



POLICY BRIEF

**DEFENCE OF
COMPETITION IN THE
DIGITAL SECTOR IN
PORTUGAL**

DECEMBER 2022

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I. BACKGROUND

The Portuguese Competition Authority (AdC - Autoridade da Concorrência) has put forward a series of initiatives to follow the developments in the digital sector, from a competition policy perspective. The digital sector has remained one of the priorities of the AdC in 2022.

In 2019, the AdC published the issues paper *"Digital Ecosystems, Big Data and Algorithms"*¹ (Digital Issues Paper), that addresses the challenges that the digital transition entails for competition policy.

Following the Digital Issues Paper, the AdC set up a task force for the digital sector that has been investigating several complaints and engaged proactive investigation.

The digital task force's activity has been focused on two lines of action: first, the analysis of complaints and investigation within the AdC's enforcement powers; and second, proactive initiatives to interact with stakeholders, in order to map competition issues and monitor developments in the sector.

AdC's enforcement activity in the digital sector

Until November 2022, the AdC has analysed around 20 complaints in the digital sector. The proceedings have resulted, so far, in the opening of two offence proceedings: an investigation for possible abuse of Google's dominant position in digital advertising, and an investigation for resale price maintenance (RPM) in the digital space, in the pharmaceutical / health sector.

Initiatives of interaction with stakeholders

The AdC undertook (i) a survey to online retailers of electronic products and household appliances and (ii) an open call for information. The AdC aims to create communication channels with stakeholders in the sector, in order to monitor the main developments and facilitate the detection and reporting to the AdC of signs of anti-competitive practices.

In November 2021, the AdC surveyed a wide range of online retailers of electronic products and household appliances with presence in Portugal. A total of 86 online retailers answered the questionnaire. The purpose of the survey was to obtain information on (i) the use of monitoring and pricing algorithms in Portugal by online retailers; (ii) the relationship between these operators and their suppliers (and/or wholesalers); and (iii) any vertical restrictions imposed by suppliers on e-commerce sellers.

The AdC also launched, in November 2021, an open call for information² with the purpose of gathering information from stakeholders on barriers to competition and the use of algorithms in the digital environment. The AdC received 10 contributions from different

¹ Available [here](#).

² The call for information document and the non-confidential versions of the contributions can be found [here](#).

types of stakeholders.³

II. ENTRY AND EXPANSION BARRIERS IN THE DIGITAL SECTOR IN PORTUGAL

In the Digital Issues Paper, the AdC identifies several characteristics of digital markets, such as economies of scale and scope, network effects, switching costs, access to data and vertical integration. These characteristics may pose barriers to entry and expansion and are likely to create a tendency towards high concentration in the market.

These characteristics were identified in several contributions to the call for information.⁴ Stakeholders also highlighted that these characteristics may reinforce switching costs for consumers and businesses⁵. Regarding the digital advertising sector, it was pointed out that it is difficult for companies that contract digital advertising services to substitute the services of certain digital platforms.⁶

Some contributions identified certain features of the national market as barriers to entry and expansion. These features included a low digital literacy of the population, the shortage of skilled workers, the size of national markets, and the costs associated with establishing a local presence.⁷

Some contributions also identified potential barriers of a legal or regulatory nature, namely with respect to regulatory differences between the United States and the European Union, and on the interaction between the Digital Services Act and the General Data Protection Regulation.⁸ In the payments sector, the access to the Portuguese interbank clearing system (SICOI) has been identified as a regulatory barrier to new firms.⁹ In this regard, the AdC has already issued, in the past, recommendations on the access to SICOI, in order to eliminate the dependence of FinTech firms *vis-à-vis* incumbent banks.¹⁰

Some of the stakeholders identified measures which may reduce barriers to entry, such as the promotion of price comparison services, and interoperability obligations.¹¹ In this regard, in September 2022, the European Parliament and the Council of the European

³ In particular, the AdC received contributions from the following stakeholders: ANACOM, ERC, DECO, University of Algarve (UAlg), Prof. António Cardoso Marques, University of Beira Interior (UBI), Impresa, PsicoSoma, SaltPay, Teads, and Wise Pirates.

⁴ Contributions from ANACOM, ERC and Impresa.

⁵ Contributions from ANACOM and DECO.

⁶ Contributions from ERC and Teads. However, we note that this aspect was not consensual. WisePirates, a digital marketing agency, noted no low substitutability between the different platforms it uses.

⁷ Contributions from UAlg, Teads, WisePirates and PsicoSoma.

⁸ Contributions from Impresa and Teads.

⁹ Contribution from SaltPay.

¹⁰ AdC (2021) *Concorrência no Setor Financeiro em Portugal Acompanhamento das Recomendações da AdC no âmbito do Issues Paper FinTech*, available [here](#) (in Portuguese) and AdC (2018) *Inovação Tecnológica e Concorrência no Setor Financeiro em Portugal (Issues Paper FinTech)*, available [here](#) (in Portuguese).

¹¹ Contributions from ANACOM and Prof. António Marques from UBI. Impresa also mentioned the Digital Markets Act and Digital Services Act as legislative tools that aim to mitigate the competition concerns which may arise from the conduct of incumbent platforms.

Union adopted the Digital Markets Act,¹² which has obligations, applicable to gatekeeper platforms, on interoperability and non-self-preferencing, amongst other measures.

The AdC has been closely following the legislative developments in the digital sector, with an active role in the discussions of the European Competition Network, with respect to the Regulation (EU) of Digital Markets¹³, the Block Exemption Regulation¹⁴ and the Guidelines on Vertical Restraints¹⁵, the Relevant Market Definition Notice¹⁶ and the Decree-Law no. 108/2021, which includes provisions on the hospitality services through online platforms in the Portuguese Competition Act.¹⁷

Exclusionary strategies in the digital sector

The tendency for a high degree of concentration may lead to market conditions in which the incumbents are able to adopt strategies to exclude their competitors¹⁸. Depending on the specificities of the case, this type of strategy may be a potential infringement to competition law, if undertaken by firms with a dominant position in the market.

In this regard, the AdC has sanctioning powers to investigate and impose fines regarding abuse of dominance practices which infringe the Portuguese Competition Act (article 11th of the Law No. 19/2012¹⁹) and, if applicable, the Treaty of the Functioning of the European Union (Article 102 TFEU).

¹² Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022, available [here](#).

¹³ *Idem*.

¹⁴ Available [here](#).

¹⁵ Available [here](#).

¹⁶ Available [here](#).

¹⁷ Available [here](#) (in Portuguese).

¹⁸ This point has also been mentioned by ANACOM in its contribution.

¹⁹ *Vide* consolidated version of the Portuguese Competition Act, available [here](#) (in Portuguese).

AdC's opening of an investigation into Google

On May 17, 2022, the AdC opened an administrative offence proceeding against Google for a possible abuse of dominance in online advertising.²⁰

The AdC collected indicia of possible self-preferencing behaviours by Google at various stages of the ad stack – the value chain for online advertising space.

The AdC's investigation focused on the possibility that Google used information, not accessible by its competitors, on online advertising auctions. Using that information, Google might have adjusted its bids to outbid its competitors and win the most auctions possible, thereby reducing its competitors' ability to win and their incentives to participate in future auctions. In addition, it is possible that Google limited the development of competing auction technologies.

On July 27, 2022, the European Commission informed the AdC that it intended to extend the scope of its own investigation on Google to include the practices and markets under investigation by the AdC in Portugal.

Under the rules of the European Competition Network, the initiation of a case by the European Commission relieves the competition authorities of the Member States of their competence to initiate or proceed with an investigation on the same facts.

On September 6, 2022, AdC closed the investigation which since then, has been conducted by the European Commission.

III. VERTICAL RESTRAINTS IN THE DIGITAL SECTOR

E-commerce has been growing significantly in Portugal. In 2021, 40% of residents in Portugal made purchases over the Internet in the past three months, according to a survey. This contrasts with the results from the 2008 version of the same survey, in which only 6% of respondents reported having purchased *online*.²¹

The growth of online distribution models, such as marketplaces, may increase the use of vertical agreements between suppliers and retailers (i.e., vertical restraints) in a digital setting.^{22,23} This type of agreement may involve restrictions with respect to the characteristics of the firms, the products, the geographical scope, and the conditions under which transactions will take place.

²⁰ The case file is available [here](#).

²¹ ANACOM (2021) *O comércio eletrónico em Portugal e na União Europeia em 2021*, available [here](#) (in Portuguese).

²² According to the [Commission Regulation \(EU\) No 330/2010](#), relative to the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices, a vertical restraint means "a restriction of competition in a vertical agreement falling within the scope of Article 101(1) of the Treaty". A vertical agreement is defined as "an agreement or concerted practice entered into between two or more undertakings each of which operates, for the purposes of the agreement or the concerted practice, at a different level of the production or distribution chain, and relating to the conditions under which the parties may purchase, sell or resell certain goods or services".

²³ European Commission (2017), *Final Report on the E-Commerce Sector Inquiry* (COM(2017) 229 final).

These agreements may negatively affect consumers, namely through an increase in prices in online retail. As such, these agreements may be in violation of the Portuguese Competition Act (Article 9 Law No. 19/2012) and, if applicable, the Treaty of the Functioning of the European Union (Article 101 TFEU).²⁴

Certain types of vertical restraints can, however, lead to efficiency gains by reducing, for instance, transaction and distribution costs. Whether those efficiency gains will compensate for potential anticompetitive effects will depend on the market power of the parties to the agreement.²⁵

The AdC has been developing sectorial analysis to better understand the vertical relationship between suppliers and online retailers in Portugal. In this regard, the AdC has sent a set of questions to online retailers of electronic products and household appliances. The following points are worth to highlight:

- **In 2020, the share of online sales has increased for most retailers**, with several retailers noting that the pandemic contributed to this increase.
- **16% of retailers reported that they have faced potential restraints from their suppliers**, namely with respect to:
 - retail prices or discounts offered to customers;
 - sales channels; and
 - their presence in price comparison websites.
- **Most firms indicated that they did not have any territorial exclusivity agreement with their suppliers.** Only 7% of the retailers reported that territorial exclusivity relationships were an important factor for their expansion and/or investment in certain brands and products.

In this context, the AdC has been promoting several meetings with stakeholders to follow-up on the information collected in the survey, and reinforcing the monitoring and follow-up of the products identified by the stakeholders.

IV. ALGORITHMS AND COMPETITION

Prevalence and evolution of price algorithms in Portugal

One of the main topics in the Digital Issues Paper was the use of price algorithms in Portugal, due to the risk that they may bring to competition conditions in digital markets. In April 2019, the AdC conducted a survey on the use of monitoring and pricing algorithms, which was sent to 38 firms active in Portugal.

²⁴ In this regard, on May 10, 2022, the European Commission issued a new version of the Regulation on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices (Commission Regulation (EU) 2022/720) which exempts certain vertical agreements from the general prohibition set in Article 101(1).

²⁵ [Commission Regulation \(EU\) No 330/2010](#).

Around **37%** of respondents reported using algorithms to monitor the prices of their competitors.²⁶ **8%** of the firms reported that they used algorithms to automatically set their online prices.

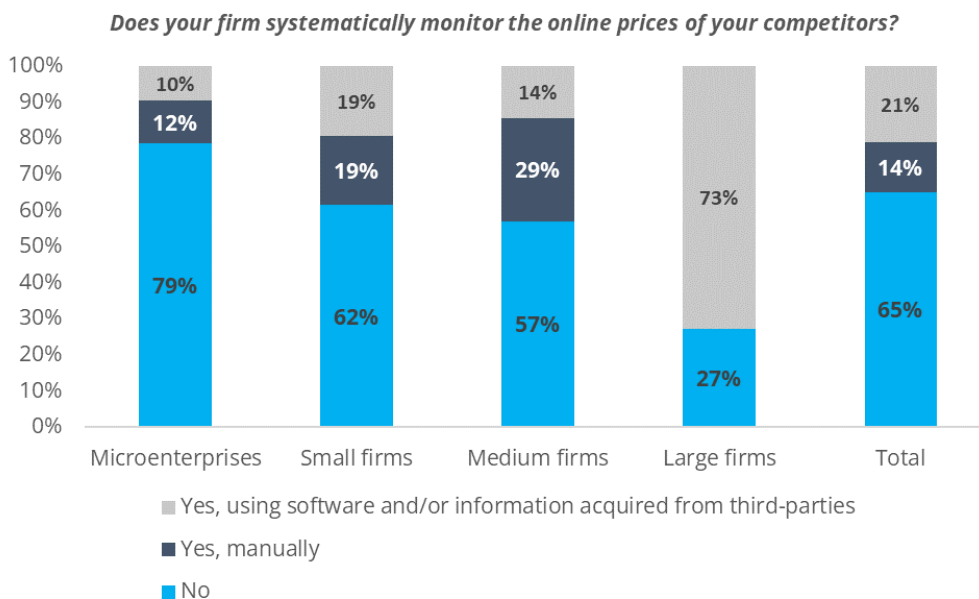
To further its knowledge on the use of algorithms in Portugal, the AdC included a set of questions on this topic in the sector specific questionnaire, sent to online retailers of electronic goods and household appliances.

With respect to the **use of price monitoring algorithms** by online retailers of electronic goods and household appliances (Figure 1):

- **Around 21% of respondents reported that they systematically monitor the prices of their competitors using monitoring software and/or by acquiring price information from third-parties.** Additionally, 14% of respondents reported that they manually monitor the online prices of their competitors (*e.g.*, by consulting the websites of their competitors, or using price comparison platforms).
- **Price monitoring is more frequent in larger retailers.** While most respondents (65%) indicated that they do not systematically monitor the prices of their competitors, 73% of the large retailers reported that they do systematically monitor these prices.
- **The type of monitoring also tends to change with the size of the firms.** The large firms who monitor the prices of their competitors (73%) reported that they use software and/or information acquired from third-parties for such monitoring. On the other hand, within micro, small and medium-sized firms that systematically monitor the prices of their competitors (29%), 55% reported that they monitor those prices manually.

²⁶ *I.e.*, automated systems which aim to follow the evolution of certain strategic decision variables from their competitors, namely prices.

Figure 1 - Monitoring of competitor online prices by retailers



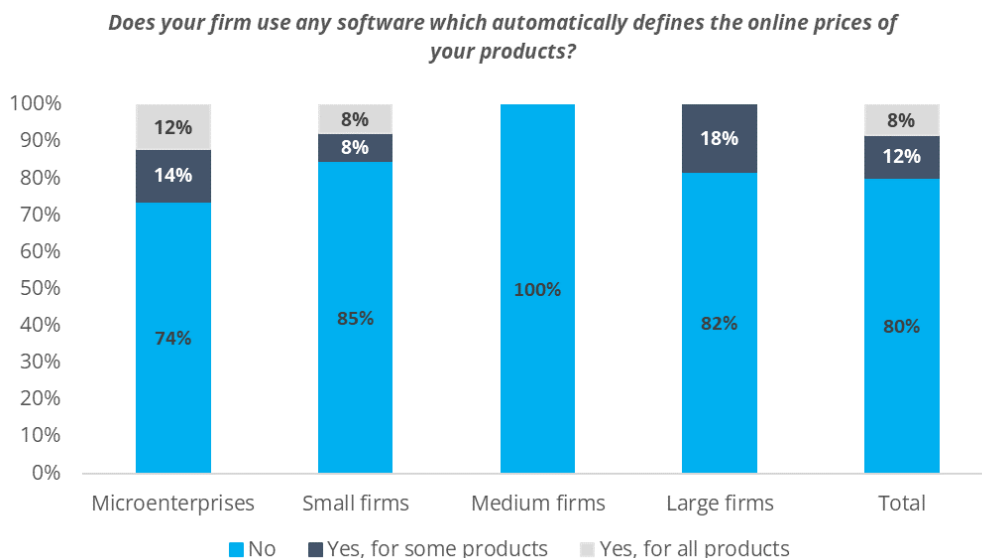
Source: responses to the AdC questionnaire; SABI platform.²⁷

On the use of **software that automatically sets the online prices of products** (Figure 2):

- **Most retailers (80%) reported that they do not use software to define the prices of their products.**
- **12% mentioned that they used this type of software for some of their products** and 8% of retailers reported that they use this type of software for all their products.
- From a total of 17 retailers which replied that they use software to automatically set prices, only 3 reported that this software takes the prices of their competitors into account.
- The responses do not show a relationship between the size of firms and the use of software that automatically sets online prices.

²⁷ The classification of firms according to their dimension is based on their 2020 turnover, obtained using from the SABI platform and the responses to the AdC questionnaire. After obtaining the turnover, the criteria from INE – Statistics Portugal (available [here](#), in Portuguese) have been used to classify firms as micro (turnover up to €2 million), small (turnover up to €10 million), medium (turnover up to €50 million) or large (turnover over €50 million). It should be noted that the INE criteria take into account other factors such as the number of workers, so that the classification used in this analysis may not necessarily correspond to the one from INE. Based on this classification, the sample includes 42 microenterprises, 26 small firms, 7 medium-size firms and 11 large firms.

Figure 2 - The use of software to automatically set online prices



Source: responses to the AdC questionnaire; SABI platform.²⁸

Key findings

In the online retail of electronic products and household appliances,

- 21% monitors the online prices of competitors, using software or acquiring information from third-parties.
- Larger retailers more often resort to price monitoring algorithms and third-party information.
- Most retailers do not use software to set its online prices automatically.

The results regarding the use of algorithms are generally in line with the results obtained in the 2019 questionnaire, available in the Digital Issues Paper. Nonetheless, the sample of firms is markedly different in the two questionnaires, namely in terms of their economic sector and size. The sample from April 2019 encompassed all sectors of the economy and was mostly composed of large firms. The differences between the two questionnaires make it more difficult to assess how the use of algorithms has evolved.

In the call for information, some stakeholders reported they expect the use of pricing algorithms to increase in the future²⁹ and that, for some sectors, the proportion of companies currently using pricing algorithms should likely be higher than what was found in the questionnaire made by the AdC in April 2019.³⁰

²⁸ See footnote 27.

²⁹ Contributions from ANACOM and UAlg.

³⁰ Teads noted that, in digital advertising, most pricing algorithms are dynamic, such that their use is more widespread than suggested by the results published by the AdC in 2019.

Using algorithms may improve efficiency and lead consumers to make more price comparisons. However, as noted in the Digital Issues Paper, one cannot exclude risks for competition, namely regarding coordination. For example, algorithms may be used to implement price fixing and alignment strategies between competitors, thus harming consumers. Monitoring algorithms may be instrumental in price collusion agreements by making it easier to detect price deviations. More sophisticated algorithms may be able to reach collusive equilibria without direct human intervention.

There is also the risk that competitors may use common algorithms, for example by hiring the same algorithm developer, to coordinate market strategies (e.g., prices). This risk is more concerning in markets susceptible to coordination, to the extent that choosing a common algorithm may be conscious and deliberate.

The AdC invites stakeholders who have relevant information on competitors using common algorithms, in a way that raises competition concerns, to share that information with the AdC³¹.

Some contributions to the call for information voice additional concerns regarding pricing algorithms.³² Some showed concern over the possibility that algorithms may change prices according to the characteristics of consumers or to the moment when searches are made. Regarding dynamic pricing algorithms, some stakeholders noted that prices may be updated based on information such as supply and demand, and that there is a risk of lack of transparency when showing prices to consumers.

Other types of algorithms

In the Digital Issues Paper, the AdC addresses, from a competition point of view, ranking, search and recommendation algorithms, that facilitate product discovery and streamline consumers' decisions. These algorithms allow for greater customisation for consumers. However, they may also raise competition concerns, given their influence in consumers' final decisions, if, for example, they are part of an exclusionary strategy.

Some stakeholders highlighted concerns regarding algorithms that may shape users' choices. They noted search algorithms tend to lack transparency and may reflect the interests of the platforms, raising barriers to entry and expansion with a negative impact on competition and consumers.³³ Other techniques mentioned by stakeholders include, for example, designing websites in ways that influence consumer choices, namely with regards to their privacy.³⁴

³¹ The AdC can be contacted using the address adc@concorrenca.pt. If the information may be related to anticompetitive practices, you may also use the form in the website of the AdC (available [here](#)). If you have obtained this information as part of your professional activity, you may do so under the legal regime on the protection of whistleblowers.

³² Contributions from ANACOM, DECO and Impresa.

³³ Contributions from ANACOM and DECO.

³⁴ Contribution from DECO.

Regarding online advertising, some responses noted there was a risk that some price auctions and its underlying algorithms may be biased in favor of some bidders.³⁵ The investigation opened against Google for a possible abuse of dominance in digital advertising focused on this competition concern.

V. STRENGTHENING ENFORCEMENT THROUGH DIGITAL INVESTIGATION TOOLS

Competition authorities may use monitoring tools in competition law enforcement.

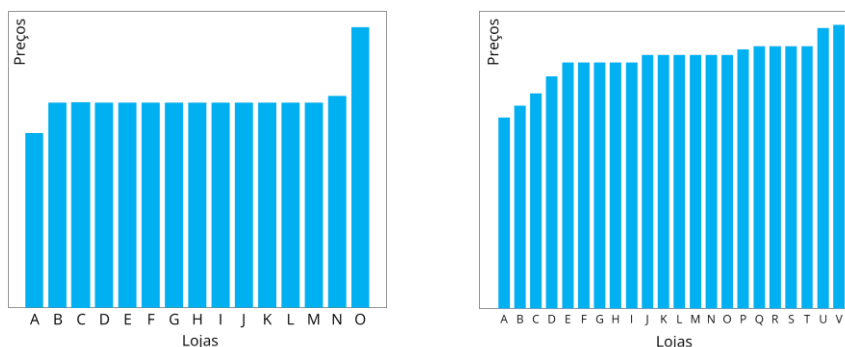
Indeed, the AdC has developed digital investigation tools to be more efficient when analysing indicia of possible restrictive practices.

The AdC has collected, through web scraping, information on products from a large array of sectors, namely online prices. Web scraping involves collecting information from webpages, in an automated fashion, and converting it into readable formats.

The information may be used to screen for price alignments between online retailers that sell the same products, using measures such as the difference between the alignment price relative to the lowest price of the market, the timing of the alignment, among others.

Figure 3 shows the online prices charges by the retailers of two different products. In the image on the left, there is a stronger price alignment, in which most stores (12 out of 15) selling the product have the same price. On the other hand, the image on the right side shows a larger variation in the prices charged by different retailers.

Figure 3 - Online prices of two products



- 12 out of 15 sellers are price aligned
- Only one seller is below the alignment price
- 3 groups of price aligned sellers
- 5 out of 22 sellers are price aligned to the lowest alignment price
- Several sellers are below the lowest alignment price

These tools have already been used to substantiate and reinforce a decision to open an investigation, as well as to request a warrant for unannounced inspections, in the context of potential RPM conduct.

³⁵ Contribution from Teads.

Analysis of online prices after a complaint to the AdC

The AdC received an anonymous complaint with respect to alleged retail price maintenance (RPM), in a digital setting, by a supplier of products in the pharmaceutical / health sector.³⁶

According to the complaint, the supplier would demand that retailers who sold its products online should charge the prices set by the supplier. Otherwise, the supplier might stop supplying them its products.

As part of its assessment, the AdC collected, through web scraping, the online prices charged by different retailers on products from this supplier.

The analysis of the online prices has shown that the online prices charged by different retailers were generally in line with what had been reported in the complaint. In particular: (i) in the product segment referred by the complainant, there was a stronger price alignment in the brand in which the complainant reported that the "pressure" from the supplier was higher; and (ii) in another product segment from the same supplier, the AdC analysis has shown that there was a widespread price alignment.

This analysis was used to substantiate and reinforce a decision to open an investigation, as well as to request an warrant for unannounced inspections.

³⁶ The case file is available [here](#).