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**HEARING ON ACROSS PLATFORM PARITY AGREEMENTS**

-- Paper by Prof. Morten Hviid --

**27-28 October 2015**

*This paper by Prof. Prof. Morten Hviid [University of East Anglia, United Kingdom] was submitted as background material for Item 7 of the 124th OECD Competition Committee on 27-28 October 2015.*

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**VERTICAL AGREEMENTS BETWEEN SUPPLIERS AND RETAILERS THAT SPECIFY  
A RELATIVE PRICE RELATIONSHIP BETWEEN COMPETING  
PRODUCTS OR COMPETING RETAILERS**

*By Morten Hviid<sup>1</sup>*

**Abstract**

This report summarises the economic theory and case law as it relates to recent cases involving vertical agreements specifying horizontal price links. We first identify two classes of vertical restraints with horizontal effects, by reviewing existing case law, and show that they can be analysed using the same logic. We demonstrate that the horizontal link, although commonly referred to as a most favoured nation guarantee, is actually more akin to a price matching guarantee. Building on this, we review the main insight from the well-established literature on price guarantees to demonstrate that there was good reason for competition authorities to scrutinise recent on-line market cases. We then summarise the main insights from the very recent academic economics literature which, based on case law, has focused directly on vertical agreements specifying horizontal price links. The report concludes with recommendations arising from our existing insights and points to areas where more research is needed.

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## 1. Introduction

1. In 2010 Apple and five major book publishers agreed that the publishers would not sell their e-books through Amazon.com at a lower price than through Apple's iBookstore. This agreement was between firms at different levels of the vertical product chain. However, the effect of the agreement was to link the prices of two horizontally differentiated products, an e-book sold through Amazon.com and the same e-book sold through the iBookstore. This agreement was investigated by both the EU Commission and the US Department of Justice (see more in section 2.2.1).

2. This type of vertical agreement with horizontal effects has raised competition concerns in several recent investigations across a number of jurisdictions including the EU, EU member states, the US and Canada. The cases include credit cards, e-books, hotel on-line booking sites, motor insurance price comparison websites and on-line market places.<sup>2</sup> A recent ICN report<sup>3</sup> finds that while only a few of the responding competition authorities indicated that these types of vertical agreements were a top priority, around 80% indicated that these restraints were either of concern or of increasing prevalence. This paper will set out the current economics thinking about the possible effects of these agreements and provide an overview of recent enforcement activity in the area.

3. Such agreements are reminiscent of the frequently observed low price guarantee, for example where a retailer of white goods promises the customer that the price of a specific fridge is the lowest currently available in any retail outlet in a given area. This guarantee links the prices at different outlets for the same product. There is by now an extensive economic and legal literature on such price guarantees, summarised in LEAR (2012), Hviid (2010) and Winter (2008). This literature points out when such guarantees have anti-competitive effects and when they may have ambiguous or even pro-competitive effects. It also offers some guidance on how to distinguish between these outcomes. Given this literature, one might think that there was nothing new in the Apple case. That conclusion would be wrong.

4. Firstly, the Apple case and other recent cases add a vertical dimension to the low price guarantee element. If the horizontal element softens competition, as it might, how will this interact with the vertical price or fee setting? It might exacerbate anti-competitive effects or ameliorate them. Secondly, in the Apple case consumers need not play any active role, although they are the recipients of the eventual prices. Indeed consumers might never realise that the identical price at different outlets was the result of anything other than competition. The role of the consumer may matter when we consider the effects of the horizontal guarantee.

5. A complicating factor in the analysis of these agreements is that the precise role in the vertical chain held by the firms involved can have an impact and is case specific. As an illustration, consider the agreement between Apple and the publishers. This needs to be seen in the context of a move from a wholesale model to an agency model. In the wholesale model, Apple is the downstream retailer, setting retail prices and paying a wholesale price to the publisher. In the agency model, the publisher sets the retail prices and sells through Apple, which acts as a passive agent providing retail services. This passivity can be interpreted either as a result of a (minimum) Resale Price Maintenance (RPM) where Apple is told what price to set, in which case Apple is still seen as the downstream firm; alternatively, Apple can be seen as performing a service for the publisher (i.e. providing an input to the sales activity), so that the latter becomes the downstream firm setting the retail price. So the firms are related vertically, but in which

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<sup>2</sup> Edelman and Wright (2015) point out that there are several other industries where we can observe such vertical agreements, including restaurant reservation services.

<sup>3</sup> ICN, Online Vertical Restraints Special Project Report, 2015, Document prepared by the ACCC. <http://www.icn2015.com.au/download/ICN2015-special-project-online-vertical-restraints.pdf>.

order? This matters both from a modelling standpoint but also from a legal perspective because it will determine whether or not a traditional vertical restraint, the RPM, is involved. An additional twist is that a move to an agency model may in itself have an anti-competitive effect in which case we need to disentangle this effect from any effects which arise from the vertical agreement.

6. Added to this is an unsettled terminology which is creating uncertainty in reading across from one case to another. Section 2 provides a summary of the key recent cases where the focus has been on vertical agreements with horizontal effects, uses this to clarify the terminology that will be used in the report, and provides an abstract framework to understand the nature and effects of the agreements. Section 3 provides an overview of the pure horizontal effects. Section 4 then adds the vertical element and surveys the recent academic literature. Section five concludes the report, drawing together the lessons from economics and from the case law, and highlights areas where more research is needed.

## **2. Recent competition cases involving vertical agreements with horizontal elements**

7. While typically vertical agreement may contain restraints that limit the downstream firm's freedom in selling the upstream firm's product, some can also restrict the downstream firm's freedom when selling a product of the upstream firm's competitor. The latter type has given rise to a number of recent competition cases which will be discussed in this section to identify the competition issues they have raised.

8. All cases discussed below involve a producer and a specialist retailer - we have chosen to refer to firms who may either have to or choose to use a retailer to reach consumers as "producers". These producers could be publishers, tour operators, hotel chains or insurance companies. We can usefully divide the cases into two classes, which we will discuss separately. In one class the producer says to the retailer: "you must not promote a rival brand above mine". This promotion could take the form of setting lower final prices, offering deeper discounts, or providing other inducements to select between rival goods sold by the retailer. In the second set of cases the retailer says to the producer: "you must not sell your goods at a lower price or with more enticing conditions through another retailer".

### **2.1 *Producer imposes restriction on Retailer***

9. This section discusses the "you must not promote a rival brand above mine" set of cases. This promotion could take the form of setting lower final good prices, offering deeper discounts, or other inducements to select between rival goods. The following cases have this feature:

- the UK Tour-Operator case;
- the UK Tobacco case; and
- the US American Express case.

10. We shall discuss these three cases in the following subsections.

2.1.1 *The UK Tour-Operator case*<sup>4</sup>

11. A very early example of such restrictions is found in the 1997 report by the UK Mergers and Monopolies Commission (MMC, now the Competition and Markets Authority, CMA) scrutinising a vertical restraint used by two dominant tour operators in the UK. According to its report the MMC was

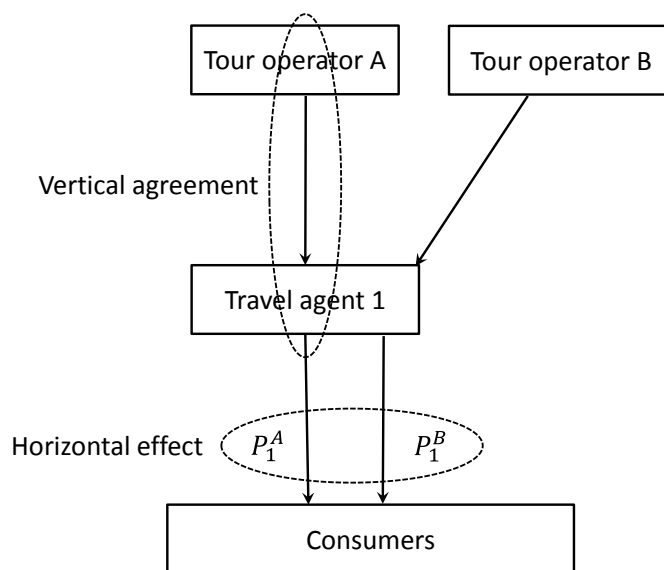
*“...concerned ... with provisions in agreements between tour operators and travel agents which require those travel agents to promote the holidays of a tour operator on terms no less favourable than those on which they promote the holidays of competitor tour operators.”*<sup>5</sup>

12. One of the elements of the agreement related to discounts offered on the catalogue price of a holiday. Again according to the report:

*“This provision has been understood by travel agents to mean that the travel agent commits himself not to discount the holidays of other tour operators at higher levels than it discounts Thomson (one of the tour operators) products during the three months or so of the key selling periods.”*<sup>6</sup>

13. Note that while the vertical restraint in this case does not link the prices paid by consumers directly, it does create a horizontal link between the discounts offered across similar products from different tour operators to the same consumer. This is illustrated in Figure 1 below:

**Figure 1. The Tour Operator – Travel Agent agreement**



<sup>4</sup> MMC Report: ‘Foreign package holidays: A report on the supply in the UK of tour operators’ services and travel agents’ services in relation to foreign package holidays’ Cm 3813 (19.12.1997).

<sup>5</sup> MMC Report Cm 3813, para 2.98.

<sup>6</sup> MMC Report Cm 3813, para 2.101.

14. This link, according to the MMC, harmed consumers by restricting the incentives of the travel agents to discount slow selling package tours. As a result, the restrictions were declared unlawful. This decision withstood the first appeal<sup>7</sup> but not the second<sup>8</sup> where the Court of Appeal decided that it mattered whether or not the required matching of discounts were funded by the tour operator.

15. The theory of harm entertained by the MMC does not, as the Appeals Court points out at paragraph 342, “emerge as clearly as it might”. Subsequently Akman and Hviid (2006) have provided a formal analysis of the effect on consumers arising from the restriction. They show that the restriction was indeed harmful because it limited competition based on discounts. These discounts are important, since the list prices are set a long time in advance of the start date of a tour, when total demand is difficult to predict. Since prices can be adjusted more easily downwards than upwards, list prices are likely set at the upper end of what the tour operators believe they can charge. The focus of the competition between different package tours is hence on the discounts offered later and closer to the day of departure when the level of demand becomes clearer. Any restriction on this competition will harm consumers.

### 2.1.2 *The UK Tobacco case*<sup>9</sup>

16. A vertical restriction of a similar sort<sup>10</sup> was also alleged in the 2010 UK Office of Fair Trading (OFT, now CMA) decision on tobacco. Although this decision has since been overturned by the UK Competition Appeals Tribunal (CAT)<sup>11</sup>, it is notable that the CAT’s judgment was not based on an assessment of the economic theory of harm put forward, but rather on the facts of the case.

17. According to the OFT case, the tobacco manufacturers wanted there to be a particular relationship between the retail prices of selected competing tobacco brands. In order to achieve this set of relative prices, the agreements between a manufacturer and a retailer specified the retailer’s retail prices for that manufacturer’s tobacco products relative to those of rival products.

*“The Manufacturer’s parity and differential requirements were expressed in a number of ways: (i) as a parity (for example, a requirement that the relevant Manufacturer’s brand X be the same price as the competing Manufacturer’s brand Y); (ii) as a fixed differential (for example, a requirement that the relevant Manufacturer’s brand X must be z pence less than the competing Manufacturer’s brand Y); and (iii) as a maximum differential (for example, a requirement that the relevant Manufacturer’s brand X be no more expensive than the competing Manufacturer’s brand Y, or that brand X be priced at least z pence less than brand Y). Those requirements were implemented in particular through regular communications by the Manufacturer of specific price points to the Retailer.”<sup>12</sup>*

18. The actual form, as well as the understanding, of the many bilateral agreements between a tobacco manufacturer and a retailer were disputed during the appeal to the CAT. We will focus on the theory of harm, as identified by the OFT.

<sup>7</sup> R v Secretary of State for Trade and Industry, ex p Thomson Holidays Ltd (1999) Queen’s Bench Division (Crown Office List) CO/4178/98.

<sup>8</sup> R v Secretary of State for Trade and Industry, ex p Thomson Holidays (2000) ECC 321.

<sup>9</sup> Office of Fair Trading (2010), ‘Case CE/2596-03: Tobacco’.

<sup>10</sup> Interestingly no link was made between this case and the Tour Operator case described in 2.1.1 above.

<sup>11</sup> Competition Appeal Tribunal (CAT), CAT 41 (Dec. 12, 2011).

<sup>12</sup> Office of Fair Trading (2010), ‘Case CE/2596-03: Tobacco’. Paragraph 1.7.

19. The theory of harm, if one focuses on the restrictions as described in the quote above, is relatively straightforward. The agreement created a series of positive links between prices for competing products, links which one would expect to be known to all firms in the industry.

20. The first order effect of such agreements, which link prices of rival goods, is to soften competition among existing firms. The intuition is simple. Without such an agreement, if a firm reduces its price (or if it offers a discount), it would expect to gain consumers at the expense of its rivals. How much it gains depends on a number of factors, among which the important ones are: i) the elasticity of substitution, which determines how willing the consumer is to switch at current prices, and ii) the length of time before the rivals react by changing their prices. The sooner and the more aggressively the rivals react to a price cut by reducing their own prices, the smaller the gain from the price cutting. An agreement which links prices together in a pre-specified manner would not just hasten the reaction to a price reduction, it would specify what that reaction should be. This would firstly negate any gain from price cutting and secondly make it credible that no firm covered by such an agreement would have an incentive to cut their prices. This effect arises purely because of the direct effect on horizontal competition.

21. There is in addition a second effect arising from the vertical relationships in the market. Consider a manufacturer increasing its wholesale price. Without the restriction on the relationship between the prices of rival products, the normal effect would be that the retailer would raise the prices of the manufacturer's products, which would lead to reduced sales due to substitution effects. With the restriction in place, the prices of the rival products also rise in line with the agreement, so that the loss in sales is much reduced. Hence with the restriction, the manufacturers have an incentive to inflate wholesale prices.

### 2.1.3 *The US American Express case*<sup>13</sup>

22. The non-discrimination provisions in American Express (AmEx) U.S. rules, which prohibit merchants that accept AmEx cards from offering discounts or otherwise steering customers to use cards that are less expensive for the merchants to process, have many of the same effects as the agreements presented in the previous two sub-sections. The credit card company is in a similar position to the tour operator in section 2.1.1, in that it does not want its brand disadvantaged relative to other brands. These non-discrimination provisions have recently been successfully challenged by the U.S. Department of Justice.<sup>14</sup> Steering is obviously a tempting policy for a merchant where one credit card brand charges a larger fee than another brand. Steering can hence provide a competitive restraint on the ability of credit card companies to set high fees, fees which are totally or in part passed on to consumers in terms of higher prices. The wish of the credit card companies to prevent such steering is also obvious as is the danger to competition through higher prices and restricted entry.

23. In this case two defences were raised, one related to the business model of AmEx that stresses the importance of "welcome acceptance", and the other related to free-riding. The "welcome acceptance" is really an argument related to network effects which are clearly important in an industry where the willingness to carry a card is closely related to the card's near universal acceptance by merchants. Put

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<sup>13</sup> Kuhn and Wegmann (2014) discuss an interesting variant used with payment cards and known as parity surcharging. This obliges merchants not to charge customers a higher amount for using the payment services provider's payment solution than for using other payment methods (or granting higher discounts for the payment services provider's competitors' payment methods). The similarity with the UK Tour Operator case is obvious.

<sup>14</sup> United States of America, et al. v. American Express Company and American Express Travel Related Services Company, Inc. "Decision," 10-CV-4496 (NGG) (RER), United States District Court Eastern District of New York, February 19, 2015. Case currently under appeal to the Second Circuit.

differently, successful steering at one merchant has a spill-over effect on the likely use of the card at other merchants and hence in the incentive to acquire the card in the first place.

24. As for free-riding, AmEx offered a number of avenues for potential free-riding, including that the merchant could potentially exploit AmEx's brand name and network to get customers to visit the store.<sup>15</sup> The court only accepted some of these arguments for free riding and where it did, it concluded that AmEx possessed equally effective and significantly less restrictive means of preventing free-riding.

25. The court found that the non-discrimination provisions constitute an unlawful restraint on trade under Section 1 of the Sherman Act.

#### 2.1.4 *Summarising the insights*

26. In each of the three examples just discussed, the retailer is obliged to treat different producers in a similar manner. While in two of the cases, the obligation is to treat all the product in the same way, the Tobacco case illustrates that such agreements can allow for specified differences. The latter can clearly be important where the products that are linked are differentiated in such a way that we would expect prices to differ.

27. Where the agreements relate to prices, the restrictions link the prices of products sold by rival producers at a given retailer. This has, as explained in the Tobacco case, two immediate effects, relative to the case where there are no such agreements:

- The retailer has no freedom to create competition among the products it is selling (or in the AmEx case, the cards it is allowing consumers to use), i.e. producers cannot compete on price.
- The producer has a no incentive to induce the retailer to reduce the prices at which it sells the producer's products, for example through support for discounts. Instead the producer has an incentive to increase its wholesale prices, because the resulting increase in retail prices would be spread across all the rival products covered by the agreement.

## 2.2 *Retailer restricts behaviour of Producer*

28. This section discusses cases in which the constraint is reversed and it is the retailer who says to the producer: "you must not sell your goods at a lower price or more enticing conditions through another retailer". The following cases have this feature:

- the e-book cases;
- the on-line hotel booking (or online travel agent) cases;
- the Amazon Marketplace case; and
- the UK motor insurance case.

### 2.2.1 *The e-book cases*

29. In 2010 five of the six largest book publishers changed their business model from a wholesale model, where the publishers set the wholesale price and the e-book retailers then decided their own retail

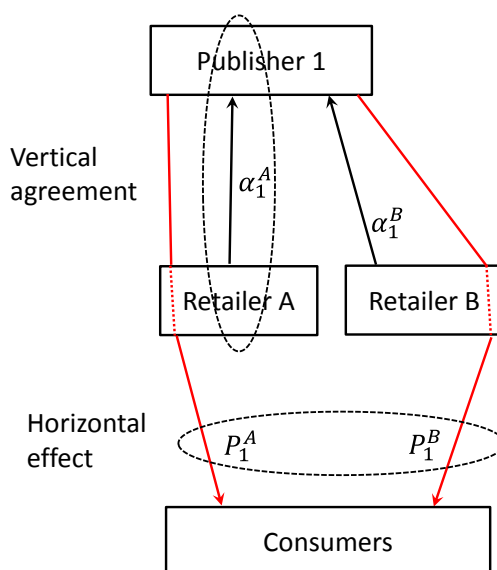
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<sup>15</sup> For more detail, see United States of America, et al. v. American Express Company and American Express Travel Related Services Company, Inc. "Decision," 10-CV-4496 (NGG) (RER), United States District Court Eastern District of New York, February 19, 2015, pages 143-149.

price, to an agency one, where the publishers set the price and the e-book retailers simply acted as agents and received a fee or a share of the revenues from the publishers. This was combined with an agreement requiring a publisher to set the same price on the Apple iBookstore, as on Amazon (the main e-book retailer) and any other e-book retailer.

30. A simple illustration of the agreement is provided in Figure 2 below, where Publisher 1 sells his book through Retailer A and Retailer B and requires both of them to charge the same retail price ( $P_1^A = P_1^B$ ), and pays them a share  $\alpha_1^A$  of the revenue as a compensation for their reselling services.

**Figure 2. Simple version of the e-book agreement**



31. The combination of the agency model and the price relationship agreement was challenged by competition authorities and private litigants in a number of jurisdictions, including the EU and the US.

32. The EU Commission opened an investigation in December 2011 and settled the case on 13 December 2012. In the settlement, the parties agreed to remove the agency agreement and ban the specific pricing agreement, or their enforcement, for a five year period.

33. The US Department of Justice (DoJ) opened the case on October 16, 2012 and together with 33 states and territories filed suit in the US District Court for the Southern District of New York.<sup>16</sup> The publishers settled and signed consent decrees, which prohibited them, for a period of at least two years, from restricting the e-book retailers' ability to set prices. Apple chose to litigate. The Districts Court<sup>17</sup> found Apple to have violated Section 1 of the Sherman Act and issued an injunctive order that, among other things, prevents Apple from entering into agreements with publishers that restrict their ability to set, alter, or reduce the price of e-books, a decision which mirrors the earlier settlements both in the US and EU. Apple appealed

<sup>16</sup> Formally the charge was that they had conspired to fix prices through the contractual arrangements.

<sup>17</sup> United States v. Apple Inc., 952 F. Supp. 2d 638, 15 647 (S.D.N.Y. 2013).

the decision and on 30 June 2015 US Court of Appeals for the Second Circuit upheld the finding of the District Court.<sup>18</sup> Apple is currently applying to the US Supreme Court for a further review of its case.

34. The US Appeals Case offers some useful insight<sup>19</sup> by highlighting a tension between Amazon and the publishers, which existed even before Apple proposed to enter the market and before the agency model was first introduced. Amazon was concerned with one externality: the sale and lock-in of consumers to its electronic device, the e-book reader Kindle (launched in 2007).<sup>20</sup> The importance of creating an installed base through sales of e-reading devices was common to both Amazon and Apple.

*“The economic models of Amazon and Apple rely on the lock-in of users, in the framework of a proprietary format. For Amazon, books and e-books are a part of more general e-commerce activity. Initially, Amazon’s Kindle files could be read on the Kindle only. For Apple, e-books are seen as an additional application within the general economic model of Apple. Apple has restricted its iBook files to the iPad (and iPhone). Even when it is possible to download a file on another device, users stay in the Amazon/Apple ecosystems of software and services”<sup>21</sup>.*

35. The publishers were concerned with another externality, the spill-over of e-book prices to the sales of hardback books, and in particular the price which could be charged for the latter. The publishers were also concerned that, if readers were locked-in to the Kindle in the future, bargaining power would shift to Amazon. This also helps explain why, before the proposed entry by Apple, the publishers were so concerned about low retail prices in a wholesale relationship, which may otherwise appear as a paradox. In a wholesale model, the wholesaler would normally be delighted if the retailer sets a very low retail price since this expands the sales and, hence, the revenue for the wholesaler.

36. One issue in this case was the economic effect of the shift of the pricing decisions from internet retailers, usually referred to as retail platforms, to publishers. Intuitively, the retail price is highest when the final price is set at the level where there is the least competition. This intuition is confirmed by theory (see section 4.1 below). Hence an important element of the economic analysis was the structure of the upstream and downstream market. Before Apple’s entry, there were two significant retail platforms, each with its own reading device, Amazon and Barnes & Noble, of which Amazon was far and away the larger player. Even with the successful entry of Apple, the retail platform level could still be best described as a near duopoly. There were at the same time six major publishers, five of whom entered into an agreement with Apple. This may lead one to infer that competition would be least intense at the publisher level. Details from the US Appeals Court decision,<sup>22</sup> however, suggests that this may not be the case. The publishers had always met to discuss developments in the world of publishing. They had no qualms about this since they did not set prices, but rather competed over agents and authors. The status of such meetings obviously changed once the agency format was agreed, though it is not obvious that this was appreciated by the industry. The past interaction, combined with agreed price tiers for different types of books

<sup>18</sup> United States v. Apple, Inc. 13-3741-cv (L), United States Court of Appeals for the Second Circuit decision of June 30, 2015.

<sup>19</sup> United States v. Apple, Inc. 13-3741-cv (L), United States Court of Appeals for the Second Circuit decision of June 30, 2015, at page 13-14.

<sup>20</sup> Apple, with the launch of the iPad (January 2010) would have been equally concerned to use price structures to entice consumers to select their device. Because the iPad can do much more than be an e-book reader, Apple has a larger range of products over which it could choose to loss-lead, and it would seem that they did not see e-books as the best candidates for this.

<sup>21</sup> Benhamou (2015, p. 126).

<sup>22</sup> United States v. Apple, Inc. 13-3741-cv (L), United States Court of Appeals for the Second Circuit decision of June 30, 2015, at page 15-16.

providing focal points, could make tacit collusion more than just a theoretical possibility. One may, hence, wonder whether the appropriate comparison is between one level with at least five of the six major publishers tacitly colluding<sup>23</sup> and one with two competing platforms, rather than one level with six major publishers and one with two platforms. If the latter interpretation is closer to reality, the move to an agency model would potentially delegate price setting to the level with the least competition, leading to higher retail prices.

37. Another feature of this case is that the move from wholesale to agency was accompanied by a move from the producer getting a per unit (wholesale) price to the producer keeping a share of revenue. This can make a difference to final consumer prices and should be part of the evaluation of the adverse effect of any change.

38. The horizontal restriction on pricing in this case links the price of one good to the price of the same good at a different retail platform. This is similar to the case in which a retailer promises to the consumers that it will match any lower price they may find for the same fridge at another retailer.

39. The theories of harm in this case involved two effects. One is the move from the wholesale model to the agency one, and the other is the restriction on price setting. Both can potentially raise prices and, hence, harm consumers. In addition, some argue that it was the restriction on price setting that acted as the catalyst for the move of all the major firms, including Amazon, to an agency model. The argument offered for this is that the only way the publishers can make good their promise not to charge more when selling through the Apple iBookstore is to take control of pricing.

#### 2.2.2 *The on-line hotel booking (or online travel agent) cases*

40. This case concerned firms offering hotel booking services, typically referred to as online travel agents (OTAs), which provide three separate services to consumers: price comparison, search facility and product review. The OTAs are arguably offering additional services to hotels, such as increased demand and better matching with customers<sup>24</sup>, which benefit hotels and consumers. The hotels pay for this through a commission per sale effected through the OTA, and can avoid paying this commission to the OTA if the consumer goes directly to the hotel website (or reservation line) after using the OTA to search for the preferred hotel. Since the consumer can get most or all of the benefits from the OTA by using it for search only, the hotel may be able to offer anyone booking through its own website enough of a discount that many consumers are prepared to engage in this free-riding on the OTA, possibly even so many that the OTA is no longer financially viable. A vertical agreement between a hotel and an OTA preventing the former from setting a lower price through its own direct sales channels may seem the natural solution to such fears.<sup>25</sup> Extending the restriction on hotel price setting to include other OTAs may equally guard against free-riding by shifting the sales towards an OTA which provides a lower quality service but also a lower commission fee. Such restrictions on hotel pricing were indeed used and were scrutinised by several European competition authorities, including in France, Germany, Italy, Sweden and the UK. They were also the focus of a private action for damages in the US.

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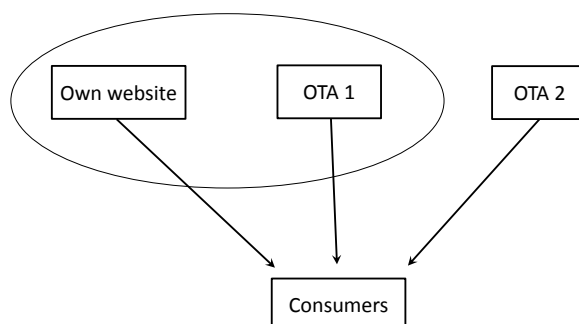
<sup>23</sup> The five publishers who had entered an agreement with Apple.

<sup>24</sup> Better matching between consumer and product improves the relevance and hence value of any subsequent review, whereas poor matching can undermine reputation.

<sup>25</sup> This does require either that the retail platform has the power to impose such a restriction because it is essential for the hotel to be listed on the platform or that the hotel cognises the benefits provided by the platform and that there is a need for it to bind itself not to undermine the platform.

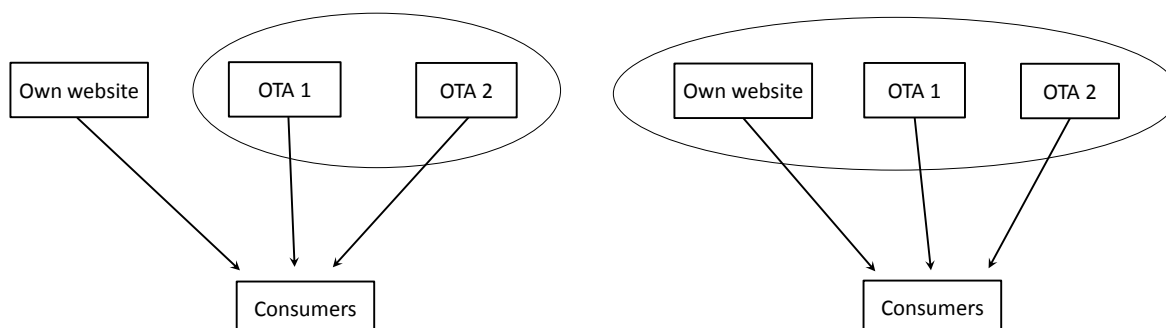
41. Largely in response to arguments that the agreements were necessary to prevent free riding, the EU cases drew a distinction between narrow and broad agreements. A narrow agreement between a hotel and an OTA commits the hotel not to charge a lower price on its own web site than the one charged by the OTA. This is illustrated in Figure 3 below:

**Figure 3. Narrow price restriction agreement**



42. In contrast, a broad (sometimes referred to as wide) agreement between a hotel and an OTA commits a hotel not to charge a lower price on competing OTAs. The agreement may, or may not, include the hotel's own web site. These two variants of a broad price restriction agreement are illustrated in Figure 4 below.

**Figure 4. Broad price restriction agreements**



43. A number of OTAs, such as Expedia and Booking.com had introduced broad price restriction agreements restricting hotels from selling rooms at lower rates through other booking sites and, possibly, even through their own sites. These agreements have been challenged by several EU national competition authorities. In all but one, Germany, the cases were settled. We shall describe these cases below, as there are some differences between them that are worth examining.

44. In the UK, in September 2010, following a complaint from a small entrant booking site, the OFT launched a formal investigation into suspected breaches of competition law in the hotel online booking sector. In January 2014, the OFT accepted binding commitments from two leading OTAs, Expedia and Booking.com, to alter the way they operated their price agreement with a major hotel chain, the

International Hotel Group.<sup>26</sup> The key element of the settlement was that they would remove any restrictions on the hotel's pricing that could affect consumers who were part of a 'closed group', such as members of a loyalty scheme. For consumers who were not part of such a group, an agreement limiting the hotel's freedom to set prices on its website that were lower than those listed on the OTAs could be left in force. Essentially, no agreement on price parity could prevent a hotel or booking site from offering a discount to a 'loyal' consumer. The set of commitments was challenged in front of the UK CAT, which in September 2014 quashed the final decision on commitments and remitted the case back to the competition authority (which by now was the CMA). In light of Europe-wide changes introduced by Booking.com and Expedia which removed the vertical agreements, the CMA closed the case on 16 September August 2015 but promised to monitor developments in the sector.

45. The French, Swedish and Italian competition authorities all launched their own investigations in 2013. In spring 2015, these authorities all accepted the commitments offered by Booking.com (April 2015) and Expedia Inc. (June 2015), which for a period of five years would remove any agreement which restricted price differentials between OTAs. However, the commitments still allowed narrow agreements, restricting hotels from offering lower prices on their own website than on an OTA. The differential treatment given to the narrow agreements was due to the fact that competition authorities were less concerned about their effects if there was at least one other OTA in the market, because the OTAs provided competitive pressure on each other. Since then, on June 18 2015, the French Parliament passed a law that banned all agreements between hotels and OTAs placing restrictions on hotel pricing.<sup>27</sup> This ban includes both narrow and broad agreements and goes beyond the commitment offered by Booking.com and accepted by the French Competition Authority.

46. The German competition authority, the Bundeskartellamt (BKartA), issued an enforcement decision on 20 December 2013 regarding the imposition of agreements restricting hotels' freedom to set prices by HRS, the main German OTA, holding that these agreements violated German competition law. The decision covered both narrow and broad agreements. HRS appealed the decision, but on January 9 2015, the Düsseldorf Higher Regional Court rejected HRS's appeal against the BKartA's decision. The BKartA also initiated proceedings against the hotel booking portals Booking.com and Expedia for applying similar clauses in their contracts with their hotel partners.

47. From the EU cases there appears very little doubt that broad agreements restricting the price a hotel can set on competing OTAs violate competition law.<sup>28</sup> The theories of harm offered are a mixture of incentives to set higher prices through a reduction in competition and the deterrence of new entrants unable to offer a better deal. There is less consensus when it comes to the anticompetitive effects of narrow agreements, which place restrictions only on the prices a hotel can set on its own site. This lack of consensus relates to the magnitude of the concerns about free-riding by hotels on OTAs' investments in their websites and search facilities, which in the extreme could have the effect of driving the OTAs out of business.<sup>29</sup>

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<sup>26</sup> Hotel online booking: Decision to accept commitments to remove certain discounting restrictions for Online Travel Agents, Office of Fair Trading, OFT1514dec. Paragraph 6.12.

<sup>27</sup> For a full story, see Sean O'Neil, "French parliament kills rate parity, and Booking predicts hotel price war", Tnooz, available at: <http://www.tnooz.com/article/french-parliament-kills-rate-parity-and-booking-predicts-hotel-price-war/#sthash.vt1VpIS0.dpuf>.

<sup>28</sup> Although the CMA had accepted an even weaker commitment, this was quashed on appeal and the CMA was forced to think again.

<sup>29</sup> To fully assess this, one would need to look closer at the platforms and their business models. In that respect it is important to keep in mind that the platforms not only offer advertising opportunities from which they can extract rent, but also collect masses of information about consumers which has a future

48. While the EU cases were all pursued by competition authorities (in the UK case following a complaint by a competitor OTA), the US case was a private damages action.<sup>30</sup> This case was far less successful, but provides some useful insights. The plaintiffs, a consolidated group of consumers, alleged that a group of hotels and a group of OTAs had engaged in an industry-wide conspiracy to uniformly adopt resale price maintenance (RPM) agreements, containing restrictions (in the case referred to as Most Favoured Nation, MFN, clauses<sup>31</sup>) with the aim of eliminating price competition among hotel room booking websites. To be clear, the alleged wrongdoing was not the adoption of a minimum price RPM, but the conspiracy to adopt this across the industry. Both the allegation and the Court in its analysis distinguished between the vertical element (the pure RPM) and the horizontal element (the MFN) of the bilateral agreements. While the bilateral agreements in question were exactly the same as in the EU cases, namely that the hotels were to be barred from setting a lower price on their own website or on any rival OTA, the US case provides a different perspective on the agreements. The analysis of the Judge, Jane J. Boyle, is instructive. The Judge splits up the analysis of the vertical RPM<sup>32</sup> and the supposed MFN to argue that there are good unilateral reasons for a hotel and an OTA to enter into an agreement with both these restraints. Firstly, she argues that hotels would naturally like to control the price at which they sell their rooms. On page 16 of the decision this is summarised as follows:

*“This natural desire to control online pricing is even more apparent in the hotel industry. A fancy hotel, for example, may value the ability to control online pricing to protect its brand’s high-end image. More generally, hotels across the industry may find that controlling minimum resale prices is the “only feasible” way to effectuate a profitable price discrimination strategy—that is, a strategy to “sell the same product (i.e., hotel room), costing the same to make and sell, at different prices to different consumers.”*

49. Hence, the vertical RPM is something a hotel would want to include in a hotel-OTA agreement. Indeed it would seem that the “agency” model has become common between hotels and travel agents. The motivation, according to the Judge, for the horizontal element, the so called MFN, comes from the other side of the bilateral bargain. On page 17 we learn:

*“Having given up the right to discount prices below each Hotel Defendant’s published rate, each OTA Defendant would naturally want an assurance that competitors will also be prohibited from offering a lower price than the published rate. That is precisely what each OTA Defendant got in return according to the Complaint—an MFN clause assuring the OTA Defendant that the minimum rate it must publish will not be undercut by the hotel itself or an OTA competitor.”*

50. The Judge reasons that each side of the bargain had gained something they wanted and they would have wanted this agreement independently of whether a similar agreement had been struck between any other hotel-OTA pair. Hence there is no smoking gun pointing at a conspiracy. That may well be the case, but it is slightly odd to argue on one page that a hotel wants to be able to price discriminate and on

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economic value. It is, hence, not immediately obvious that the narrow APPA is the least distortive way to ensure that the platforms remain viable.

<sup>30</sup> *In re: Online Travel Company Hotel Booking Antitrust Litigation, Case No. 3:12-cv-03515, in the U.S. District Court for the Northern District of Texas.*

<sup>31</sup> As will be explained in the next section, this is actually a misnomer, shared with several of the other cases described in this section.

<sup>32</sup> It is worth noting that the UK case also focused on the RPM element of the agreement. However, in neither case it is really appropriate to talk about an RPM. It would be an RPM case if the hotel said to the OTA: “you must set this price and the price will be the same everywhere”. But in this case the hotel is saying: “this is the price and it is the same everywhere”, and the OTA is not involved in setting the price.

the next page argue that they are happy to agree not to do so. The argument offered for the hotel's part of the agreement is completely nullified by the OTA's part, so what exactly is the quid-pro-quo? In addition the OTA market is very concentrated in the US.<sup>33</sup> In the light of that and the fact that the agreements created the perfect means for increasing prices, the decision to grant an early dismissal of the case may surprise some.

51. The main insights from this set of cases are:

- The agreements can soften competition by reducing competition between OTAs. This can, in turn, also affect the commission rates charged by the OTAs to the hotels and, hence, consumer prices.<sup>34</sup>
- The agreement can affect entry by new OTAs.
- There may be differences between broad and narrow agreements when it comes to the cost-benefit analysis of the agreements.
- Free riding may be a serious defence.

52. An open question is how important the market structure is for forming a view of the narrow agreements. The OTA market is currently very concentrated, but the direction of change appears difficult to predict. In the short run, following the clearance by the US DoJ of the acquisition of Orbitz by Expedia<sup>35</sup> the market seems to become more concentrated. However, entry from other internet platforms with pre-existing strengths elsewhere may counterbalance this. The latter is the prediction made by the DoJ:

*“the evidence suggests that the online travel business is rapidly evolving. In the past 18 months, for example, the industry has seen the introduction of TripAdvisor’s Instant Booking service and Google’s Hotel and Flight Finder with related booking functionality.” (DoJ press release)*

53. Finally, as pointed out by the plaintiffs in the US case<sup>36</sup> and by Akman in the case of Germany,<sup>37</sup> in this market, hotels and OTAs do communicate price parities to consumers via price matching or beating

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<sup>33</sup> According to a 2015 industry report by HVS, Expedia alone accounts for 70% of the total US market. The other main OTA, Priceline, accounts for around 62% of the European market. “As of late last year, Expedia, Orbitz, Travelocity (which Expedia acquired earlier this year for \$280 million) and Priceline Group collectively accounted for 94% of the OTA market in the U.S.” (Danny King, “Can Google booking save Expedia-Orbitz?”, Travel Weekly, July 26, 2015)

<sup>34</sup> The mechanism is as follows: without the agreement that the producer must set the same price across all retailers, if the retailer increases the commission fee, the producer would naturally reflect this higher cost of selling through the retailer in a higher price charged to consumers that buy from that retailer. This would lead to a corresponding reduction in sales, as consumers would substitute away to other retailers or products. With the agreement in place, the producer still responds to an increase in the commission fee through higher prices, but in this case higher prices across its retailers, so the retailer which increased its commission fee loses fewer sales. Since the magnitude of the fee is determined by trading off the extra income per sale against the reduction in sales, the retailer has incentive to charge a higher commission fee when the agreement is in place. And this higher fee will be reflected in higher consumer prices.

<sup>35</sup> DoJ press release: “Justice Department Will Not Challenge Expedia's Acquisition of Orbitz”, 16 September 2015. See <http://www.justice.gov/opa/pr/justice-department-will-not-challenge-expedias-acquisition-orbitz>.

<sup>36</sup> From “*In re: Online Travel Company Hotel Booking Antitrust Litigation, Case No. 3:12-cv-03515, in the U.S. District Court for the Northern District of Texas*” we learn that in the US, most of the OTAs and all the defendant hotel chains offered price matching or price beating guarantees directly to consumers.

guarantees, promising what they know they can fulfil: that the consumers will not find a lower price elsewhere. It is not yet clear whether this market is unique in firms also informing consumers directly that prices will not vary across outlets, be these the hotel or the OTAs. It is equally not clear whether this has any additional effects over and above the agreements between the hotel and the OTA.

### 2.2.3 *The Amazon Marketplace case*<sup>38</sup>

54. In 2012 the BKartA and the UK OFT each began investigating whether the price parity clauses relating to Amazon Marketplace breached applicable national or EU competition rules. These clauses prohibited firms selling through Amazon Marketplace from offering their products at a lower price through other internet marketplaces or through the producers' own websites. The restrictions are hence very similar to the restrictions discussed in the cases above. The BkartA's case summary<sup>39</sup> makes clear that the agreements were regularly monitored and enforced from 2012 onwards. The theory of harm relates only to the effect on potential entrants who would be robbed of one of the key competitive instrument, namely prices.

55. In August 2013 Amazon informed the regulators that it would abandon the price restrictions on the producers for its Marketplace across the EU, and changed its general terms and conditions for some of the producers. Following clarification by Amazon Marketplace that producers were sufficiently aware of Amazon's decision to end the price parity policy, that contractual conditions would change for all producers, and that Amazon would not revert to its previous business practices, the BKartA and the OFT both formally closed their respective cases.

56. The relatively quick resolution of the case may well be related to the number of other cases in which a similar result arose. Note that Amazon Marketplace is simply a window for the producer and that it is the producer who sets the price for the goods sold through the marketplace.

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<sup>37</sup> Pinar Akman, "Are the European Competition Authorities making a less anticompetitive market more anticompetitive? The Booking.com saga", Blog post July 8, 2015, available at: <https://competitionpolicy.wordpress.com/2015/07/08/are-the-european-competition-authorities-making-a-less-anticompetitive-market-more-anticompetitive-the-booking-com-saga/>.

<sup>38</sup> These cases were closed before a statement of objection was filed and there are few discussions of these two cases. See ECN Brief 05/2013, available at [http://ec.europa.eu/competition/ecn/brief/05\\_2013/brief\\_05\\_2013\\_short.pdf](http://ec.europa.eu/competition/ecn/brief/05_2013/brief_05_2013_short.pdf).

<sup>39</sup> Bundeskartellamt, "Amazon beseitigt die Verpflichtung zur Preisparität für Händler auf dem Amazon Marketplace", case B6-46/12, 9 December 2013.

2.2.4 *The UK Motor Insurance case*<sup>40</sup>

57. The use of vertical agreements imposing both narrow and wide restrictions on price setting by private motor insurance (PMI) providers was scrutinised by the UK Competition Commission (now CMA) in its market investigation of the UK Motor Insurance Industry.<sup>41</sup> In this case the producers were PMI providers and the retailers were price-comparison-websites (PCW), of which there were four main ones. The insurance firms paid a commission fee for each of the policies consumers purchased through a PCW. The final report, which was issued by the CMA:

*“observed two broad types of MFNs between PCWs and PMI providers, with significantly different impacts on competition:*

*(a) Narrow MFNs. These clauses state that the price quoted through the PCW to consumers will always be competitive with the price on the PMI provider’s own website, i.e. the price on the PMI provider’s own website will never be cheaper than the price on the PCW.*

*(b) Wide MFNs. These clauses state that the price quoted through the PCW to consumers will always be competitive with any of the prices available, whether on the PMI provider’s own website (as for narrow MFNs) or on other PCWs, i.e. the price on other sales channels will never be cheaper than the price on the PCW.” (recital 8.27)*

58. The report documents the development of both the PCWs and the introduction of the vertical agreements requiring price parity. In particular, it noted that initially PCWs obtained the prices cited on their websites through “screen scraping” (using a computer program to copy data from a website). This meant that the insurer’s own website automatically behaved as if there was a price parity agreement between PCW and insurer, since the price on both websites would be the same by construction.<sup>42</sup> Later, information on the prices of policies started to be provided from insurers to PCWs directly, and clauses restricting pricing by PMIs were introduced, first narrow ones to ensure that prices were not lower on the PMI provider’s own website, and gradually broader to cover other PCWs. Thus, arguably, the vertical agreement restricting price setting was just the continuation of initial practices. However, once the information was provided to the PCW, the insurer and the PCW would be in a commercial relationship and this could change the dynamics in the market. For example, insurers may pay to have a more prominent position on the PCW and products may be offered selectively so that the PCW was not offering the consumer a comprehensive list of the available PMIs. This in turn could be expected to affect the way consumers view the PCW.

59. The CMA demonstrated that competition between PMI providers was strong, while competition between PWCs was not.<sup>43</sup> Since the vertical agreements restricting price setting affected competition between PCWs, one might have expected the effect of the parities to be relatively modest. The report also found that consumers multi-homed, i.e. they visited several PCWs. According to a consumer survey commissioned as part of the market investigation, consumers on average visited 2.2 PCWs. This may

<sup>40</sup> Competition and Markets Authority, “Private motor insurance market investigation, Final report”, 24 September 2014.

<sup>41</sup> Private motor insurance market investigation, Competition and Markets Authority, final decision 24 September 2014. Available at: <https://www.gov.uk/cma-cases/private-motor-insurance-market-investigation#final-report>

<sup>42</sup> The same would be the case if the PCW had comprehensive coverage of all products on offer.

<sup>43</sup> In the sense that consumers were far more likely to switch between brands than between the sites where they purchased the brand.

explain why the CMA considered entry of an additional PCW to have a significant effect and hence that the broad agreements covering all PCWs were problematic because it had the ability to deter entry at least based on better prices.<sup>44</sup> In other words, the theory of harm was predominantly entry deterrence.

60. On the other hand the CMA considered that narrow agreements did not have as problematic an effect on commission fees, since the PMI provider was able to use a rival PCW to put pressure on a dominant PCW by setting a much lower premium on the rival PCW site. PCWs are potentially vulnerable to free-riding since renewals are not likely to involve the PCW other than for possible searches. Indeed the CMA reports (recital 2.33) showed that while only 20-30% of final purchases are made via a PCW, around 77% of consumers use a PCW for search purposes. Moreover, analysis from Datamonitor, cited by the CMA (recital 2.33), showed that, while only about 23% of motor insurance sales were via a PWC, 54-56% of new insurance business was through a PCW. An argument in favour of the narrow restrictions is that these provided credibility to PCWs by allowing consumers to compare the prices that were actually available on PMI providers' websites.<sup>45</sup>

61. The CMA concluded that while broad agreements had significant anti-competitive effect on both entry and commission fees, narrow agreements were not likely to have significant anti-competitive effects that might outweigh any adverse effects from free-riding.

#### 2.2.5 *Summarising the insights*

62. In all four examples discussed above, the agreements ensure that the prices quoted through the internet retail platforms are identical both on other platforms and on the producer's own website. This has two immediate effects, relative to the case where there are no price restraining agreements:

- The retail platforms cannot compete on prices.
- The retailer has an incentive to demand higher fees or shares of the revenue, since such an increase in the costs to the producer will be reflected in higher consumer prices across all retailers, not just the retailer making the higher demand.

63. In addition to these two effects, both of which are likely to lead to higher prices to consumers, the cases have highlighted two further concerns:

- These agreements may limit entry because new entrants cannot differentiate themselves through a lower price level.
- The use of an agency model may directly increase prices to consumers.

64. On the other hand, the cases have also pointed out that the agreements may have pro-competitive effects. In particular:

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<sup>44</sup> There are alternative explanations, for example that, since none of the PCW are comprehensive, consumers do not trust the ranking they get at a single PCW enough to rely on this alone. If that was the explanation, offering a more comprehensive service might be a better solution than offering slightly lower prices. Because of multi-homing, it is important to have a presence on several PCW which may explain the concern that the broad APPA can lead to higher commission fees.

<sup>45</sup> Ironically in recital 8.104, the CMA, when considering the credibility issue for broad MFN, makes the observation that insurers "did not expect the prices returned through each PCW to be the same".

- There is a concern that without the agreement, retail platforms may exit due to free-riding. Less clearly articulated there is also a concern that the free-riding may reduce investment by existing retail platforms in features which benefit consumers.

### 2.3 Terminology

65. From the short description of the recent cases, it should be evident that terminology presents a challenge. This appears the best point to introduce and explain the terminology which will be used in the rest of the paper.

66. For the vertical chain we will use the following terms: producers sell through retail platforms (and possibly through their own websites) to consumers. When appropriate we will treat the retail platforms as inputs into the sale process of the producer.

67. For the vertical agreements with horizontal effects, we will use the terminology Across Platform Parity Agreements (APPA).<sup>46</sup> Three different versions of these APPAs can be identified:

- **Broad APPAs matching prices of rival producers' product at retailers** are agreements between a producer and a retail platform<sup>47</sup> that require consumer prices for the producer's product to be no higher than consumer prices for any rival product at the same retailer.
- **Broad APPAs matching prices at rival retailers** are agreements between a producer and a retail platform that require consumer prices for each of the producer's products to be no higher on the retail platform than consumer prices for the same products at any rival retail platform.
- **Narrow APPAs** are agreements between a price setting producer and a retail platform that restrict prices on the producer's own website to be no lower than the price set on the retail platform.

68. Note that if only one producer-retail platform pair has an APPA, this only creates an upper bound on a price. For prices to be identical either across products at an outlet or across outlets, all pairs of producers and retail platforms must have the appropriate APPA.

69. As was illustrated by the online hotel booking cases above, where an agency model is used some commentators break the APPA into two constituent parts, a vertical element where the producer sets the consumer price for a product and a horizontal element which links this price with the prices of other products as specified in the agreement. The first (vertical) element has in some cases been interpreted as de facto an RPM, most likely because it is natural to see the producer as an upstream firm since the retailer is typically the last link in the chain from producer to consumer. Without an RPM, how can the producer set the price the retailer will charge? The second (horizontal) element is a price matching promise that is often labelled an MFN. This is, as we will explain below, a bit of a misnomer but the term has stuck in most of the case law. To indicate that there is a difference, Fletcher and Hviid (2015) used the label, "Retail Price MFN" to describe the part of the APPA which ensures that prices are the same across outlets.

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<sup>46</sup> In addition to APPA, many other terms have been used so far, including Price Relationship Agreements (PRA), "Contracts that Reference Rivals" (CRR). Considering a broader set of cases where there is not necessarily a formal agreement in the vertical chain, Edelman and Wright (2014) coin the term "Price Coherence".

<sup>47</sup> Note that these do not have to be internet retailers – this may be so for the cases described in section 2.2, but clearly not for the cases described in section 2.1.

70. To see why it is a misnomer to refer to the horizontal restriction on price setting as an MFN, one should recall that an MFN is a promise to a buyer that for a period of time within a region, a producer will not offer the product at a lower price than the one the buyer paid, or if it does, it will refund the difference. In other words, the buyer is among the producer's most favoured customers and will be treated as such.<sup>48</sup> Consider first the cases (discussed in section 2.1) where the producer says to the retailer: "you must not promote a rival brand above mine". Here the producer is asking the retailer to treat it as well as it is treating other suppliers. Hence it is really what Akman and Hviid (2004) refer to as a most favoured producer guarantee. Moreover, the effect of the guarantee is to link the prices of two competing products. This is, as Akman and Hviid (2004) point out, much more akin to a promise of a producer to match a rival's price, although this is a promise which may not necessarily be communicated to the final consumer. Consider next the cases (discussed in section 2.2) where the retailer says to the producer: "you must not sell your goods at a lower price or with more enticing conditions through another retailer". Here there is a stronger argument for using the MFN terminology in that the promise could be interpreted as a promise by the producer directly to the consumer that no-one else buying the good at this moment in time will get a better price no matter where they shop. In this interpretation, the guarantee becomes a spatial version of the traditional MFN.<sup>49</sup> However, one could equally interpret the promise as akin to a price matching promise from the retail platform to consumers that it will not be undercut by a rival outlet.<sup>50</sup> This price match relates to the same product at different outlets.

71. Whichever term is used, the key element of the horizontal part of the agreements is that it creates a positive link between prices of some rival goods. The concern is that while the adverse effects on competition are qualitatively quite similar, the pro-competitive effects of price matching agreements differ markedly from those of the traditional MFN. We will explore this further in section 3 below.

#### **2.4 *The relationship between the two classes***

72. Under the APPA described in section 2.1 above and exemplified by the UK Tobacco case the producer sets wholesale prices ( $W$ ) and the platforms set final retail prices ( $P$ ) – as in a standard retail-based system - but the latter are required to set these prices such that the product covered by the clause is priced no higher than are competing products from other producers. This is illustrated in Figure 5.

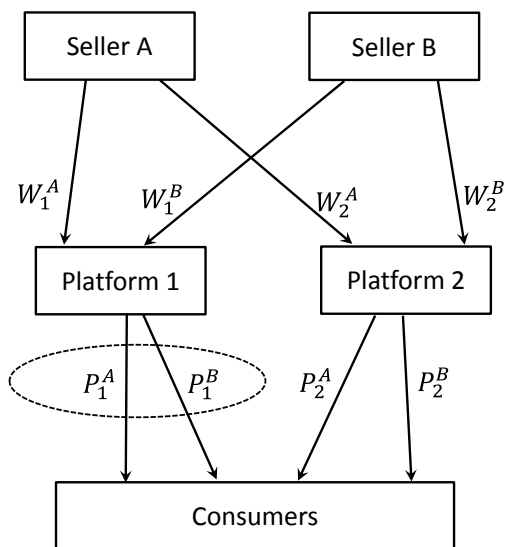
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<sup>48</sup> Essentially the MFN is a guarantee that the consumer is not going to meet someone who has paid less for the same good at more or less the same point in time.

<sup>49</sup> An MFN is usually dynamic in the sense that the most favoured consumer will either get the price which others have been offered in the past, or more commonly, will be due a refund if other are offered a better price within a pre-specified period. The latter is often referred to as a retroactive MFN.

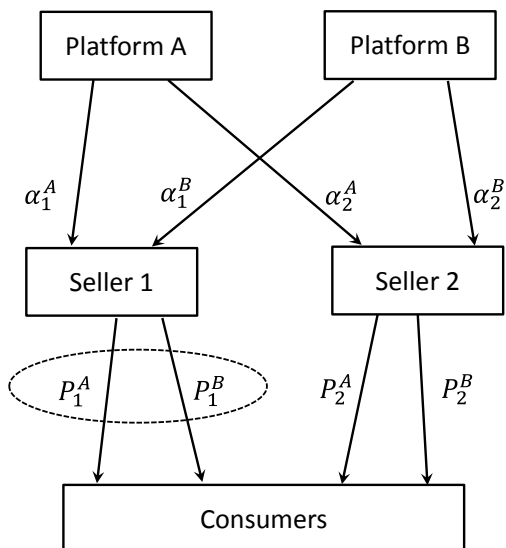
<sup>50</sup> An example of such a price guarantee is offered by supermarkets promising that the basket of goods purchased by a consumer is no more expensive than had the same basket been purchased at a rival supermarket.

**Figure 5. Platforms set prices**



73. In the APPA described in section 2.2 and exemplified by the e-books case the platform is essentially the first mover, setting the distribution fees ( $\alpha$ ) and possibly requiring the APPA, and the producers set the final price paid by consumers ( $P$ ). We illustrate this in Figure 6 below.

**Figure 6. Producers set prices**



74. In both figures, we label the upstream firms A and B and the downstream firms 1 and 2.

75. In both cases the APPA between upstream firm A and downstream firm 1 requires that  $P_1^A \leq P_1^B$ . Hence, the restriction is formally the same. What differs between the figures is that the identities of players A, B, 1, and 2 are different. Effectively, Figure 5 is an upside down version of Figure 4, in that players A and B switch from being producers to platforms, while players 1 and 2 switch from being platforms to

producers. In Figure 4, each supplier is effectively asking its retailers to “promise not to make me uncompetitive relative to competing suppliers”. In Figure 5, each retailer is effectively asking its suppliers to “promise not to make me uncompetitive relative to competing retailers.” For a more detailed analysis, see Fletcher and Hviid (2015).

76. The key insight is that the APPA essentially acts as a price matching guarantee, albeit one which is not necessarily communicated to the consumer. This APPA constrains a subset of prices to have a positive relationship with each other, in most cases this constraint is one of equality.<sup>51</sup> To understand the direct effects of this, it is worth considering the insights from the price matching literature before looking at the literature developed specifically to deal with the combination of vertical contracting and horizontal price matching agreements. Section three will thus examine low price guarantees and to what extent the conclusions reached in the literature on this kind of agreements can apply also to APPAs. Section 4 will examine the less developed literature that deals specifically with APPAs to determine what conclusions can be derived on their effects on competition.

### 3. Low Price Guarantees

77. We have argued above that an APPA looks like a price guarantee in that it is designed to ensure that some prices move together. Consider the more commonly observed low price guarantee where a retailer promises to a consumer that it will offer the lowest price, typically backed up by a promise to match any lower price found elsewhere or to refund the difference should the consumer already have purchased. This is a promise made to a consumer who will have to put in the effort to monitor the veracity of the claim or activate the guarantee. The effect is that the price of the goods sold by the retailer becomes linked to the prices charged by rivals. In the APPAs we have considered in the previous section, the promise is instead made either by a producer to a retailer or a retailer to a producer, potentially without the knowledge of the consumer, but the effect may be very similar.

78. As mentioned in the introduction, there is a very extensive economic and legal literature considering the various effects of such low price guarantees. In this section I will provide an overview of the major insights of this literature and explain which ones are relevant to the APPAs considered in this paper. For a more extensive discussion of these insights, see LEAR (2012), Hviid (2010) and Winter (2008).

79. The classic low price guarantee comes in a large number of variants whose features, as the literature has demonstrated, can influence the impact of the guarantee on prices and even on the market structure. As we shall see, most of these variants are not relevant when it comes to an APPA.

80. The low price guarantees vary in a number of dimensions depending on the answers to the following four questions:<sup>52</sup>

- What price qualifies as the comparator capable of activating the guarantee?
- Possible options are: the advertised (sticker) price of rivals’ goods now and/or in the future; the actual selling price of rivals’ goods now and/or in the future; the firm’s own future price.
- What restrictions are imposed to limit the applicability of the guarantee?

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<sup>51</sup> Though there are recent cases where this is not so. In addition to the Tobacco case discussed above, see also *United States v. Blue Cross Blue Shield of Michigan* 809 F. Supp. 2d 665 (E.D. Mich. 2011).

<sup>52</sup> See Arbatskaya et al (2004) for an extensive list of these variants.

It is possible to discern a long list of such restrictions (e.g. see Arbatskaya et al., 2004). Key restrictions are: the length of time during which a lower price can be found; the location of rival outlets; the exact nature of the product (e.g. whether identical or similar).

- What activates the guarantee?

The most common cause is that a rival has a lower price. Some guarantees specify that there has to be a minimum gap between the retailer's price and the rival's one, for example the promise is that the firm will be 10% cheaper than their rivals, and if they are not the guarantee is activated.

- What is the consequence of a guarantee being activated?

While the most common is to match the rival's price or to refund the difference, many guarantees go one step further and promise to beat the rival's price, either by a percentage or by a specific amount. Finally, a small number of guarantees offer to match the rival's price and, in addition, to give the buyer a "gift" – in one case a slice of pizza.

81. The literature has identified numerous effects of low price guarantees, some of which reduce consumer welfare, some which enhance it and some whose effect on consumer welfare is uncertain. These are:

- the reduction in incentives to cut prices;
- the reduction in the incentive to deviate from a collusive agreement by guaranteeing retaliation;
- the increase in the ability to deter entry or avoid indirect "predation" through loss-leading;
- the impact on the incentive for consumers to search;
- the increase in the ability of firms to price discriminate.

82. What drives these different effects is explained more fully in the following sections.

### **3.1 *Low price guarantees can reduce incentives for rivals to cut prices***

83. The aim of a price-cut is not just to induce current customers to purchase more but also to attract new customers. Low price guarantees ensure that the latter aim is thwarted by ensuring that rivals' responses to such price cuts are immediate and proportionate. Several papers, beginning with Salop (1986), have demonstrated how price matching guarantees can be used to underpin prices above the competitive level and potentially as high as the monopoly level, even where the number of firms is quite large.

84. To understand the intuition, consider the case with symmetric firms and assume that all firms have adopted a low price guarantee promising to match a rival's lower price. The monopoly price which maximises industry profits is an equilibrium, because any firm lowering its price to expand its market share will find that all rival prices are reduced by the same amount so that all that has been achieved by the price reduction is to lower the set of prices with no change in market share. As the monopoly price is the price which generates the highest profit conditional on prices being the same across all firms, the price reduction reduces profits to the individual firm and is hence not worthwhile for it.<sup>53</sup> Edlin (1987) argues that the guarantee also helps establish higher prices in an industry because it is relatively risk-free for a firm to

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<sup>53</sup> In all the simple models, it is important that all firms offer a guarantee and typically all firms have an incentive to do so.

“suggest” a higher price level by raising its own price. If others do not follow, the higher price will not affect its sales because it can hope that its usual customers will activate the guarantee rather than go elsewhere.<sup>54</sup>

85. The anti-competitive effects derived from the above model also rely on the assumption that consumers face no costs in activating the guarantee. This is not always true as doing so may require time (e.g. filling in some forms, finding suitably authorised staff and providing proof of the lower price).<sup>55</sup> Hence, there may be price differences so small that it is not worth asking for the refund. Hviid and Shaffer (1999) show that the presence of these “hassle” costs can have a significant impact on the ability of the guarantees to deter price cutting.<sup>56</sup> Note that as consumers are not involved directly in the enforcement of an APPA, hassle costs and their impact on the effect of price guarantees do not appear relevant for our subsequent analysis of APPAs.<sup>57</sup>

86. One might think that one way to overcome hassle costs or the reluctance by consumers to activate the guarantees is to promise to do more than match, i.e. to offer a price beating guarantee. The effectiveness of this approach turns out to depend critically on the precise details of the guarantee. A price beating clause restricted to advertised prices may well remove incentives for firms to cut prices but it opens the door to another way for a firm to reduce the price the consumer faces for its products. A firm can reduce its actual price by raising their advertised price and getting consumers to make use of the guarantee, see Corts (1996), Hviid and Shaffer (1994).<sup>58</sup> Note that the ability of price beating to undermine the commitment to meet a price-cut with an even deeper price-cut depends on direct consumer involvement. For an APPA consumers are not directly involved in enforcing the agreement and hence this argument for why price guarantees may after all not soften competition would not apply.

87. Hviid and Shaffer (2010) show that a more general price promise that also includes the firm’s own price (a real MFN) can restore anti-competitive price outcomes even if only one firm adopts the extended guarantee. The reason is instructive. The price guarantee aimed at rivals’ prices removes the incentives of these rivals to cut their price, but it does not on its own prevent the firm itself from lowering its price. However by including its own future price in the promise, any price reduction will give rise to a refund to

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<sup>54</sup> This does depend on consumers not getting upset about the attempt to overcharge them relative to the general industry price level.

<sup>55</sup> For some consumers it may also be costly in terms of discomfort arising from asking for the price reduction or refund.

<sup>56</sup> Where all consumers face (possibly small) hassle costs in activating a guarantee, any competition-dampening effects are removed, as any firm can reduce its price a little without the guarantees being invoked and the benefits from having the lower price undermined by the resulting matching. However, they also show that if products are differentiated, for example due to location, such hassle costs are essential to get the competition dampening effect, because the hassle costs now enable firms to charge different prices, reflecting any asymmetry between the retailers. In this latter case it is no longer necessary that all firms offer a guarantee.

<sup>57</sup> For a similar argument, see LEAR (2012): “In the case of pricing relativities agreement (*here: price guarantees*), buyers’ hassle costs are irrelevant in determining the impact of the PRAs (*here: APPA*). The reason is exactly that buyers are not party to the agreement and play no role in their enforcement.” (LEAR 2012, paragraph 6.31).

<sup>58</sup> This trick of over-cutting rather than undercutting a rival does not work when the guarantee is extended to cover actual selling prices (i.e. those resulting on the receipt from the sale). At the same time, extending a price beating guarantee to selling prices is very risky if the rival does not understand that the purpose of the guarantee is to dampen competition, or the rival makes a mistake. Any restriction in the applicability of the guarantee adopted in order to counter such risks is likely to increase the level of hassle costs and hence reduce the likelihood of consumers activating the guarantee in the first place.

those consumers who purchased in the recent past, implying a substantial loss and removing the incentive for the firm itself to cut prices. They also show that the equilibrium price is unique, so that the extended guarantee overcomes the problem of predicting the resulting price level. This is a disturbing result, because current competition law is not well equipped to deal with the unilateral adoption of such guarantees.

88. Overall, the literature on price guarantees demonstrates that these can reduce the incentive of rivals to cut prices. It has also identified scenarios, such as hassle costs and price-beating guarantees, where this anti-competitive effect may not arise. Importantly for the further discussion of APPAs, these latter scenarios are unlikely to be relevant when the guarantee is offered between firms. Firms are not likely to experience significant hassle costs in enforcing the APPA. The element of price beating guarantees that can undermine the incentive reducing effect of the guarantee requires direct consumer activism and consumers are not part of the enforcement of the APPA. The features of the APPA then preserve the strongest elements in the price guarantee that reduces the incentive of rivals to cut price.

### ***3.2 Low price guarantees can reduce the incentive to deviate from a collusive agreement by guaranteeing retaliation***

89. If the firms were engaged in either hard-core price fixing or merely tacit collusion, the adoption of a price matching guarantee aimed at rivals' prices ensures that a deviation by a rival from a common understanding about prices is punished through a guaranteed "price war". Indeed as one firm deviates and lowers its prices, consumers find out about the availability of a lower price and activate the guarantee. As a result the other firms also have to cut their prices, thus making the deviation unprofitable. For a formal demonstration of this, see Liu (2013). More generally, a strategy of responding to deviations from tacit collusion by matching the behaviour of a rival has been shown to facilitate supra-competitive prices, see Garrod (2012) and Lu and Wright (2010).

90. A price guarantee aimed at the firm's own prices can also help support collusive arrangements by showing that firm's commitment not to deviate. Such a guarantee ensures that should the firm deviate, it will be punished directly by having to pay a refund to its past consumers. This is in addition to any punishment on future sales arising from rivals' price matching guarantees being activated.

91. One problem usually facing firms engaged in price fixing or tacit collusion is to detect a rival's deviations from the collusive price. Removing this obstacle is the second way in which a price guarantee can help firms. Monitoring of prices is, at least, partly delegated to consumers, who reveal the existence of a lower price when they come forward to request a match or a refund.

92. With an APPA prices are only locked along one dimension – either competition is softened among all the competing products sold by one specific retail platform or on one specific product across all the retail platforms where it is sold. Moreover, the firm benefitting from the reduced competition is not the one setting the price level. Thus when a price-setting retailer has to keep a fixed relationship between the prices it sets across the products it sells, as in the cases discussed in section 2.1 above, competition across producers is reduced. When a price setting producer has to set the same price across retailers as in the cases discussed in section 2.2, competition among retailers is reduced. It is hence hard to see how these effects from the price guarantee literature would carry over to APPA. In none of the cases discussed in section 2 above has it been alleged that an APPA would support tacit collusion by ensuring the automatic punishment of a deviating firm.<sup>59</sup>

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<sup>59</sup> This is not to deny that there may be collusive aspects of the APPAs, but the allegations about collusion or conspiracy have been in terms of the common adoption of the agreement, not the agreement itself.

### 3.3 *Low price guarantees can increase the ability to deter entry or indirect “predation” through loss-leading*

93. Low price guarantees can help incumbents to foreclose new rivals. The ability of a set of low price guarantees to foreclose a potential entrant rests on the argument that the potential entrant will need to have a price advantage to enter and get consumers to give them a chance, as consumers are very loyal to incumbents. Hence at identical prices, consumers would not be willing to switch to the entrant’s products. A low price guarantee aimed at both current and potential rivals would make a low-price entry strategy impossible. This is demonstrated formally in Arbatskaya (2001), but under a set of fairly restrictive assumptions.

94. There are several reasons to be sceptical about this theory. Firstly, it requires that attention is restricted to price matching or in the extreme price beating extended to actual selling prices. If not, the entrant could enter with a price beating guarantee and a higher price while encouraging consumers to activate their guarantee and ask for the refund. Secondly, the entrant could provide the price cut in terms of a coupon or any other service not covered by the incumbents’ guarantee. Thirdly, the entrant could enter with a very low price, forcing the incumbents to take heavy losses, especially if some incumbents have made price beating promises.<sup>60</sup>

95. Some authors have argued that, rather than deterring entry, price guarantees may actually encourage this. Indeed Edlin and Emch (1999) have shown that when there is free entry into an industry, price matching guarantees can encourage over-entry as the monopoly rent from monopoly prices are dissipated through excessive entry. This illustrates the importance of the assumption about consumer loyalty to the incumbent firms for the foreclosure argument.

96. Low price guarantees may protect against actions which may force exit. Consider a specialist firm selling a narrow range of products competing against a large retailer who is carrying a very large range of products, including the range of products of the specialist. Where the large retailer decides to use the specialist firm’s core products as a loss-leader to entice consumers, a price guarantee could potentially be used as a defence. It could be argued that the price guarantee adopted by Esso in the UK in the mid-1990s was a response to supermarkets starting to sell petrol and to use petrol as a loss-leader to get customers to visit their attached stores. No published academic work has analysed the effect of this directly.

97. Low price guarantees may determine the focus of competition. Alternatively, a multi-product firm may want consumers to focus on a subset of products in their choice of which store to visit. A possible example is the price promise of a UK supermarket chain, Sainsbury Plc., which only offers to match branded goods, but not their own-label goods. This could be interpreted as an attempt to move consumer attention away from branded goods to their own-label goods where some might argue they have a comparative advantage. The overall welfare effect of these motivations is harder to establish, especially as the likely effects are distributional, and we could not find any supporting analysis in the existing literature.

98. This is an area with only a very limited set of academic contributions and the extent to which these effects are really achievable with an APPA may require further analysis.

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<sup>60</sup> Note that this is unlike predation cases where the low price firm suffers the losses.

### 3.4 *Low price guarantees can affect consumers' search behaviour*

99. Consumers faced with price guarantees may decide not to continue searching for lower prices. This may particularly be the case where the low price guarantee allows for post-sale search, as it can be activated also after the good has been purchased. In the extreme case, price guarantees can stop search altogether if the guarantee is seen as a signal of low prices, see Moorthy and Winter (2006). This extreme case is relatively easy to explain – low quality (low price) firms will adopt a guarantee to signal that they are cheap, while high quality (high price) firms do not because they do not compete by offering low prices but by offering higher quality products. Note that this signalling can be welfare enhancing because it enables consumers to distinguish between different types of firms and select the one which they prefer. Helpfully, this theory also has very significant empirical implications. In particular, if there is more than one firm in the low-quality segment, all such firms must have a guarantee, otherwise they would not survive, as consumers would (incorrectly) infer from the lack of guarantee that they were high cost-high quality firms.

100. Largely unexplored in the literature is the effect on general search behaviour. Some economists have considered the effect of price matching on consumer search behaviour. By ensuring that they end up at a firm offering a price guarantee consumers can ensure that they can buy at the lowest they have found so far without having to retrace their steps (physically or electronically). Note that this gives a firm with a price guarantee very little incentive to have a low price since they are not likely to capture consumers who are early on in their search and the guarantee ensures that they are competitive but no more. In addition many guarantees offer to beat a rival's lower price, in which case the consumer's problem is complicated further, as they will be looking both for a low price and a generous guarantee. Many guarantees allow post-sale search for a period of time. Such a guarantee appears to be aimed at making the consumer commit to buy now and leave the search for later. This appears even more so for those guarantees that include the firm's own price, possibly especially where a long post-sale search period is allowed. For example Arbatskaya et al (2004) show that long post-sale search periods are generally associated with guarantees which also include the firm's own price.

101. It would not appear that APPAs have any effect on consumer search behaviour, since consumers generally do not know about the agreement. Arguments have been made that an APPA protects the low-price reputation of a retail platform; but since this happens without communicating this to the consumers, firms would have to rely entirely on consumers inferring this from their experience of different platforms. This does not seem credible.<sup>61</sup>

### 3.5 *Low price guarantees can enable price discrimination*

102. Where consumers differ in their information about the prices offered at different outlets or the existence of a guarantee, firms may be able to use these guarantees to discriminate between the different groups. Where these groups differ in the level of their price-sensitivity,<sup>62</sup> firms will also have an incentive to price discriminate.

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<sup>61</sup> A similar point is made in Buccorossi (2015, p. 50) and LEAR (2012): "This explanation does not seem applicable to pricing-relativities agreements (*here: APPA*), because the agreement is between the retailer and the manufacturer. There is no assumption that the buyers who face the price are aware of the agreement, neither is there any compensation for the end buyer because he/she is not party to agreement." (LEAR 2012, paragraph 6.32)

<sup>62</sup> Formally they must differ in their elasticity of demand.

103. The literature focusing on price guarantees and price discrimination is relatively small. The key insight from this literature is that price discrimination will often benefit some consumers and, in some cases, benefit all consumers. Building on and extending the previous literature,<sup>63</sup> Corts (1996) shows that price discrimination based on price guarantees is feasible and that it can benefit consumers.<sup>64</sup>

104. Hassle costs, or more generally restrictions on when the guarantee can be activated, can be used to segment the consumers further (see Nalca et al., 2010)) and such price discrimination can occur even when there is only one dominant firm, as demonstrated in Hviid and Shaffer (2012). The latter is the only paper so far which has been able in the same model to have firms sometimes choosing no guarantee, sometimes a price matching guarantee and sometimes a price beating one, depending on the parameters of the model.

105. An important observation is that price discrimination clearly relies on the guarantees actually being used by a significant number of consumers. Hence, information on consumer usage will enable agencies to determine whether price discrimination is the key motivation for the price guarantees.

106. Given that APPAs are generally not communicated to consumers, the price discrimination motivation for adopting an APPA does not appear credible.<sup>65</sup>

### 3.6 *Summarising the insights from the literature on price guarantees*

107. Summing up the insights from the existing literature, it is important to stress that there are no dominant motivations to adopt a low price guarantee.<sup>66</sup> It is however noticeable that for the majority of the explanations, consumers suffer a detriment through higher prices. The possible exceptions are the signalling model which genuinely benefits consumers because it allows them to identify the retailer most appropriate for them; and the price discrimination models, where the welfare effect on consumers is ambiguous in general.

108. While the literature on pure horizontal price guarantees does not support a theory that the guarantees are always harmful to consumers, when we restrict attention to the effects which would remain plausible with an APPA, these effects are always harmful to consumers. While that is not sufficient grounds to condemn APPA as inherently anti-competitive, it indicates that they merit further scrutiny. We turn to this in section 4 below.

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<sup>63</sup> See in particular Png and Hirsleifer (1987) and Belton (1987).

<sup>64</sup> Focusing on price matching and dividing customers along two dimensions, loyalty and cost of information gathering, Chen et al (2001) show that price matching can lead to lower prices and lower profits.

<sup>65</sup> LEAR (2012) concur that APPAs do not seem appropriate for this purpose. “The reason is that across-sellers PRAs (*here: price guarantees*) allow a seller to have two prices: the list price, paid by the uniformed consumers, and the (lower) effective price stemming from the application of the PRA, paid by the informed consumers. If a manufacturer and a retailer conclude a pricing relativities agreement (*here: an APPA*) this does not affect the number of prices effectively charged in the retail transactions and, therefore, it cannot improve the retailer’s ability to discriminate according to the consumers’ willingness to pay.” (LEAR 2012, paragraph 6.33)

<sup>66</sup> However, as noted above, it is possible to identify observables which would allow an authority to identify the cases where there are potentially positive effects on consumers. If there is little evidence that the guarantees are used and if adoption is not universal among firms and is restricted to the genuine low-price outlets, the overall effect of these guarantees is to soften competition, at least to some degree.

### 3.7 *Possible efficiency effects of price guarantees*

109. While the existing literature on price matching and beating guarantees does not discuss the potential efficiency defences for the use of these guarantees, the literature which has focused on pure most favoured nation (MFN) clauses does. The pure MFN guarantee is a promise from a seller to a buyer that the seller will not sell to other buyers at a lower price. While these could be “contemporaneous”<sup>67</sup>, so that in any moment in time the most favoured customer will pay the lowest price, most MFNs have a time dimension so that if during an agreed period after the sale the seller offers the product at a lower price, the most favoured customer will be refunded the difference between what was paid and the new price. In the latter case, the MFN is referred to as “retroactive”.<sup>68</sup> In many cases such guarantees are associated with ongoing supply of goods or services.

110. One reason that the literature on MFN is more focused on defences is that there is a longer history of antitrust scrutiny of such guarantees,<sup>69</sup> possibly because they are most frequently majority used between vertically related firms, rather than between firms and consumers.

111. A key defence of the pure MFN is that setting identical wholesale prices levels the playing field downstream. When the costs of supplying different downstream firms are (almost) identical, the pure MFN amounts to a restatement of the non-discrimination requirements found in most competition laws, for example in the US Robinson-Patman Act. The problem with this defence is that price discrimination may be welfare enhancing for consumers.

112. O’Brien and Shaffer (1994) demonstrate how upstream firms benefit from the non-discrimination requirement of the Robinson-Patman Act. The gist of the O’Brien-Shaffer argument is this. Where an upstream monopolist uses two part tariffs and negotiates with more than one downstream firm, the optimal contract sets the variable (wholesale) rates such that joint industry profits are maximised, using the fixed element to distribute these profits among the upstream and downstream firms. Given such contracts, a downstream firm would like to renegotiate its contract to get a lower wholesale price in return for an increase in the fixed element. Such a renegotiation would give this downstream firm a competitive advantage and allow it to take a much larger share of the downstream market. The upstream firm would be willing to renegotiate with one downstream firm because the loss in revenue from sales to the other downstream firm is only partial, as this firm would still be committed to paying the fixed element of its contract. Such a potential for opportunistic renegotiation will deter the downstream firms from accepting the initial contract offers which maximise joint industry profits. A non-discrimination requirement such as the Robinson-Patman Act or a pure MFN guarantee would rule out such opportunistic renegotiation. O’Brien and Shaffer (1994) show that, as the potential for opportunistic renegotiation makes the downstream firm negotiate for lower wholesale prices, consumers would be worse off with a pure MFN. The defence is, hence, not fully convincing in the case of a pure MFN and equally likely to be unconvincing for an APPA.

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<sup>67</sup> See Besanko and Lyon (1993) for a seminal discussion.

<sup>68</sup> See Cooper (1986) for a seminal discussion.

<sup>69</sup> See e.g. Crocker and Lyon (1994) and Scott Morton (1996, 1997). See also Baker (1996), LEAR (2012), Samuelson et al (2012) and Vendenborre and Frese (2014) for a discussion of the possible defences.

113. A second defence rests on the ability of a pure MFN to protect a producer from falling into the “durable goods” trap where it is competing too aggressively with its (future) self as opportunistic buyers negotiate significant discounts.<sup>70</sup> For example if the major buyers have already purchased and the producer has surplus stock, smaller buyers may be able to negotiate lower prices to absorb the excess supply. If all buyers expect prices to fall over time, they may decide to wait before committing to purchase and this can even lead a monopolist to sell at very low prices to get any sales in the first place. The benefit of a pure MFN is that it allows the producer credibly to say to the buyer that dropping its price would be too costly, as it would then have to go back to all its most favoured customers and offer them a refund. Since the argument here is that the pure MFN helps keep prices high, one more step is needed to turn this into a defence. If the producer faces some level of fixed costs, for example because of sunk costs of entry or of innovation, then the concern is that the competition of the producer with itself is too fierce to enable it to recover these costs. Note that this is akin to an argument about ruinous competition. It is worth highlighting that Apple recently reiterated its claim that agency pricing and most favoured nation clauses were necessary for it to enter the e-book market.<sup>71</sup> The argument that a pure MFN can support investment in innovation will, hence, be revisited when we consider APPA in section 4 below.

114. A third defence is that a pure MFN can reduce the transaction costs of (re)negotiating contracts. This is especially the case where the downstream firm can pass on most of the wholesale price increase to its customers because of the level playing field created by the pure MFN guarantee. The argument typically arises in on-going supply contracts, where any (possibly temporary) reduction in price, for example through lower costs, can be reflected in all contracts with the MFN by only renegotiating the price of one such contract. It also protects existing buyers from the possibility of new buyers getting better deals and, hence, being able to compete more cheaply; as such the MFN guarantee is a rather double edged sword since this effect would deter entry. This third effect is unlikely to be relevant in the case of an APPA, where most of the prices are for spot sales.

115. To sum up, when it comes to defences, the insights from the price guarantee literature which would retain relevance when looking at APPA would be the concern to safeguard the incentive of firms to invest in innovation.

#### **4. Economic effects from the combined vertical and horizontal effects**

116. Having focused on the likely effects of the pure horizontal element of an APPA we now turn to consider the full effect by investigating what additional issues are raised by the vertical element of the agreements. An APPA consists of both a vertical element, because it is an agreement between firms at different stages in the vertical chain, and horizontal element due to the price parity constraint it imposes. We often think that horizontal agreements are most likely to be harmful to consumers, while vertical agreements are most likely beneficial to consumers. The previous section, which focused on the lessons learned from the existing literature on the pure horizontal effects, largely confirms the first part of this pre-conception, i.e. that the horizontal elements are likely to be harmful to consumers. However, that does not imply that the overall effect on an APPA is harmful. To reach such a conclusion we need a full analysis of the interplay between the vertical interaction between the firms and the horizontal restrictions of the agreement.

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<sup>70</sup> For a seminal demonstration of this effect, see Coase (1972). The original argument is that a monopolist would find it profitable to charge a high price initially, in order to extract all the surplus from those consumers who have the highest willingness to pay, and then to offer a lower price in subsequent periods to attract new consumers. However, the consumers with the highest valuation would predict this outcome and would wait for the lower price. As a result the monopolist may have to offer the lower price from the very first period.

<sup>71</sup> See Global Competition Review, “Apple previews Supreme Court e-books defence”, 18 September 2015.

117. The literature focusing on APPAs is new and has not yet settled down to providing a full set of robust results to guide policy. A 2012 review of the literature comments that: “We have not found any economic literature that specifically studies the possible competition effects of third-party PRAs (*what we have termed APPAs*)”.<sup>72</sup> The recent economics literature, taking one or other of the cases discussed in section 2.2 above as a point of departure, has sought to uncover the potential harms and benefits of APPAs. A challenge in answering this question arises from several simultaneous events. In particular:

- The APPA was combined with a move from a wholesale to an agency model. This was particularly the case in the e-book case.
- A simultaneous move in some markets from a per unit transfer fee (wholesale price or commission fee) to a revenue share as a means to share industry profits in the vertical chain.
- Changes in technology. In the e-book case, this concerned particularly the compatibility of different e-readers.
- The existence of complementarities. In the e-book case, the concern may have been more about reference pricing and sales of e-readers. For price comparison websites, the concern may in the future be more about consumer (big) data gathered from search behaviour.

118. The economic analysis of competition issues tends to analyse one feature at a time in order to understand fully what aspects of the case are driving the results. With the development of models at an early stage, disentangling and describing the individual insights to get an overview of the likely effects becomes challenging.

119. One paper has tried to avoid these complications by stepping back and highlighting an important link to the literature and case law on RPM, a link which has also been noted in some of the cases discussed in section 2.2 above. Fletcher and Hviid (2015) first note that APPAs rely on some form of RPM for their existence, in that producers have to be able to control prices to ensure that prices for their products or services are no higher at a retailer with whom they have an APPA than at the other retailers. They then argue that much of the literature and the case law on minimum RPM effectively combines two elements, an inherent vertical element which obliges the seller to charge the price set by the producer<sup>73</sup> and a more implicit horizontal element, whereby prices are set at the same level across retailers. In both the case law and the academic literature, it is the latter horizontal element that raises the more serious competition concerns. As the APPA is essentially equivalent to this latter horizontal element of RPM, Fletcher and Hviid argue by analogy that such clauses should not be treated any more leniently than fixed or minimum RPM under competition law.<sup>74</sup>

120. The benefit of this approach is that it enables competition analysts to use insight from existing case law and economic research as a basis for their analysis. The drawback is that it does not offer a detailed analysis of the various effects and, hence, offers little guidance on the appropriateness of any intervention or associated remedy.

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<sup>72</sup> See Lear (2012) paragraph 6.3.

<sup>73</sup> This is formally what an RPM is.

<sup>74</sup> For example, given that European law treats minimum and fixed RPM as restrictions of competition ‘by object’, the EU version of *per se*, Fletcher and Hviid suggest that broad APPAs should be treated in Europe in the same way.

121. A number of recent papers offer such insights. They do so by focusing on some of the different aspects highlighted above. In particular they identify:

- The effect of agency vs wholesale – which vertical level sets the price?
- The direct effect of the APPA, including the effect on consumer prices, entry and investment.

122. We will investigate the first in subsection 4.1, and the second in subsection 4.2 below.

#### **4.1 *The effect of agency vs wholesale - which vertical level sets the price?***

123. In all the cases described in section 2.2 above, the upstream producer is setting the price and selling through an electronic retailer who is acting as an agent for the producer. Does it matter which level sets the price? This question can usefully be divided into two sub-questions:<sup>75</sup>

- What is the direct price effect? When is the price higher if set at the producer level (with the agency model)?
- Is the agency model inevitable once APPA is introduced?

124. The answer to the first matters because it tells us whether a move to an agency model is of itself bad for consumers. The answer to the second is important in order to assess whether we can separate the two if it comes to a remedy, i.e. if we ban the agency model do we also ban the APPA? We take each question in turn.

##### *4.1.1 When is the price higher if set at the producer level?*

125. Since in the e-book case two changes occurred at the same time, the move to an agency model where the publishers set the price, and an introduction of an APPA, it is important to identify whether any subsequent anti-competitive effects can be ascribed to one or the other of these. For example, if it transpires that the APPA was the sole source for anti-competitive price increases, then the remedy should properly focus only on tackling the APPA, leaving the firms free to choose which vertical level sets the price.

126. A series of papers considers whether prices are higher if set by the producer (agency model) or by the retailer (wholesale model), which include two papers, Johnson (2013) and Foros, Kind and Shaffer (2014), that are also concerned with the effect of APPA, and a paper by Liu and Shuai (2015) that solely consider the question of who should set the price.

127. Johnson (2013) is focused on the effect of consumer lock-in to the platform and is, in this regard, directly trying to model some aspects of the e-book market, where it has been argued that Amazon was aiming to lock consumers into its e-book reading device, the Kindle. For this he uses a dynamic model with two periods: one representing the first period in time during which consumers have not yet acquired the device and hence can be locked in, and one representing the second period where some consumers have been locked in. He assumes that both producers and platforms have some degree of market power and that

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<sup>75</sup> A third, purely legal, question has also been raised by Akman (2015) and Goffinet and Puel (2015) who point out that an important issue to clarify is whether the retailer is truly an agent with no say in the pricing decision. In the EU an agency agreement may fall outside the scope of competition law, essentially because the agent, although a separate legal entity, is simply the servant to the principal or principals. On the issue of when an agency relationship falls within the scope of competition law see the EU Guidelines on Vertical Restraints (2010/C 130/01), paragraphs 12-21. In particular Akman (2015) questions how EU competition authorities can tackle APPAs if they believe these to have anti-competitive effects.

when the retailer sets the consumer prices (wholesale model), the producer sets a per unit wholesale price, whereas when the producer sets the consumer prices (agency model), the platform sets a revenue share.<sup>76</sup> He finds that in the first period prices are higher under the agency model whereas in the second period they are higher for the wholesale model. To understand the intuition for his results, note that during the first period when consumers can be locked in, platforms are very keen to attract consumers, which gives them an incentive to compete fiercely for customers if they are the price setters, potentially to the point where they would price below the wholesale price. Price setting producers have no such incentive to subsidise first period sales to increase second period lock-in. This implies that first-period prices are higher under the agency model where producers set prices. Matters are reversed in the second period, because, while horizontal competition is unchanged for the producers, for the retail platforms with their locked-in consumers, competitive pressure is significantly reduced. As the agency model, where the producer set the prices, maintains direct retail price competition between suppliers, consumer prices are lower. Johnson (2013) thus provides a dynamic explanation for why e-book prices increased following the move to the agency model, but also predicts that prices would eventually become lower. Note that these predictions are based on the lock-in effect rather than any APPA.

128. In contrast to Johnson (2013), Foros et al. (2014) assume that the vertical chain profit is split through a revenue share in both the wholesale and the agency model. Such contracts are common for agency models, but less so for wholesale models. They demonstrate that there can be equilibria in which a retailer would like to delegate price setting to the producer and in those cases it is also true that prices will be higher with an agency model. Secondly they find that prices are higher in the agency model if competition between the retailers is more intense than the competition between producers. In the e-book case this would arise if consumers are more focused on the book they want to buy rather than where they purchase it.

129. Though the models are very different, Johnson (2013) and Foros et al. (2014) provide the same answer to the key question of which vertical level should set the higher consumer price. From the point of view of the firms in the vertical chain, consumer price setting should be delegated to the level at which competition is less fierce. By the same token, prices to consumers will be higher when this occurs. This result, that the price will be higher if set at the vertical level with the least competitive pressure, is also demonstrated in Liu and Shuai (2015) and appears both robust and intuitive as we generally expect tougher competition to lead to lower prices.

#### 4.1.2 *Is the agency model inevitable once an APPA is introduced?*

130. At the core of the agreements introduced by retail platforms, described in section 2.2 above, is the requirement that prices for a given product of a producer are the same across several independent retail platforms. It has been argued that this can only really be guaranteed if it is the producer rather than the retail platforms which sets the consumer prices. In other words widespread adoption of APPAs requires that the vertical relationship between producer and retail platform is characterised by an agency model rather than a wholesale model.

131. Since the wholesale model represents the traditional interaction between producer and retailer, it is important to be clear why this model is seen as impractical once the APPA is in place. Assume that the producer sets a wholesale price and the retail platform sets the final consumer price and consider how an APPA, which requires that the price for producer 1's product found on retail platform A is no higher than the price of the same product found on retail platform B, would work. To conform to the APPA, the retail platform would

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<sup>76</sup> This is in itself problematic and an issue which arises in several papers because it does not lead to a comparison of like with like. Results may simply differ depending on whether the surplus generated between the producer and retailer is shared through a wholesale price or through a revenue share. None of the papers cited in this report consider this issue directly.

have to carry out any price adjustment, despite the fact that the promise is made by the producer. This would lead one to expect that any required price reduction would be funded by the producer.<sup>77</sup>

132. Secondly, in order for the retailer to respond to a lower price elsewhere it must be aware of such prices, either through its own monitoring or through the monitoring of consumers if these are aware of the guarantee and incentivised to provide the necessary information. Since we are talking about internet prices, monitoring prices elsewhere may not be such an impossible task, even where the retailer sells a large number of products. As a practical matter, some consumers will have made a purchase before the price was reduced to conform to the APPA. This may lead to disputes about the number of sales for which a transfer of funds from producer to retail platform is due.<sup>78</sup>

133. Thirdly, the producer would have to be able to monitor who caused the reduction in price in the first place. If not all retailers are covered by an APPA, a retail platform may be tempted to drop its price, even if it knows that this will lower some (but not necessarily all) prices elsewhere, especially if the producer pays the majority of the reduction in price.<sup>79</sup>

134. Hence, while it is possible, having entered into an APPA that links the price of a brand across retail platforms, to retain the wholesale model, this does give rise to practical implementation costs which may make it unattractive. The agency model moves price setting to the producer who is now able to ensure directly that prices are the same across retail platforms, simplifying both monitoring and enforcement.

135. It would then appear that, while the agency model is not a pre-requisite for an APPA, it does make implementation of the latter considerably simpler.

#### **4.2 The direct effect of an APPA**

136. We now move to considering the likely effects of an APPA, in particular on consumer prices, entry and investment. A number of papers have considered what the APPA adds to the standard vertical model, including the models discussed in section 4.1.1 above. Broadly speaking they find that APPAs will increase consumer prices either directly or indirectly. Some papers find that APPAs may protect investment or competition but even in those cases, most of the results point to the overall effect on consumers being negative.

##### *4.2.1 Direct effects on prices*

137. Two papers by Johnson (2014) and Boik and Corts (2015) focus directly on the effect of the APPA on prices. While their models differ, as are discussed in more detail below, we can offer a relatively simple intuition for their results that an APPA does lead to higher prices. First consider the case without an APPA and assume that a retailer increases its fee to the producer. The producer will respond to such an increase in its cost of selling through this retailer by increasing the price it charges through that retailer.

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<sup>77</sup> This is entirely feasible. Arguably ESSO's Price Watch campaign in the UK fits this scenario where the funding of a price promise made by the upstream petrol wholesaler was implemented by the retailer who set the final price, and the cost of matching was split between wholesaler and retailer according to a pre-agreed formula.

<sup>78</sup> Depending on the agreed sharing of the cost of a refund, there may be a danger that a retailer might erroneously claim that there was a lower price and ask for the refund. The UK case ESSO v NIAD was triggered by such an alleged behaviour. With internet pricing, the danger of this is likely to be low.

<sup>79</sup> This is trivially true if the producer pays the entire price reduction since this would leave the margin of a retailer unchanged but the lower price would increase demand.

This reduces sales at that retailer, given the resulting substitution to other retail outlets and to competing products. Now consider the case with an APPA and again assume that a retailer increases its fee to the producer. The producer will still respond to such an increase in its costs, but it will now have to spread this over all the retailers covered by APPA. This implies that there will be no substitution by consumers across retail outlets and hence that the retailer will observe a smaller reduction in its sales compared to the case with no APPA. This implies a greater incentive for the retailer to raise the fee when an APPA is in place and this, in turn, will lead to higher consumer prices.

138. Johnson (2014) adds an APPA to his previous model to see how the additional inclusion of the APPA affects the picture built up in Johnson (2013). He does this both in a wholesale and an agency model, but does so differently to other papers. In particular with the wholesale model, the APPA links wholesale prices not retail prices.<sup>80</sup> This may help explain why he finds that the APPA has no effect in the wholesale model, but it is also a result which is driven by a very specific set of assumptions.<sup>81</sup> More importantly, for the agency model, Johnson (2014) shows firstly that if APPAs are a feasible choice for the firms, they emerge in equilibrium, and secondly that the APPAs facilitate a move to a higher price regime in which industry profits are maximized and consumer surplus is minimized. The result emerges because the APPAs remove the incentive of retail platforms to compete in the revenue shares they require from producers. Without the APPA, a larger revenue share offer from retail platform to producer is met with a lower price by the producer on the platform in order to push more traffic through the more attractive retail platform. When the APPA forces the price to be the same through all retail platforms, there is no incentive to offer the retail platform a larger revenue share.

139. Boik and Corts (2015) show how the existence of an APPA combined with an agency model does not only raise prices, but does so very aggressively.<sup>82</sup> Boik and Corts (2015) consider a monopolist producer selling through one or both of two platforms. The model does not allow for the producer to sell directly to the consumer. The order of decision making is that the retailers first decide whether or not to implement an APPA. Following that decision, the platforms set a per-unit fee for their retail services. This is in contrast to Johnson (2014) and Foros et al. (2014) who have the platforms setting the revenue shares. Finally, given the fees and the APPA, the producer sets prices to consumers. Unlike Johnson (2014) who considers unit demand, Boik and Corts (2015) consider a case where each consumer has a downward sloping demand curve. This gives rise to the result that with both platforms having an APPA, the prices exceed those which would arise if fees were set collusively. While no intuition is offered for this, the likely explanation is that the platforms are not internalising the effects of cost-overshifting. They find that the price effect is larger the more elastic the demand is, which chimes with the standard result (see e.g. Fabinger and Weyl (2013) that over-shifting from a common increase in marginal costs, and given the APPA, the increase in the fee becomes a common fee increase) is more likely the more elastic the demand is. Because the adoption of the APPA leads to very high prices, one might expect this to lead to cases where the APPA is not adopted. This is indeed the case. Boik and Corts (2015) demonstrate that the adoption of an APPA by both platforms is associated with relatively inelastic demands, i.e. cases where the distortion caused by the APPA is the smallest.

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<sup>80</sup> The APPA is hence a simple restatement of a non-discrimination clause – the producer must treat the buyers the same.

<sup>81</sup> Recall that, as explained in section 3.7 above, non-discrimination agreements such as APPA were shown by O'Brien and Shaffer (1994) to have anti-competitive effects. These more general results go against the insight by Johnson (2014).

<sup>82</sup> Similar, as yet unpublished, results have been derived by Greg Shaffer, who acted as an economic expert for the OFT in the tobacco case. Results on "The Economics of Parities and Differentials" were presented at the University of East Anglia and at the UK OFT in 2012.

140. The role of the APPA in Foros et al. (2014) is very different to many of the other models. They focus on a model where there are two producers and two retailers. They find that an APPA can be used to ensure that a move to an agency model, in which the consumer price setting is delegated to the producer, actually arises in equilibrium. The reason is that an APPA can help resolve a prisoner's dilemma situation where both retailers would like to delegate, but only if the other one does as well. Overall, using the term MFN rather than APPA, they conclude:

*"In short, there are likely to be many forces that affect the adoption of the agency model in practice, and more work is surely needed to understand their effects. Within this broader context, our contribution to the extant literature is to highlight the role played by MFN clauses in the firms' adoption decisions, and to emphasize, among other things, the importance of the relative substitution patterns between goods and between platforms." (Foros et al., 2014, 25)*

141. Recalling that they found that the agency model, when adopted, would lead to higher consumer prices, the overall conclusion is that the APPA helps support higher consumer prices by supporting the adoption of the agency model.

142. Note that the models developed by Johnson (2013, 2014) taken together and the model by Foros et al. (2014) have quite different predictions about the longer term effect of both the agency model and the APPA. Johnson predicts an immediate increase in price followed by a gradual decrease in price, even if the agency model is retained, whereas Foros et al. expect no such drop in prices, unless the relative degree of competition between the two vertical levels changes over time.

143. Using the fact that the settlements in the US e-books case led to five publishers abandoning the agency model to return to the wholesale model and also to the removal of the APPA from their vertical contracts, De Los Santos and Wildenbeest (2014) test these and other models such as Gaudin and White (2014). Their data captures the periods before and after the settlements between the publishers and the DoJ. Their data series start after Apple introduced the agency model so they cannot capture the switch from wholesale to agency and the adoption of the APPA. However, they do observe the switch back to a situation with a wholesale model and no APPA. While it would have been ideal to analyse both switches, there is no reason to think that the results would not be symmetric, and as such they provide a compelling analysis of the relative merits of the two models of retailing books and also of the competing theories of e-book pricing presented above.

144. De los Santos and Wildenbeest summarise their conclusions as:

*"In Johnson's (2013) model, publishers may raise prices initially when switching to the agency model, but since publishers sell to multiple retailer platforms and are thus not affected by lock in, future agency prices are likely to be lower than under the wholesale model. Gaudin and White (2014) argue that the switch to the agency model in 2010 coincided with the release of Kindle apps for competing devices such as the iPad.<sup>83</sup> This meant that Amazon's Kindle was no longer*

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The paper by Gaudin and White (2014) referred to in the quote does not consider APPAs but another aspect of the e-book market which might in theory be able to explain the observed pattern in prices. Their focus is on the ability of the e-book reading device to lock in consumers. Their model assumes a monopoly publisher interacting with a monopoly platform retailer. They contrast two situations: one in which the retailer owns an essential device and one in which it does not. They show that if the device is essential, prices are higher under the agency model. However if the device is not essential, then prices will be higher under the wholesale model. From a policy perspective they argue that when evaluating the effect of the e-book decision it is important to allow for the fact that over the relevant period, e-book readers became less of a bottleneck, i.e. less essential for access. As is clear from the quote above, De los Santos and Wildenbeest do not find support for this.

*essential for reading e-books, and as a result, Amazon's incentive to keep e-book prices low diminished. Gaudin and White thus argue that Amazon will raise e-book prices when given the ability to set retail prices. However, we find that Amazon's retail prices decreased after it regained the ability to set retail prices, and have remained consistently low despite the availability of Kindle apps for mobile, tablet, and computer platforms. Our results are more consistent with Foros, Kind, and Shaffer (2014), who find that retail prices are higher under the agency model when competitive pressure is higher among retailers than upstream firms.” (De los Santos and Wildenbeest 2014, p. 23)*

145. From the appeals decision in the e-book case, it does appear that the publishers met and discussed various matters which might make one think that competition among publishers was weaker than competition among platforms. However, one might wonder whether any tacit understanding among publishers, which might have served to soften competition among them, would remain post the court decision. This may affect how one would judge the harmfulness of the agency model. If, prior to the court decision, competition was weakest between publishers, while after the court decision it was weakest among platforms, then from Foros et al, the agency model should lead to higher prices than the wholesale model before the decision but this would be reversed after the decision. If that is the case, it is not obvious that banning the use of the agency model was the right decision.

146. Both the theoretical models and the empirical analysis support the contention that APPA increases prices directly and acts as a catalyst for a move to an agency model, which in itself increase prices.

#### 4.2.2 *Effects on market structure*

147. As was argued in section 3.3, APPA might be able to affect market structure either by deterring or encouraging entry. The first effect is intuitive, but no analysis has so far established the effect formally, although it can be inferred from the results below relating to the incentives to invest. The informal argument that APPAs are capable of deterring entry rests on an assumption regarding the brand loyalty or information of consumers. If consumers, for whatever reason, require a lower price in order to try a new product or a new retailer, then clearly an APPA which prevents an entrant retailer from offering lower prices or the opportunity to induce the producer to charge a lower price successfully by demanding a lower fee or revenue share, will deter such an entrant. The challenge with the argument is that an entrant may have other means of profiling itself, or it may already be known by consumers from providing other services. For example, the entry by Google into the market for online travel agents was referred to by the DoJ in its press release concerning its decision not to challenge a merger in this market.<sup>8485</sup>

148. Boik and Corts (2015) consider whether or not an APPA can deter entry. Their approach differs from the intuitive approach mentioned above, as they do not assume that consumers are loyal to the point that they require a price reduction to try something new. Instead they consider a model with both horizontal and vertical product differentiation and possibly different cost levels. The horizontal differentiation implies that even when the entrant is of low quality, some consumers may still prefer it to the incumbent even at identical prices. Within a simple model they consider the effect of APPA on platform profits and hence the ability of an entrant to recoup fixed entry costs. Unsurprisingly, where the APPA increases platform profits there are parameter values where even a less attractive entrant will be able to enter. They also show that the APPA, where it does encourage entry, can influence the type of entrant measured by how vertically differentiated it chooses to be. In particular if the entrant will chose to enter, it

<sup>84</sup> DoJ press release: “Justice Department Will Not Challenge Expedia's Acquisition of Orbitz”, 16 September 2015. See <http://www.justice.gov/opa/pr/justice-department-will-not-challenge-expedias-acquisition-orbitz>. See also section 2.2.2 above.

<sup>85</sup> Danny King, “Can Google booking save Expedia-Orbitz?”, Travel Weekly, July 26, 2015

will choose a quality level closer to the incumbent if an APPA is agreed. This result arises because the APPA reduces the intensity of competition and hence the desire to differentiate as much for the incumbent.

149. While entry deterrence would remain a concern for a competition authority scrutinising an APPA, the importance of the results of Boik and Corts (2015) on entry is to remind us that the conventional wisdom that the APPA makes entry harder because the entrant cannot differentiate itself on price is only partially true. Because the APPA raises platform profits, this effect may be able to (more than) compensate from the loss in differentiation.<sup>86</sup>

#### 4.2.3 *The effect on the incentives to invest when the producer is also a retailer*

150. One of the defences raised in favour of allowing an APPA, despite the effects just discussed in sections 4.2.1 and 4.2.2 above, is that without the protection, retailers would not invest and possibly even decide not to be in the market. A particular concern arises where the producer is also a retailer, a concern raised directly in two of the cases in section 2.2, i.e. section 2.2.2 (online hotel booking) and 2.2.4 (motor insurance), where most competition authorities have chosen to allow narrow APPA which only restricts the pricing on the producer's own website.

151. The issue is whether the producer is able to free ride on the retailer's sales effort by tempting consumers to purchase from itself, having searched on the retailer's website. This is a free-riding argument in the spirit of the traditional one usually made about brick-and-mortar shops, which offer great (but expensive) sales service losing out sales to the cheap and cheerful rival (possibly an internet retailer) as soon as the consumer had made use of the sales services. A countervailing argument is that the ability of the producer to self-serve may be an important element in keeping the fees of the retailers down and as a consequence keeping consumer prices down. A series of papers investigates these effects to assess if and when they give rise to competition concerns.

152. An early contribution by Gans (2012) demonstrates that free-riding by a producer could be a legitimate concern for the viability of a retailer offering additional services. Gans (2012) provides a simple model of a monopolist provider of a product which can either be sold directly to consumers or through a retail platform. The platform offers a service beyond the producer which reduces the transactions costs of the consumer. The transactions costs are removed through the existence of a device<sup>87</sup> which is sold to the consumers in advance of any purchase of the product. This is best thought of as a model of mobile phone applications. It is assumed that there are two types of consumer, one group has high transactions costs and one has low transactions costs. Clearly the former group will be more interested in purchasing the device lowering transaction costs from the platform than the latter group. Because of the sequential nature of the decision making, consumers will be reluctant to purchase the device for fear of later hold-up through high prices for the product.

153. To get to an equilibrium, either the two firms must be willing to share the surplus of selling the product (e.g. the mobile application) while the platform gives away the device for free, or else the platform must find a way to stifle competition between direct selling and platform selling. An APPA can achieve this because it ensure that prices are identical for the product offered both by the producer directly to the consumer and on the platform, and that there will exist a price such that only those with high transaction costs will buy the device before buying the product. Because the price of the product is held down by the wish of the producer to sell directly to the low transaction cost consumers who have elected not to invest in

<sup>86</sup> This is reminiscent of the Edlin and Emch (1999) result that price guarantees can give rise to excessive entry because they keep profits in the industry artificially high.

<sup>87</sup> This could be thought of as a proprietary hardware enabling the use of the app or possibly just as a membership fee for using the platform for the transaction.

the device, the high transaction consumers are not ‘ripped off’ so that they regret having purchased the device in the first place.<sup>88</sup> In that sense the Gans (2012) model demonstrates that an APPA can protect a welfare enhancing investment by a platform. Note that this early model is quite simple in structure.

154. A number of papers<sup>89</sup> have developed this sort of model further, providing a richer set of results. In particular these papers explore the effect of APPAs (or price coherence in their language since their point of departure is a separate literature on payment cards) in search markets where the retail platform offers particular services, such as price comparison, that are not normally available from the producer. Their results are startling and important for their potential policy message.

155. Edelman and Wright (forthcoming) consider the case where firms can sell either directly to consumers or via one or more retail platforms. It may be helpful to think of these retail platforms as price comparison sites which in addition to facilitating search also facilitate sales. The retail platform can, via an investment, offer consumers something in addition to what the producer’s own (electronic) retail outlet is offering. While not specified directly in their paper, it could be money in terms of a cashback, it could be a better virtual environment in which to shop, more facilities on the website or even a cuddly toy. Edelman and Wright demonstrate that with a single platform and producers who are able to sell through their own website, an APPA leads to higher prices and excessive investment in platform features. In their model, the retail platform has an incentive to introduce the APPA. Importantly, without the APPA, the existence of the retail platform is welfare enhancing because it helps consumers search more efficiently. With an APPA, the entry of a retail platform is welfare decreasing. Basically once the APPA is in place, there are two opposite effects on consumer welfare: consumers benefit from the improved search facility to find better prices, but the APPA reduces the countervailing effect of the producer’s own retail outlet on the commission fee demanded by the retail platform and this increase prices. Thus consumers are better informed but pay higher prices. Extending the model to allow for competition among intermediaries does not change their results qualitatively.

156. Turning the focus to investment in features, the result in Edelman and Wright (forthcoming) is bleaker with a general message that APPAs are bad for consumers when platforms can invest in additional potentially welfare enhancing features. While initially surprising, the intuition for this result appears relatively straightforward. With an APPA in place, retailers cannot compete on prices since prices will be the same across retail platforms. What matters to a platform is the volume of internet traffic and the resulting sales commission. It will, hence, turn to any other means of differentiating itself and this gives it a strong incentive to (over) invest in other features of its internet platform.

157. An important limitation of their analysis is that it does not allow what they refer to as showrooming, by which they mean free-riding by the consumer who visits the platform, enjoys the additional features and then goes directly to the supplier’s own website to purchase at a lower price.

158. This sort of free-riding was raised in a number of competition cases discussed in section 2.2, including the UK motor insurance market one (2.2.4) and most of the settled hotel on-line booking cases (2.2.2). In these cases the general view was that broad APPAs, which cover all retail platforms violate competition law, but that narrow APPAs, which only compare a platform with the firm’s own site, did not because the benefits from curbing free-riding exceeded any possible harm through reduced competition. The models discussed so far have not been able to address this issue. However a recent paper by Wang and Wright (2015) show that platforms which lower search costs for consumers can raise retail prices, which

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<sup>88</sup> There is also a possible equilibrium where it is the threat of direct selling which keeps the price low enough to both groups that the high transaction cost consumers do not experience regret at having purchased the device at a positive price.

<sup>89</sup> Edelman and Wright (2014, 2015, forthcoming) and Wang and Wright (2015).

happens because of the fees charged to firms.<sup>90</sup> Despite this, platforms are not necessarily bad for consumers, since higher prices are offset by lower search costs. Platforms, however, are generally “bad” for firms since lower search costs intensify competition among firms. Showrooming is a form of free riding given that a firm would rather that consumers switched to buy directly on their website having found the firm’s products on the platform, thereby saving the firm the platform’s fee. Interestingly, Wang and Wright (2015) show that showrooming helps constrain platform fees and hence benefits consumers, but only provided the platform remains viable so consumers can still reap the benefits of more efficient search. This casts doubt on free-riding as a legitimate justification for the imposition of an APPA by platforms, unless an efficient platform could not operate without eliminating free-riding.

159. Finally Kuhn (2015) in his keynote speech to the 2015 European Association for Research in Industrial Economics offers a different take on the free-riding problem in the hotel on-line booking cases, arguing that free-riding is a significant issue and that, as these markets are evolving very quickly, interventions which stifle innovation are problematic.

160. The key insight from the current literature is the identification of the trade-off between better search and higher prices, which needs to be considered when analysing the overall effect of APPAs. Platforms make consumers better off because they make search less costly and this in turn intensifies competition among producers. Platforms may also make consumers worse off through the commission fees they can charge the producers, which the producers to some extent pass on to consumers in terms of higher prices. An APPA removes the competitive constraint which the firm’s own website puts on the platform through enabling disintermediation. It similarly removes any competitive constraint from other platforms on fees. At the same time an APPA may be essential not just for future investment in improved services by the platforms, but also for their very existence. “Platforms may compete away their excess profits by offering rewards and other consumer benefits in an attempt to attract consumers exclusively to their platform. However, such expenditures may be inefficient and represent a distortion in the nature of price competition that otherwise would operate in the absence of price coherence.” (Wang and Wright (2015))

161. While the only paper to address this issue directly, Wang and Wright (2015), offers no support for the free-riding defence, we need to be aware that their results are derived from a particular model, and the generality of their result has not yet been established. In particular we note the arguments by Kuhn (2015). This raises a series of questions which competition agencies may want to consider:

- Is the free-riding concern real, or is one end of a vertical chain trying to protect super-natural profits? Will banning APPAs reduce the number of platforms, possibly even to zero? Reading some of the cases, it would appear that competition agencies assume that competition among platforms is always desirable. In the cases where the platform is a PCW, this is by no means obvious. It would also appear that multi-homing is potentially desirable. Given the addition to search costs, this is equally not obvious nor likely to be universal across all markets. By the same token, ever more complex and diverse search sites may not be desirable and Edelman and Wright (2014, forthcoming) remind us of this.
- Is the vertical agreement indispensable? Some might argue that the problem is one of either how the platform gets compensated or of how the platform funds itself. In this respect it is worth recalling that there have been pure evaluation/search sites, which for a long period of time remained viable without APPAs. Moreover, the most valuable asset of the platforms may be their consumer (big) data. Understanding this aspect of the platform markets may well be essential to evaluate the defences which platforms can raise in favour of using APPAs.

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<sup>90</sup> On a similar note Ronayne (2015) shows that price comparison sites which also facilitate switching in addition to searching can raise costs to consumers through the “click-on” fees.

- How settled is the technology? If there is wide scope for innovation, it may be welfare enhancing in the long-run to tolerate vertical agreements which may have anti-competitive effects, especially where these, if they exist, are likely to be small.

## 5. Conclusion

162. From the case law and the existing and very recent economic literature, we have learned about both the key anti-competitive effects of APPA and about the most likely credible defences. These are:

- The first order effect of agreements which provide a positive link between prices of rival goods is to soften competition among existing firms. The intuition is simple. Without such an agreement, if a firm reduces its price, it would expect to gain consumers at the expense of its rivals. How much it gains depends on a number of factors, among which the important are: the elasticity of substitution, which determines how willing at current prices the consumer is to switch, and the length of time before the rivals react by changing their prices. The sooner and the more aggressively the rivals react to a price cut by cutting their own prices the smaller the gain from the price cutting. An APPA will not just hasten the reaction to a price reduction, it would potentially pre-specify what that reaction would be. This effect arises solely from the horizontal element of the APPA. The second effect of the agreement is that knowing that the APPA softens competition for consumers, the firm setting either the revenue share or the wholesale price has an incentive to inflate this because less of this increase is typically passed on to consumers when competition is softened. This further increases the retail price.
- A second potential adverse competition effect relates to entry. An APPA removes price from the set of parameters over which firms selling goods or services covered by the APPA can distinguish themselves. If price is an essential instrument for a new firm enter successfully, then clearly an APPA can also soften competition by blocking potential entrants. Note that there are at least two different cases to be considered. In one the entrant has a lower quality offering but also lower costs which would, in the absence of the APPA, enable it to set a lower price to differentiate itself from the existing platforms. In the other, the entrant's quality may be the same or higher, but consumers for some reason are unwilling to try something new, unless it is offered at a (significantly?) lower price.
- A third potentially adverse effect is that the APPA can help implement a move to an agency model and an agency model can lead to higher retail prices.
- Potentially pro-consumer benefits from APPA include curbing free-riding and reducing transaction costs. Of these, free-riding has been raised most frequently in the recent cases. An example of a potential free ride is a firm enticing its customers to purchase directly from them after having used the services of an internet platform which provides both price comparisons and customer reviews.
- While the anti-competitive effects may be more pronounced with broad APPAs, the direct effects of narrow APPAs can also be anti-competitive. The main difference between these two types of APPAs would appear to be how compelling the free-rider argument is.

163. While recent work has helped us achieve a better understanding of the effects of APPAs, we have also learned that evaluating the effect of an APPA in specific cases is complicated by subtle but important differences between these cases. For example, in the e-book case, three things happened at the same time: (i) the publishers moved from a wholesale to an agency model, thereby taking over price setting; (ii) the publishers and Apple agreed on an MFN clause (the APPA); and (iii) the degree of interoperability and hence of competition for a complementary device (the ebook reader) shifted significantly. It is therefore important to consider the specific aspects of each case in some detail to assure that all effects are accounted for.

164. Another lesson is that it may be a mistake to be too focused on APPAs related to the absolute level of prices.<sup>91</sup> Some cases, such as the AmEx case, are about terms and conditions. There are legal arguments that may make the distinction important, i.e. because agreement about prices usually fits into a “per se” (“by object”) approach while other restrictions fall within “rule of reason”.<sup>92</sup>

165. Having reviewed the nascent literature on APPAs, it is clear that there is still a need for a robust general theory that can be explained to practitioners and policy makers, backed up by good empirical evidence. While the effect on competition in the market is fairly clear, the broader effect on competition for the market, and more generally on how the market will develop, is much less so. We need a much better understanding of what the retail platforms offer both now and in the future and of the nature of competition in order to evaluate any arguments about free-riding and to assess whether the benefits from allowing APPAs in terms of increased retail competition can outweigh any adverse effects on price levels. We are still some way from this.

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<sup>91</sup> Scott-Morton (2012) reminds us that APPA contracts are much broader than MFN, and also include for example contracts which include market share discounts.

<sup>92</sup> The two major competition laws differ both on terminology and approach when it comes to actions which are so harmful that a thorough analysis of the attending effects is not required. In the US such actions are *per se* illegal while in the EU they violate competition law by their *object*. If not, in the US the terminology is *rule of reason* while in the EU, the violation would be by *effect*. In both jurisdictions the consequence is a greater involvement of economic evidence of adverse effects.

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