Tirole (2006_[54]) "nondiscrimination laws may have the perverse effect of restoring the monopoly power that they are supposed to fight. When an upstream bottleneck practices foreclosure by discriminating among competitors, it is tempting to impose a requirement that all competitors be offered the same commercial conditions. Nondiscrimination rules however benefit the upstream bottleneck because, by forcing it to sell further units at the same high price as the initial ones, they help the bottleneck commit not to flood the market".

Box 2.6. Examples of positive behavioural remedies

Obligation to sell: In its Decision of 14 December 1972 in Case IV/26.911 - ZOJA/CSC - ICI, later confirmed by the Court of Justice, the European Commission ordered Commercial Solvents to supply a competitor operating in the downstream market. Commercial Solvents was the only supplier of certain raw materials within the European Union, and this behavioural remedy aimed to eliminate foreclosure in the downstream market.

Access to a firm's outlets: This remedy was imposed by the European Commission in its Decision of 26 February 1992 in Case IV/33.544 - British Midland v. Aer Lingus. The two airlines (British Midland and Aer Lingus) had established a so-called "interline" agreement, under which they could sell the services provided by each other. However, after British Midland started to compete with Aer Lingus on the key London-Dublin route, Aer Lingus cancelled the agreement with British Midland (but not with the third airline covering the route, British Airways). The European Commission ordered Aer Lingus to resume the interlining agreement with British Midland, moreover imposing a fine on the airline.

Information duties: In the Rolling Stock Leasing Market case closed by the UK's Competition Commission in April 2009, rolling stock companies were ordered to provide train-leasing companies with information regarding each lease rental after a market investigation found competition distortions.

Duties to report: As an interim measure, the firm Akzo was ordered to provide the European Commission with a monthly "copy of every offer, order, invoice and credit note and other equivalent document in respect of any offer or sale of any of the said products to any buyer in the United Kingdom issued in the preceding month", by Decision of the European Commission of 29 July 1983 in Case IV/30.698 - ECS/AKZO.

Obligation to set certain price terms: Napp Pharmaceuticals was accused of providing discounts of over 90% to hospitals to prevent competitors from successfully entering the market for the supply of sustained release morphine. The decision of the UK's Office of Fair Trade (OFT) of 30 March 2001, later upheld by the Competition Appeals Tribunal, included behavioural commitments ordering Napp Pharmaceuticals to adjust its pricing policy with certain price reductions.

Among the advantages of structural remedies is the fact that they have a lasting impact,²⁷ directly addressing the source of competitive harm at its root, and eliminating the circumstances that originated it (for instance, market power) while creating new competitors or invigorating existing ones (OECD, 2006[1]). They therefore change firms' incentives by modifying the market structure, using the market mechanism itself as a remedy (Maier-Rigaud, 2013_[16]) (OECD, 2011_[10]). Along with the importance and depth of these changes, structural remedies are also relatively straightforward to devise (Italianer, 2012_[17]) (OECD, 2006_[1]).

Structural remedies are also generally perceived to be cost-effective in terms of implementation. They entail few oversight costs, due to their one-off nature;²⁸ their

Divestitures in particular have been found to be more likely to have pro-competitive effects in the long run than behavioural remedies. See (OECD, 2006[1]), at p. 31

Some commentators have actually built the definition of "structural remedy" around their one-off nature and their low monitoring requirements. For instance, the ICN Merger Working Group (ICN, 2005_[59]), defines them as "one-off remedies that intend to restore the competitive structure in

enforcement is certain and readily verifiable, without much scope for circumvention or need for judicial intervention (OECD, 2006_[1]) (Italianer, 2012_[17]).

Some structural remedies, like full ownership separation, avoid the need for regulation, which can be burdensome to issue (OECD, 2006[18]); they therefore bring the benefit of legal certainty and a simplified regulatory regime (OECD, 2011_[10]).²⁹

Moreover, structural remedies have also been credited for allowing firms to make their own business decisions and adapt to changing market conditions (Maier-Rigaud, 2013_[16]), which they are arguably better equipped to do than public authorities (OECD, $2006_{[1]}$). Separation may also be able to foster innovation and efficiency, for instance in the competitive activities of regulated sectors (OECD, 2006[18]).

However, the application of structural remedies comes with a number of caveats. Their inherently invasive nature (OECD, 2011[10])³⁰ may create inefficiencies (in particular when they are not properly tailored to the harm); for instance, splitting up a business may result in duplication of investment and loss of economies of scale or scope (OECD, 2006_[1]) (OECD, 2006[18]).

Moreover, structural remedies are not always easy to administer, for example, in tightlyknit companies difficult decisions may need to be taken with regard to capital and employee allocation when they are split. Structural remedies might also be unfeasible given certain conditions, for instance if separation does not allow for the creation of a viable independent business, if the divested business fails, or if suitable purchasers are inexistent or insufficient. Other difficulties are the incorrect pricing of assets, significant harm caused to customers, the difficulties (or impossibility) to reverse the remedies once implemented, and excessively high implementation costs. Structural separation can also give rise to an increase in transaction costs for consumers (OECD, 2006[1]) (OECD, 2006[18]).

Some structural remedies, like operational separation, may reduce firms' incentives to innovate and provide dynamic services, due to the potential lack of profits. In certain industries, the reliability of systems may fall following the lack of joint investments; there might be also problems determining responsibilities for interface issues (OECD, 2006_[18]).

the market". However, depending on the case, more rigorous monitoring might be needed. Monitoring mechanisms may include reporting obligations from the firms concerned, appointment of trustees and/or external experts or non-governmental advisors, or co-operation with other authorities and sector regulators. For instance, trustees can be needed to oversee that the status quo of assets or rights object of a divestment procedure is maintained, or to make sure that the divestiture complies with the criteria and the timeline requested by the competent Authority. See ECN (2013a). The monitoring in which competition authorities may be forced to engage following a behavioural remedy can reach quasi-regulatory dimensions (OECD, 2011[10]), whereas structural remedies require comparatively less monitoring.

Although, as noted in this section, the exact implementation of structural separation in each case may create uncertainty concerns that can negatively affect incentives to invest, it can be argued that these concerns are actually more founded with regard to behavioural separation measures, or in respect to softer forms of separation (like functional separation) than to full ownership separation.

Although they may have more intrusive and less proportionate effects than their behavioural counterparts, it has also been argued that their clear and definite nature may prove to be less invasive in the long run than the long-lasting, detailed commitments that behavioural remedies involve. See (OECD, $2011_{[10]}$), at p. 9.

Structural remedies have been also criticised for their capacity to affect the functioning of markets in unpredictable ways and for the likelihood that they are imposed without a clear view of the way in which the market will naturally evolve. This uncertainty can have a negative impact on firms' incentives to invest (OECD, 2011[10]).31

Carrying out the structural separation of two economic activities is not a straightforward exercise: there are many degrees of segregation (Cave, 2006_[19]), between integration and full ownership separation.

The inherently intrusive and dramatic nature of structural remedies into operations of companies has made governments very careful about the use of such remedies, resulting in the use of structural remedies for abuse of dominance being relatively rare and used only in exceptional circumstances.

Structural remedies can be classified or organised in different manners; for example, in the past, the OECD has divided structural remedies used by public authorities for promoting competition in regulated industries into three categories - ownership separation, club ownership and operational separation (OECD, 2006[18]). However, for the sake of completeness, this report will classify the different structural separation methods into more specific categories according to the intensity of the separation involved. The following paragraphs will discuss each of these different forms of separation, ordered from the weakest (accounting separation) to the most intensive form (full ownership separation).

Box 2.7. Forms of separation (Cave, 2006[21])

- Accounting separation
- Creation of a wholesale business division
- Virtual separation
- Physical business separation
- Business separation with localised incentives
- Business separation with separate government arrangements
- Creation of a separate legal entity
- Full ownership separation

Investment in infrastructure development may be negatively affected by structural separation, due to several reasons: firms may prefer to abstain from investment if the implementation of structural separation entails some degree of uncertainty, or in network industries the operator may lack incentives to invest in infrastructure when separation has already been implemented. These effects are particularly relevant for industries that require intensive investment, such as the energy markets. The effects of uncertainty can be overstated, however, notably when the divested asset's full market value is secured. However, it is possible that structural separation actually produces the opposite effect, fostering investment in situations where a vertically integrated firm that is obliged to grant access to its infrastructure to competitors has attempted to circumvent these obligations by engaging in strategic under-investment. Moreover, the arrival of new entrants to the competitive activities may lead to new investments. See (OECD, 2011_[10]), at p. 15 and at p. 111 for examples.

Under accounting separation, separate accounts (profit and loss statements and balance sheets) are kept for different activities within the same firm, which remains otherwise integrated. The competent authorities can use this form of separation to force firms to offer goods or services in relatively equivalent conditions (i.e. in non-discriminatory terms)³², although firms do not have an explicit obligation to avoid the discrimination of competitors downstream – a conduct that may distort competition, as described in section 1.2 above. In fact, it has been argued that while accounting separation can be helpful against price discrimination, it may be insufficient against non-price discrimination³³ practices, which may require more intense forms of separation (OECD, 2011[10]).

Box 2.8. European Commission Cable Directive

The European Commission Directive 95/51 required a clear accounting separation between telecommunications services and cable television network. The accounting separation was a minimum requirement to increase transparency and avoid cross-subsidisation between the two activities.

In June 1999, the European Commission adopted another Directive (1999/64/EC), which imposed legal separation between the two operations, recognising that accounting separation was not sufficient to stimulate competition.

The Directive states that "Notwithstanding the requirements of Community Law with regard to accounting separation ... in situations where serious conflicts of interest exist as a result of joint ownership, such [accounting] separation has not provided the necessary safeguards against all forms of anti-competitive behaviour. In addition, the separation of accounts will only render financial flows more transparent, whereas a requirement for separate legal entities will lead to more transparency of assets and costs, and will facilitate the monitoring of the profitability and the management of the cable network operations."

In the European Union, accounting separation was required for incumbent energy firms by the First Electricity and Gas Directives (published in 1997-1998), whereas the Third Energy Directives (published in 2009) eventually required more severe separation measures, and in some cases, full ownership separation. These were regulatory measures and not actions by a competition law enforcer. However, it often serves as a preparation or prelude for more intense forms of separation, which will be described below.

One step further in this direction would be the *creation of a wholesale business division*, as will be exemplified by the Australian example of Telstra (see Section 4.1.2). The separate wholesale division would be in charge of supplying external demand, whereas the firm's own internal demand would be handled by a different division within the company's integrated structure. This solution, however, has been criticised for being ineffective and promoting discrimination, because it increases differences between the incumbent and its competitors (Cave, 2006[19]).

Relevant authorities may choose to require firms to avoid discriminating between internal and external demand without requiring them to physically separate the production

³² Ibid.

An example could be technical sabotage in telecommunication.

processes. This virtual separation would have the advantage of being less costly than other measures involving the physical separation of assets. However, so far it has not been possible to test its effectiveness. It can be argued that this form of separation would also be subject to important limitations, such as the fact that competitors are unlikely to find incentives to invest in the concerned production processes.³⁴

A more substantial degree of separation would be that of physical business separation, namely the separation of specific assets into a separate unit that tends both to internal and external demand in an equivalent, non-discriminatory way. Different production factors can be subject to this separation (such as premises, workforce, brand, or management information systems), which can give rise to different intensity of separation under this structural remedy.

Box 2.9. Telecom Italia physical business separation

In 2002, Telecom Italia (TI), an Italian telecommunications firm providing telephony, mobile, and DSL data services, underwent the separation of its fixed network by decision of the Autorità per le Garanzie nelle Comunicazioni (AGCOM), the Italian regulator and competition authority for the telecommunications sector (Decision 152/02/CONS). This decision mandated the vertical separation of TI with the purpose of guaranteeing effective non-discriminatory treatment for the supply of TI's wholesale network services. Among other measures, AGCOM mandated the physical separation of TI Wholesale employees and management from TI Retail (who serves end users), as well as the physical separation of the wholesale and network systems from the retail system, so that the retail units could not have access to data on wholesale and network operations. This separation was articulated in practice by a number of measures, including the creation of dedicated data management systems protected with single operator passwords, the introduction of firewalls, the restriction of access to these systems to only authorised employees and the tracing of access to the data contained in said systems.

Business separation with localised incentives takes the previously described measure one step further, since it entails providing incentives to the senior managers of the separated entity to prevent them from privileging group shareholder value over the interests of the separated entity; i.e. to avoid the discrimination of competitors in the downstream market. An example of this type of separation is provided by the case of British Telecom, as described in Box 2.10. The chasm between the main group and the separated division can be deepened by providing the latter with a board of directors independent from that of the group, i.e. by performing business separation with separate governance arrangements.

Box 2.10. BT separation with localised incentives

In 2005, British Telecommunications (BT) offered a number of undertakings to the Office of Communications (the independent regulator and competition authority for the UK communications industries, hereinafter Ofcom) in the context of an infringement procedure.

The effect of structural separation on corporate incentives to invest in regulated industries was dealt with in the (OECD, 2011[10]) report, which was moreover accompanied by an update to the Recommendation reflecting these new considerations.

BT established a division providing access services, Openreach, operationally separated and set on physically separated premises. Openreach was to provide access to key products to external customers in conditions of full equivalence to those enjoyed by BT; in order to monitor compliance with this undertaking, an equality access board (with a majority of independent members) was established. Openreach employees would receive incentive remuneration reflecting solely the objectives of Openreach, rather than the maximisation of the group shareholder value (OFCOM, 2014[22]).

In March 2017 BT agreed to the legal separation of Openreach which became a distinct company with its own staff, management, purpose and strategy.

The highest degree of operational separation, short of full ownership separation, is the creation of a separate legal entity under the same ownership but counting on both a separate board and separate statutory accounts. The separation of TeliaSonera provides an example of this (see Section [4.1.3]).

Box 2.11. Type the title here

In December 2016, AT&T notified the indirect acquisition – through WMS – of all the businesses of Time Warner in Mexico.

AT&T, through DIRECTV, controlled 41% of Sky, competitor of Time Warner.

The IFT, as a consequence of the notification, identified horizontal and vertical effects between the activities of AT&T and Time Warner in the sector of the telecommunications and radio diffusion:

- Vertical integration between the production and distribution of audio-visual contents (Time Warner) and the offer of STAR (Sky Mexico).
- Overlap between the activities of Time Warner and DIRECTV, as the latter is owner of Golf Channel.
- Vertical integration between the production and distribution of audio-visual contents (Time Warner) and the offer of telecommunication services, mainly mobile.
- In order to avoid co-ordination and the distortion of competition the IFT, among other remedies, imposed the following:
 - AT&T and Time Warner were required to establish and enforce protective measures aimed at avoiding exchanges of information for anti-competitive purposes between Sky Mexico and AT&T/Time Warner through board members, managers or other staff with access to privileged information. Likewise, Time Warner and AT&T content distribution business personnel could not be members of the board of SKY Mexico.
 - AT&T was obliged to establish and implement effective protection measures in order to prevent the information of the businesses of HBO LAG (a joint venture in which Time Warner participates that distributes certain contents in Latin America) were unduly shared with Sky Mexico and vice versa, through board members and employees.

Source: P/IFT/150817/487

Finally, full ownership separation eliminates firms' incentives to discriminate. Firms are requested to discontinue a certain part of the business or to sell it to a third party. Full ownership separation measures have also been referred to as pure structural remedies (See AT&T case, Section [4.1.1]).

In regulated industries, ownership separation allows for lighter forms of regulation in downstream entities, particularly as it helps remedy the issue of cross-subsidisation (OECD, 2006_[18]). However, this process may entail high separation costs together with a loss of economies of scope or scale and the issue of double marginalisation (if the downstream market is not competitive), that might result in a negative effect on consumers ((OECD, 2001_[7]) contains details on the economies of scope arising from vertical integration). However, structural separation may still lead to economic benefits despite these costs (see (OECD, 2011[10]), for a detailed discussion of these issues).

This process generally entails divestitures, namely the sale of one or more activities or physical assets, the division of firms, the licensing of intellectual or industrial property rights, and/or the disposal of equity interests. Horizontal divestitures entail the transfer of existing assets to actual or potential competitors, or, alternatively, the breaking up of the firm concerned, resulting in two or more separate firms being created from the assets of the original company. Divestitures may also be vertical, in which case separate companies at different stages of production will be created (OECD, 2011_[10]). Divestitures constitute the most common structural remedy in cases where competition concerns arise from horizontal market structures (ICN, 2016[13]); however, their intensity may vary. For instance, in the European Union, most competition remedies imposed under the formal settlement procedure have shied away from full divestitures, mostly stopping instead at weaker forms of separation (Alexiadis, 2013_[20]).

The effectiveness of the weaker forms of separation against anti-competitive practices or market conditions have been questioned, since they do not alter the market's structure and their impact on firm incentives is limited (OECD, 2001_[8]) (OECD, 2001_[7]).

2.3.1. Structural remedies in mergers

The application of structural remedies is rarely adopted in abuse of dominance cases. In Mexico, structural remedies have never been adopted in an abuse case. However, competition authorities around the world, including in Mexico, have long adopted structural remedies as a condition to approve mergers or to solve market failures identified in a market investigation.

This section has the objective to shed some light on the application of structural remedies in mergers, reporting the most interesting cases in Mexico and around the world.

The European Commission³⁵ has expressed its preference to the adoption of structural remedies compared to behavioural ones, because the former affects market structure and does not require comparable monitoring when compared to the latter. At the same time, the Commission highlighted the importance of identifying the appropriate business to divest and the appropriate purchaser. In particular, the activity to divest has to be a reasonable and valid business which, if bought by a competent purchaser, it is able to exert competitive pressure on the merged unit.

³⁵ http://ec.europa.eu/competition/mergers/legislation/files_remedies/remedies_notice_en.pdf

The strength of structural remedies is due to their 'one off' impact on the market, so it is important to include a non-reacquisition clause, to avoid vanishing the effect of the decision.

Box 2.12. Staples/Office Depot merger

Staples and Office Depot are the two largest companies in Europe, supplying office products through wholesale, retail, direct sales and contracts channels.

The European Commission (EC) analysis established that the supply by contracts was a relevant market, considering the lack of substitutes of this channel for high volumes and high frequency customers.

The EC found that in the European Economic Area (EEA) the three main competitors were Staples, Office Depot and Lyreco. Similar context was found in Sweden and Netherlands were only few other companies were able to constitute a competitive threat to the merging parties.

Staples and Office Depot proposed to divest:

- The entire Office Depot contract distribution business in the EEA and Switzerland; and
- The entire Office Depot business in Sweden

The EC cleared the merger, because it considered that the commitments offered by the parties solved all the competition concerns raised by the merger.

A similar approach on structural remedies is taken in the United States by the Department of Justice, where structural remedies "are preferred to conduct remedies in merger cases because they are relatively clean and certain, and generally avoid costly government entanglement in the market''. 36

The Federal Trade Commission has also expressed similar views on structural remedies in mergers stating that "most orders relating to a horizontal merger will require a divestiture".37

Department of Justice, Antitrust Division Policy Guide to Merger Remedies, 2004. https://www.justice.gov/atr/archived-antitrust-division-policy-guide-merger-remedies-october-2004

https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrustlaws/mergers/merger-faq

Box 2.13. Dow/DuPont merger

Dow Chemical and DuPont are two of the biggest chemical companies in the world.

In September 2017, a merger between the two was completed, following the Department of Justice having approved the deal subject to conditions.

The DOJ's investigation concluded that the deal in its original form would have damaged competition in the market of insecticides and herbicides. Thus, it required a number of conditions in order to clear the merger, including the divestment of DuPont's market-leading Finesse and Rynaxypyr crop protection products. The divested assets were estimated by the Department to have combined annual sales of over USD 100 million (US dollars).

This merger was also reviewed by the European Commission which cleared the deal subject to similar conditions.

Regarding the Mexican experience, the COFECE has not expressed any preferences on the adoption of structural or behavioural remedies in mergers. However, its "Guidelines to mergers notification"³⁸ explain that structural remedies are normally applied in horizontal mergers, while behavioural remedies in vertical mergers. In its guidelines to merger controls IFT does not explicitly recommend the application of a particular type of remedy as it promotes a case-by-case approach.³⁹

Box 2.14. Aeromexico/Delta merger

In March 2015, Aeromexico and Delta notified to COFECE their intention to enter into an alliance to jointly operate all flights between Mexico and United States.

The deal included the following points:

- co-ordinated prices
- total co-operation in the sale, commercialisation and distribution of tickets
- sharing of flying codes
- sharing airlines ground services

In its analysis, the Authority found that the proposed merger could have reduced the competitive pressure on flights between Mexico and United States, mostly considering the barriers to entry at the International Airport of Mexico City.

Thus, COFECE cleared the deal under the following conditions:

- The sale of two slots used by Delta at the International Airport of Mexico City to a potential competitor.
- One company renouncing to the route that they both operate under the valid "Convenio Bilateral Aereo".

³⁸ https://www.cofece.mx/cofece/index.php/normateca

³⁹ www.ift.org.mx/sites/default/files/conocenos/pleno/sesiones/acuerdoliga/pift280617368c anexo.pdf

Chapter 3. Choice of remedy

The previous sections have explained the characteristics of behavioural and structural remedies, with a focus on their application to competition cases. Since both types of remedies entail different costs and benefits, careful consideration as to the advantage of using one, the other or both is necessary. The following paragraphs contain an overview of the main considerations affecting the choice and design of remedies.

3.1. A balancing act

Whereas remedies in general are aimed at successfully solving competitive concerns in a given market, the characteristics of each individual case, which may range in complexity, call for diverse specific solutions. The relevant authorities must carefully balance the benefits and costs of each type of remedy in order to design an effective and proportional approach capable of addressing the competition concerns while reducing undesirable side effects. A relevant authority may therefore choose to impose structural remedies, behavioural remedies, or a combination of both, depending on the factual circumstances.

The OECD Recommendation (2001[8]) constitutes an attempt to shed light on this task in the context of market liberalisation and of companies that engage in both competitive and non-competitive activities. It identifies a number of factors that should be taken into account when deciding on the application of structural or behavioural remedies. These factors include "the effects on competition, effects on the quality and cost of regulation, the transition costs of structural modifications and the economic and public benefits and costs of vertical integration". The relevant authorities must identify which costs and benefits must be balanced in the framework of the relevant industry and its economic characteristics, on the basis of principles defined by each jurisdiction. This exercise is particularly recommended in the context of privatisation, liberalisation or regulatory reform.

For example, when deciding whether to apply structural separation measures on a vertically integrated firm, the relevant authorities may have to consider the potential benefits arising from increased competition (e.g. no more foreclosure) (OECD, 2011_[10]) with the potential losses in efficiencies of scale or scope resulting from the structural separation (OECD, $2016_{[21]}$).

The relevant authorities may also have to take into account the fact that the costs and benefits of a remedy may change when that remedy is coupled with other types of remedies. For instance, although structural remedies are generally considered to be less costly to apply than their behavioural counterparts, when they are accompanied by an ancillary behavioural measure, the administrative burden of design, implementation and oversight might be significant (OECD, 2006_[1]).⁴⁰

Note that mandatory licensing, if considered to be a structural remedy, has its own drawbacks. Firstly, it requires the involvement of competition authorities or courts in setting the

It has been recommended that the relevant authorities assess the side effects that a particular remedy is likely to cause, consider alternatives, and also weigh in the consequences of inaction ((OECD, 2006_[1])and literature cited therein). This exercise should begin with the comparison of the available alternatives, which then would lead to the choice of remedy (OECD $(2006_{[1]})$, citing Cavanagh $(2005_{[22]})$).

There is no general rule permitting authorities to determine whether structural separation is more beneficial than other types of remedies in any given situation, although neither is there evidence that structural separation can be deemed to be a priori problematic (OECD, 2011_[10]); (OECD, 2016_[21])). Ultimately, the design of a remedy comes down to careful balancing by the authority, rather than to the application of an automatic formula. Although this balancing act is not often straightforward, it is of great importance. Should a remedy be inadequate – for instance, should it be excessively light-handed, harsh, untimely, difficult to implement or improperly enforced – the harm to competition that the remedy tried to address might continue to exist. Moreover, competition might be additionally harmed (beyond the prior status quo) by a remedy that prevents firms' behaviour that would benefit consumers (OECD, 2006[1]).

3.2. Dual and hybrid remedies

The choice of remedy needs not to be restricted to a single type of measure. Dual remedies mixing structural and behavioural solutions are possible, for instance, in cases where multiple markets are involved and different types of remedies are required for each market or product.41

Structural measures may also find a helpful complement in behavioural remedies. For instance, a divestiture order may be coupled with a prohibition to buy back divested assets, or with a ban on divested entities from granting preferential treatment to each other. 42 Behavioural remedies can also be useful as interim relief before structural measures become fully operative (ICN, 2016_[13]). Behavioural remedies may also provide a guarantee that divested businesses remain viable, particularly in the absence of suitable buyers (Ezrachi, 2005[12]).

The line dividing structural remedies from their behavioural counterparts is not clear; there is no generally accepted definition of what constitutes a structural remedy as opposed to a behavioural one (Maier-Rigaud, 2013[16]). The distinction can come down to a matter of degree. For instance, it has been argued that the characteristics of some behavioural remedies make them equivalent to divestitures in practice: (Waller (2003_[23]), notes that "simply put, disclosure is divestiture when it comes to our high-tech information-based IP economy"), 43 to the extent that some authors refer to "quasi-structural" or hybrid remedies

licensing terms and eventually in monitoring compliance, in order to prevent the licensor from circumventing the remedy. Mandatory licensing may also eliminate incentives to innovate both on the part of licensors and on that of licensees (see OECD (2006[1])). Access to essential facilities is required to be able to provide goods or services in a related, downstream market, while it is not economically efficient or feasible for new entrants to replicate the essential facility.

See United States v. Microsoft Corp., 97 F. Supp. 2d 59 (D.D.C. 2000), which involved a combination of both structural and behavioural remedies.

⁴² Other limitations could affect the degree of communication between entities.

(Alexiadis, 2013_[20]). One example of these would be access remedies, which entail allowing competitors access to an essential input or ensuring that all or some of a firm's products, services or platforms are compatible or interoperable with those of access seekers. Examples might be the Intel/McAfee and the Microsoft 2004 cases in the merger and antitrust space respectively.

Depending on the case at hand, these remedies may be classified as one-off structural remedies or, if differently administered, as behavioural remedies on the basis of the ongoing implementation and periodic monitoring that might be necessary (Ezrachi, 2005_[12]). The term *quasi-structural* remedies, used by some commentators, arises from the fact that, although they do not entail a full divestiture, their impact on industry structure and on the industrial organisation of the concerned firm places these remedies beyond the average behavioural measure (Alexiadis and Sependa (2013_[20]) note that in the European Union, most competition remedies imposed under the formal settlement procedure have shied away from full divestitures, mostly stopping instead at quasi-structural measures). Moreover, there is no clear answer to the question of whether measures weaker than full ownership separation can be classified as structural measures ((OECD, $2016_{[21]}$), and (OECD, $2011_{[10]}$)), with some authors preferring to use the term *pure* structural remedies in case of divestiture.

The exact place where the line dividing structural remedies from behavioural ones lies can be qualified as a "semantic question". From the economic and policy perspective, the relevant issue is to which extent the measures in question provide an effective and durable solution to competition problems ((Lévêque, 2000_[24]), and (OECD, 2016_[21])). However, this report will not deal with these matters in detail, focusing instead on whether these measures can constitute useful remedies for the purposes of protecting, restoring or creating competitive conditions in a market. For the purpose of clarity, it will continue to differentiate behavioural and structural remedies.

3.3. A matter of time

As a first step in the process of designing a remedy, authorities may find it helpful to begin their considerations at an early stage in the investigative process, in order to avoid a situation where, after the investigation process has been finalised, there is no specific plan on what the remedy's objectives would be or how they can be attained. Acquiring an in-depth understanding of the relevant industry and how its development may be affected by the application of different remedies is also advisable (OECD, 2006[1]). However, the short period of assessment granted to authorities may not be sufficient to gather the information needed to design an effective remedy, namely a proper understanding of the relevant sector or business model. This in turn can provide the basis for an inefficient or ineffective remedy (Ezrachi, 2005[12]).

3.4. Mandatory and voluntary remedies

Remedies may either be required by the relevant authorities, or take the form of commitments submitted by firms on a voluntary basis and accepted by the relevant authorities in a commitment decision, which makes them binding.

The imposition of remedies is likely to occur in regulated sectors in case of significant changes such as privatisation or liberalisation (OECD, 2001[81). Mandatory separation imposed by means of legislation has been the most common method for implementing structural separation in the energy sector, especially in the framework of the EU liberalisation programme for energy markets (OECD, 2011[10]).

Firms themselves may propose commitments involving separation on a voluntary basis. Experience suggests that voluntary structural separation is often undertaken by integrated firms, at least in regulated sectors. For instance, in the United Kingdom, the telecommunications incumbent voluntarily offered to implement functional separation in 2005 (OECD, 2011_[10]), as did the Swedish firm TeliaSonera, as explained in Box 4.1.3 below. However, these voluntary mechanisms normally come into play when the possibility of separation is already being considered by the relevant authorities (See (OECD, 2016_[21]) and (OECD, 2011_[10])). For instance, in the European Union, structural remedies in antitrust cases have been mainly established in commitment based decisions (Alexiadis, 2013_[20]).⁴⁴ This type of negotiation often offers both the authorities and the concerned firm(s) a number of benefits over forced measures, such as a reduced likelihood of private damages claims, an expedited resolution of the cases and a reduction in costs (ECN, 2013_[25]). A firm voluntarily offering structural separation commitments may therefore wish to avoid a competition investigation or to put an end to an existing one. Firms themselves may choose to separate in order to avoid the imposition of more intense degrees of separation. They may find that structural separation places fewer demands on firm operations than burdensome behavioural measures; in certain market conditions, separation may constitute the highest yielding business option (OECD, 2011_[10]). In this sense, it can be argued that, whereas behavioural remedies place constraints on firms without providing for compensation, divestitures are remunerated, since firms obtain economic compensation from the sale of their assets (Maier-Rigaud, 2013_[16]).

It is also important to underline an aspect of structural remedies when they require the sale of an asset: the choice of the purchaser and the condition of sale. Authorities around the world have produced guidance on this point which all concern merger cases. For instance, the European Commission has remarked on the importance of finding a suitable purchaser, which will exert competition pressure in the market. ⁴⁵ According to the European guidance, a suitable purchaser is an entity not linked to the merging parties, able to compete in the market (financially and in terms of know how) and unlikely to raise further competition issues.

Similar criteria are applied by the UK Competition Authority, which in the merger guidelines establishes that a suitable purchaser has to be independent from the merging parties, able and commit to compete, and not susceptible of creating any competition or regulatory concerns.

The guidance from the FTC is slightly different. While the guidelines keep some of the criteria mentioned above such as purchaser's financial ability and ability to compete, they also partially address the issue of the price at which the asset should be sold.: "The

Note that the majority of competition cases in the EU (other than cartel cases) have been handled through the formal commitment procedure, instead of infringement procedures.

Commission notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004.

Commission does not typically evaluate the proposed purchase price, but an offer to pay a price that is less than the break-up value of the assets may raise concerns about the buyer's incentives to compete and its commitment to the market".46

It seems there are not specific guidelines to establish the price of assets in the context of structural remedies.

3.5. Proportionality

As a general rule, remedies should be proportionate to the situation they are intended to address. In other words, a remedy's scope and form must not go beyond what is necessary to fulfil its objectives. The remedy is adjusted according to the disruption of competition found, the harm or potential harm caused, and the ways in which it is caused - and not others. A proportional remedy does not attempt to make the market more competitive than it would have been absent the situation or conduct it is trying to address.⁴⁷ As noted by Posner (Posner, 2001_[26]), "the problem (...) is that if narrowly drawn to avoid preventing legitimate competitive activity by the defendant, it is likely to be porous and ineffectual, while if it is broadly drawn to close up all possible loopholes it is likely to handicap the firm in competing lawfully". A proportional remedy should also be capable of deterring future anti-competitive behaviour (even if, as noted in Chapter 2., deterrence does not necessarily constitute one of the essential objectives guiding the design of remedies); however, it should avoid under-deterrence, which reduces the effectiveness of the remedy, and also over-deterrence, which has the potential of discouraging firms from behaving in an competitive way (OECD, 2006[1]).

Although there is no generally accepted way of measuring proportionality (OECD, $2006_{[1]}$), in general the greater the harm to competition, the harsher the remedial measures.. In practice, this means that in cases where the harm to competition arises from the market's structural conditions, deep-rooted structures and entrenched situations will require more radical and far-reaching measures than harm to competition arising from more superficial causes. However, we have to remark that these are not antitrust cases.

In infringement cases, where the harm to competition arises from a firm's misconduct, rather than from a market's structural conditions, the remedy must be proportional to the misconduct: the more serious the offence, the harsher the remedy that must be imposed (Sullivan, 2003_[27]). Moreover, other factors specific to the firm's behaviour, such as the strength of evidence or recidivism must be considered in the proportionality assessment (Cavanagh, 2005_[22]).

Given the substantial government constraint on use of private property implied by structural remedies in antitrust cases, the proportionality principle would suggest that the imposition of structural remedies occur only in extreme circumstances and, consequently, on an infrequent basis.

Proportionality is not an objective of remedial action per se, and as such is not included in the remedy objectives described above; however, it is a desirable (and, in some

Statement of the federal trade commission's bureau of competition on negotiating merger remedies.

However, this point is debated. ⁴⁸ OECD (OECD, 2006_[1]).

jurisdictions, mandatory) quality, since it can enhance the effectiveness of remedies (OECD, 2006_{11}). This is the case for several reasons.

Firstly, addressing the harm to competition with the right amount of strength is a defining trait of an appropriate remedy; i.e. a remedial measure that is not too strong or too weak. Secondly, proportionality tends to be synonymous with consistency; therefore, respecting the proportionality principle not only increases the remedy's chances of success, but it also increases legal certainty by reducing arbitrariness. This might have a positive impact, for instance, on incentives to invest making the remedy process more predictable. And finally, it can also have a positive impact on public opinion, since it conveys the message that all firms receive air and impartial treatment (OECD, 2006_[1]).

The principle of proportionality has been recognised by some jurisdictions, such as the European Union, which has established an express requirement that remedies be proportionate to the situation at hand, as will be discussed below in Box 5.1 (relative to the application of Articles 7 and 9 of Regulation 1/2003 and related case-law). In other jurisdictions, like in the United States, there is no formal recognition of this principle, although it is respected (Cavanagh, 2005_[22]) and it has played a role in the development of jurisprudence (Sullivan, 2003_[27]). In Mexico, the FECL (Article 94.VII.d) includes a suggestion of the principle of proportionality in the application of structural separation as a competition remedy, noting that it must be done "in the necessary proportions to eliminate the anticompetitive effects", as well as that it can take place "when other corrective measures are not sufficient to solve the identified competition problem". Art. 91 instead explicitly mentions proportionality as a principle to be applied by the Authority in the measures imposed or accepted in a merger proceeding.

Minimising harm to the economy as a whole is a consideration that underlies the application of the proportionality principle. Markets can be harmed as a result of imposing too light a remedy, which risks perpetuating anti-competitive situations in the long term, or a remedy that is too strong, which might destroy efficiencies or choke off incentives to innovate. The remedy must also be crafted so as to take into account whether the conduct or situation at stake has or can have procompetitive consequences. When possible, the remedy should be designed to preserve those benefits, avoiding excessive deterrence that might chill procompetitive outcomes (Cavanagh, 2005_[22]).

Precisely for the purpose of minimising harm to the economy, authorities may engage in welfare balancing exercises by considering the procompetitive effects of a firm's conduct as alleviating circumstances leading to a lighter remedy (OECD, 2006_{III}). However, the exact measure of the magnitude of these changes, and therefore the weighing of their comparative effects, might prove extremely difficult and, even if some commentators have advocated for this exercise, its appropriateness remains doubtful. This is due to the fact that the subjectivity and lack of precision of welfare balancing can erode the legal certainty and objectivity that forms the basis of the proportionality principle itself.

The imposition of lighter remedies under the proportionality principle could also be justified in cases where a conduct or situation raises doubts as to whether it effectively causes harm to competition, notably when there is no similar precedent, as opposed to a situation or conduct that has been repeatedly found to harm competition by the relevant authorities.

Proportionality is of particular relevance to the choice of structural remedies. Assuming they may be more disruptive to a firm's business than behavioural remedies, 48 structural remedies are generally considered to be a measure of last resort. Behavioural remedies are the default solution in some jurisdictions, with structural remedies being allowed only when there is no similarly effective behavioural remedy available (this preference may be articulated by a legally binding instrument or it may reveal itself through institutional practice).⁴⁹ In Mexico, this subsidiarity is provided for by Article 94.VII.d of the FECL. For this reason, the use of structural remedies is generally subject to conditions (see (OECD, 2006[1])): they must be effective, necessary and proportionate. Firstly, the structural remedy under assessment must be capable of remedying the obstacle(s) to competition. Secondly, structural remedies must be necessary to address the competitive harm, and lastly the proportionality requirement, as applied to structural remedies, means that their scope and form must not go beyond what is necessary for the attainment of their goal. The greater the competitive harm, the stricter the structural measure must be. This ensures not only that the remedy will be appropriate for the situation at issue, but it also makes the imposition of remedies less arbitrary and thus more predictable (OECD, 2006[1]). Therefore, when two types of remedies are equally effective, the less burdensome measure for the concerned firm(s) will be preferred (ECN, 2013[15]).

However, as noted above, implementing proportionality is not a straightforward exercise. Even when taking all these factors into account, it can be difficult for an authority to apply it to each particular case (OECD, 2006b).

3.6. Future development of the market

When crafting a remedy, authorities must take into account how the market might evolve in the future. In fast-paced, quickly-changing markets, like high-tech ones, a remedy that is appropriate today might not be so in a year's time. Even in more entrenched markets, an innovation - with the potential of changing the playing field in the future - might have been introduced without having produced its effects at the time the remedy was imposed. Circumstances might have changed significantly between the time the investigation started and the time the remedy began to be designed, or along the course of the remedy's implementation, rendering it irrelevant or ineffective over time. It can even be the case that what causes anti-competitive effects at one point in time might end up having pro-competitive effects in the future, for instance due to the evolution of technology (OECD, 2006_[1]). A remedy that does not appropriately take into account the likely ways in which a market might evolve can therefore work against competition.

3.7. Enforcement and monitoring

Finally, authorities must bear in mind enforcement and monitoring, for two different reasons. On the one hand, enforcement and monitoring costs must be considered and weighed against the expected benefits to competition (Cavanagh, 2005[22]). This is particularly relevant with regard to behavioural remedies, which, as noted in Chapter 2.2, entail high monitoring costs and likely disputes about the exact terms of their

⁴⁸ OECD (OECD, 2006[1]).

Note that with regard to merger remedies, the opposite solution is sometimes preferred; for instance, in the European Union, structural remedies are preferred over behavioural remedies when possible.

implementation. These considerations can bear heavily on the proportionality principle: the difficulties linked to the implementation and monitoring of behavioural remedies may lead authorities to under-prescribe them, opting for a more straightforward, but potentially excessive, structural remedy (Ezrachi, 2005_[12]). However, albeit to a lesser extent, the same holds true with regard to structural remedies – not only because their implementation can still be subject to some extent of circumvention, but also because they are often required with complementing behavioural remedies (Sullivan, 2003_[27]).

Authorities are therefore encouraged to design remedies with a view of facilitating and optimising their proper implementation, for instance by anticipating a firm's strategic reaction to the remedy, taking into account whether the concerned market players have a history of misconduct, attempting to foresee and minimise any potential negative side effects of the remedy that might detract firms from adequately implementing it, or creating a practical implementation framework that anticipates the difficulties that are likely to arise (OECD, 2006_{[11}).

On the other hand, authorities may also want to consider the possibility of monitoring not only compliance with the prescribed remedy, but also the performance of the remedy over time. Although competition authorities do monitor compliance with remedies, they do not tend to closely monitor the effectiveness of these remedies. This is in spite of the many potential benefits that such exercise would bring about for the purposes of choosing and designing remedies in the future. Moreover, remedies may become ineffective over time as market conditions develop (OECD, 2006[1]). Authorities would therefore be advised to monitor the effectiveness of remedies, in order to take it into account the learnings from such monitoring when choosing and designing remedies for comparable circumstances in the future.

3.8. Situations that may call for the imposition of structural remedies

Structural remedies, as noted above, are applied by the relevant authorities in situations where a market's structure needs to be modified or preserved in order to prevent, or correct, market failure or market inefficiencies.

The situations that can give rise to the imposition of remedies are varied and may overlap. It is important to note that only a small number of OECD member countries have structural separation remedies available to competition authorities for abuse of dominance (see OECD (2011_[10]), which contains a detailed account of the structural separation remedies available under national law in OECD jurisdictions). Even among countries whose legal regimes provide for their imposition, the cases in which structural separation can be applied differ; in many jurisdictions it can be used in response to a competition violation such as abuse of dominance cases, whereas in others it can be applied to preserve or modify a competitive market structure without an actual competition law infringement (e.g. liberalisation of utilities sectors).

Competition remedies are applied, essentially, in mergers, competition violation cases, and in those scenarios where competition is negatively affected by structural market problems.

Both behavioural and structural remedies are frequently applied ex ante in merger cases in order to prevent the concentration from negatively and significantly affecting the competition conditions in the concerned market, generally by avoiding the increase of market power susceptible of raising competition concerns.

Relevant authorities have used remedies - albeit less often - to bring violations of competition law to an end, as well as to prevent this type of conduct from taking place again, thus restoring and preserving the competitive conditions in a market. 50 For instance, the divestiture of assets can constitute an effective remedy in certain cases involving abuses of dominance or co-operation agreements⁵¹. In particular, when competition rules are breached by a vertically integrated firm, structural separation may accurately target and durably solve the issues (OECD, 2011_[10]). The European Union and the United States provide some examples of the use of remedies against violations of competition law.

Box 3.1. Structural remedies as a response to competition infringements.

Although the use of remedies in competition infringement cases is less frequent than in other situations, there are several instances of their use by different authorities.

In the European Union, quasi-structural remedies have been imposed in the framework of abuse of dominance and vertical and horizontal anti-competitive agreements; structural commitments have also been applied in EU State Aid cases.

In the United States, courts have been reluctant to order divestitures in monopolisation cases, contrary to their attitude with regard to merger cases (Waller, 2003_[23]). The US Supreme Court, however, ordered a divestiture in order to create competition in a market in the 1972 Otter Tail case, where an electrical transmission company was required to sell power to public municipal electrical distribution companies. In the Alcoa case, a declared monopolist was also accused of other competition violations. After long standing litigation, the US Congress stepped in and ordered the divestiture of some of Alcoa's businesses, which was followed up later by Court and legally ordered divestitures (Waller, 2007_[28]). The separation of AT&T in the United States further exemplifies the use of structural separation in the context of competition law enforcement.

Remedies are also a useful resource for the relevant authorities in the presence of structural market problems that have a negative impact on competition and the efficient functioning of the market. In these cases, structural remedies can be more likely to be imposed than behavioural remedies, following the approach that structural barriers to competition call for structural solutions (ECN, 2013_[15]).

These structural issues are usually detected following a market study. A market examination can be defined as "an inquiry into a particular market or sector of the economy, or into a particular cross-cutting issue presents in various markets, when there is a suspicion or indication of distortions or restrictions that cannot be assigned to a particular market participant" (OECD, 2016_[2]). Market studies are used for identifying market structures,

See (ECN, 2013_[15]) and (OECD, 2011_[10]). These cases may also require the application of behavioural remedies, which have been often used to some success in concentration control and abuse of dominance cases (See (OECD, 2006[1]) and Monti (2013[14]). In Mexico, behavioural remedies (such as cease and desist orders, prohibitive duties and affirmative obligations such as granting low interconnection rates or implementing compliance programs) have been often applied to abuse of dominance cases and commitment decisions. See (COFECE, 2016_[60]).

A case where direct competitors set up a joint venture in the market where they are all active constitutes another example where separation of assets (in this case, of the joint venture), can effectively improve the competition conditions in the market. See (ECN, 2013_[15]). These cases, however, are not frequent; see (OECD, 2006[1]).

regulation and conduct that need to be eliminated, or corrected, because they affect market performance to the detriment of consumers.

There are certain sectors that have proven to be a more fertile ground for the application of structural remedies than others. The fact that structural separation measures have not been uniformly applied across different economic sectors is likely to be an indication of how the choice of remedy, and particularly the cost-benefit analysis that it entails, may lead to different results depending on the economic sector (OECD, 2006[18]); in particular, the extent to which the benefits arising from increased competition are passed on to consumers can be influenced by the nature of the concerned sector.

The main two sectors in which pure structural remedies (divestitures) tend to be applied are network industries and sectors where state-owned monopolies have given way to privatisation, in particular when utilities are involved.⁵² Regulated industries are particularly prone to structural barriers to competition, due to certain characteristics that, without being unique to these sectors, are particularly likely to be present in them. Some commentators have even made reference to a "natural affinity" existing "between structural remedies and privatised former state-run monopolies, particularly those with the character of a utility" (Alexiadis, 2013_[20]).

A paradigmatic US case involves the telecommunications industry, with the divestiture of the Bell System agreed in 1984, noting that this is the only such competition law case in recent US jurisprudence. The European Union provides several examples of cases in which structural or quasi-structural remedies have been applied in the context of network industries, as described in the box below.

Box 3.2. Application of structural remedies in network industries. Example of the European Union.

In the European Union, structural remedies have been applied in cases in which the European Commission has detected structural issues negatively affecting competition in the market. This was the case on the occasion of the inquiry into the energy sector that the Commission conducted in 2005, as a result of which ownership or functional separation are now required in the electricity and gas sectors. However, when it comes to EU telecommunications markets, functional separation is to be considered only in exceptional cases of persistent market failure (OECD, 2011[10]). Other structural measures, or quasi-structural remedies, have been applied in a wider range of cases, including energy, information technology and aviation (Alexiadis, 2013_[20]).

For instance, in the European Union, all the structural remedy cases concluded to date have taken place in the energy sector.

Chapter 4. Experiences and best practices

Jurisdictions around the world have applied structural remedies in a variety of different sectors. This report aims to provide a non-exhaustive overview of these experiences, extracting some of the best practices that can be derived from each of them. This overview covers the sectors of telecommunications, electricity, rail and gas.

4.1. Telecommunications

4.1.1. AT&T in the United States: Divestiture of assets

Relevant authority: US Department of Justice (DOJ).

Legal framework: The Sherman Antitrust Act.

Experience: In the 1974 the Department of Justice (DOJ) filed an antitrust suit against the American Telephone & Telegraph (AT&T) for monopolisation in the telecommunication market. The incumbent was accused, among other things, of monopolising the telephone equipment manufacturing and long distance telecommunications service markets. For instance, AT&T was accused of failing to connect competing carriers with its network on reasonable terms and of reducing its prices only in the markets where it faced competition.⁵³

AT&T was the monopolist providing local and long distance telephone services. Furthermore, the company's subsidiary, Western Electric, was the main producer of telephone equipment.

The investigation was then led by the Department of Justice (DOJ), which requested the full ownership separation of AT&T and Western Electric and the divesture of AT&T from Bell Operating Companies (BOCs) which offered local and regional services.

In January 1982 the parties reached a settlement agreement. The structural part of the remedy was a vertical divestiture, with AT&T divesting its local service providers (BOCs) with the creation of seven regional operating companies (RBOCs). With this agreement, the incumbent kept its long distance services, the equipment manufacturing (Western Electric) and the research division.

Regarding the behavioural side of the settlement, AT&T was obliged to transfer enough assets to allow RBOCs to operate, including – on a royalty fee basis – all existing patents and all those issued for the next five years. The requirement was not only concerning AT&T, in fact the agreement imposed the court's approval before RBOCs could expand the scope of their business. They were also obliged to non-discriminate the access to their local exchange networks.

⁵³ www.oecd.org/competition/abuse/38623413.pdf

It is important to remark that at the time AT&T was the largest corporation of the world and the entire break up raised various critiques such as the decline of the quality, the risk to national security, and shareholders' interests being negatively affected.

In practical terms, the divestiture was easier than planned, mostly because the BOCs were already organised in a way that made it fairly easy to spin them off as independent companies. Even shareholders did not suffer the loss predicted by the critics to the spin off. Moreover, AT&T's structure was already the result of a regulatory process and not the outcome of market's dynamics.

Best Practices: The divesture of AT&T raised a debate within the antitrust world; while several critiques were made of the decisions, some observers consider this divesture as a success, highlighting the effects on prices and technology developments.⁵⁴ As always, the absence of a counter scenario cannot confirm this last point.

The AT&T example showed how such a complex divestiture, mixing structural and behavioural remedies is difficult to administer afterwards. There were more than 900 waiver petitions asking the court to rule on the "line of business restriction" contained in the final decision. 55 Overall, the average waiver request had lasted for more than 48 months with a significant additional workload to the courts.⁵⁶

These figures show how the entire process created both benefits and costs.

4.1.2. Telstra in Australia: Divestiture of assets

Relevant authority: The Australian Competition and Consumer Commission (ACCC).

Legal framework: The Telecommunications Act 1997, paragraph 577A(1)(a), as amended by the Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010,⁵⁷ which provided a detailed description of the structural separation undertakings that the ACCC might accept from Telstra. The voluntary undertakings presented by the incumbent became binding once the relevant authority accepted them (Minister for Broadband, Communications and the Digital Economy, 2011).

Experience: Telstra, the Australian telecommunications incumbent, was owned by the state until 1997, a year in which the privatisation process – which lasted until 2006 – started. Although it was forced to maintain separate retail, wholesale and key network service business units as of 2006, the Australian government feared that the company's integrated position gave rise to less than optimal competition conditions in the telecommunications market.

The government sought to remedy this situation by means of a two-pronged strategy. On the one hand, a government-driven national broadband network (NBN) was developed, in

⁵⁴ For instance, see Cavenagh (2005_[22]) and Sullivan, (Sullivan, 2001_[52]).

See Shelanski & Sidak (2001_[53]).

Id. at 95 (citing Paul Rubin & Hashem Dezhbakhsh, ìCosts of Delay and Rent-Seeking Under the Modification of Final Judgment,î 16 Managerial & Decision Economics 385, 385-88 (1995)).

See Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010, available at www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r4479

order to provide "an open access, wholesale only network, to support retail-level competition for Australian consumers". 58 An agreement was reached with Telstra on this regard, which would allow the NBN to reuse suitable Telstra infrastructure. On the other hand, provision was made for the functional separation of Telstra's wholesale and retail operations on a voluntary basis, which could become a legally mandated functional separation should Telstra fail to willingly propose adequate undertakings.⁵⁹

This process aimed to create an Australian wholesale-only network not controlled by any retail company, which would led to "fairer infrastructure access for service providers, greater retail competition and better services for consumers and businesses" (Authority of the Minister for Broadband, Communications and the Digital Economy, 2011_[29]).

Telstra submitted a structural separation undertaking, which was accepted by the ACCC in 2012, since it was deemed to be in accordance with the Bill's requirements. By virtue of this undertaking, Telstra committed to structural separation by July 2018 and to put in place a number of transitional behavioural measures that would guarantee Telstra's transparent and non-discriminatory supply of services during the transition to the NBN.60 A monitoring system was set in place, which included the possibility for Telstra to submit rectification proposals to the ACCC in case of potential breaches.⁶¹

Best practices: The Australian government increased the legal certainty of the structural separation process by articulating it via a legislative framework. This case is an excellent example of how a relevant authority and an incumbent can engage in productive dialogue with regard to the scope and implementation of a structural separation process, in order to agree on a solution that would satisfy both parties; maximising the chances of the structural remedies being smoothly implemented and most effective (OECD, 2006[1]). The fact that mandatory structural separation remained a residual option increased the relevant authority's leverage during negotiation of the commitments. The good practice was also shared by the Swedish competition authority (as noted in 4.1.3 below). The ACCC took care of making the commitments adaptable to changing circumstances and market conditions that are inherent to the telecommunications market. This flexibility resulted from careful consideration of the specific characteristics of the market, as recommended in Chapter Chapter 3. The ACCC informed the relevant measures with best practices and prior experiences from other jurisdictions.

4.1.3. TeliaSonera in Sweden: Separate legal entity with common ownership

Relevant authority: Post & Telestyrelsen, Sweden's telecommunications regulator.

NBN Legislation introduced to Parliament, published 25 November 2010.

See Parliament of the Commonwealth of Australia, House of Representatives, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009.

Undertaking, Structural Separation available See http://telstrawholesale.com.au/structural-separation-undertaking/index.htm. See also High level summary of Telstra Structural Separation Undertaking and Migration Plan, available at https://www.telstrawholesale.com.au/download/document/ssu-and-mp-briefing-summaries-1.pdf.

Structural Separation Undertaking, http://www.accc.gov.au/regulated-infrastructure/communications/industry-reform/telstrasstructural-separation-undertaking.

Legal framework: The EU Framework Directive, Access Directive and Universal Services Directive and the Swedish Telecommunications Act as amended in 2008 (although this Act was never applied in the framework of this structural separation process, as will be explained below). The separation was mostly carried out in the light of a negotiated agreement between the regulator and the incumbent.

Experience: Duringthe mid-2000's, Post & Telestyrelsen persistently demanded that the national telecommunications incumbent TeliaSonera (a private and public company) implement functional separation by creating an independent unit to deal with infrastructure management tasks.

These demands followed a government-commissioned assessment of the electronic communications sector in 2007, which had the objective of improving transparency and non-discrimination in the market. The Swedish legislator initiated a legislative procedure in order to issue a law attributing Post & Telestyrelsen the power to impose functional separation on TeliaSonera with regard to the assets necessary to provide local loop products.

However, TeliaSonera did not wait for the legislative process to be over to react. In 2007 it engaged in a series of talks with the regulator, and eventually offered separation undertakings in an effort to avoid an imposition of remedies by Post & Telestyrelsen that could potentially have been more severe, such as the imposition of functional separation of all those assets used to provide local loop products. Although in theory the commitments were voluntarily offered, the strong demands of the regulator have led some commentators to refer to them as offered on a "quasi-voluntary" basis (OECD, 2011[10]).

The new structural separation model became operative in 1 January 2008, and Post & Telestyrelsen never imposed compulsory separation, even though the legislation empowering it to do so was eventually passed and entered into force later that year. TeliaSonera stated that this solution would have ensured that the company met the market's transparency requirements, guaranteeing equal treatment of all operators in the market. Moreover, it noted that the company's infrastructure operations could be more efficiently run by means of a separate company.

The new model split TeliaSonera into two separate but commonly owned companies, between which the original company's staff and network assets were allocated. The 100% owned subsidiary Skanova Access AB would be responsible for the telecom infrastructure network (local copper and fibre networks, ducts and trenches); it would sell both to external wholesale customers (access seekers) and to TeliaSonera's own wholesale operations in equal terms, regulating de facto commercial negotiations. In order to guarantee non-discriminatory treatment for all customers, TeliaSonera set up an Equality of Access Board with external members, which is in charge of monitoring and reporting on equal treatment issues.

Best practices: The talks and commitments described above do not constitute the first efforts of the Swedish relevant authorities to promote the non-discrimination principle in the Swedish market. Prior to the 2007 "talks", Post & Telestyrelsen had already ordered TeliaSonera not to discriminate against other operators (a negative behavioural remedy; see (Berkman Center for Internet and Society, 2010[30]). However, the incumbent did not comply with these requirements, arguably as a result of the incentives to discriminate created by its vertically integrated structure. It took a market study - following a Government request – and the actual threat of imposing mandatory structural separation for TeliaSonera to fully commit to the goals of effective non-discriminatory and transparent access to the local loop (Teppayayon O., 2010_[31]). Therefore, it appears that a legally-recognised possibility of imposing forced structural separation is a more effective solution for the relevant authorities than solely relying on a negotiated process (a similar situation took place in the Australian example described above). However, different situations may call for different solutions.

At the same time, the establishment of a dialogue between the incumbent and the relevant authorities, and the subsequent agreement on a negotiated solution, has many advantages (see section 3.4). In the Swedish case, they have translated into a smooth implementation of the agreement so far, as well as a relatively quick adoption process (with less than a year passing since the investigation/talks and the entry into force of the structural separation).

The Swedish broadband market has been deemed to be strongly competitive, with low prices and a wide array of options for consumers. Two new entrants took advantage of the opening of TeliaSonera's network; Bredbandsbolaget (B2) and Glocalnet gained 20% and 6% broadband market shares, respectively (Berkman Center for Internet and Society, $2010_{[30]}$).

4.2. Electricity

Incumbents in the electricity sector have generally tended to have a substantial degree of market power (OECD, 2006_[18]). It is for this reason that the divestiture of the generation market has been a key policy tool in this sector.

4.2.1. CEZ in the Czech Republic: Divestiture of assets

Relevant authority: The European Commission.

Legal framework: The EU Electricity Directive and Articles 9 of Regulation 1/2003 and 102 of the Treaty on the Functioning of the European Union. Article 102 prohibits the abuse of a dominant position; whereas Article 9 establishes the possibility of reaching settlements.

Experience: The European Commission initiated an investigation into the conduct of the Czech electricity incumbent, CEZ, over concerns that the company may have been abusing its dominant position on the market for electricity generation and wholesale. The alleged abuse consisted of preventing new entry into the market by making a reservation in the Czech electricity transmission network that, while potentially pre-empting or at least delaying entrance, did not correspond to genuine generation projects. As a result of this conduct, the available transmission capacity that could have been used by competitors was exhausted and CEZ's competitors could not access the transmission network system, despite the fact that this access is a necessary input for generating electricity at a large scale. When the Commission notified CEZ of these concerns (by means of a preliminary assessment), CEZ submitted commitments which, after undergoing amendments, were finally accepted by the European Commission. 62

Originally, CEZ offered to divest a generation asset to a suitable purchaser approved by the Commission. CEZ had proposed a list of four power plants that could be the object of a divestiture; however, the Commission found that the divestiture of one of the plants might have been unsuitable to meet the competition concerns identified in the preliminary assessment. CEZ modified the proposed commitments accordingly. The Commission

⁶² Commission decision of 10 April 2013 in case AT.39727 CEZ.

accepted them in their final form, noting that they were both sufficient and proportionate: the divestiture represented a "clear-cut solution" to its competition concerns, while the transfer of generation capacity to a competitor was the only type of remedy that could effectively address the anti-competitive effects of CEZ's conduct.

In order to monitor CEZ's compliance with the agreed commitments, it was decided that an independent trustee approved by the Commission would have been appointed for this

Best practices: The case of CEZ provides a good example of how structural remedies can be on occasion applicable also in the case of abuses of dominant position. The European Commission sought a solution that ensured that the abuses would not be repeated in the future, and found it in the realm of divestitures. A pure structural remedy ensured that CEZ's incentives to abuse its dominance disappeared. Despite the inherently invasive nature of divestitures, the Commission's case-specific analysis led it to determine that the remedial measure chosen was necessary and proportionate, even considering that, in general, the EU competition authority tends to have a preference for behavioural remedies, proving the importance of conducting case-by-case analyses and the absence of a general rule of thumb. The parties undertook a productive dialogue with regard to the commitments, which can prove beneficial for both sides: the firm gains the chance to provide inputs on the adequacy of the measures imposed, while the authority invests less time in reaching a decision. Moreover, the appointment of a trustee is a measure that aims to ensure compliance and facilitates the smooth application of the commitments, helping to avoid burdensome litigation.

4.2.2. RAO UES in the Russian Federation: Divestiture of Assets

Relevant authority: The Federal Antimonopoly Service (FAS) is in charge of monitoring compliance with competition law in the electricity market, and it can issue orders or impose penalties on firms responsible for competition law infringements. The Russian Ministry for Energy is the sector regulator that deals with the implementation of the state policy in the electricity market, being empowered to issue regulation applicable to the electricity sector.

Regulatory framework: Federal law No. 35-FZ "On the Electric Power Industry", of 26 March 2003,⁶³ provides a general framework for the regulation of the electricity market in Russia. Federal law No. 36-FZ "On the Specific Features of the Functioning of the Electric Power Industry During the Transitional Period and on the Introduction of Amendments to Certain Legislative Acts of the Russian Federation in Connection with the Entry into force of the Federal Law No. 35-FZ of 2003 on electric energy" of 26 March 2003, 64 implements it and provides a framework to the functioning of the electricity market during the sector's transition from state control to market regulation.

Experience: Differently to the negotiated and agreed separation procedures discussed in previous examples, the Russian Federation has adopted a straightforward and vigorous approach towards structural separation in the electricity market, mostly through a legislative reform process that began in 2003.

⁶³ Available at http://faolex.fao.org/docs/pdf/rus41857E.pdf.

Available at http://faolex.fao.org/docs/pdf/rus67600E.pdf.

Prior to the entry into force of these reforms, the whole power sector was controlled by a fully integrated state monopoly, RAO UES, and the State regulated electricity prices (Josefson, 2014_[32]). In 2008, the electricity market became privatised and open to competition by the separation of RAO UES into more than 20 independent firms with diversified ownership; this process also involved the gradual de-regulation of electricity prices.65

Following the conversion of the state electricity monopoly into a liberalised sector, the Russian Federation recognised, as one of the main principles of competition in the electricity market, the separation of the sector's natural monopoly activities (electricity transmission and/or operational dispatch management) from its competitive activities (production and retail) (Russian Federation, 2014_[33]). In 2006, the Russian Federation issued a blanket prohibition, banning the combination of these activities with the goal of creating an effective competition environment in the market for electricity.

The FAS is in charge of monitoring compliance with this blanket prohibition. Under Federal Law Number 36, the FAS is empowered to order divestiture of assets if competitive and natural monopoly activities are under the control of the same firm.

In the last few years, a sharp increase in electricity prices (which have doubled) has taken place. This can arguably be caused by the deregulation of wholesale electricity prices, which has presumably failed to generate the expected levels of competition, and might be related to the barriers to entry created by the long and costly procedures necessary to get connected to the grid in Russia, which are more burdensome than in other jurisdictions (Gusev, 2015_[34]). However, this increase must also be understood in the context of Russia's efforts to raise the regulated tariffs for final consumers in order to achieve cost recovery and avoid that cross-subsidisation between industry and households hinders competition in the retail market (Vaziakova, 2015_[35]). In this context, it is interesting to note that several years after the RAO UES unbundling, the Russian government decided to reconsolidate and place under state control certain large electricity transmission and distribution assets, considered to be natural monopolies, by setting up an open joint stock company that would acquire them.

Best practices: The case of the Russian Federation provides a counterpoint to the previously presented ones: structural separation does not necessarily entail negotiation or the achievement of consensus on agreed commitments between the state and the incumbent, but it can also take the form of a top-down reform, clearly structured by legal instruments and under the supervision of a relevant authority. A clear mandate and stringent monitoring can reduce legal uncertainty and be an effective solution if for some reason negotiations with the undertaking are not the optimal approach.

Although structural remedies are generally difficult to reverse, the Russian case proves that it is possible to go back on unbundling when the circumstances prove that reconsolidation is necessary or can lead to more economically efficient outcomes. This situation also proves the importance of constant monitoring and assessment of the effects that the reforms have in the market.

It is worth noting, however, that the electricity market will not be open to competition in certain regions of the country, due to their geographical isolation.

Despite the significant progress made with regard to liberalisation, the Russian electricity market does maintain certain features that may restrict competition.

4.2.3. CEGB in the UK66

Relevant authority: The UK Government.

Legal framework: The Electricity Act (1989).

Experience: The public monopoly in the United Kingdom lasted 42 years, from 1948 to 1990. During these years, the electricity sector was mainly characterised by the Central Electricity Generating Board (CEGB), operating as a vertically integrated company dealing with generation and transmission.

The state monopoly was divided into three generation companies and a transmission company, liberalising entry in the generation market. Two non-nuclear generators were privatised: National Power and Powergen, while Nuclear Electric (a nuclear company) remained in public ownership. The supply and distribution responsibilities of the 12 government owned Area Electricity Boards were taken over by 12 privatised Regional Electricity Companies (RECs). The RECs initially owned the transmission company National Grid Company (NGC) which became independent in 1995.

The Electricity Act also established an industry regulator, the Office of Electricity Regulation (OFFER), which was then merged with the Office of Gas Supply (OFGAS) to create the current Office of Gas and Electricity Markets (OFGEM).

Since the privatisation, the entire sector was subjected to a series of regulatory changes following different objectives such as a higher degree of liberalisation, reducing prices, breaking down emissions and ensuring security of supply.⁶⁷

In 1996, the National Grid Company (NGC), initially owned by the RECs, became independent. Part of the restructuring also touched Nuclear Electric, whose more modern plants were transferred to a new privatised company, British Energy. 68

Best Practices: An interesting aspect of the shift from public to private was the horizontal separation of generation and the vertical separation of the generation, transmission, distribution and supply sectors to develop competition where feasible and facilitate regulation of natural monopolies. For instance, NGC and the RECs were required to publish tariffs for third party use of their transmission and distribution systems based on the principle of granting non-discriminatory access.

The degree of horizontal separation of the generation sector was considered insufficient considering it created to a duopoly (National Power and Powergen) capable of dominating price-setting in the wholesale segment.

http://siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/282884-1303327122200/124newbe.pdf

https://assets.publishing.service.gov.uk/media/576c23e4ed915d622c000087/Energy-finalreport-summary.pdf

https://www.oecd.org/regreform/2766184.pdf

4.3. Rail

The majority of OECD member countries have had some experiences involving allowing independent train operators to provide services while keeping the incumbent operator vertically integrated (OECD, 2006_[18]). However, in the railway sector the pros and cons of structural separation and vertical integration are particularly difficult to ascertain. There is evidence suggesting that, while horizontal separation tends to reduce railway costs, vertical separation may or may not be effective in that regard, depending on the train density of the railway organisation: the lower the train density, the more likely vertical separation will reduce costs, and the higher the train density, the more likely it will increase them (OECD, 2016_[21]). For this reason, in the railway sector it is particularly important for the relevant authorities to carry out a case-specific assessment of the opportunity of applying structural separation measures.

4.3.1. ARTC in Australia: Access Regime

Relevant authority: Australian Competition and Consumer Authority (ACCC).

Legal framework: At the federal level, the Trade Practice Act of 1974, Part IIIA, provides for the regulation of the Australian Rail Track Corporation (ARTC) by the ACCC. The Act provides for access undertakings and a mandatory access regime.

Experience: The ARTC is an agency owned by the federal government that provides access to the interstate rail network for rail transport firms in exchange for a fee (OECD, 2016_[21]). The ARTC has a monopoly in interstate rail haulage - it owns or manages all interstate rail lines (Dossor, 2015_[36]). Under the current regime, the ARTC must submit access conditions undertakings to the ACCC, which can approve them, reject them, or require revisions as it sees fit. However, mandatory third party rights of access must be granted in the case of infrastructure that has natural monopoly characteristics, is of national relevance, and when access is essential to promote a material increase in competition in the relevant market. Disputes are to be solved by the ACCC. Intra-state and regional rail lines remain regulated by the different Australian states, which have diverse access regimes in place.

The Australian government carried out a review of the rail sector in light of the country's competition policy (Harper, 2015_[37]). In general, the review was positive: regulation of the railway sector has promoted competition and market entry while addressing concerns about monopoly pricing. The report also took intermodal competition into account, finding that means of transportation alternative to rail – in particular, road transport – can in some cases exert sufficient competitive constraints to reduce the need for stringent regulation in the rail sector.

The review voiced concerns about the limitations of the regime. Firstly, the fact that multiple access regimes (federal and state) were in place could make operation significantly complex. The report also acknowledged the fact that the structural separation of railways is not always the most suitable solution: in cases where above-rail competition is unlikely to emerge, such as low-volume rail routes, vertical integration may be preferable to structural separation. For this reason, the report recommends regulators and policy-makers to be pragmatic in this regard.

In 2014, the National Commission of Audit suggested the privatisation of the ARTC network accompanied by the regulation of its monopoly characteristics in the public interest ("much the same as airport and electricity distribution monopolies"). The National Commission of Audit proposed the performance of a scoping study with a view to examining an appropriate access regime, the implications for ARTC's leases and other wider issues stemming from the intergovernmental agreement establishing the ARTC (Audit, 2014_[38]). Following these suggestions, the Australian Government is set to undertake a scoping study on the management, operations and ownership of the ARTC (Australian Government, 2015_[39]), in the framework of a reform package aimed at reducing the size and complexity of government administration.

Best Practices: The first good practice that can be highlighted in Australia's railway case is the performance of an ex-post review assessing the effectiveness of the reforms. The specific review and subsequent scoping study undertaken by the government were accompanied by the input from the National Commission of Audit; the ACCC did not write the reports, which enriches them with an external point of view while ensuring their impartiality. Moreover, the fact that the Australian government has undertaken actions with the purpose of performing any necessary modifications to the legal framework demonstrates that the review was not only planned for formal reasons, but that the government is committed to improving the regulation of railways on an ongoing basis.

4.3.2. The ORR in the United Kingdom: divestiture of assets

Relevant authority: The Office of Rail and Road (ORR), the independent safety and economic regulator of railways in Great Britain, and the Competition and Markets Authority (CMA). The ORR is empowered to apply competition law to the supply of services relating railways, a function it exercises concurrently with the CMA. The ORR is not currently empowered to impose structural remedies, a function that lies with the competition authority (ORR, 2009_[40]). In the future, the ORR will also be empowered to monitor competition in rail services markets and control arrangements for access to rail infrastructure and services. The ORR has published a guidance document on how it intends to exercise its competition powers (ORR, 2016_[41]).

Legal Framework: The United Kingdom privatised its railway industry in 1993, performing structural separation of tracks and infrastructure (which are owned and operated as a monopoly by a central government body, Network Rail, which acts as an infrastructure manager) from passenger train operators (OECD, 2016_[21]). Network Rail is held to account by the ORR (ORR, 2016_[41]). Franchises are granted to operate passenger train services for a specific period.

Experience: The UK authorities have been aware of the fact that, although structural separation entails a number of advantages, it is also subject to limitations. Among the concerns identified are the lack of co-ordination, the reduction of incentives to invest in the network (since the firms that actually operate the infrastructure are not in charge of railway management) and in the operation of trains (given the temporary character of the granted franchises). The United Kingdom has endeavoured to maintain the advantages associated to structural separation while minimising these concerns. For this reason, the regime has continued to be the formal separation of train and track, but for several years Network Rail has been collaborating with train operators for the benefit of passengers (Network Rail, 2012[42]).

The alliance between Network Rail and South Western Trains is a good example of how the United Kingdom has used collaboration between the network and train operators in order to counteract some of the disadvantages of structural separation. Under this alliance, Network Rail and South West Trains have established a joint team made up of senior managers from both operators. The team is set to care after the maintenance of both trains and tracks on the Wessex route, realising cost reductions and savings that go beyond those both parties could achieve alone, and improving the efficiency and productivity of resources⁶⁹.

Best practices: The experience of the United Kingdom in the railway sector, similar to Australia, demonstrates the usefulness of carrying out reviews of the established structural separation regime in order to identify areas for improvement. Even if structural remedies are in principle difficult to modify, relevant authorities should never lose sight of improvement opportunities, particularly given the evolution of markets over time, which may call for the adaptation of the remedial measures chosen.

Moreover, collaboration between network and train operators is an interesting option to improve the system's efficiency and to harness, to some extent, the efficiencies associated with vertical integration while maintaining structural separation.

4.4. Gas

4.4.1. Estonia: divestiture of assets

Relevant authority: The Estonian Competition Authority (ECA) is the regulator for several sectors, including the gas market.

Legal framework: On the basis of Article 194 of the Treaty on the Functioning of the European Union (TFEU), the European Union adopted three consecutive packages of legislative measures on the European Union's internal energy market (the Energy Packages) between 1996 and 2009, which Estonia had to adhere to as a consequence of its accession to the European Union in 2004. The packages sought to liberalise the internal EU electricity and gas market. The last EU Directive concerning gas (from the Third Energy Package) is Directive 2009/73/EC; it particularly provides an exemption for Estonia, which is not required to unbundle the transmission system due to its dependency on Russian gas and its lack of interconnection to the rest of Europe, which made it in practice not a part of the EU single energy market⁷⁰. Estonia finalised the full transposition of this directive in April 2014, carrying out the necessary amendments to the Estonian Natural Gas Market Act (European Commission, 2014_[43]).⁷¹ Transposing Directive 2009/73/EC, the Estonian Natural Gas Act provides, in its article 8 that "a network operator who provides transmission services may concurrently engage in the provision of distribution services but may not at the same time be a seller". Even if a distributor does not provide transmission services, it is requested to unbundle its gas distribution and sales activities if it has more than 100 000 consumers connected to its distribution network. The Estonian competition authority now regulates, among other issues, network service prices for distribution network operators and retail sales margins for dominant undertakings. Price regulations are applied to all network operators regardless of their size.

Experience: The Estonian gas market was formerly monopolised by AS EG Vorguteenus, a gas operator providing gas transmission and distribution services, part of the vertically integrated gas supply company AS Eesti Gaas. AS Eesti Gaas used to be the only wholesale

See (Network Rail Infrastructure Ltd. and Stagecoach South Western Trains Ltd., 2012_[77])

⁷⁰ See http://www.nortonrosefulbright.com/knowledge/publications/126378/energy-unionv.

Estonian Natural Gas RT 2003, 21. 128. available Act, www.riigiteataja.ee/en/eli/ee/509052014001/consolide/current.

trader in the market; in the retail market, AS Eesti Gaas had an 89% market share in 2012, with the rest of the market being highly fragmented and divided between 27 gas sellers and gas prices not being regulated. Although, as noted above, Directive 2009/73/EC does not require Estonia to unbundle the gas transmission system, in 2012 the Baltic state decided not to make use of the exemption. AS EG Vorguteenus submitted an ownership unbundling plan to the ECA on 31 December 2012 (European Commission, 2014_[43]). According to this plan, AS Eesti Gas would have been restructured in 2013, separating its gas transmission network and services (now dealt with by AS EG Vorguteenus) from its distribution network and services (now vested upon the newly established AS Gaasivorgud)⁷² and natural gas sale operations, 73 retained by AS Eesti Gaas. This unbundling was registered on 11 July 2013.74

The unbundling process took place in three steps. Firstly, the system operator AS EG Vorguteenus (later named Elering Gaas AS) acquired the transmission network and metering systems from AS Eesti Gaas. The transfer took place on 31 May 2013. Secondly, Elering Gaas (formerly AS EG Vorguteenus) handled the distribution services to the newly established AS Gaasivorgud on 1 August 2013, which left Elering Gaas AS providing only transmission services. And finally, the holding company AS Vorguteenus Valdus was established, becoming the sole owner of Elering Gaas AS (formerly AS EG Vorguteenus) on 2 January 2014. AS Gaasivorgud uses the distribution network owned by AS Eesti Gaas under a commercial lease contract. Although AS Gaasivorgud is the dominant gas distributor, 24 other natural gas distribution companies are active in the market (Estonian Competition Authority, 2015_[44]).

The state-owned Elering Gaas AS (formerly AS EG Vorguteenus) gained control over the gas transmission system in January 2015. AS Eesti Gaas remained active both in the wholesale and in the retail market. This is a consequence of the fact that the Estonian gas system is supplied with natural gas by one single supplier from a non-EU Member State (Gazprom, from the Russian Federation). Therefore, ordinary competitive conditions in the wholesale and retail markets are not possible.

The effects of this restructuring are ambiguous: by 2014 AS Eesti Gaas' retail market share had increased to 93.4% (from 89.2% in 2013), although 24 other licensed gas traders were active in the market. By 2014 there were 24 distribution network companies and a single operator of the transmission network, and by March 2015 there were five wholesalers in the market. However, AS Eesti Gaas retained a market share of 82%, which makes it dominant not only in the wholesale market but also in the retail market. In 2014 gas importer Baltic Energy Service OÜ emerged as the only company capable of potentially standing up to Eesti Gaas AS' dominance - although it had obtained a licence to import gas into Estonia in previous years, it had not made any gas supplies until 2014 (Estonian Competition Authority, 2014_[45])

⁷² See Elering - Company, available at http://gaas.elering.ee/en/company/.

See Eesti Gaas separates its gas transmission network and transmission services, available at http://www.sorainen.com/en/Deals/3622/eesti-gaas-separates-its-gas-transmission-network-andtransmission-services.

⁷⁴ See Eesti Gaas – History, available at http://www.gaas.ee/en/group/history/.

See Estonian natural gas transmission system, available at http://gaas.elering.ee/en/.

Moreover, in 2014, Estonia issued 35 additional activity permits for the retail sale of natural gas. ⁷⁶ However, as described above and being the dominant gas importer, Eesti Gaas AS operates also in the retail market. For this reason, other resellers cannot set significantly lower prices, since the sale price for resellers is set by AS Eesti Gaas to a level that makes it difficult for other companies to compete with the incumbent. The diversification of import sources and importers (for instance, with the Lithuanian natural gas supply and trading company Litgas being authorised to trade in the Estonian gas market in early 2015) has contributed to an improvement in the competition conditions in the retail market in 2015 (Estonian Competition Authority, 2015_[44]).

Best practices: The Estonian case provides yet another instance of how relevant authorities and incumbents can negotiate and agree on a set of commitments concerning structural separation, even in the presence of legally mandated unbundling obligations. In this case, the incumbent proposed an unbundling plan subject to the Authority's approval.

This case also illustrates how the same remedies may yield different results depending on the market in question. Although Estonia implemented structural separation of natural monopoly activities (gas transmission and distribution) from potentially competitive activities (wholesale and retail), the special gas market conditions in Estonia make the remedies' effects different from those observed in other jurisdictions. Although competitive conditions have generally improved in the gas wholesale and retail markets, the fact that all the gas in Estonia is supplied by one single company hinders the development of competition. The Estonian case thus provides one further reason for the relevant authorities to carefully consider the application of remedies on a case-by-case basis, a principle that must also be applied when it comes to assessing the performance of remedies over time. The results yielded by structural remedies in the Estonian gas markets cannot be judged on the same basis as those applied in markets that can rely on several different sources of gas supplies.

4.4.2. Spain: Legal separation with constant monitoring

Relevant authority: The National Commission for the Markets and for Competition (Comisión Nacional de los Mercados y la Competencia, CNMC) is both the national competition authority and the national energy regulator.

Legal framework: Directive 2009/73/EC (the Gas Directive of the Third Energy Package), which provides for the separation of gas transmission networks from the rest of the supply chain (i.e. gas suppliers and producers), either through ownership separation or by means of an independent transmission system operator. This Gas Directive was implemented in Spain by means of the Hydrocarbons Act (Ley 34/1998, de 7 de octubre, del sector de hidrocarburos para el Gas). When transposing this Directive into the internal legal regime, the Spanish legislator opted for ownership separation. Enagás is the main gas transmission system operator (TSO) for the gas sector; it owns and operates the main gas transmission network in Spain, covering more than 95% of the national transport pipelines.⁷⁷ In order to guarantee Enagás' independence there are restrictions to the participation in its capital,

⁷⁶ See Gas Market, available at www.mkm.ee/en/objectives-activities/energy-sector/gasmarket.

The European Commission has formally urged Spain to allow for companies other than the incumbent TSO (Enagás) to build or operate interconnectors to other EU Member States, in order to correctly implement Directive 2009/73/EC (European Commission, 2016). Spain would have to amend the Hydrocarbons Act for these purposes.

which, according to the Hydrocarbons Act (D.A. 31), is restricted to 5% of share capital and 3% voting rights (or 1% voting rights for persons active in the gas sector). These limits do not apply to state ownership.

Experience: An interesting aspect of the Spanish separation model is the constant monitoring of the gas market that the CNMC carries out. The CNMC monitors and controls the correct functioning of the gas sector. It is in charge of overseeing and, when necessary, certifying the abovementioned structural separation, with the goal of guaranteeing that the separation is effective and that cross-subsidisation does not take place between regulated and liberalised activities.

The CNMC can carry out investigations and impose legally binding decisions on firms; it is empowered to impose sanctions for infringement of the obligations included in Law 34/1998, which include structural separation obligations.

The CNMC is in charge of monitoring the effective structural separation of transmission activities. Firms carrying out transmission activities must create a Code of Conduct containing the measures adopted to guarantee complete ownership separation and submit it to the relevant Ministry and to the CNMC. An independent monitoring trustee is in charge of assessing compliance with this Code of Conduct. The monitoring trustee will present yearly reports to the relevant Ministry and the CNMC. These reports will assess compliance with the independence obligations, and will be published on the websites of the CNMC and of the firm concerned.

With regard to the regulated gas transmission activities, the CNMC can control the determination of access fees, as well as the measures adopted by TSOs, in order to guarantee that they effectively avoid discriminatory treatment of access seekers. The CNMC is also in charge of monitoring independent system operators' (ISO) compliance to their legal obligations, being even capable of conducting unannounced inspections in their premises.

With regard to the liberalised activities within the gas sector, i.e. wholesale and retail markets, the CNMC is in charge of monitoring price, competitiveness and transparency levels, as well as the degree and effectiveness of market opening and competition at the Spanish gas markets (CNMC, 2015_[46]). The CNMC's monitoring is itself also monitored. The competition authority and gas market regulator has an internal but impartial control body in charge of overseeing the exercise of its monitoring functions. This body provides yearly reports on the adequacy of the CNMC's monitoring tasks.

Best practices: Spain is a good example of a country that has established a detailed regime for the continuous monitoring of compliance with legally mandated structural separation measures. The Iberian country has vested these controls and monitoring tasks on an independent regulator that can rely on extensive expertise in competition and energy regulatory matters. The integration of this expertise in one single authority in charge of monitoring the structural separation in the gas market can arguably increase the levels of efficiency, improving the uniformity of the authority's actions and, therefore, increasing certainty and predictability for market operators and investors. The ongoing basis on which the monitoring takes place, as well as the fact that this continuous oversight is mandated by law, further contributes to these benefits.

4.4.3. Mexico: The liberalisation of the access to Pemex's ducts

Relevant Authority: Energy Regulatory Commission (CRE)

Legal Framework: The energy reform published in the Federal Official Gazette on 20 December 2013. As result of this constitutional reform, other sectorial laws followed, notably the National Law of Hydrocarbons and the presidential decree that created CENAGAS.

Experience: Before the energy reform, the market of transmission of natural gas was characterised by the presence of the public owned company PEMEX and few small other competitors. The monopolist owned and controlled the majority of the gas ducts across the country. The Presidential decree published in the Federal Official Gazette in the August 2014 created CENAGAS⁷⁸, a public body decentralised from the Federal Public Administration⁷⁹, in charge of the organisation, administration and operation of the national system of transport and storage of natural gas (SISTRANGAS). CENAGAS also owns the pipelines and one of its objectives is to improve the competition in the transportation of natural gas.

SISTRANGAS is an integrated system, which includes seven transmission systems of natural gas. It also includes private pipelines, which are not CENAGAS's assets.

As effect of the energy reform and other secondary laws, CENAGAS is now the owner of the PEMEX's natural gas ducts. CRE regulates the open access to all the gas natural ducts in the country also establishing the tariffs.

Best Practices: The energy reform in Mexico represents one of the most dramatic energy system transformations in the recent years. Many of its effects will take time to manifest themselves, so it is not possible at this stage to draw conclusions. However, the example of natural gas ducts reveals how the reform aims to open the market and increase competition. In this particular case, the legislator decided to modify the allocation of property rights transferring them from PEMEX to third entity, CENEGAS.

See http://dof.gob.mx/nota_detalle.php?codigo=5357928&fecha=28/08/2014 and art.66 of the National Law of Hydrocarbons.

See art.3 of CENAGAS Statute.

Chapter 5. Examples of guidance and related case law from other *jurisdictions*

The previous section has presented an overview of the approaches implemented across different jurisdictions, discussing their advantages and limitations, and introducing some of the factors that may guide the decision-making process of authorities imposing remedies.

One of the main conclusions drawing from these considerations is the fact that there is no one-size-fits-all solution. However, despite this need for specificity, authorities can still rely on some general principles or guidance in their decisional practice. The following section will provide an overview of some of the most complete and comprehensive guidance made public by different jurisdictions around the world, typically by regulation as opposed to competition authority action.

5.1. European Union

5.1.1. Regulation 1/200380 and related case-law

The European Union is one of the jurisdictions whose approach to remedies is best defined, as it has chosen to include the principles guiding the application of remedies in competition cases in its legislation. This requires the European Commission to adhere to them, and facilitates the review of these remedies by the judiciary.⁸¹

Under Regulation 1/2003 (the legal disposition setting up the rules for implementing the EU Competition rules set in the Treaty of the Functioning of the European Union), the European Commission (the executive body of the European Union) can impose structural remedies either as a consequence of a competition law infringement (art. 7 of Regulation 1/2003) or in the framework of a commitment decision (art. 9 of Regulation 1/2003), following an inquiry or investigation carried out by the Commission under chapter V of the Regulation. Box 5.1 provides an overview of the way the European Commission can impose structural remedies by means of these articles.

Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ L 1, 4.1.2003, p. 1–25.

The European Commission is the European Union's competition authority, acting through its Directorate General for Competition. The European Commission's decisions can be appealed to the General Court in the first instance, and to the Court of Justice on points of law in the second and last instance.

Box 5.1. Application of Articles 7 and 9 of Regulation 1/2003

Art. 7 of Regulation 1/2003 notes that any remedies imposed must be "proportionate to the infringement committed and necessary to bring the infringement effectively to an end". Moreover, in infringement cases, "structural remedies can only be imposed either where there is no equally effective behavioural remedy or where any equally effective behavioural remedy would be more burdensome for the undertaking concerned than the structural remedy". Recital 12 of the Regulation adds that "[c]hanges to the structure of an undertaking as it existed before the infringement was committed would only be proportionate where there is a substantial risk of a lasting or repeated infringement that derives from the very structure of the undertaking".

It follows from the applicable provisions and EU case-law that the following principles governing the European Commission's powers to impose remedies prevent the EU executive from engaging in what has been dubbed "discretionary remedialism"

These principles are:

- Necessity: there must be a direct link between the infringement and the remedy. The remedy must put an end to the anti-competitive conduct and prevent it from reoccurring – without pursuing further objectives. The necessity requirement has been defined as a filter that determines that "the remedy is generally capable of bringing the infringement to an end, does not go beyond this goal and does not concern aspects that are not part of the procedure" (Maier-Rigaud, 2013). The Court of Justice of the European Union has further noted that the Commission may not only act to put an end to infringements, but also to remedy their continuing effects, i.e. the consequences that may continue to have a negative effect on competition despite the fact that the originating conduct has ceased.
- Rights of defence: in order to impose a remedy, the Commission must build a case, i.e. a theory of harm, explaining how the remedy is an adequate response to the infringement – for instance, the remedy cannot address competition concerns not identified in the decision (in practice, the application of this principle constrains the Commission in a way similar to that of the necessity requirement). The remedy cannot address potential violations or conduct whose effects remain unidentified (Monti, 2013[16]).
- Proportionality and indispensability: the remedy must not exceed what is necessary to restore competition, or the possibility for competition, in the market (Monti, 2013[16]).
- Equal treatment: similar cases may not be treated differently and different cases may not be treated similarly, unless there are specific reasons for this. This principle is of particular relevance in the case of access or supply remedies (Monti, 2013[16]).

The abovementioned principles (which are the subject of a detailed discussion in Monti (2013[16])) apply to the imposition of remedies in the context of an infringement procedure (art. 7 of Regulation 1/2003), and not to remedies applied in the context of a commitment decision (art. 9 of Regulation 1/2003). However, the European Commission has never imposed a structural remedy under Article 7; all structural and quasi-structural remedies have been imposed in the context of commitments decisions under Article 9.

It can be safely assumed that the conditions set up by Article 7 and the relevant case-law do not apply to the same extent in the context of commitment procedures (Art. 9). The latter does not provide explicit guidance, nor does it set conditions as to how the commitments may be imposed, and the benchmark for the application of remedies in this case is different than under Article 7. As the Court of Justice of the European Union (ECJ) has noted, following the principle of proportionality under Art. 9 the Commission "is confined to verifying that the commitments in question address the concerns expressed to the undertakings concerned and that they have not offered less onerous commitments that also address those concerns adequately". The Court also noted that in this assessment "the Commission must, however, take into consideration the interests

of third parties," and that "since the Commission is not required itself to seek out less onerous or more moderate solutions than the commitments offered to it (...), its only obligation in the present case in relation to the proportionality of the commitments was to ascertain whether the joint commitments offered (...) were sufficient to address the concerns it had identified (...)". Therefore, although the general principles of EU law of proportionality and indispensability still apply to the Commission's action, it has been argued that the stringency with which these principles bind the EU executive is reduced in the context of commitment decisions. The proportionality requirements under Art. 7 are, therefore, stricter than those under Art. 9.

5.1.2. Regulated sectors

Outside of the general framework provided by Regulation 1/2003, a number of sector regulations at EU level provide different forms of structural or quasi-structural remedies as a way of addressing structural conditions in regulated markets. Several official guidance or explanatory documents have been issued in this respect.

Box 5.2. The European Commission's guidance on unbundling and access in the electricity and gas sectors

The Electricity Directive and the Gas Directive of the Third Energy Package introduced, among other reforms, rules on unbundling with three different models, namely the ownership unbundling, independent system operator (ISO) and independent transmission operator (ITO) models. It assesses the structural separation (in different degrees) of network operation from related activities, such as production and supply, in order to avoid conflicts of interest that give vertically integrated undertakings incentives to discriminate against competitors.

The European Commission has issued several Staff Working Papers interpreting the Electricity and Gas Directives. Some of these related guidance documents are particularly relevant for the subject of structural remedies.

- A first Staff Working Paper (European Commission, 2010[50]) interprets the unbundling regime established in both directives, providing a general overview of the relevant provisions on unbundling, and elaborating on matters such as the regime governing ISOs, ITOs, or certification procedures.
- A second Staff Working Paper (European Commission, 2010[51]) interprets the Gas Directive's rules on third party access to storage. The Directive requires storage system operators (SSOs) to be at least legally and operationally unbundled with the EU Member States, the latter being required to set the criteria for determining the access regime. This Staff Working Paper is aimed at guiding this implementation, highlighting the relevant requirements and procedures for this access regime, as well as the roles and duties that they impose on Member States, National Regulatory Authorities and SSOs.
- The European Commission Staff Working Document on Ownership Unbundling (European Commission, 2013[52]) illustrates the European Commission's practice regarding the application of transmission system operator (TSO) unbundling rules, with a focus on ownership unbundling in the presence of a conflict of interest. This Staff Working Document deals, in particular, with situations in which a person holds participations not only in a TSO but also in other vertically related activities.

Box 5.3. The European Commission's guidance on structural separation in the electronic communications sector

In the context of electronic communications networks and services, the EU regulatory framework does not mandate the systematic structural separation of telecommunications providers. Functional separation is instead the potential remedy that NRAs may impose to control operators holding significant market power (although it remains a measure of last resort).

The Framework Directive provides guidance for the performance of market analyses by National Regulatory Authorities (NRAs). Should an NRA determine that a relevant market is not effectively competitive, it can impose specific regulatory obligations on actors with significant market power. The Access Directive and the Universal Service Directive regulate the obligations to be imposed. These may consist of the provision of non-discriminatory access or interconnection, or they may include price control and cost accounting obligations.

- Shortly after the entry into force of the Directive, the Commission published a Recommendation (European Commission, 2005) dealing with the specific requirements that NRAs should impose to the operators for the purposes of implementing accounting separation and cost accounting systems under both directives.
- A second Recommendation (European Commission, 2010c) followed, guiding NRAs in their design of effective remedies under the Access Directive, and advising NRAs to take into account any arrangements among operators aimed at promoting competition and at diversifying the risk of deploying optical fibre networks to connect homes or buildings.

A third Recommendation (European Commission, 2013[53]) was subsequently published. It further discusses the regulatory principles established in the second, and deals with the consistent application of the regulatory obligations that NRAs can impose under the Access Directive. This Recommendation also discusses the conditions that may call for or speak against the regulation of wholesale access prices. However, these principles are without prejudice to decisions imposing functional separation (or accept voluntary separation undertakings) under the Access Directive.

Box 5.4. The European Commission's guidance on structural separation in the broadcasting

In the public service broadcasting sector, the Commission has published a guidance (European Commission, 2009[54]) that, among other aspects, invites EU Member States to consider structural or functional separation of significant and severable commercial activities. This best practice is recommended because structural separation facilitates the avoidance of cross-subsidisation and help to ensure transfer pricing. At the same time it respects the arm's length principle when public broadcasters perform non-public-service activities through commercial subsidiaries.

5.2. The United Kingdom

Under the 2002 Enterprise Act⁸² the United Kingdom's national competition authority (currently the Competition and Markets Authority, CMA) may perform market studies when it has reasons to believe that the process of competition is not working effectively in a given market. These studies do not result in the finding of an infringement, the imposition of fines or follow-up damages actions; instead, the CMA can make a reference for a market investigation that might lead to a wide range of remedial actions including also structural measures.

The design and choice of remedy should balance advantages and disadvantages, on the basis of the specific circumstances of each case. The UK competition authority has published a guidance document dealing with market investigations and addressing the imposition of remedies in this framework (Competition Commission, 2013_[47]).

Enterprise Act 2002, Chapter 40, at Part 4. www.legislation.gov.uk/ukpga/2002/40/pdfs/ukpga_20020040_en.pdf.

Box 5.5. UK Guidelines for Market Investigations

The United Kingdom's Competition Commission (whose functions have been transferred to the CMA) has published a set of Guidelines (Competition Commission, 2013[6]) discussing the role, procedures and assessment of market investigations - which could follow a regulator referral - as well as the remedial measures that the CMA may prescribe in case it encounters adverse effects on competition following one of these investigations.

As described by the Guidelines, the choice of remedy depends on the case, and requires the exercise of judgment by the CMA with regard to legal, factual and economic factors. The CMA must consider whether remedial action is necessary and it must seek a "comprehensive solution" to the adverse effect on competition, preferably addressing its causes rather than its symptoms or effects. The principles of effectiveness and proportionality must guide the CMA in this task. The authority must choose the remedy option most likely to be effective and practicable – factors affecting this likelihood include the possibility of effective implementation, monitoring and enforcement, the timescale (both in terms of how durable the remedy's effects are and in terms of how quickly these effects will show), the regulatory provisions that are applicable or expected to come into force in the near future, and the way a remedy may interact with other remedial measures imposed in the context of the same case.

The principle of proportionality must also guide the CMA's choice. The document provides guidance on how to apply this principle to the circumstances of each case.

Before deciding on a remedy, the CMA has also to assess the positive and negative impacts of remedies on any concerned parties (using quantitative analysis when appropriate) as well as relevant customer benefits (such as economies of scale and/or scope or quality improvements), which parties must allege.

After providing an overview of the different remedy types and their characteristics, the Guidelines outline a decision framework for the authority to follow in its remedy selection, including a discussion aimed at facilitating the application of the principles described above to different specific situations.

The Guidelines include an Annex that provides further detail on the key considerations regarding the design and implementation of divestiture and IP remedies, conduct remedies and recommendations.

5.3. Australia

The Australian Competition and Consumer Act83 provides, in Section 87B, the possibility of imposing both structural and behavioural measures, in a general manner. The Australian Competition and Consumer Commission (ACCC) has issued a set of guidelines illustrating its approach to the administration of undertakings under section 87B (Australian Competition and Consumer Commission, 2014_[48]). Although these guidelines do not provide detailed guidance on the choice of remedy, they do list the typical elements that an

Competition and Consumer Act 2010, Act No. 51 of 1974, www.comlaw.gov.au/Details/C2013C00004.

undertaking will normally contain, together with an undertaking template. Four compliance program templates, adapted to different company sizes, are also available to be used for the purposes of formulating undertakings (Australian Competition and Consumer Commission, 2014_[48]).84 A more specific guidance document dealing in detail with the application of access remedies was published in 2016, as described in Box 5.6.

Box 5.6. The ACCC's Part III Access Undertakings Guidelines

The Australian Competition and Consumer Act set up a legal regime to facilitate the access of third parties to services provided through facilities in a natural monopoly setting. Essentially, these services may be provided following an obligation imposed by the relevant Minister, or service providers may offer the ACCC an access undertaking.

The ACCC has issued a guidance document (Australian Competition and Consumer Commission, 2016[57]) on these so-called Part IIIA undertakings, which describes the different stages of the ACCC's process for assessing access undertaking applications. It also contains guidance on how to draft an access undertaking (such as the types of provisions that applicants may consider including in their proposed undertakings) and the monitoring and enforcement of accepted access undertakings.

When it comes to vertical integration concerns, these guidelines establish a clear preference for full structural separation, which in the authority's view cannot be replaced by behavioural remedies. Parties submitting Part IIIA access undertakings are encouraged to provide the authority with structural solutions. The guidelines also contemplate alternatives to full structural separation, particularly measures to avoid discrimination.

For the production of these Guidelines, the ACCC worked on the basis of its own experience in assessing Part IIIA access undertakings. The document incorporated the input from a broad variety of actors gathered through a public consultation.

5.4. Singapore

The Singapore Competition Act⁸⁵ is of general nature and does not contain detailed guidance about how remedial action shall be undertaken by the Competition Commission of Singapore (CCS). The Act simply empowers the CCS to "give directions to bring the infringements to an end" (this provision encompasses not only anti-competitive agreements and abuse of dominance, but also anti-competitive mergers). However, Article 61 of the Act allows the authority to issue non-binding guidelines shedding light on how the CCS will interpret and apply the Act. Three guidance documents have been issued specifically addressing remedies, two of which deal with merger procedures while one of them refers to competition infringements in general.

The CCS Guidelines on Enforcement (Competition Commission of Singapore, 2007_[49]) refer to the implementation of concerted practices and abuse of dominance provisions in

These templates are available at www.accc.gov.au/business/business-rightsprotections/implementing-a-compliance-program#download-the-templates.

Competition (Cap Ed). http://statutes.agc.gov.sg/aol/download/0/0/pdf/binaryFile/pdfFile.pdf?CompId:a5c81af7-2538-4a5e-b06f-63d6ee459b0a.

Singaporean competition law. As the CCS "may give such directions as it considers appropriate to bring an infringement to an end", the guidelines specify that "[i]n some circumstances, the directions appropriate to bring an infringement to an end may be (or include) directions requiring an undertaking to make structural changes to its business".

5.5. Common points and divergences among jurisdictions

Although the abovementioned guidance documents have been issued by jurisdictions located in very diverse geographical points, some of them share common points. However, numerous differences between the documents can also be found. This subsection will point out some of the most salient points in which these guidance documents coincide and differ.

Issuing authority. Some of the available guidance on structural separation as a competition remedy has been issued by competition authorities. The European Union stands out as an exception, since in this jurisdiction guiding principles have been issued not only by the competition authority (the European Commission), but also by the legislative (in the form of regulations and directives) and the judiciary power (as legally binding case-law that provides a complement to legislative provisions).

Binding force. There is no clear trend on the documents' binding power. Some of the documents, like the EU electricity and gas Directives, do mandate the imposition of structural separation measures, providing indications on the exact terms in which this separation must be carried out. Other guidance documents, like the UK's investigation guidelines, explicitly state they are not binding.

Level of detail. The extent to which the relevant authorities go into detail is also varied, ranging from a very general statement (see Singaporean guidance), to the mention of specific forms of structural separation (see European Union or Australia).

Explicit provision for structural remedies. Whereas most of the guidance documents make explicit provision for the possibility of imposing structural remedies in non-merger cases, others, like the European Union's regulation of remedies in commitment decisions, merely refer to the fact that relevant authorities may carry out the necessary actions to remedy anti-competitive situations without making any explicit mention to a particular remedy type.

Sectorial guidance. The EU jurisdiction provides guidance on the imposition of structural remedies tailored to specific economic sectors. Other guidance documents are intended for horizontal application across different economic activities. The ACCC guidance stands in the middle, being intended for use in natural monopoly settings while promulgated by its access conditions part of the authority, that has no reflection at most other competition authorities.

Remedy hierarchy: The different jurisdictions selected have acted differently on the question of whether to establish a preference for certain types of remedies over others. For instance, some of the guidance issued by the European Union prioritises certain forms of separation over others (such as the guidance issued for the electronic communications sector, which presents functional separation as a last resort measure), whereas other guidance documents, like the UK's, prefer to provide for the possibility of different remedies without establishing a clear hierarchy between them.

It is interesting to note that this diversity does not apply to merger control cases. In this context, most jurisdictions seem to agree that structural remedies are the preferred solution. Details on these parallelisms are included in Box 5.7 below.

Box 5.7. A preference for structural remedies in concentration cases

European Union

As noted above, in the context of non-merger cases, Article 7 of Regulation 1/2003 establishes a hierarchy between behavioural and structural remedies, the former are to be preferred over the latter in cases not involving mergers.

This prioritisation contrasts with the Commission's position in merger cases. Under the EU Merger Regulation, structural remedies are preferred – this preference arises from the premise that, since mergers bring about structural changes to a market, structural solutions typically constitute the most adequate response. However, the Commission's practice in merger and competition remedies is increasingly converging, with "the same guiding principles [being applied] in both instruments". This convergence has "led to increased predictability for companies and practitioners and has strengthened [the European Union's] remedy policy overall". This is particularly evident from the increasingly frequent application of quasi-structural access remedies in competition cases.

It can be argued that in practice this hierarchy of remedies is not as relevant as it may seem: the Commission would have to find two or more different remedies that complied with the necessity and proportionality requirements, and moreover, these remedies would have to be equally effective. Only in this unlikely case, the hierarchy between behavioural and structural remedies would play a role. On the other hand, when considering the Regulation's Recital 12, this hierarchy could be considered to be comprised in the proportionality requirement, therefore playing a role much earlier in the analysis.

Australia

The Australian Competition and Consumer Authority (ACCC) displays the same deference towards structural solutions with regard to mergers. The ACCC's Merger Guidelines Invalid source specified. declare a "strong preference" for structural undertakings, which are to be preferred over behavioural ones whenever possible, since they address competition concerns in a durable manner at low monitoring and compliance costs. Behavioural remedies are considered to be usually inappropriate on their own, rather serving as a useful complement to structural measures.

Canada

The Canadian Competition Bureau's "Information Bulletin on Merger Remedies in Canada" (Competition Bureau of Canada, 2006) notes that structural remedies are "usually" necessary to address the competition concerns arising from a merger, describing them as "typically more effective". The Bureau explains this preference for structural solutions by noting that it is the structural change to the market resulting from a merger that tends to create anti-competitive effects. It follows that the authority must tackle these structural changes, rather than firm behaviour, in order to address competition concerns raised by a merger.

United States

The Antitrust Division of the US Department of Justice has issued a Policy Guide to Merger Remedies (2011[60]) illustrating the Division's approach to assessing the effectiveness of remedies proposed in merger cases. The document advocates for structural remedies, perhaps in conjunction with behavioural remedies, in horizontal mergers. For vertical mergers, behavioural remedies are considered more likely to effectively address competition concerns. A similar approach is followed by the Federal Trade Commission (2010[61]).

Hong Kong

The Hong Kong Competition Commission has issued, in collaboration with the Communications Authority, a Guideline on the Merger Rule (2015[62]), providing guidance on the Commission's practice with regard to merger control. Whereas the document does state that the authority is empowered to impose both structural and behavioural remedies, it also specifies that in most cases

structural remedies will be preferred by the Competition Commission, citing a number of advantages that structural remedies have over their behavioural counterparts.

United Kingdom

The same preference for structural remedies in merger cases has been officially stated by the UK's competition authority (Competition Commission, 2008[63]). The authority's Merger Guidelines note that structural remedies are "normally preferable" because they can deal with a mergers anti-competitive effects in a more comprehensive manner than behavioural remedies, which may moreover result in market distortions while requiring enforcement and monitoring once implemented. Behavioural remedies are generally imposed in merger cases only when other solutions are not feasible or proportionate, when the merger's anti-competitive effects are expected to be short-lived, or when relevant customer benefits are substantial compared to the lessening of competition.

Singapore

The CCS Guidelines on the substantive assessment of mergers (2007[64]) note that a key factor for the CCS's choice of remedy will be the remedy's ability to address the concentration's anti-competitive effects. They include a section on structural remedies, which specifies that "the CCS considers that structural remedies are preferable to behavioural ones, as they tend to address the competition concerns created by the merger more directly and also require less monitoring". The Guidelines imply an effectiveness test, since the CCS is meant to consider "how adequately the action would prevent, remedy or mitigate the competition concerns caused by the merger", choosing the remedy on the basis of whether it will restore competition. Therefore, although the Guidelines do acknowledge that structural remedies are likely to be the preferred solution, other types of remedies may be considered depending on factors such as effectiveness or costs. The Guidelines on Merger procedures (2012[65]) also establish a preference for structural commitments, since behavioural commitments generally require more monitoring. This preference has also been stated with regard to penalties.

Chapter 6. Conclusions

Competition is a cornerstone for well-functioning markets. It is of benefit to society as a whole that it is preserved and fostered, since it increases innovation, productivity and economic growth. When competitive market conditions are distorted, or can potentially be distorted, for any reasons (e.g. firms or consumers' behaviour, regulatory frameworks, market structure, or a combination of these), the relevant authorities may act in order to prevent competitive harm by removing barriers to competition or preventing them from arising, restoring or preserving a level playing field in the market. In this case, they may exert one of their key powers, namely the ability to order remedial actions.

Although Mexican authorities have applied structural remedies in the framework of economic concentrations, certain legal provisions recently introduced have added structural remedies to the toolbox of COFECE, IFT and CRE in a number of new and different scenarios. Considering the recent implementation of these reforms, it is useful for Mexico to lean on guidance from international experiences and best practices, which can improve the enforcement of these legal provisions.

Structural and behavioural remedies constitute a very useful resource for competition authorities. They may adopt many forms and are therefore suitable for a wide variety of cases – they have been used by authorities in mergers, abuse of dominance cases, cartels, or as a corrective measure following a market investigation. However, their application in antitrust cases is not extensive, as competition authorities usually prefer to impose alternative measures in these contexts.

Remedies should be capable of putting to an end situations that harm competition, prevent them from taking place or from reoccurring. Moreover, they should be able to restore – and at the same time - preserve competition. Since both behavioural and structural remedies have both advantages and limitations, there cannot be a single formula determining in which situations their use is appropriate. The relevant authorities must carry out a delicate case-by-case assessment and balancing exercise in order to determine which type of remedy, or combination, is most appropriate for each case, taking into consideration a number of different factors.

Remedies must be capable of fulfilling their aims while staying proportionate, according to the specific case. They should avoid deterring efficient conduct by firms or reducing incentives to innovate, respecting the general market dynamics and their potential future evolution. Authorities should make sure that the remedy can be enforced and its compliance monitored, minimising the associated costs. Timing can also have an impact on the effectiveness of remedies; authorities may want to consider the possibility of consulting on the proposed remedies before reaching a final decision on their imposition.

Structural remedies constitute a powerful tool that competition authorities, regulators and governments can utilise to improve competition in the market and correct market failures.

One of the advantages of these remedies is that they address directly the source of the competitive harm with a long term impact. They are also considered cost-effective in terms of implementation compared to behavioural remedies. However, they may also create inefficiencies, for instance creating duplication of investment and loss of efficiencies. Their implementation is not always straightforward, from identifying the correct assets' price to selecting the right form of structural separation, finding the right approach could result in a challenging exercise.

Despite the lack of a reliable method to determine the opportunity of applying structural remedies, a series of scenarios that have usually called for their use can be identified. Among these scenarios, regulated sectors seem to be those where structural remedies are more likely to be imposed. Structural remedies have been used by jurisdictions around the world in a variety of different sectors. International experiences show that the degrees of separation applied can vary, as can the methods used for the application of remedies, with the latter ranging between top-down imposition by law and negotiated procedures. Similar remedies can be applied with different results depending on the circumstances. Moreover, despite the relevant authorities' best efforts, the improvement in competition conditions that remedies were expected to bring about may fail to be realised. This is the reason why ex-post assessment and continuous monitoring by the relevant authorities (or independent third parties) is crucial to guarantee a successful remedial application.

Despite the fact that structural remedies are in principle intended to last over time, it may be necessary to adapt them over the course of their implementation. The relevant authorities of different countries have provided examples of how structural remedies can be partially reversed (see the gas sector in Russia), complemented with additional measures (see the UK railway sector), or otherwise adapted – as in the Australian railway case – to ensure that their objectives are met. However, it should be mentioned that these examples occurred mainly in the context of regulatory framework where monitoring is continuous.

International experiences prove the importance of carrying out a case-by-case assessment of the different remedies that may be adequate to each particular case. However, certain basic principles can be synthesised and used as general guidance for the relevant authorities to design, impose and implement structural remedies. The relevant authorities may choose to publish the output of these reforms in the form of official guidance. Several jurisdictions across the world have published such guidance, elaborating on the principles applicable to remedial choice and design in different degrees of detail. Moreover, the existence of guidance documents can increase legal certainty and decrease arbitrariness on the part of the public administration.

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