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**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS  
COMPETITION COMMITTEE****Hub-and-spoke arrangements – Note by Portugal**

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More documents related to this discussion can be found at  
<http://www.oecd.org/daf/competition/hub-and-spoke-arrangements.htm>

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## Portugal

### 1. Introduction

1. Hub-and-spoke arrangements are usually compared in legal literature and jurisprudence to a cartel, being assessed, in most cases, through the lens of a concerted practice. There are, nevertheless, particularities in this type of collusion, which the expression hub-and-spoke aims to capture and which are mainly related to the fact that the undertakings involved operate in different levels of a supply chain.

2. Typically, hub-and-spoke arrangements comprehend both horizontal and vertical forms of collusion. It is a combination of similar vertical relationships (supplier-distributor) with an horizontal element that leads to an indirect exchange of information in a triangular scheme, i.e. the competitors (spokes) use a common contractual partner, either a supplier or a distributor (hub), as a transmission channel of the information that they are otherwise forbidden to share as they are competing in the same relevant market.

3. This interaction between a supplier and its distributors – or between a distributor and its suppliers – may have adverse consequences in the market, as it facilitates collusion, reducing downstream or upstream competition and, ultimately, harming consumers<sup>1</sup>.

4. In this note, the Portuguese Competition Authority (Autoridade da Concorrência – hereinafter “AdC”) aims to provide an overview of its experience regarding hub-and-spoke cases. It covers the existing legal framework in Portugal regarding these type of arrangements (Section II) and provides a summary of the relevant elements of some of the proceedings that are currently under investigation (Section III). In addition, the note discusses a number of issues related to investigating this form of collusion (Section IV). Section V refers to an *Issues Paper*<sup>2</sup> recently published by the AdC, which addresses *inter alia* the use of algorithms as a means of implementing hub-and-spoke arrangements, providing some guidance in this respect. Section VI concludes with final remarks.

### 2. Portuguese legal framework regarding hub-and-spoke arrangements

5. A hub-and-spoke arrangement constitutes a conduct that, if certain requirements are fulfilled, may fall within the scope of Article 9 of the Portuguese Competition Act<sup>3</sup>, as well as within the scope of Article 101 of the Treaty on the Functioning of the European Union (hereinafter “TFEU”).

6. In the Portuguese legal framework there is no provision referring specifically to hub-and-spoke arrangements. Similarly to any other type of collusion, in order to find that a hub-and-spoke arrangement constitutes an infringement under Article 9 of the Portuguese Competition Act, a number of conditions have to be met. In particular, there must be (i) an agreement or concerted practice between undertakings, or a decision by an association of

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1 Amore, R (2016), “Three (or more) is a magic number: hub & spoke collusion as a way to reduce downstream competition”, *European Competition Journal*, Vol. 12/1, pp. 28.

2 Issues Paper on Digital Ecosystems, Big Data and Algorithms (July 2019).

3 Law no. 19/2012, of 8 of May.

undertakings; (ii) which has as its object or effect the prevention, restriction or distortion of competition; (iii) with an appreciable effect on competition; and (iv) the verification of that appreciable effect on the Portuguese market.

7. Article 9 is based on Article 101 TFEU, thus, when assessing whether a practice falls under it, one may take into consideration the relevant case-law by the Courts of the European Union, as well as guidelines adopted by the European Commission (hereinafter “Commission”).

### 3. AdC investigations into hub-and-spoke arrangements

8. The AdC has a number of ongoing investigations which relate to hub-and-spoke arrangements<sup>4</sup>. This section provides a brief description of the facts underpinning some of the investigations, insights on the type of evidence found, as well as the theory of harm followed on those investigations.

#### 3.1. Origin and theory of harm

9. The investigations were initiated in June 2016, following two complaints regarding (pure) vertical price-fixing agreements in contracts between a supplier and its distributors in the HORECA (i.e. on-trade) channel<sup>5</sup>.

10. During a dawn raid conducted in early 2017 following the complaints, the AdC found evidence of additional possible anticompetitive practices (this time regarding hub-and-spoke collusion) in the retail sector (off-trade channel). This led to new dawn raids in several supermarket chains and other suppliers of fast-moving consumer goods, which have already resulted in the adoption of three statements of objections in investigations currently ongoing.

11. These dawn raids envisaged 21 legal entities and were conducted between January and June of 2017. More than 20,000 documents were seized and are under review by the AdC.

12. The evidence collected suggests that there is a price fixing arrangement regarding sales to consumers involving the competing retailers and their suppliers, making this price fixing agreement both horizontal and vertical in nature.

13. In particular, the AdC is investigating whether several retailers resorted to the vertical relations with their suppliers to promote the horizontal price fixing of their own retail prices regarding each of the supplier’s products, in what could be classic hub-and-spoke arrangements.

14. In light of these features, in the cases the AdC is currently pursuing, several retailers are parties to more than one case, while each supplier is party to only one case.

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4 The AdC has not yet adopted a final decision in any of the proceedings and, so far, it has issued statements of objections in only some of them. In addition, given that some of the cases still remain under secrecy of proceedings, this note takes into account solely aspects raised in those cases that are not under secrecy of proceedings.

5 This initial case is already closed. On 24 July of 2019, the AdC imposed a fine of 24 million euros on the supplier for resale price maintenance (“RPM”).

### 3.2. Relevant markets

15. As stated above, there are several hub-and-spoke cases involving one supplier (upstream market) and several retailers (downstream market). The suppliers investigated in these cases manufacture and trade fast-moving consumer goods.

16. Despite the fact that relevant markets have been preliminarily defined, in the AdC's view, given the type of infringement at stake (i.e., an infringement by object), broader or narrower definitions of those markets would not necessarily have an impact on the competitive analysis in the proceedings.

17. Regarding the geographic market definition, at the wholesale level — i.e. the relation between supplier and retailers — the different product markets were preliminarily considered to have a national dimension (Portugal), in particular taking into account: (i) the characteristics of demand; (ii) the need for a distribution and logistics network that ensures supply to points of sale throughout the national territory; (iii) taxation; and (iv) the applicable law.

18. At the retail level — i.e. the relation between retailers and final consumers —, taking into account that the retailers concerned are large chains acting with strategies defined at national level and with stores throughout the country, and also taking into account the characteristics of the upstream market, a geographic market corresponding to the entire national territory (Portugal) was preliminarily considered<sup>6</sup>.

## 4. Issues in the competition assessment of hub-and-spoke arrangements

19. Based on the AdC's practical experience regarding the investigation of hub-and-spoke arrangements, this section discusses potential issues relating to the assessment of this type of conduct.

### 4.1. Analysis of hub-and-spoke evidence

20. A first potential issue relates to the type of evidence involved and the need to structure the analysis of the evidence accordingly.

21. Hub-and-spoke cases where retailers (spokes) collude through their supplier (hub) generally entail a cross-check mechanism of retail prices charged by the retailers as a means to ensure price alignment, as well as regular reporting to the supplier so that the latter can monitor and pressure retailers for retail price readjustments whenever deviations are identified by other retailers.

22. In this context, taking into account the different nature of the relationships between the undertakings involved, as well as the various types of behaviour which may take place in order to implement the arrangement, it may be useful to structure the analysis on the basis of the different types of evidence. Depending on the available evidence, one could envisage using the following (indicative) types of behaviour as a reference:

- Retail price setting/alignment;
- Control and monitoring of retail prices in the market;

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<sup>6</sup> See also Case COMP/M.1221 – Rewe/Meinl, paragraph 19.

- Retail price deviation corrections; and
- Coercion and/or retaliation.

23. The first category would cover evidence referring to the process of setting and aligning retail prices horizontally through bilateral communications, whereby the supplier communicates to the retailers a certain retail price positioning for a given set of products, to be implemented at a given time by all retailers in a coordinated manner.

24. The evidence in the category “control and monitoring of retail prices in the market” would cover evidence showing how retailers use their vertical relationship with the supplier to promote the control and monitoring of prices in the market. This can be done through the exchange of information using the supplier as a *hub*, which then reports retail prices that may (or, in some instances, may not) be effectively implemented in the market on a periodic basis.

25. The third category refers to situations where deviations of the intended retail prices are detected and corrected. The deviant retailer would then be pressured by the supplier, for example at the request of another retailer who detected the deviation, to reposition the price at the level of the other retailers.

26. Lastly, the category “coercion and retaliation” refers to instances in which retailers pressure, coerce or retaliate against the supplier to guarantee a retail price “correction” from the deviant (competing) retailer and ensure an overall retail price alignment in the market. Such actions can assume different types, consisting in threats or even the suspension of purchase of products from the supplier’s portfolio, purchase of smaller quantities, imposition of commercial conditions on the supplier or non-compliance with the level of price indicated by the supplier. In addition, this category also includes the evidence regarding coercion and retaliation applied by the supplier on deviant retailers.

## 4.2. The legal nature of the arrangement

27. A second potential issue derives from the circumstance that a hub-and-spoke arrangement is a hybrid figure, combining both vertical and horizontal elements, thus its legal nature and distinctive features might be particularly challenging to assess.

28. This type of arrangement consists, mainly, in the indirect exchange of sensitive information between two or more competitors through a common contractual partner operating at a different level of the production/distribution chain<sup>7</sup>.

29. Therefore, based on the AdC experience, when analysing a potential hub-and-spoke arrangement, it is important to differentiate the information flow which is considered necessary and legitimate, as part of the vertical commercial relationship, from the situations in which competing economic operators use their common contractual partner as a way to achieve a coordinated market response. Hence, qualifying a certain conduct as an illegal (vertical/horizontal) practice will essentially depend on the type of information passed along this supply chain<sup>8</sup>.

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7 Odudu, O. (2011), “Indirect Information Exchange: The Constituent Elements of Hub and Spoke Collusion”, *European Competition Journal*, Vol. 7/2, p. 207.

8 Zampa, G. L. and Buccirosi, P. (2013), “Hub and Spoke Practices: Law and Economics of the New Antitrust Frontier”, *Competition Law International*, Vol. 9/1, p. 92.

### 4.3. The role of RPM

30. A third potential issue concerns the fact that, when analysing a hub-and-spoke arrangement that partially relies on a vertical restraint, one should carefully consider the features of the vertical restraint used as an instrument to implement the anti-competitive practice.

31. A type of vertical restraint which might occur in this context is resale price maintenance (RPM). Consequently, one shall distinguish the so-called “traditional” RPM from the RPM part of or instrumental to a hub-and-spoke arrangement.

32. Firstly, it should be recognized that in both situations RPM can be – and is often – used as a way to convince the retailer to raise prices (in the second case, as long as the supplier is able to assure the competing retailers that they are aligned). Secondly, RPM can be used by the supplier to reduce the pressure to lower retail prices. Lastly, the imposition of RPM can derive from the retailer's own initiative. This last factor is especially accentuated in a hub-and-spoke arrangement<sup>9</sup>.

33. Despite the similarities, RPM which is part of a hub-and-spoke arrangement has at least two potential specificities: the reversed role of the bargaining power and the common (or shared) interest between all the parties.

34. Differently from the traditional RPM, in these cases some relevant bargaining power can lie – and usually lies – with the retailers, which will use it to achieve horizontal downstream, and in some cases upstream, collusion<sup>10</sup>. There may be cases where the *hub* has a strong bargaining power. However, in such instances the supplier may still give in to the retailers’ pressure for fear of losing an important client, even if only for a short period of time, or being subject to other types of commercial retaliation. In other words, when the supplier is confronted with the retailer’s demands, either the supplier does not accept these conditions and risks jeopardizing this commercial relationship, or it accepts them and risks losing some sales at the retail level.

35. Furthermore, in principle, there is a common interest between supplier and retailers since the supplier will prefer to satisfy the retailers' demands, as a retailer may be considered a gateway to the downstream level<sup>11</sup>. In the context of a hub-and-spoke arrangement the supplier may also have the expectation of sharing some of the extra-profits derived from the reduction in downstream competition<sup>12</sup>. Moreover, the common interest may derive from suppliers’ concerns regarding brand or product positioning. In fact, not only the supplier but also the retailers may find that no one is in a better stand to define the products’ pricing and range than the supplier.

### 4.4. Intent and awareness of the involved undertakings

36. Finally, a fourth potential issue concerns the burden of proof with respect to intent and awareness of the involved competitors. Regarding the market in which the *spokes* (i.e.

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9 Amore, R. (2016), “op. cit.”, pp. 23-24.

10 Sahuguet, N. and Walekiers, A. (2014), “Hub-and-spoke conspiracies: The Vertical Expression of a Horizontal Desire?”, *Journal of European Competition Law & Practice*, Vol.5/10, p. 7.

11 Amore, R. (2016), “op. cit.”, pp. 41-49.

12 *Idem*, pp. 50-51.

the competitors) are active, one has to demonstrate the existence of a horizontal (albeit indirect) cooperation between the involved undertakings. In the absence of a direct agreement which would allow these situations to be considered under a “regular” cartel umbrella, a concerted practice will most likely be the common basis for the analysis of hub-and-spoke arrangements.

37. In this respect, both the case law of the Court of Justice of the European Union (“CJEU”) and the Commission’s Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements (“Guidelines”)<sup>13</sup> establish that the concept of concerted practice comprises an informal cooperation between undertakings, without the conclusion of an agreement, substituting the risks of competition<sup>14</sup>.

38. Moreover, according to settled case law of the CJEU, “*the criteria of coordination and cooperation must be understood in the light of the concept inherent in the provisions of the Treaty relating to competition that each economic operator must determine independently the policy which he intends to adopt on the Common Market*”<sup>15</sup>.

39. The CJEU clearly states that undertakings must operate on the market independently and this requirement “*strictly preclude[s] any direct or indirect contact between such operators by which an undertaking may influence the conduct on the market of its actual or potential competitors or disclose to them its decisions or intentions concerning its own conduct on the market where the object or effect of such contact is to create conditions of competition which do not correspond to the normal conditions of the market in question*”<sup>16</sup>.

40. The CJEU, therefore, stresses that, more than the qualification and form that an undertaking assigns to the arrangement, a major criteria for determining whether the arrangement is illegal is the loss of operators’ independence.

41. In the same line, the Portuguese jurisprudence also provides that “*it is, therefore, essential to this concept [of concerted practice] the idea of the susceptibility to influence the operators’ conduct in the market, which derives from the undertakings coordinated behaviour*”<sup>17</sup>.

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13 Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, 2011/C 11/01, paragraph 60.

14 “[S]uch a practice is a form of coordination between undertakings by which, without it having been taken to the stage where an agreement properly so-called has been concluded, practical cooperation between them is knowingly substituted for the risks of competition”, Case C-8/08 – T-Mobile Netherlands v Raad van bestuur van de Nederlandse Mededingingsautoriteit [2009], paragraph 26.

15 Joined cases C-89/85, C-104/85, C-114/85, C-116 to 129/85 – A. Ahlström Osakeyhtiö and others v Commission of the European Communities [1993], paragraph 63.

16 Cases C-8/08 – T-Mobile, [2009], paragraph 33, C-40/73 – Suiker Unie and Others v Commission, [1975], paragraph 174, and C-7/95 P – John Deere v Commission, paragraph 87.

17 Decision of the Portuguese Competition, Regulation and Supervision Court (“Tribunal da Concorrência, Regulação e Supervisão, 1.º Juízo”), Case no. 102/15.9YUSTR (GPL), [2016] paragraph 159.

42. In addition, for an undertaking to take part in a concerted practice, there is no need for an active participation in the arrangement, namely through an express consent or even by being aware of all its elements<sup>18</sup>.

43. Thus, the concepts of agreement and concerted practice are different regarding the form and, in some cases, the intensity of the behaviour, even if they nonetheless share the same restrictive nature.

44. Furthermore, in a hub-and-spoke arrangement, the coordination is implemented through an illegal exchange of strategic information which increases transparency and reduces uncertainty.

45. In the Guidelines, the Commission expressly states that “[b]y *artificially increasing transparency in the market, the exchange of strategic information can facilitate coordination (that is to say, alignment) of companies’ competitive behaviour and result in restrictive effects on competition. This can occur through different channels*”<sup>19</sup>.

46. In accordance to the Guidelines, the exchange of strategic information between competitors may “*lead to restrictions of competition in particular in situations where it is liable to enable undertakings to be aware of market strategies of their competitors*”<sup>20</sup>.

47. Therefore, for example, the information concerning the intended price point by the supplier, as well as regarding the timing of its positioning and the intention of the retailers to align (or not) their behaviour in correlation with one another, is strategic as to the products distributed by the supplier.

48. It shall further be noted that in a hub-and-spoke arrangement each retailer is aware, or could reasonably have foreseen, that a similar interaction with the supplier is occurring in parallel in relation to the competitor retailers. This originates the common understanding necessary for the coordination.

49. As the Commission states, “[o]ne way is that through information exchange companies may reach a common understanding on the terms of coordination, which can lead to a collusive outcome on the market. Information exchange can create mutually consistent expectations regarding the uncertainties present in the market. On that basis companies can then reach a common understanding on the terms of coordination of their competitive behaviour, even without an explicit agreement on coordination. Exchange of information about intentions concerning future conduct is the most likely means to enable companies to reach such a common understanding”<sup>21</sup>.

50. The proof of a concerted practice comprehends, therefore, a focus on the common (or shared) interest of the colluding undertakings, which encompasses the reduction of the uncertainty as to their future competitive conduct.

51. In this respect, the CJEU establishes the legal criteria to demonstrate the participation of an undertaking in a concerted practice, namely (i) the existence of a common objective pursued by all the participants, (ii) that the undertaking concerned

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18 Case C-49/92 P - Commission of the European Communities v Anic Partecipazioni SpA. [1999], paragraph 87.

19 Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, 2011/C 11/01, paragraph 65.

20 Guidelines, paragraph 58.

21 Guidelines, paragraph 66.



intended to contribute by its own conduct to the common objectives and (iii) that it was aware of the actual conduct planned or put into effect by other undertakings in pursuit of the same objectives or that it could reasonably have foreseen it and that it was prepared to take the risk<sup>22</sup>.

52. These conditions are in line with Portuguese law regarding intent in these type of offences<sup>23</sup>.

## 5. Hub-and-spoke arrangements and the use of common algorithms

53. The AdC has recently published an *Issues Paper* concerning Digital Ecosystems, Big Data and Algorithms in which it addresses, among other topics, the use of algorithms as a means of implementing a hub-and-spoke arrangement<sup>24</sup>.

54. The *Issues Paper* discusses the implications resulting from the use of common algorithms, which may significantly increase market transparency, as each firm knows how its software functions and, as such, may know the decision-making process of their competitors.

55. This scenario may occur, namely, in a context where firms acquire their pricing algorithms from the same party, *e.g.*, the same provider of pricing algorithms, or if there is a pricing algorithm deemed as standard in a particular industry. Firms may also use the same algorithms if they are available in open source in the market.

56. The use of common algorithms with the intent of coordinating market strategies raises competitive concerns under Article 9 of the Portuguese Competition Act. In these cases, the collusion between market operators may occur in the context of a hub-and-spoke arrangement, where spokes coordinate their pricing strategies in the market through a common provider of algorithms – the hub. In a hub-and-spoke scenario, firms may also outsource joint profit maximization to a third party. In this case, when setting prices, the hub may combine strategic information from several firms and internalise the impact that price changes would have on competitors.

57. Third-party providers of pricing algorithms may promote collusive hub-and-spoke arrangements by, for example, disclosing their list of clients on their webpages or on their promotional material, or even by presenting this fact as a plus of its product/service. In addition, they may advertise that their pricing algorithm prevents price wars.

58. In its *Issues Paper*, the AdC has signalled that resorting to the same algorithm or to a common provider of pricing algorithms will be viewed with suspicion by the AdC, when done by competing firms in the same relevant market. This will be particularly the case in

22 Case C-194/14 P, AC-Treuhand AG vs European Commission [2015], paragraph 30.

23 Both the General Regime of Administrative Offences and the Portuguese Competition Act expressly provide that a practice is punishable when adopted intentionally or with negligence.

24 Issues Paper on Digital Ecosystems, Big Data and Algorithms (July 2019), available in: [http://www.concorrenca.pt/vEN/Estudos\\_e\\_Publicacoes/Estudos\\_Economicos/Other/Pages/Digital-Ecosystems-Executive-Summary\\_.aspx?lst=1](http://www.concorrenca.pt/vEN/Estudos_e_Publicacoes/Estudos_Economicos/Other/Pages/Digital-Ecosystems-Executive-Summary_.aspx?lst=1).

markets more susceptible to coordinated behaviour, to the extent that the choice by competitors of using a common algorithm may be conscious and deliberate<sup>25</sup>.

## 6. Concluding remarks

59. A hub-and-spoke arrangement is a hybrid figure where the participating undertakings share a common interest, combining the existing incentives in the different levels of the supply chain. A hub-and-spoke arrangement therefore entails one single concerted practice which comprehends both vertical and horizontal conducts and is typically implemented through an informal cooperation mechanism, namely through an indirect exchange of sensitive information.

60. With respect to algorithms, the use of the same algorithm or of a common provider of pricing algorithms, in particular in markets more susceptible to coordinated behaviour, may indicate the existence of a hub-and-spoke arrangement.

61. Hub-and-spoke arrangements present a number of issues for enforcers relating, for example, to the assessment of the various types of evidence, the absence of direct contact between the colluding undertakings or to the use of RPM as an instrument to implement the anti-competitive practice.

62. Nevertheless, based on the AdC experience regarding hub-and-spoke arrangements, these issues should not deter enforcement, but rather call for increased robustness of the analysis of the underlying evidence and theories of harm.

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<sup>25</sup> AdC Issues Paper on “Digital ecosystems, Big Data and Algorithms” (2019), paragraphs 264-269.