Administrative Council for Economic Defense

Guide
for Horizontal Merger Review

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GUIDE FOR HORIZONTAL MERGER REVIEW

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CONTENT

1 INTRODUCTION

The Administrative Council for Economic Defense (CADE) is to review all mergers that fulfil the requirements established by Articles 88 and 90, Items 1 through 4, of Law 12529/2011. Previous laws, such as Law 8884/2011, had already established this responsibility belonged to CADE, albeit with different requirements. The first Guide for Horizontal Merger Review was produced in 2001, according to SEAS/SDE Joint Ordinance 50 (1 August 2001), to meet the objectives of Law 8884/1994. This Guide is an updated version of that first one, this time written in accordance with Law 12529/2011, following the best practices adopted by antitrust authorities from North America and Europe.

This Guide solely regards horizontal mergers, that is, transactions involving competing firms or firms that are potential competitors. It is aimed at:

(i) providing greater transparency to CADE's reviews;

(ii) guiding CADE's personnel to use best practices to review mergers that result in horizontal concentration; and

(iii) assisting market players in understanding the steps, techniques and criterion adopted by CADE on its reviews.

The methodology suggested is not binding nor a rule, and it is not aimed at exhausting all possible review methods. Furthermore, the analytical method adopted by CADE is to fit each specific case.

According to Article 88, Paragraphs 5 and 6, of Law 12.529/2011, mergers that result in reduced competition in a significant part of the relevant market, that create or strengthen a dominant position, or that result in the firm obtaining control of the relevant market of goods or services must only be authorized should the analysis of efficiency gains (item 3 of this Guide) uncover the following:

(i) simultaneously or alternately:

(a) increased productivity or competition;

(b) better quality goods or services;

(c) technological or economic efficiency and development; and

(ii) costumers are expected to derive substantial benefits from the merger.

Mergers may have concurrently negative and positive effects. The negative effects may be: price rises for customers; decreases in quantity, quality and/or the variety of products or services at a given price; and a slower pace of innovation in contrast to the levels before the transaction.

On the other hand, there may be a number positive effects such as: a potential increase in productivity and competitiveness resulting from specific productivity gains associated with the transaction; better quality products; a greater variety of products; technology improvement, amongst others.

CADE is responsible for assessing whether the negative effects from the transaction overcome potential positive effects. In other words, a merger is more likely to be cleared if the resulting net profit is non-negative for customers.

A priori, we cannot determine whether a transaction is beneficial or harmful. Therefore, a case-by-case review approach is necessary, taking into account specific productivity gains associated with the transaction and potential negative effects resulting from a probable increase of market power. It regards a non-negative net effect condition on the economic welfare of customers.

2 REVIEW

2.1 Introduction

Horizontal mergers result in an overlapping of the activities carried out by firms operating in the same stage in the production chain. In order for CADE to assess whether there are overlaps, the firms involved in the transaction (and their respective corporate groups) must report all activities they carry out in Brazil, indicating the goods and services sold in the most unbundled manner possible.[1]

Once CADE has the applicants' reports, the agency reviews similar products together to assess whether there are any horizontal overlaps.

There are several ways to follow these steps and carry out a merger review, as specified below and graphically represented in Annex 1.

2.1.1 Traditional merger review process

In general, CADE conducts the review in four or five steps, namely:

(i) definition of the relevant market;

(ii) analysis of the level of horizontal concentration, indicating whether the new firm can exercise their market power;

(iii) assessment of whether the new firm will be able to exercise market power as a result of the greater concentration associated with the transaction, considering aspects such as:

- the possibility of a timely, likely and sufficient entry;
- the level of competition in the market after the transaction;

(iv) assessment of buyer power in the market prior to the transaction, or created as a result of the transaction, in case of input markets;

(v) evaluation of potential economic efficiencies associated with the merger.

[1] It is understood that there are overlaps even in cases where there is only indirect compensation for the sale of products or services. That is, the applicant is part of a market even if it offers "X" product as a (free) "gift" linked to the purchase of another product of a different market. In such cases the turnover may not be the best way to measure the outcome of the parties in the market. Instead, depending on their area of operation, we may consider: (i) the amount of units distributed; (ii) the number of advertisements carried; (iii) the firm's participation in other segments; amongst other elements. It is worth noting that, in some cases, tie-in sales may be considered an antitrust violation and/or a violation of the provisions of the Brazilian Consumer Protection Code.

These steps are not mandatory; thus, no particular order needs to be followed. For the majority of cases, these steps are enough for the CADE to issue on whether the transaction should be blocked, cleared unconditionally, or cleared subject to remedies.

2.1.2 Alternatives to the traditional merger review process

Market shares are not the only aspect to be considered in a merger review, as it will be demonstrated in Part 4 of this Guide.

Consequently, additional and alternative review methods (such as simulations and counterfactual analysis) and/or other aspects (in case of removal of mavericks, two-sided markets, amongst others) may be considered in merger reviews.[2]

2.2 Sources of the information used in merger reviews

At its discretion, CADE may review a merger using statements from market players and other evidence usually admitted by law without having to consult all market players.

The most relevant sources of information are applicants, customers, competitors, suppliers, regulatory agencies, trade unions and associations, ministries, market experts, amongst others.

Statements provided by market players and document analysis may be an independent analytical path that offers relevant information unobtainable by any other means.

2.2.1 Applicants

Applicants are encouraged to submit documents, records, data, quantitative and/or qualitative studies, as well as strategic plans, reports and other documents related to the transaction. Information provided by shareholders or investors are useful for measuring the impact of the merger. The financial terms of the transaction also provide useful information on potential competitive effects associated with the merger.

[2] Mavericks are firms that play a disruptive role, that is, they are more likely to divert than most competitors.

It is important that CADE and the applicants establish an open and direct line of communication between them. All answers provided must be substantiated and the information must be precise and complete, indicating the source for any calculations and submitting all available corroborating documents. Should applicants be unable to provide precise information, they are to provide estimated information, indicating the respective sources and calculation methodology used, in order to allow for such estimations to be replicated. This is a key aspect for transactions submitted both for summary and in-depth ordinary review.

Applicants are expected to submit to CADE, whenever possible:[3]

(i) market studies, researches, reports, projections and any other documents, even when produced third parties, related to: the competitive position of the firm and its rivals; demand and supply conditions; dispute for customers; strategic behaviour (such as price, sale, launches, innovation, and market entry/exit); claims of antitrust violations committed by firms in the relevant market, amongst others;

(ii) marketing reports, commercial reports, brand disclosure plans and strategies, product positioning reports and any similar documents;

(iii) strategic plans, business plans, growth and contingency plans, and any similar documents.[4]

Applicants may, before CADE makes a formal request, submit along with their application: information maps indicating the location of their production plants and of those belonging to their rivals, including the corresponding latitudinal and longitudinal range; sales reach of applicants and their rivals; an estimate of the distance customers are willing to travel to purchase the products.

Such information and estimates must be based on prior contracts, relative costs of products/transportation, characteristics of the product, and other relevant considerations.

[3] Furthermore, applicants may assist CADE in preparing questions to be put to other market players.

[4] Annex 1 of CADE's Resolution 2/2012 (Item IV.2)

2.2.2 Customers

Customers may be consulted on questions related to the transaction and the market at issue, such as: to what extent they divert their demand or consider diverting it due to changes in relative prices; whether, in the past, they have diverted or considered diverting purchases in response to these changes; whether there is a possibility of market segmentation (with price differentiation or any other sort of distinction) that allows firms to adopt different commercial strategies.

2.2.3 Other agents

Rivals, suppliers, regulatory agencies, associations, market experts, amongst others, may provide information by means of documents, market studies and reviews of market conditions (prices, quantity, quality, distribution or innovation).

Rivals may provide information on differences in supply and/or price structures between neighbouring geographic areas, possible imports, entry, and competition.

Suppliers may provide evidence of the purchasing power of the parties, and of entry possibility.

Government bodies, such as ministries, regulatory agencies and sectoral institutions, may provide information on the registration of products commercialised, the number of accredited businesses, entry requirements, amongst others.

2.3 Relevant market

2.3.1 Introduction

Defining the relevant market involves identifying the set of economic agents (customers and producers) that actually respond to and limit decisions of the merged firm regarding strategies such as price, quality and quantity, amongst others.

CADE may establish the limits of the relevant market or leave its definition undetermined, particularly when there is low concentration in all possible scenarios, considering different geographic and/or product specifications.

Although the definition of the relevant market is a useful tool, it is not an end in itself. The identification of possible competitive effects involves considering conditions that are sometimes outside the predefined relevant market. Thus, the definition of the relevant market is not binding, both because it is a mere analytical tool and because of market dynamics.

2.3.2 Relevant market dimensions

The definition of the relevant market takes into consideration both product and geographic dimensions.

Product dimension

With regard to the demand, product dimension in the relevant market involves goods and services regarded as substitutes by customers given their characteristics, prices and uses. In order to ascertain the degree of substitutability, it is observed whether customers are likely to shift their demand to other products.

For that purpose, CADE takes into consideration several aspects, such as:

- customer profile (income, age, gender, education level, occupation, location, mobility, or other observable characteristics);
- market size (quantity or revenues);
- nature and characteristics of products and/or services;
- relevance of goods and/or services prices for customers' choice;
- relevance of goods and/or services quality for customers' choice;
- relevance of brand, credit, payment terms, form and time of consumption for customers' choice;

- evidence of past changes in the buying patterns of customers as a response to price increases or market conditions;
- information from researches conducted with customers, rivals, amongst others;
- documents provided by applicants indicating their understanding of the degree of substitutability of products, when presenting the market to shareholders or to the public;
- evidence of price discrimination amongst customers, locations and brands.

Geographic dimension

The geographic dimension is related to the area in which firms make their products available or in which customers seek to buy what they need (products or services), within which a monopolist may profitably impose significant price rises.

To make this assessment, CADE takes into consideration several aspects, such as:

- location in which applicants are based;
- location in which rivals are based;
- customer location;
- location in which products are sold;
- customer buying habits (whether customers travel to buy products or suppliers travel to sell their products, or both);
- the distance customers are used to travel to buy products;
- the distance suppliers are used to travel to sell their products;
- differences in supply and/or price structures between neighbouring geographic areas, including possible imports;

- distribution/transport costs in relation to the price of products;
- time issues and other difficulties in transporting the products (in terms of safety and viability, and regulatory and tax issues);
- costs involved in switching suppliers located in a different geographic market;
- the need for suppliers and customers to be in proximity;
- share of imports in the domestic supply;
- evidence of customer migration to different geographic areas as a response to price rises or changes in market conditions.

Such information is used to conduct the hypothetical monopolist test (see Item 2.3.4).

The geographic classification of markets is based on customer location, supplier location, or the location of customers and suppliers (in the case of mixed markets).

- Markets at a distance (based on customer location) are those in which sellers make their products available at the location where customers are based, by means of distribution logistics. Given the relevance of distribution, aspects such as freight costs, available means of transportation, delivery time, product specificities, amongst others, must be detailed. The total amount of products available at the customer location are to be considered in the calculations, regardless of where the product supplier is based.
- Traditional markets (based on supplier location) are markets in which buyers travel to purchase the product. the sales made in the supplier location are considered in the calculations, regardless of where the customers are based. The same firm can operate in different geographic markets without incurring in geographic clustering.[5]

[5] In other words: the fact that a firm supplies its products to different cities in a given state is not enough for its geographic reach to be considered as statewide. Should it happen that, after a small but significant and non-transitory increase in price

- Mixed markets are those in which the aforementioned markets mix. Traditional stores with delivery services provide customers with the options of either purchasing the product in person (traditional retailing) or having the product delivered to them through a distributor (distance retailing). In this case, CADE takes into consideration: the prevailing kind (whether the flow of traditional or distance retailing); which kind prevails with the parties involved in the transaction; whether there is a distinction between the profiles of customers who make purchases directly at the establishment and of those that opt for having the product delivered to them; and what is the cross elasticity between both.

2.3.3 Supply-side substitutability

The definition of the relevant market considering supply-side substitutability is related to the assessment of the capacity and availability of other firms to start producing and supplying the product at issue in a said area, after a small but significant and non-transitory increase in price (SSNIP) and in a short length of time.

In other words, it is observed whether, given an increase in the sale price, other firms can offer the goods in the same geographic market applicants operate. The assessment of supply-side substitutability is the same one involved in the barriers to entry analysis (see item 2.5.1), with some specifications: (i) products must be supplied in less than a year and (ii) without it being necessary to incur in sunk costs.

Following international practices, CADE favours defining the relevant market considering the demand and understands considerations involving the supply-side to be an additional factor to be considered when assessing the effects of the transaction.

2.3.4 Basic concepts

Hypothetical monopolist test (HMT)

(SSNIP), customers switch their demands to suppliers located in a different area and the price rise becomes unprofitable, then the geographic scope established should include both areas.

The hypothetical monopolist test assists in the definition of the relevant market by contrasting it to the smaller group of products and the smaller geographic area needed for a hypothetical single seller to be able to impose a SSNIP. The test takes into consideration the response of customers to a hypothetical price increase. The degree of substitutability amongst goods or services is thereof assessed as a means to define the relevant market.

At first, the test considers goods produced and sold by the firms involved in the transaction and the whole territorial extension in which they operate.

Subsequently, the test broadens sets of products and geographic markets until it identifies a market in which it is possible a small but significant and non-transitory increase in price (SSNIP) for a hypothetical monopolist of certain goods in this area.

In case the test result shows that the hypothetical monopolist does not consider the price increase to be profitable, the definition of the relevant market will comprise the closest product substitute and/or the location from which the product at issue comes from (its closest substitutes in geographic terms).

The first group of products and locations identified will be the smallest group needed for a hypothetical monopolist to be able to impose a SSNIP. This will be the relevant market defined in its product and geographic dimensions. In case there is enough information available, CADE uses the critical loss analysis to conduct the HMT. However, even if the HMT is not used, its logic is always used when defining the relevant market, that is, the product and geographic dimensions must be determined in order to limit the decision-making capacity of the new firm as to prices and quantities.

<u>Hypothetical monopsonist test</u>

The hypothetical monopsonist test is used to assess the unilateral effects of buyer power.

The test delimits a geographic area, product and period in which the establishment of a hypothetical monopsony in the intermediate market could be an incentive that could cause a significant and non-transitory decrease in the buying price of its inputs in the upstream market.

This hypothetical scenario would raise antitrust issues, particularly in case it encourages the monopsonist to restrict supply and increase prices in the downstream market. Therefore, the monopsony power of the intermediate market, even if hypothetical, can be assessed along with projections of market power in the downstream chain.

2.3.5 Methodology

CADE may define the relevant market considering simultaneously or alternately:

a) analysis of qualitative information; b) use of price information; c) analysis of the flow of customers and goods; d) area delimitation; e) whenever possible and relevant, quantitative methods may be used, such as the analysis of critical loss (or of critical elasticity).[6]

The methodologies mentioned herein do not prevent CADE from using other means for the assessment and definition of the relevant market that come to be developed.

Analysis of qualitative information

The qualitative analysis is the initial stage for the definition of any relevant market that allows the analysis of product characteristics and its final use to be used to assess operational substitutability.

In addition to the aforementioned information, the qualitative analysis also takes into consideration information provided by suppliers, rivals and customers of applicants when trying to understand market dynamics (see Items 2.2 and 2.3.2).

[6] The critical loss analysis examines, quantitatively, whether a price rise (usually defined at 5%) is profitable, considering the profit margin and the price elasticity of market demand. An example can be found in: WERDEN G. J., Beyond Critical Loss: Tailoring Applications of the Hypothetical Monopolist Paradigm. US DOJ Antitrust Division Economic Analysis Group Discussion Paper no. 02-9. 2002.

Information obtained from market studies on demand deviation, and data on closer product substitutes allows, for instance, the elaboration of plausible scenarios of the relevant market.

If market players provide valuable and factual information, the data will provide an adequate definition of the relevant market or, at least, scenarios for analysing the effects of the transaction.

b) Price information

Price differences influence customer decision; therefore, it delimits the relevant market. At first, it is difficult to define how great the price difference must be for it to justify the segmentation of the relevant market.

There may be some competition amongst products with different characteristics and prices. Consequently, from an antitrust perspective, certain products may be substitutes even if there are significant price and quality differences. The existence of extreme price variation is, however, relevant for any segmentation of niche markets.

An analysis of the way prices collectively change may help to understand the market from the perspective of both product and geographic dimensions. Substitute products are likely to have related prices, that is, prices that change collectively.[7]

However, this may not be a satisfactory factor to define the relevant market, since price changes may result from other variables such as regular costs changes (input prices), demand changes (income variation), inflation, amongst others. There are empirical models that can answer this question should there be data available.

c) Flow of goods and customers

The flow of goods and customers helps in identifying the geographic markets.

[7] Price correlation and cointegration analyses are examples of empirical models used to define the relevant market.

Methods that make it possible to analyse this flow help determine, for instance, the extent of imports in the relevant market and the number of exports to measure the influence and connection between areas and the possibility of an integrated market.

These exercises can be further complemented with other tools not only to analyse the flow but mainly the response of imports and exports to the relative price of products.

d) Area delimitation

Whenever it is considered possible and necessary, the methodology estimates the maximum distance customers are willing to travel to purchase a desired product or service.

This methodology may consider opinion polls, customer registration with stores, location of ads, amongst other qualitative and quantitative information.

e) Critical loss analysis

The analysis of critical loss, a quantitative method related to the hypothetical monopolist test, may be used whenever deemed possible and necessary. It is one of the applicable methods that use information on demand and price elasticity of demand to deduce whether two or more products are part of the same relevant market.

The analysis assesses how much sales need to decrease in order to cause a price percentage increase that makes the business unprofitable.

As a rule, the critical loss analysis is used to estimate whether a price increase of 5% makes the business unprofitable, considering pre-merger profit margins and market power.[8]

2.3.6 Considerations

Time and seasonal factors

It is related to the periods of time in which the market operates. Seasons of the year and commemorative dates, for instance, are likely to impact the production, consumption and price structures of certain markets. This may be the case in industries with peaks in service

[8] Methodological details can be found in DAVIS, P., GARCES, E. Quantitative Techniques for Competition and Antitrust Analysis. Princeton University Press. Chapter 4.

and production versus regular idle times (such as the transport and electric power industries), and those with seasonal variations (such as the food industry).

These factors must be taken into consideration whenever (i) customers are unable to substitute purchase decisions between different periods of time; and (ii) producers are unable to stock their products over time.

The seasonal factor is significant to define the relevant market properly and to assess market entry conditions and competition in the market.

Relevant market and customer discrimination

The ability firms have to discriminate customers influence the definition of the relevant market to be adopted by CADE.

If a firm can increase prices for a subset of customers–without changing the prices for the rest of the market–, the relevant market can only be defined around the subset of customers affected.

This assessment takes into consideration: (i) the price elasticity of products to different groups of customers; (ii) the possibility of individually negotiating the sale/purchase conditions of the product; (iii) the possibility of segmentation into niche markets, in comparison with the need to adopt a single pricing policy; amongst other relevant factors.

Relevant market and foreign trade policies

The relation between antitrust review and trade defence instruments/changes in the Common External Tariff (CET) is relevant as the order in which each is implemented directly impacts the outcome.

Should the antitrust review be the first carried out, CADE will consider a given national market with fewer entry barriers. Should trade defence instruments or increases in the TEC be implemented after CADE has issued a decision, market variables may be altered, which can hinder products import.

CADE is to consider both existing entry barriers and potential/future entry barriers (such as possible antidumping laws being passed, which may change the degree of rivalry between national and foreign products).

Technology markets

Patent rights allows for temporary monopolies in order to boost the creation of new technologies.

Mergers between technology firms can be assessed as a concentration involving firms providing research services. Concentration involving "research centres" of any given field can be problematic, even if the arising concerns are related to potential and future rivalry in the technology market.

The application of traditional tests for the definition of the relevant market (such as the critical loss analysis) may not identify the effects of this type of transaction, which requires careful considerations at every step of the review.

2.4 Level of concentration

2.4.1 Market shares

Once the relevant market is defined, CADE may consider the market shares of producers.

In markets involving supplier power, data will reflect the supply structure, which may include the productive capacity, the number of units sold of a product, the sales value or any other measure more adequate to be used in the case at hand to identify the competitive conditions in the relevant market.

With regard to the number of sales, whenever possible, the parties must provide information regarding different measuring means such as weight, volume, boxes, packages, amongst others.

In markets involving buyer power, the customer market share will represent the upstream demand structure, which can be calculated, for instance, from the volume or purchase value of each agent. These data can be combined with the downstream supply structure.

The estimated market shares must take into consideration the development of the market and its stability or lack of stability over time. In this regard, in some cases it may be considered the existence of short or long time contracts with customers.

In the case of homogeneous products, the installed capacity and the production numbers indicate the relevance of each supplier in that market; whereas in markets with differentiated products, indicators based on the value of sales is usually more appropriate.[9]

Inputs sold to competitors

In addition to providing information on their market share in the downstream market, applicants must provide CADE with the amount of inputs sold to their competitors and how much of said sales is reflected in their competitors' market shares, as the case may be.[10]

> Firms A and B intend to merge. Both operate in the production (upstream) and retail markets (downstream) of product X, selling it to other players (supermarkets C and D) that also compete in the retail market by reselling product X with their own brand (different packages).
>
> When filing CADE's application form, in addition to informing their respective market shares in the downstream market (retail), firms A and B must also report the market shares of supermarkets C and D regarding their repackaged products. Market players are expected to provide this information whenever it is requested information on the upstream and downstream supply structures, as their participation in the market comprises direct and indirect market shares (via dependent, quasi-integrated or contractually bound agents), even if they can only provide an estimate.

[9] Markets with differentiated products are those in which the products are not only different in terms of prices but also in other specific features (brand, weight, durability, design, versatility, amongst others) or characteristics related to sales policies, distribution policies, or even presales and post-sales services. In sum, other factors determine each product's performance in the market other than the prices. The association of products with brands and the focus on advertising indicates a market product differentiation.

[10] This sort of situation affects downstream competition. Considering that applicants operating in the upstream market (as suppliers) start to show interest in the success of their non-integrated rivals, there is a reduction in the rivalry in the downstream market (similar to passive non-controlling interest of their competitors).

2.4.2 Concentration ratio and causal link

HHI

The Herfindahl-Hirschman Index (HHI) can be used to calculate the level of concentration of markets.

The HHI is calculated based on the sum of the squares of the market shares of each firm competing in a market. The HHI can reach up to 10,000 points, in which case there is a monopolist market, that is, a single firm has 100% of market share.

Simultaneous transactions or transactions with approximate dates can be sumed up for measuring the HHI variation.

Markets can be classified as:

(i) Not concentrated markets: HHI below 1,500 points;

(ii) Moderately concentrated markets: HHI ranging from 1,500 to 2,500 points; (iii)

Highly concentrated markets: HHI above 2,500 points.

Furthermore, the HHI considers the following definitions:

(i) Low concentration variation: transactions that result in HHI variation lower than 100 points (ΔHHI < 100) are not likely to negatively affect competition, thus, there is usually no need for further reviews;

(ii) Situations in which the level of concentration raises concerns in markets that are not concentrated: should, after the merger, the market remain with an HHI lower than 1,500 points, the transaction is not likely to have negative effects, thus, it usually does not require further review;

(iii) Situations in which the level of concentration raises concerns in markets that are moderately concentrated: transactions resulting in markets with an HHI ranging from 1,500 to 2,500 points and an HHI variation above 100 points ($\Delta HHI > 100$) are more likely to raise concerns, in which case it is suggested that further reviews be carried out;

(iv) Situations in which the level of concentration raises concerns in highly concentrated markets: transactions resulting in markets with an HHI above 2,500 points and an HHI variation ranging from 100 to 200 points ($100 \leq \Delta HHI \leq 200$) are likely to cause concern, in which case further reviews are advisable. Transactions resulting in markets with an HHI above 2,500 points and an HHI variation above 200 points ($\Delta HHI > 200$) are likely to result in increased market power. This possible increase may be disproved by substantial evidence to the contrary.

Exceptions to adopting the HHI

The "HHI rule" as an indicator of causal link is an initial assumption, susceptible to other allegations. We emphasise that the HHI rule should not be used limitless in markets with great borders and elevated market dispersion.

Consider the following scenario: there are 200 players in a hypothetical market, each of them has a small market share of 0.5%. In this case, we have a scenario close to perfect competition. However, if a single market player simultaneously, yet separately, acquires the whole market border, one by one, a monopoly may be established and the HHI will not surpass 100 points.

Thus, in the first acquisition the player will acquire 0.5% of market share (0.5% + 0.5%). Additionally, we have:

$\Delta HHI = 2 * S1 * S2$

$=> \Delta HHI = 2 * 0.5 * 0.5$

$=> \Delta HHI = 0.5 \text{ point}$

Therefore, the initial HHI variation would be small (0.5 point) and distant from the alarming causal link (100 points).

In the last acquisition, the player would already have 99.5% of the market share and will seek to acquire the remaining share. So, in said hypothetical situation, the merger review will consider authorising a monopoly (99.5% + 0.5%). And even in this case, there is no significant HHI variation (100 points), as shown below:

$$\Delta HHI = 2 * S1 * S2$$

$$=> \Delta HHI = 2 * 99.5 * 0.5$$

$$=> \Delta HHI = 99.5 \text{ points}$$

Thus, if CADE had strictly adopted the HHI rule, it would have allowed for the establishment of a total monopolistic market, as there were only small acquisitions, one by one, and the HHI variation never surpassed 100 points. Hence, in markets with said characteristics, CADE needs to soften the HHI rule.

The HHI rule is to be softened in cases in which: (i) there is evidence of coordination amongst market players; (ii) one of the parties is a maverick firm; (iii) a potential or new entrant is part of the merger; (iv) there are significant cross shareholdings amongst applicants and their rivals; (v) the concentration level is inconsistent with the actual competitive dynamics (see Item 4.3); (vi) an increase in portfolio power results from the merger (see Item 2.5.3); amongst others.

2.5 Unilateral effects

A merger involving a considerably high portion of the market does not necessarily mean that the new firm will unilaterally exercise their market power.

The first part of this Item will comprise the entry analysis. Subsequently, we will discuss the rivalry assessment considering the nature of the product at issue: homogeneous or differentiated products. Lastly, it will be presented the portfolio analysis.

2.5.1 Entry analysis

Barriers to entry

Barriers to entry may be defined as any existing element in a market that puts a potential competitor at a disadvantage vis-à-vis other established players.

The higher the barriers to entry in a given market, the higher are the costs and time a potential entrant must incur to have a return on its investment. The higher these barriers, the lower the likelihood of new firms entering this relevant market.

Barriers to entry allow established firms to set higher prices and hamper the entry of new competitors with production capacity, since they decrease the probability of effective competition.

These are the most common barriers to entry: sunk costs; legal or regulatory barriers; resources exclusive to the established firms; economies of scale and/or scope; the integration of the production chain; customers loyalty to established brands; and possible reaction from established competitors.

Sunk costs are those that cannot be recovered when a firm decides to leave a market. The extent of these costs mainly depends on the following:

(i) the specificity of the machinery and equipment required;

(ii) the specificity of the human resources required;

(iii) the existence and size of a second-hand market for the machinery and equipment required;

(iv) the existence and size of a rental market for capital goods;

(v) the existence and size of a market for human resources;

(vi) the volume of investment needed for product distribution (promotion, advertising, and creation of a supply network);

(vii) the volume of investment needed for research and development, recruitment and training of personnel, and creation of a supply network.

Legal and regulatory obligations: they are created by the government or regulatory agencies and set the minimum requirements for a firm to be established and operate (such as commercial licenses, permits, and authorisations). These obligations condition the] investment of all potential entrants in terms of time, space, and technology.

Firms' exclusiveness advantage: it is the ownership, the exclusive access or the conditional access to any production input with a limited or inelastic supply at pre-merger prices (for instance, access to suppliers and distributors, contracts with service suppliers or suppliers of specialised capital goods, location, patent control or ownership, in addition to tacit and intangible knowledge of technologies).

These advantages may be related to the establishment of organisations and work teams. Some examples of the difficulties involved in organising complex work teams include: recruiting workers; training technicians and experts of every kind; coordinating several groups of specialists and professionals; and creating administrative, oversight, and promotion systems to allow for efficient production and distribution of goods. Structuring these organisational systems may be time-consuming and be considered a barrier to entry. Due to the impossibility of purchasing such systems in the market, one can also consider this investment sunk costs.

Economies of scale and scope influence entry conditions, as they affect minimum efficient scales, cost increases related to suboptimal scales, and an entrant's position in a market of products also offered by the incumbents (product variety).

Economies of scale: the average cost reduction resulting from increased production, given the price of inputs. Average costs may diminish, amongst other factors, because: fixed costs represent a substantial part of the total costs and if production steps up costs do not rise proportionally, which reduces marginal and average costs; workers' productivity boost as they become experts (more division of labour); the productivity of machinery and equipment swells due to, for instance, more continuous production flow, production process with less idleness in intermediate stages, implementation of dedicated equipment, and lower maintenance costs.

Economies of scope: the average cost reduction resulting from the joint production of different goods, given the price of inputs. Average costs may diminish, amongst other factors, because: temporary or continuous periods of idleness in multifunctional (or flexible) equipment may be used for manufacturing other products, and the distribution and commercial network are used for supplying a bigger set of presale and post-sale products and services.

Economies of scope estimate cost reduction in joint production and, thus, may induce an entry in the market with a number of products, which can mean a greater barrier to entry in case the entry has to happen in two different relevant markets simultaneously (see Portfolio Power).

Integration of the production chain: it can raise sunk costs of potential entrants or require entry in two markets simultaneously. In order to enter two markets a player must have a greater volume of assets and greater technological and organizational capacity.

Customers loyalty to established brands: it is commonly observed in markets that product differentiation strategies are relevant for competition. Entering firms must spend money on advertisement, which becomes a sunk cost, to attract customer loyalty to their products.

Entry records

Analysing market entry records is an additional tool that helps identify the effectiveness of past entrances in the markets under assessment.

CADE may analyse whether in the last five years: (i) a new firm entered the market; (ii) any unsuccessful entry attempt from new players occurred; or (iii) other evidence of effectiveness from past entrances.

Examples of existing firms that entered the market within the last five years can be used as evidence on the entry conditions, as long as it shows the entry conditions in the moment of the analysis.

Likelihood, timeliness and sufficiency

After observing the aspects mentioned above, CADE may assess how and under which conditions market entry occurs.

The assessment may consider specific statistical models that are aimed at determining the conditions in which new players enter the market and their effects on the market. CADE takes into consideration whether a (i) likely, (ii) timely and (iii) sufficient entry is expected.

Likelihood of Entry

The assessment of likelihood entry comprises the sales opportunities available, the idle capacity of the market, the residual value opportunity, and the minimum viable scale.

- Sales opportunities: market shares potentially available to entrants. They are usually calculated based on the relation between current sales and the expected growth for the following years.

- Idle capacity: it concerns the available capacity (not used capacity) of the firms part of the relevant market.

- Residual value opportunity: it concerns the difference between the sales opportunities and the idle capacity of the firms established in the market. In other words, the calculation of residual value considers only sales opportunities that would not usually be captured by the market players themselves.

- Minimum viable scale: it is the smallest annual level of sales that the potential entrant must achieve to get adequate compensation for their capital. Thus, it is observed the investment required and the profit (return on investment) the entrant would have in a given period at the market they intend to enter. It is necessary to identify the entrant's cost (fixed or variable/marginal cost), mark-up and expected volume of sales. Information may be presented or organised as cash flows from the investment project. The entry analysis may consider estimates of the net present value, internal rate of return, payback, discounted payback, and other aspects that show the economic and financial feasibility of the entry.

- Likelihood of Entry Analysis (LEA): it involves a calculation in which the minimum viable scale (MVS) is subtracted from the residual value opportunity (RVO), as presented below.

Thus, the LEA cannot be negative for it to be a likely entry. Furthermore, the higher the LEA, the higher the likelihood of entry in the relevant market under review.

Table 1 - Likelihood of Entry Analysis (Example)

Sales Opportunity (SO)	Idle Capacity (IC)	Residual Value Opportunity (RVO = SO – IC)	Minimum Viable Scale (MVS)	Likelihood of Entry Analysis LEA = (RVO-MVS)	Outcome
100,000	40,000	60,000	50,000	60,000- 50,000 > 0	Likely Entry
100,000	40,000	60,000	100,000	60,000 -100,000 < 0	Unlikely entry

Timeliness of Entry

The examination of the timeliness of entry considers whether the new firm is able to be fully and properly operating within 2 years or in a period considered appropriate to the competitive dynamics of the market affected by the transaction, provided that it happens soon enough to react to possible market power.

All required steps to enter the market are included for review purposes in this time limit, such as planning, design of the product, market studies, permitting, licensing, financial arrangements, construction and operation of the production unit, promotion and distribution of the product.

Should a firm take longer than two years to enter the market, it is understood that this potential entry will not challenge the market power of the merged companies quickly enough.

Sufficiency of Entry

An entry is sufficient if potential new entrants can effectively deter anticompetitive effects resulting from the merger.

Sufficiency of entry happens when the supply rise caused by potential entrants is enough to regulate the market, preventing price rises.

Hence, effective competitors are those able to prevent a post-merger reduction in competition. The substitutability degree of competitors, the existence of barriers, amongst other aspects, must be considered.

2.5.2 Rivalry analysis

Efficient competition between the merged firm and other firms in the market (its rivals) may prevent the firm from exercising its recently acquired market power.

Efficient rivalry is likely in cases in which already-established companies tend to adopt aggressive strategies to increase their market share, counteracting the ability of the new merged firm to exercise its market power. The following elements are common in markets with high degrees of rivalry:

Table 2 - Some variables to be considered in rivalry analysis

ANALYSED VARIABLE	IN HIGHLY CONCENTRATED MARKETS

Market Concentration	There is low market concentration
Price variety	Some players have similar prices for their products, and no agent has more pricing power than the rest. If a player prices differently, it usually indicates a higher pricing power than the market average (not disputed through rivalry) or that the player is part of a different niche markets.
Profit margins	The profit margin is low, as the price is almost the same as the marginal cost.
Market Share Variance	High market share variance, due to all players being involved in market contestability.
Price elasticity of demand	The price elasticity of demand is high.
Cross elasticity of demand	The applicants have many similar competitors or close substitutes (i.e. with high cross elasticity of demand).

Price elasticity of supply	The price elasticity of supply is high as, on the one hand, consumers are very responsive to price variation and, on the other, competitors will respond to any small price rise releasing a great number of goods in the market.

Increase in demand	Market growth is intense and prevents the stability of players' market shares.
Productive assets	There is no need for specific assets or assets that are exclusive to a few market players (or to the applicants).
Conduct oversight	It is not possible for competitors to monitor each other's conduct, both in terms of sales volume and pricing.
Vertical integration and portfolio[11]	Competitors have the same degree of vertical integration, with similar portfolios.
Presale and post-sale services	Should it be relevant, competitors have similar presale and post-sale services.

[11] The degree of integration of the production chain should be considered, since the established firms' need for vertical integration (between supply of inputs and other links) may create barriers to entry or to the competitive performance of entrants, negativelly affecting players that struggle with this sort of integration.

Access to efficient distribution and logistics services	Competitors have, in general, the same access to efficient distribution and logistics services.
Credit access	Competitors have the same sort of credit access.
Dedicated costumers and points of sale	There are only a few already dedicated sales and a few exclusivity and loyalty contracts between clients and suppliers, or between points of sale and suppliers.
Economies of scale and scope	Every market player has the same economies of scope and scale and, thus, incur in the same production costs (they may even be more efficient than the applicants).
Use of idle capacity	Competitors have a way to increase their production in the short term to accommodate a possible diversion of demand, without incurring major costs.

In markets characterised by intense rivalry, there are usually efficient rivals, that is, firms that are able to compete with the merged firm, with equivalent technological capacity, competitive costs and prices, similar product quality and scope, and other factors crucial for a firm to be able to respond to the merged firm.

<u>Idle capacity available</u>

A paramount factor for the efficiency of rivals is how much idle capacity established competitors have available and whether it can be expanded. This component needs to be considered in assessing rivalry, as should the rivals of the applicants have neither extra idle capacity in their factories nor the capacity to expand it, they will not be able to accommodate customers who wish to divert their sales to them in case the merged firm raises its prices.

However, it is worth mentioning that, for there to be a response when a merged firm uses its market power, it is not enough that its competitors have idle capacity or the possibility of expanding it, as its use may not be profitable and the market may have a low level of rivalry (and even tacit and explicit collusion) regardless of the idle capacity available.

Testing for market share stability/instability

To assess whether there is rivalry in the sector, we can test the stability of market shares. In a market with high rivalry levels, it is expected that, first and foremost, competitors feel threatened by each other. This is even more the case when other competitors have great incentive to be more aggressive in the market. In a market with extreme rivalry, rivals punish any slight price rise by a competing firm, leading it to lose market share and profit margin.

The test is aimed at identifying whether there is a given behaviour that leads a competitor to replace a rival over time. Regular changes in the relative positioning of players may indicate rivalry within a market (which may be considered along with other factors, especially price levels and profit margins of each player). Moreover, we need to examine whether this behaviour happens more frequently amongst the applicants (in which case, the transaction may lead to a reduction or even the end of a pre-existing rivalry), or whether there are other market players who also compete for their relative positions in the market (and whether after the transaction these players would keep this same ability to rival the merged firm).

Market balance

Theoretically, a merger may serve all market participants, since all competitors–even those not involved in the merger–could increase its prices and benefit from a part of the diverted demand, should the merged firm decide to raise its prices. Should competitors follow this behaviour pattern, they will be actually "adapting" to the market, with potentially higher prices, not to mention demand.

In case applicants wish to use the argument of rivalry to support their application for merger review, they must prove this adaptive behaviour, in terms of prices or volume, is unlikely to happen. Therefore, a rivalry argument must indicate that the competing products will be repositioned, maintaining (or even increasing) the level of supply at pre-merger prices.

Contrasting homogeneous products with differentiated products helps understand what variables affect rivalry. However, this distinction is only a didactic tool, as most of the products have, to some extent, characteristics of both types of markets.

Market of homogeneous products

In a market with homogeneous products, a merged firm's ability to exploit the market power gained with the transaction will depend on its capacity to reduce its output and raise prices unilaterally. In such markets, we examine whether the merged firm will find it profitable to unilaterally diminish its production and increase the market price.

Production may be reduced if the merged firm a) increases or stabilises its idle capacity; b) refrains from building or acquiring additional capacity, which would be expected without the merger; or c) eliminates its pre-existing manufacturing capacity or diverts this capacity to another relevant market, to restrict supply and raise the price in the market associated to the merger.

Furthermore, in a market with homogeneous products, the production costs of competitors determine their ability to react to a merged firm's market power. Thus, it is expected that the capacity to rival or to absorb diverted demand is, to a great extent, determined by factors connected to production costs (competitiveness amongst firms).

Market of differentiated products

In markets with differentiated goods, market shares and concentration ratios are not as efficient in predicting anticompetitive effects as in markets with homogeneous goods.

In industries with differentiated products, some products may be close substitutes and compete with each other, while others that are less similar are not as able to compete strongly.

Expected unilateral effects of a merger in this kind of market include price rises, as there is greater concentration inasmuch as applicants have very similar products (which consumers perceive as close substitutes–a costumers' first and second choices, for instance). Therefore, one must consider the cross elasticity of demand and the diversion ratio between the merging firms, as the higher these are, the greater the probability of having unilateral effects arising from the transaction.

The degree of substitutability is lower when the technical specifications of products are very strict or when the information available in the market about different combinations of price and quality is complex.[12]

2.5.3 Portfolio power

Portfolio power may prevent the effective entry of new players, decrease the capacity to compete of already-established players, and facilitate anticompetitive practices.

In markets strongly marked by economies of scope, firms with a bigger portfolio benefit from their lower average production costs than other competitors with less product variety.

Owning an extensive portfolio may decrease costumers transactions costs, as they deal with a single firm, which offers several products and brands, instead of many smaller suppliers with one product each.

Establishing a relationship with many suppliers generates relevant transaction costs: every product's prices and conditions must be negotiated, contracts must be written and managed, etc.

Nevertheless, this power may prevent smaller competitors from accessing to the market, as negotiating with them incurs in higher costs for customers. In the medium and long

[12] We should note that when merged firms control the first and second substitutes (and the remaining products are not close substitutes), a price rise in the main product–which would divert demand to the second product–does not reduce the total revenue of the merged firm, even though before the transaction that would be the case.

terms, the favoured firm may take advantage of this condition and exercise the market power obtained, rising the prices of its products and, possibly, gaining market share from smaller firms in the segment.

This player may use its wide portfolio to implement aggressive strategies and eliminate its competition in the market, reducing prices in a segment in which it wants to gain market share while offsetting the losses in other markets (cross subsidization).[13]

A wide portfolio has important effects for players in terms of marketing. A firm that offers several products maximises its brand awareness and marketing efficiency, since by advertising one product all others are also promoted.

2.6 Buyer power

Some mergers and acquisitions entail firms absorbing significant shares of certain inputs. This sort of horizontal integration may result in firms with purchasing power in the market.

Increasing the purchasing power of firms in the market may increase the probability of harm to competition and even lead to a monopsony.

On the other hand, some argue that concentration in the market involving purchasing power may result in a countervailing power that benefits consumers.

We analyse whether buyer concentration (i) creates or intensifies an asymmetric relationship between a buyer and its suppliers and/or (ii) creates the conditions for applicants to increase their influence on market conditions.

[13] Crossed subsidization shapes pricing policies across several markets. A firm may, for instance, bring prices down in markets where competitors are gaining market share, while it offsets this revenue loss either with a price rise in markets in which their dominance is more stable or by thinning out such price rise by splitting it amongst different markets.

Assessing buyer power is a complex task, as this kind of power is associated to lower input prices, which may entail discounts to consumers. Therefore, buyer power must be carefully scrutinised, to preserve possible positive effects for consumers.

Monopsony power

Monopsony power is the market power a buying company exercises to appropriate a supplier's surplus.

CADE considers that a merger between large buyers of inputs may constrain the upstream market through discrimination or imposition of purchase prices.

Monopsony power that causes purchase prices to go below a competitive level, strongly pressing suppliers, may be harmful to competition. That would be the case, for instance, if a firm imposed extremely low prices on its suppliers, creating imbalances in its respective market.

Monopsony power can have negative effects even in the downstream market, with potential consequences for consumers.

Assessing buyer power is usually important when buyers are price-setters and suppliers are price-takers. This is the case in industries where the purchase market for the products is concentrated (i.e. only a few firms acquire the entire production of input) and suppliers are usually less concentrated and more numerous.

If there is buyer power, we first identify whether buyers are truly able to exercise monopsony power and to what degree.

Therefore, we assess if there are really no other buyers within the geographical market to which suppliers can provide their products or services.

Should it be demonstrated that the buying firm has the conditions to exercise significant buyer power, we then proceed to examine whether there are real incentives for this to happen and whether such incentives are increased by the merger.

Should it be concluded that there are incentives for the firm to exercise monopsony power and that there is a causal link with the transaction, we assess how likely it is that the firm will exercise its market power–although the focus is on purchase–to measure the potential harm to consumers and the economic welfare.

Countervailing power

Countervailing power is a situation in which suppliers and/or buyers of a given product/good or service join forces as a reaction to pre-existing market power. Thus, the theory of countervailing power may work for both sides of a business relationship, between two links of a production chain.

In a situation in which two links of a production chain have asymmetrical bargaining power and a firm enjoys pre-existing market power, we examine whether an increase in welfare (especially of the end consumer) can be expected if one of the links were to gain market power, thus creating a countervailing power.

To assess whether the transaction generates efficiencies due to the countervailing power of one of the parties, CADE uses the rule of reason, if it is doable and convenient.

2.7 Coordinated effects

A merger may reduce the rivalry between firms in a relevant market and increase the probability of explicit or tacit coordination, with adverse effects on consumer welfare.

The transaction may also increase the intensity or range of pre-existing coordination strategies.

In order to prevent an abuse of market power, we assess whether the transaction is expected to increase the likelihood of coordination between firms and whether it reduces rivalry levels to an extent it would be profitable to increase prices conjointly or even change other competition variables–such as innovation and quality, which all have strong effects on consumer welfare.

Firstly, we assess whether the specificities of a given market favour coordination by asserting: whether there is consensus amongst players; how fast and easy it is to find out if a participant does not comply with the terms of the agreement; whether there are any guarantees regarding compliance; and whether firms are punished for not complying with the terms of the agreement.

Calculating the aggregate market share of the N largest firms in a market (N-firm Concentration Ratio) helps in identifying such market specificities. For instance, if concentration increases the CR4 ratio (the aggregate market share of the 4 largest companies in a market), making it equal to or greater than 75%, one should further assess whether the transaction allows for firms to abuse their coordinated power.

Thus, the following specificities increase the likelihood that firms will exercise market power in coordination:

- A reduced number of firms and/or a large part of the supply concentrated in a few firms;
- Interaction in several markets (for instance, through frequent contact in several markets due to many products, production units, and distribution);
- Rivals reduced ability to increase supply in the short term;
- Similar production capacity or technological homogeneity amongst firms;
- Product homogeneity, with no need for customization;
- Reduced customer buyer power;
- Frequent and small orders;
- Low price elasticity of demand in the market;
- Transparency in prices, operational capacity, customer base, and other relevant information about competitors and their behaviour;

- Technological stability of products and processes;
- Maturity of the market and predictability of demand;
- Absence of more aggressive and uncooperative pricing strategies (maverick firms);
- A history of coordination in the relevant market at issue or in markets with similar products or geographic areas;
- Corporate, business, or commercial relations that may restrict rivalry and increase information transparency in a given market;
- Low capital costs.

The absence of some aforementioned specificities or the existence of others that reduce the likelihood of coordination must be taken into consideration and analysed along with the other evidence available.

Even when structural market conditions do not facilitate coordination, some practices may create a favourable environment for it (such as announcing price rises in advance, exchanging information, adopting pricing strategies like price-matching, amongst others).

The agency must examine whether there is a causal relation between the concentration and the increased probability of coordination. For instance, a merger may increase the incentives for collusion or coordinated strategy due to the reduction in the number of firms, the creation of a more symmetrical market structure, or the acquisition of a competitor that engages in aggressive competitive practices.

3 EFFICIENCY GAINS

Law 12529/2011 establishes that CADE must consider the specific efficiencies of each merger along with its negative effects (Article 88 (6). This is the previously mentioned non-negative net effect criterion.

The net effects of the merger are assessed by contrasting its specific benefits and the potential losses arising from a reduction in competition.

We emphasise that, under the law, it is required that benefits to consumers be observed in this final assessment of merger effects.

CADE adopts some criteria to examine the efficiencies generated by the transaction.

3.1 Likely and verifiable benefits

Predicting and quantifying efficiencies is no easy task. It is a projection, often difficult to measure, highly uncertain, usually dependent on several factors, and which may or may not come true, to a greater or lesser extent.

In cases in which there is a relevant risk of harm to the market, any benefits that are purely speculative or not particularly likely or verifiable must not be taken into consideration, otherwise there is a chance of mistakenly underestimating severe negative effects on consumers and society as a whole.

3.2 Consumer welfare

From the point of view of businesses, mergers are a means to exploit financial and economic synergies of the merging firms, and are also justified by the expectation of greater surpluses for applicants after the transaction.

Nonetheless, for efficiencies to be considered as offsetting probable negative effects on society's well-being, it is not enough that they simply reduce costs, increase profits, or have benefits that only serve the merged firms.

Society is entitled to protected legal interests, and Article 88(6), Item 2, of Law 12529/2011, conditions the clearance of mergers on a significant share of its benefits being provided to consumers.

3.3 Specific efficiencies

"Measurable efficiencies" are specific to the transaction, and include only those that cannot be achieved without such merger.

Efficiencies that could be achieved in less than two years through plausible alternatives and involving less competitive restraints are not to be considered specific.

Thus, efficiencies claimed by merged firms are not to be taken into consideration when the same or similar benefits can be plausibly achieved simply through effort; internal changes by an applicant; a merger with a different firm (which would be less harmful to the market); or any other alternative that involves less potential competitive harm.

The specific efficiencies of a transaction are those that may be verified (their existence and reach, mostly), and with causes (the how) and timing (the when) that have been proved.

Alleged efficiencies are not taken into consideration when they are generic, speculative, unverifiable, or when they adopt hypothetical situations or scenarios that do not match the impact the merger is expected to have on the market.[14]

Neither monetary gains arising from increased market shares nor any merger involving a mere transfer of resources between players are considered by CADE as efficiencies.

In a horizontal merger, specific efficiencies may come in the form of economies of scale or scope, efficient innovations introduced into a product or process, gains of positive externalities or elimination of negative externalities, and the creation of countervailing market power. They should be considered efficiencies in case they cannot be obtained in the market otherwise and require a merger to happen.

[14] Efficiencies may be predicted through econometric, mathematical, or engineering models, including, for instance, estimations of costs and production.

3.4 Externalities

Externalities are the effects a transaction has on an unrelated party that has no control over them.

Positive externalities increase welfare (for instance, reducing production costs), while negative externalities reduce welfare (for instance, increasing production costs).

Creating or obtaining positive externalities, as well as eliminating negative ones, may be considered as specific efficiencies of a merger.

Obtaining positive externalities boosts the efficiency of a market. This beneficial effects may result from technology spill over; supply rationalisation, in sectors with excess of installed capacity; and consumers having more and better information available to support their decision-making process.

Although negative externalities are widespread, it is important to look at which public policies could be used to deal with them, as clearing a merger may not be the best way to eliminate such externalities, if we take into consideration the economic welfare.

When examining an allegation that the reduction of negative externalities increases the specific efficiencies of a merger, we must assess whether it is possible to have the same effect through other public policies.

Only when no alternative public policies are considered likely to address the issue, it is considered that the elimination of negative externalities increases the specific efficiencies of a transaction.

4 SUPPLEMENTARY AND ALTERNATIVE ANALYSIS METHODS

This section lists alternative and/or supplementary means used for conducting antitrust reviews, in which one or more methods may be chosen.

4.1 Counterfactual analysis

Counterfactual analyses draw valid conclusions regardless of whether there is a strict relevant market definition or an assessment of the market share of the merging firms.

CADE may compare different scenarios in search of evidence when examining the effects of a merger on competition.

We may look at evidence related to similar markets and see how prices vary according to the number of competitors in that market, with firms coming and going.

In case applicants compete with each other in one market but not in the other, we may compare prices in the areas in which they compete with each other against those where they do not to assess the level of rivalry.

The areas in which there is a single competitor may have specificities related to supply or demand that justify higher prices and are not associated to the competition variable. Therefore, counterfactual analysis requires a "control group", through which other variables that affect price and demand are controlled.

We can select comparable relevant geographic markets to isolate the effect of the variable we intend to observe (for instance, price behaviour), setting this variable apart from other variables or effects that could justify price variation across different cities.

4.2 Simulations

Mathematical and econometric models that simulate the effects of the transaction may or may not depend on the definition of the relevant market.

In a simulation involving possible effects, we estimate current parameters of supply and demand to try to predict what could happen to market prices in a post-merger future, controlling the degree of efficiency gains of the transaction.

Some parameters CADE uses to help understand a market are (i) the real price level and profit margin of an industry and of market players; (ii) the share of consumers that divert their purchases to applicants' competitors due to price rises; and (iii) other factors that may impact the competition and profitability in a market.

A simulation may also involve the analysis of estimates that not only contemplate the markets under review.

For example, in auction-based markets we can observe which firms attend auctions, their position as bidders, and to which clients they offer their products. This allows us to compare procurements in which both firms compete and those in which competitors bid or apply for separately. When both participate in an auction, we can measure the level of rivalry amongst bidders, particularly considering the impact other rivals have on the market.[15]

[15] Auction-based markets are understood as those in which there is a process (usually a formal one) based on biddings or proposals (to purchase or sell, as the case may be). It does not necessarily refer to the provisions of Law 8666/93, the Government Procurement Law.

4.3 Other factors analysed

4.3.1 Elimination of maverick firms

Maverick firms are those with a disruptive degree of competitive rivalry.

They usually have low production costs and prices, pushing market prices down, or are inventive firms that foster ongoing innovation in their industry. Therefore, their independent presence in the market can help control the prices of firms with larger market shares.

CADE may consider, for instance, that a merger that involves a firm with a strategy of cost, innovation, or niche leadership may reduce the industry's current or potential competition levels, reduce rivalry, and discourage innovation in the market at issue, regardless of whether its HHI is low.

As for the coordinated effects generated by the transaction, we should highlight maverick firms are likely to prevent cartel formation if they are willing and able to increase their production in the face of supply restriction from colluding companies.

4.3.2 Potential competition

A merger between a firm that is already active and a potential competitor in the same relevant market may have similar anticompetitive effects to a merger or acquisition involving two active firms in the same relevant market.

This is the case because a competitor may play a relevant role–whether in the present, by controlling prices, for instance, or in the future–even when it has already left or is yet to enter the market.

We assess (i) whether a firm is on the brink of entering a market, and whether it has relevant assets, which may easily be used to return to the market without incurring significant sunk costs; (ii) whether it can bear the costs needed for entering the market in a relatively short term; (iii) amongst others.

To assess potential competition, CADE may request, for instance, that firms provide their applications for registration, licences, and/or authorisations filed with the government.

4.3.3 Vertical integration vs. horizontal overlap

An upstream horizontal integration may create a downstream horizontal integration, even when applicants do not operate directly in this other part of the production chain.

This is the case with markets in which buyers and suppliers have contracts for shared control that implicate a vertical quasi-integration of the firms.

Mergers between applicants that operate in both the downstream and upstream segments through vertically quasi-integrated firms may induce horizontal integration.

This can be seen in the table below:

Table 3 – Examples of diagonal integration

	Production chain A	Production chain B
Downstream market	Competitor A: 50%	Competitor B: 50%
Upstream market	Competitor C: 50%	Competitor D: 50%
	CONSUMER	

To make it clearer, we can think of a firm that controls the upstream part of a logistics chain and the upstream part of a second logistics chain. Although the same firm operates in links from different chains, it can control the flow of both logistics chains and may have incentives to raise prices in both chains, depending on the characteristics of the market.

4.3.4 Firms operating in a two-sided market

A two-sided market is not one that simply connects two end-users; rather, it is the connection between the total transactions and the pricing structure–that is, how the price is divided between the two end-users.

The price structure and the definition of who bears the costs should encourage the presence of both sides in this market, which means the price paid by one of the players is not related to the costs incurred in entering the market. In this pricing structure, one of the sides pays the cost price, while the other pays the price from which the industry's profit is extracted.[16]

Depending on the industry involved in the transaction, CADE will decide whether it will assess the competition in one or both markets. This topic, however, is beyond the scope of this Guide, as it requires further discussion and the consideration of certain specificities.

4.3.5 Partial acquisitions

As far as corporate matters go, CADE examines whether a transaction changes the power to control or influence an acquired firm. It also verifies whether the transaction creates controlling interest, which gives the acquiring firm individual or shared control, or a significant capacity to affect the behaviour of that firm.

It is important to assess whether the acquisition creates passive non-controlling interest, i.e. controlling interest that does not give the partner or member the power to control or relevantly influence the decisions of the firm, even though it could access sensitive information or create financial incentives for coordination.

All information on how a firm is to control or influence another must be disclosed to CADE, including shareholders' agreements, the decision-making power a firm has over the other, and how much internal and external influence it could have or extend as a result of the transaction.

In case there is only passive non-controlling interest, a firm should report on its information flow, how much interest it will hold in the second firm, as well as its access to the acquired firm's profits.

This analysis affects the assessment of rivalry and of coordinated effects.

[16] Rochet, J.C. and Tirole, J., Platform Competition in Two-Sided Markets. Journal of the European Economic Association, v. 1, no. 4, p. 990-1029, June, 2003.

5 INSOLVENCY PROCESS

Law 11101/2005 (the Insolvency Law, which addresses voluntary and involuntary court-ordered administration, and insolvency matters) indicates the necessity of an open line of communication between CADE and the Judiciary, especially due to administration matters.

The administration process is intended to rescue a firm when it is unable to pay its debts, securing production, employment, and the interests of creditors, hence protecting the firm, its social responsibility, and economic incentives.

The aforementioned law describes administration processes that may be considered mergers or acquisition and, therefore, should be reported to CADE.[17]

Observing the criteria for mandatory reporting, the firm that is in administration must report its insolvency process to CADE in order to ensure a coherent government response.[18]

Mergers involving an administration process should always be negotiated considering that their completion and implementation will depend on CADE's final decision on the matter.

5.1 Failing Firm Defence (FFD)

Any discussion related to the Administration Law needs to involve the failing firm defence.

Foreign jurisdictions and CADE have been extremely cautious with this theory, accepting it only in cases in which applicants cumulatively prove the following requirements have been met:

[17] Article 50 of Law
11101/2005. 19 Article 90 of
Law 12529/2011.

[18] Should applicants believe that, due to the complexity of the transaction, it will take longer for the case to be reviewed than the time limits established by CADE's Statutes, applicants may rely on the Provisional Authorisation provided for in Article 59 of Law 12529/2011, provided that, if so required by CADE, the transaction is kept reversible.

(i) If the transaction was to be blocked, the firm would have to leave the market, or would be unable to pay its debts due to financial distress;

(ii) If the transaction was to be blocked, the firm's assets would not remain in the market, which implies there would be a reduction in supply and economic welfare, and greater market concentration; and[19]

(iii) If the firm proves it made an effort to seek alternatives that would result in less potential harm to competition (for instance, via alternative buyers or an administration process), and there is no other solution for preserving its economic activities other than the transaction being cleared.

Again, the non-negative net effect requirement must be met. That is, CADE must come to the conclusion that the antitrust effects resulting from blocking the transaction (and from the likely insolvency of the firm) would be worse than the market concentration created by the transaction.

The burden of proof related to these requirements falls on the applicants.

6 NON-COMPETE CLAUSE

CADE believes non-compete clauses impose restrictions on the free market and on free enterprise.

The only exceptions are non-compete clauses aimed at creating goodwill or enabling the creation of a joint venture.[20]

A non-compete clause must be limited to the market in which the joint venture operates (in terms of goods or geographic areas) or to the scope of the goodwill.

[19] The party to employ this allegation should present evidence the firm is facing financial difficulties such as, for instance, a copy of the administration or insolvency processes.
[20] Precedents 4 and 5, published in the Brazilian Federal Official Gazette, 9 December 2009.

It should also be limited to five years, although this time limit may be reduced or extended depending on the maturing time of the business at issue.

In order to be valid and to have the desired legal effect, a non-compete clause should be collateral and ancillary to the legal transaction: collateral because it needs to be subordinate to the main legal transaction, and ancillary because it should be able to produce efficiencies that offset the restraint of competition.

A non-compete clause is considered illegal when it seeks to restrain, distort, or have a harmful effect on competition or free enterprise in any way; dominate the relevant market of goods or services; arbitrarily increase profits; and abuse a dominant position.[21]

7 CONCLUSION

When the advantages associated with a transaction are greater than the risk of eliminating competition, that is, when its completion is not expected to reduce consumer welfare, and is likely to provide great benefits to consumers, CADE may choose to clear it unconditionally.

When the advantages associated with a transaction are not as great as the risk of eliminating competition, CADE may clear it subject to remedies–whether unilaterally or via an agreement with the parties–whenever it is proved that such remedies will restore consumer well-being and economic efficiency.[22]

When the risk of eliminating competition cannot be repaired by any condition/remedy, CADE is to block the transaction.

In the case of mergers cleared subject to remedies, CADE may adopt structural and/or behavioural remedies to re-establish the competitive environment.

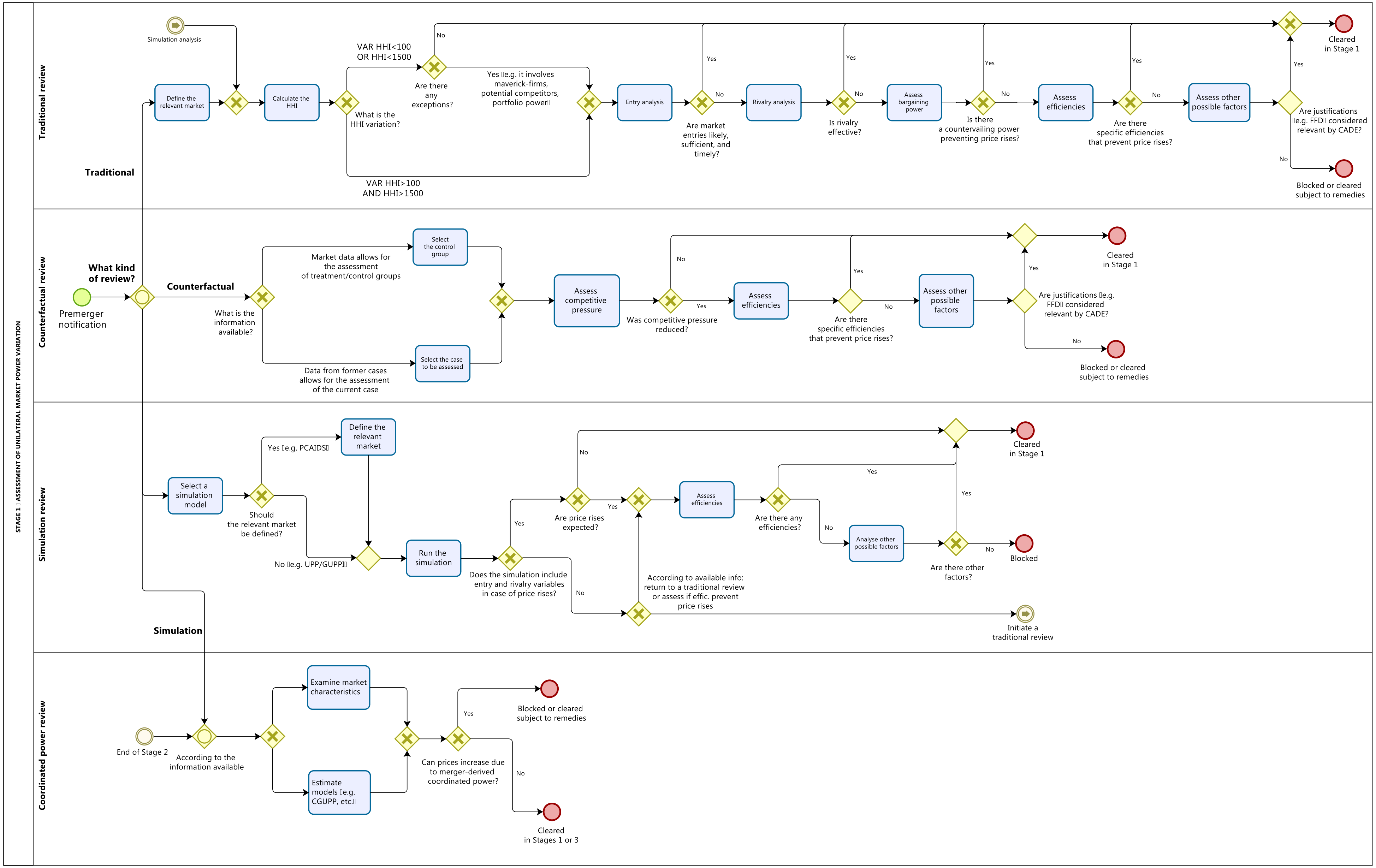
[21] Article 36 of Law 12529/2011.

[22] In this case, a Merger Control Agreement is signed.

Structural remedies seek to re-establish the competitive dynamics of relevant markets, eliminating the need for future measures. For example, the disposal of assets of the firms, such as the sale of brands or factories, or compulsory licensing.

Behavioural remedies are intended to restore the competitive dynamics in the relevant markets defined based on interventions and on the parties' commitment not to abuse certain available assets.

Annex



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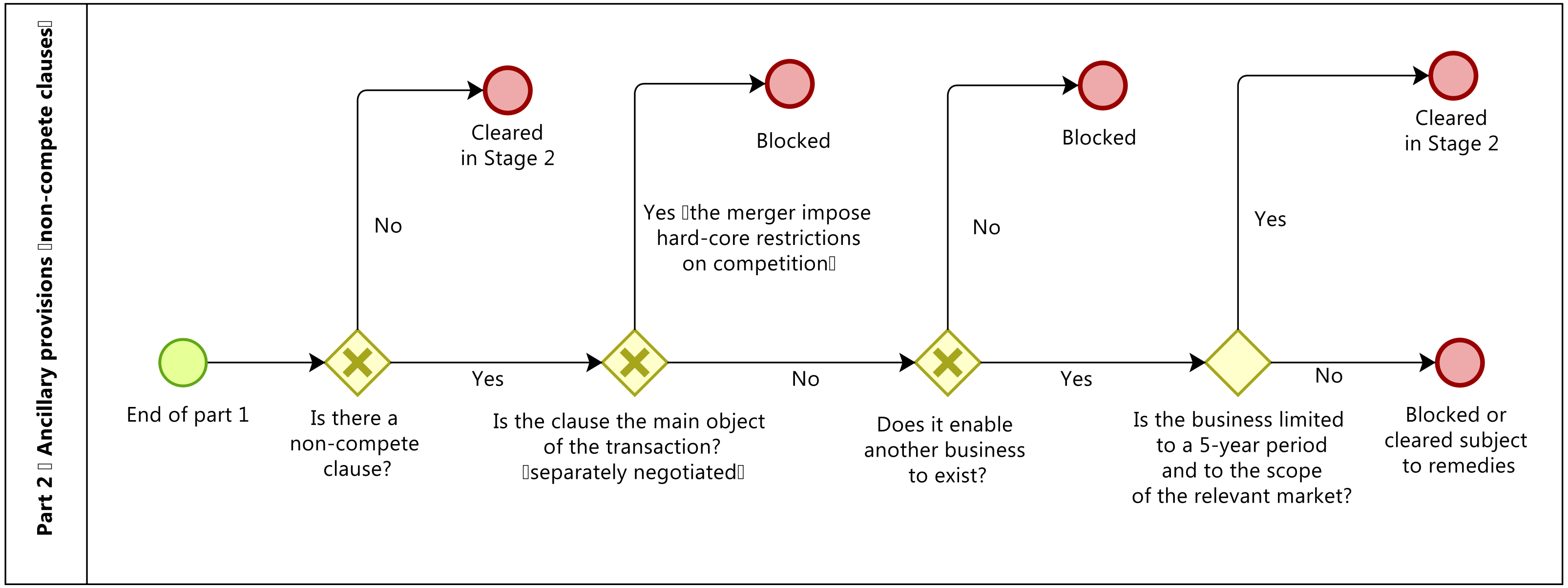

Part 2 Ancillary provisions non-compete clauses
End of part 1
Is there a non-compete clause?
No
Cleared in Stage 2
Yes
Is the clause the main object of the transaction? separately negotiated
Yes the merger impose hard-core restrictions on competition
Blocked
No
Does it enable another business to exist?
No
Blocked
Yes
Is the business limited to a 5-year period and to the scope of the relevant market?
Yes
Cleared in Stage 2
No
Blocked or cleared subject to remedies