

Can 'Fair' Prices Be Unfair?

A Review of Price Relationship Agreements

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FOREWORD

This report was commissioned by the Office of Fair Trading (OFT) from Lear – Laboratorio di economia, antitrust, regolamentazione.

Lear were asked to undertake a study on price relationship agreements (PRAs) that reviews the theoretical and empirical economic literature, as well as the relevant key case-law, and that draws policy implications for the competition treatment of PRAs.

Any views expressed in this report are those of Lear and do not necessarily reflect the views of the OFT, nor the legal position under existing competition law which the OFT applies in the exercise of its competition law enforcement functions.

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EXECUTIVE SUMMARY

- 0.1 In a competitive environment sellers set their price independently of each other, though considering that the prices of their rivals will have an impact on their sales. However, sometimes sellers commit to pricing policies that limit their freedom and that link their prices to other prices charged for the same (or similar competing) products. These types of pricing policies do not determine absolute price level, but set pricing relativities, thus linking different prices to each other. Examples of such pricing policies are price-match guarantees and lowest price promises (which are price commitments 'across-sellers') or most favoured nation clauses (which are price commitments 'across-buyers'). This report explores the possible implications for competition policy of these kind of agreements: it examines the various forms these agreements can take and explores the competition concerns they raise, together with their potential benefits.

Across-Sellers Agreements

- 0.2 When a retailer claims to have the lowest prices on the market, consumers may be easily impressed. They may believe that they can get a great price by going to the retailer in question without any need to engage in shopping around. Indeed such deals may provide a great way for a retailer to signal that it is low cost and has low prices. Equally such deals are sometimes used by more upmarket stores to signal that their added service and higher quality retail environment do not come at the cost of higher prices.
- 0.3 When these promises are accompanied by a 'price match guarantee' - if you can find another seller who offers that product at a lower price, then the retailer will match it (or even beat it by offering an additional discount) - they become even more attractive to consumers, who think that if retailers are willing to put their money where their mouth is, their promise must be credible. But are these across-sellers² promises and guarantees really good for consumers?

² We refer to them as across-sellers because the price that a seller promises to charge depends on the price charged by competing sellers.

- 0.4 As mentioned above, one theory suggests that these promises are good because they provide reliable information to consumers ('reliable signals') when sellers have different costs, and therefore prices, and it is costly for consumers to obtain information about sellers' costs and prices. The intuition behind this explanation hinges on the delegation aspect of these low price guarantees. The promise to match the lowest price essentially delegates the pricing decision for the informed consumers to the lowest-price sellers. Since high-price sellers do not find it profitable to make a similar commitment, the signal becomes credible.
- 0.5 However, it is also possible that these deals may be knowingly untrue - because the retailer may pose insurmountable hurdles for the customer to redeem the guarantee, hidden in the small print - and used simply to attract consumers. As such, consumers could be being duped into paying more than they would if they shopped around. Nevertheless, this is a concern that may be best addressed using consumer law rather than competition law.
- 0.6 Another set of concerns, though, relates to the possible impacts of these low price guarantees on competition. These can arise for a number of possible reasons.
- 0.7 A first possible competition concern is that, while such across-sellers price guarantees appear to support the 'lowest price' claim, they can equally be used as a way to price discriminate. The 'lowest prices' are made available to those buyers who are willing to face the hassle of seeking out alternative prices and redeem the price guarantee, but base prices are kept somewhat higher for those buyers who do not shop around.
- 0.8 As is well understood in standard economics literature, such price discrimination can potentially have benefits, especially if it expands the market. However, it can also have costs, for example in terms of higher prices for those buyers who do not shop around. However in this case there is also a risk that the existence of the 'lowest price' guarantee itself limits shopping around. Consumers, who feel protected by the 'lowest price' promise and/or low price guarantee, may not bother shopping around as much as they would otherwise. This raises a second potential concern, since less shopping around will tend to result in a softening of competition. After all, the strength of

the competitive constraint faced by any firm will generally depend on the extent to which consumers test its offering against those of its rivals before purchase.

- 0.9 A third possible concern arises from the impact such across-sellers price guarantees can have on the pricing incentives of rivals. Promises by retailers to match (or beat) the offer of their competitors may give an impression of fierce price competition, but a common view among economists is that the adoption of these low price guarantees softens price competition.
- 0.10 If the rivals of a 'lowest price' retailer know that any price reduction will quickly be matched or beaten, this reduces their incentive to lower prices. Because of the across-sellers price guarantee they know that any price cut is immediately matched by that retailer, thus leading only to lower profits because price cuts do not lead to increased market shares. This reduced incentive to cut prices can in turn imply less vigorous competition, and potentially higher prices than would be observed without the across-sellers price guarantee.
- 0.11 A fourth area of possible concern arises from the fact that across-sellers price guarantees can potentially act to facilitate collusion. Effective collusion is well known to require some sort of agreement (tacit or explicit) on a collusive strategy, as well the ability to detect and punish breaches of this agreement. Reciprocal price matching strategies adopted by competing firms can provide a simple focal strategy for coordination and deviation can be very easy to detect (as customers have incentives to come and tell you).
- 0.12 A final area of concern regards the potential of across-sellers price guarantees to foreclose entry. A large incumbent firm in a market will often have a number of intrinsic advantages over a potential entrant, most typically based on their reputation and established customer base. A standard strategy for new entrants into such a market is to seek to gain a foothold by offering better prices than the incumbent. In this context, an across-sellers price guarantee by the incumbent firm can be a very powerful way to discourage entrants. It provides a credible commitment for the incumbent to match any entrant's prices. In the face of such a commitment a potential entrant may not be able to reach a minimum efficient scale if its prices will be immediately replicated by the incumbent firm. Further, the strategy has a very low

cost for the incumbent because, if entry never occurs, the incumbent never has to make the price cuts. It can retain its 'lowest price' promise, while continuing to have a strong market position and charge high prices.

- 0.13 It is worth highlighting that the across-sellers price guarantees discussed so far are offered unilaterally by sellers to final consumers, and are not typically embedded in formal agreements. However, across-sellers price guarantees can also be incorporated into long-term contracts between input suppliers and downstream firms. Examples of such clauses are English Clauses, whereby the supplier promises to match the lowest price offered by any other supplier. These may be used to address (what economists call) incomplete contract problems, that is, to make long term contracts flexible enough to adapt to unforeseeable changes in the environment that otherwise would render a contract obsolete. In particular price rigidity in a long-term contract may isolate parties from exploiting new opportunities that arise from altered market conditions. A clause that allows buyers to require their supplier to match competing lower market prices permits the prices of the long term contract to vary with changes in the cost of competing inputs due to changes in technology or other market conditions.
- 0.14 If an English Clause is coupled with an option for the supplier to either meet the lower price or release the buyer, the buyer can protect himself from the risk of being trapped in a contract which is no longer convenient, while the supplier has the choice of exiting the contract if changes in market conditions make it no longer profitable to provide at the competitor's price level. However, like the unilateral offering of price contracts to end consumers, upstream across-sellers price guarantees can raise concerns of collusion, softening of competition and entry foreclosure.
- 0.15 All the above considerations raise the question of how should across-sellers price guarantees be treated in competition law? Clearly their use raises competition concerns, but it is also evident that these pricing policies can offer potential benefits, particularly if they are offered by relatively small players in relatively fragmented markets or when they are used in long-term contracts with pricing rigidity. This implies that it is not always possible to give a clear ex-ante judgment on their nature.

- 0.16 However, the existing economic literature provides some indications regarding which effect is more likely on the basis of the characteristics of: the agreement, the seller(s) offering it and the market in which it is offered. These are discussed in detail in the report.

Across-Customers Agreements

- 0.17 The across-sellers price guarantees just described are not the only type of agreements in which the seller undertakes to link its price to other prices of the same product. A seller can also agree to tie the price it charges to the buyer to the prices it quotes to other clients. The paper refers to this type of agreements as 'across-customer' agreements. These type of guarantees are often included in contracts between input suppliers and downstream firms.
- 0.18 Buyers may be initially satisfied by the inclusion of these guarantees in their supply contract because they feel it ensures they cannot get a worse deal than their competitors. This is because the guarantee commits the seller to lowering the price to the buyer if it **lowers** the price to any other buyer. However, in offering such a guarantee the seller is credibly committing to impose a financial penalty on itself if it lowers its price to any of its buyers, thereby reducing its incentive to lower prices. As such a possible effect of this kind of guarantee is that, while all buyers get the same price, this price is higher than without the guarantee because the in-built penalty discourages the seller from lowering its price. If the downstream buyers compete, they may be satisfied with this outcome because it ensures that no competitor can have an economic advantage in the acquisition of that input. However, this outcome clearly leads to higher input prices and, thus, higher final prices for consumers. Moreover, the guarantee may be used by the seller to price discriminate if not all customers are protected by it or if customers are heterogeneous and redeeming the guarantee implies hassle costs (that is, the costs the buyer needs to bear in order to prove that all the conditions set in the guarantee are satisfied and then obtain the refund).
- 0.19 A second impact may be to reduce entry downstream. Buyers may also ask for these clauses because they can discourage entry by new, smaller, competitors who may need a cost advantage to attract some customers and reach a minimum efficient scale. This price levelling

effect damages final consumers because by restricting entry to potentially more efficient firms, it raises production costs and, thus, final prices.

- 0.20 A third concern is that across-customers clauses may be used to sustain a collusive equilibrium amongst sellers. This is because they reduce sellers' incentive to deviate by offering selective discounts. However, these clauses may also have the effect of increasing the cost of punishing deviations amongst sellers because they do not allow targeted cuts and require sellers to extend any price reduction to all their buyers. In summary, since both deviations and punishments are discouraged it is unclear what the overall effect on collusion can really be.
- 0.21 Nevertheless, these clauses may be efficient if they protect buyers selling onto downstream markets from unfavourable modifications of their pricing contracts. This protection may be particularly important when the buyers have to make investments that tie them to the seller, for example when retailers have to invest in costly product-specific display material, or when firms have to buy input-specific machinery. In these circumstances buyers are in a difficult ex-post bargaining position that could be exploited by the seller. The inclusion in the supply contract of a clause that increases the cost of price-discriminating across customers ensures that a buyer will be treated like all its rivals and that it cannot be competitively disadvantaged. Without this protection the buyer may forego investments that are beneficial to both parties, as well as to end consumers. Importantly even where this efficiency exists, it is not necessarily mutually exclusive to the competition concerns outlined above.
- 0.22 It also been suggested that these clauses may be used to signal some unobservable characteristics in the quality of the adopting seller's product.
- 0.23 Further, under specific circumstances, these clauses can address some investment hold-up problems that may lead to undesirable outcomes. An example is when a firm, which has some market power and has to incur considerable fixed costs for the production of a durable good, faces consumers with different willingness to pay for the good. Its best pricing strategy would be to charge a high price initially, so as to sell to those consumers who have the highest

willingness to pay, and to offer a lower price in subsequent periods to attract the other consumers. However, if the consumers with the highest valuation are patient enough, they will wait until the firm lowers the price. This would force the firm to offer the lower price from the very first period. If this lower price does not allow it to cover the high initial investment, the firm will not start the production of the good, thus depriving the consumers of the good. An across-customers clause, by imposing a penalty on the firm if it lowers its prices, allows it to credibly commit to its first period supra-competitive price. Of course if the competitive price is sufficient to allow the seller to recover its initial investment, then the across-customer clause will simply be a commitment mechanism for the seller not to provide discounts. Such a commitment will result in higher prices to consumers as previously discussed, without a corresponding efficiency increase in investment.

- 0.24 With the potential to harm, but also to generate efficiencies the question of whether these clauses are good or bad for consumers cannot receive a clear-cut answer. These clauses can benefit or harm consumers depending on the basis of the characteristics of the market affected, of the specificities of the clause and of the nature of the seller(s) who offers it. However, it is worth noting that in the economic literature it is argued that the risk of softening competition and the risk of foreclosing new entrants is lower with across-customers clauses than with across-sellers price guarantees.

Third Party Agreements

- 0.25 So far we have talked about pricing policies in which the seller agrees with the buyer (or unilaterally promises to the buyer) to constrain its price by tying it to other prices for the same product. However, there are also agreements that determine the price paid by the end buyer, but which are signed by a manufacturer and a retailer or a platform and a seller, so that the end buyer is not a party to the agreement and has no right to enforce it. We term these type of agreements Third Party Agreements.³

³ Note that this paper does not address the extent to which online platforms or retailers should be in a position, legally, to discount or engage in retail price competition, irrespective of whether

- 0.26 One variant of such agreements is when a manufacturer requires the retailer to price its products no higher than, or even at the same level as, the retail prices of similar competing products that the retailer sells from rival manufacturers. These kind of agreements do not set the absolute retail price level, but determines how the retail price of a manufacturer's product relates to the retail prices of the products of its competitors.
- 0.27 The types of concerns these agreements raise are akin to those of the across-sellers price guarantees discussed previously (that is, foreclosure, softening of competition, and collusion). Indeed these two types of clauses are similar because the price the buyer pays to purchase one manufacturer's product is automatically adjusted when a rival manufacturer's wholesale price change causes a change in the retail prices of their products. However, unlike standard across-seller price guarantees, these agreements are signed by players in the upstream part of a market (that is, manufacturers and retailers), but the contract determines the retail prices (paid by final consumers). Therefore, they affect not just competition between manufacturers, but also competition between retailers.
- 0.28 With respect to their possible beneficial effects our review of the literature shows that pricing relativities agreements have beneficial effects only in specific circumstances. Specifically they may help to mitigate free-riding problems in the provision of pre-sales, or other ancillary, services, which tend to hinder vertical relationships.
- 0.29 All of this suggests that contractual provisions of this type should be assessed more sceptically than the across-seller price guarantees or the across-customer clauses described earlier.
- 0.30 Another type of pricing arrangements, which appear to be becoming more widespread, in particular in the online industry, are those contractual clauses between a seller and a platform by which the seller (or retailer) undertakes to charge on that platform a price that is not higher than the price charged on other platforms, including the

such platforms or online retailers take title in the goods of services in questions prior to selling them to end customers.

new entrants. We refer to these as across-platforms parity agreements.

- 0.31 By platforms we mean those structures that act as some sort of market-place and allow buyers and sellers to meet and trade directly. Platforms normally charge sellers a fee for their services, but sometimes they receive payments from the buyers⁴ for the purchase support facilities they provide to them. Examples of platforms are online bookstores, auction websites and shopping malls.
- 0.32 In general buyers and sellers can access more than one platform. Hence, sellers can offer the same product across a number of platforms and buyers can choose on which one to buy the product. By signing an across-platforms parity agreement, the seller undertakes to charge, for the transaction with buyers, a price that is the same as (or no higher than) the price charged for the same transaction on other platforms. Hence, these clauses limit the ability of sellers to charge different prices on different platforms (for example, on different websites or in different malls). It must be stressed that a platform parity agreement only concerns the level of the price that the seller charges to the buyer, while it does not refer to the fee paid by the buyer or the seller to the platform.
- 0.33 The main focus of these clauses appears to be the impact on competition between platforms.
- 0.34 First, as with across-sellers guarantees and across-customers clauses, it can lead to foreclosure. If a platform ties a substantial share of sellers it can impede the effective entry of rival platforms. A new platform can attract buyers by giving them the opportunity to buy goods at lower prices, but if sellers cannot charge lower prices on the new platform this is not a viable option. This may discourage it from entering even if it is more efficient than the incumbents.
- 0.35 Second, these agreements can soften competition among platforms, thus increasing the fees paid by the sellers and, as a consequence, the

⁴ Note that if the buyer is charged a fee to access or to use the platform, this is not the price that it is constrained by the across-platforms parity agreement which only concerns the price the buyer pays to the seller for the good or service it purchases.

prices charged to the buyers. Suppose that two platforms, A and B, compete to attract sellers and buyers. Suppose that platform A charges a fee to sellers that use it, which is higher than the one requested by platform B. Without any parity agreements, sellers would charge a higher price to the buyers that purchase through platform A, to reflect the higher cost of being on this platform. However, if the sellers sign a parity agreement with platform A, they will have to charge on A a price that is not higher than the price charged on platform B. The optimal pricing strategy for the sellers then becomes to spread A's higher fee across the prices they charge on the two platforms. This reduces the price that they would charge to buyers on platform A and increases the price they would charge to buyers on platform B. In this way the buyers of platform B subsidise the buyers of platform A.

- 0.36 The existence of this subsidy lowers platform B's incentive to decrease the fee it charges to the sellers, compared to a case in which no across-platforms parity agreements is present. Any reduction would benefit buyers on both platforms. Indeed, because the sellers will spread this reduction across both prices identically platform B cannot increase its relative sales. This reduces platform B's incentive to decrease its fee. The parity agreement also increases A's incentive to raise its fee, as sellers would have to spread this increase across prices on both platforms. The outcome is that both platforms charge a higher fee to sellers. Moreover, if both platforms impose an across-platforms parity agreement, then both have a lower incentive to reduce the sellers' fee and a higher incentive to raise seller's fees. This softening competition effect is akin to the one generated by many sellers using 'lowest price guarantees', though here it is not mitigated by the presence of hassle costs.
- 0.37 One potential efficiency of across-platforms parity agreements is that they may help platforms to protect any investments they may have made to provide pre-purchase services to the buyers (for example, reviews and advices in an online market place). If the sellers offered their products at lower prices on lower quality platforms, buyers may make use of the high priced platform's services, but then buy from the cheaper platform. The parity agreement allows the high-priced platform to avoid this free-riding. The existence of this efficiency depends upon the high priced platform not being able to internalise their higher quality services because, for instance, the ancillary

services (for example, reviews or advices) can be used by the buyers even without actually buying the product on the same platform.

- 0.38 Whilst such efficiencies may exist, they may not assuage all the concerns that competition authorities may have about these agreements. Indeed the overall effect on consumers may depend on whether the benefits buyers obtain via pre-purchase services outweigh the potential harm from the lower degree of price competition that can be engendered by these agreements and whether there are other ways of achieving these benefits that are less restrictive of competition.

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1 AN OVERVIEW OF PRAS: ELEMENTS FOR A POLICY ANALYSIS

Definition of a price relationship agreement

- 1.1 This report uses the term price relationship agreement⁵ (or PRA) to refer to a seller's policy⁶ whereby its price to buyers (either firms or final consumers) is related to another price. Examples of prices which a seller's price may be related to include: (i) prices offered by other sellers for **the same product**, (ii) prices offered by other sellers for **similar competing products**, (iii) prices offered **by the same seller** for the same product **to other buyers**, or (iv) prices offered by the same seller **to that buyer in a different period of time**.
- 1.2 The key characteristic of a PRA is that it imposes a constraint on the seller's freedom to set its prices. The price that it charges to the buyer, if the policy is enforced, is a function of other prices charged for the same, or similar, competing products. Those agreements in which the price of a product is linked to the price of a **non-competing product** (for example, indexing mechanisms that set the price of a product with respect to the price of a commodity) are not considered in this report.
- 1.3 Furthermore this report only considers PRAs with a pre-commitment. Retention strategies by which a seller selectively matches the prices offered by a competitor and does so unilaterally, **without any prior commitment**, are not considered.

Example of PRAs

- 1.4 Our definition of PRA captures several types of pricing policies. Box 1.1 provides six fictitious examples of forms PRAs can take.

⁵ The term agreement here is not used in a legal sense, because PRAs can be contractual clauses or just simple promises made by a seller to its customers.

⁶ The PRA may be adopted by the seller either through a public announcement or specific contractual provisions.

BOX 1.1: EXAMPLES OF PRAS

Example 1: A Price Matching Guarantee

If you find a lower price on a new, identical item at another store, show us the lower price at the time of the purchase and we will match it on the spot, or show us the lower price within 14 days of your purchase and we will pay you the difference. Our price is the final price you pay after any discounts, coupons, instant savings and mail-in savings are applied. We will match the other store's point-of-sale price after deducting their instant rebates and coupons. We will not match the other store's mail-in rebates.

Example 2: A Price Beating Guarantee

If within 30 days of your online purchase, you find the identical product nationally advertised for less by one of our competitors, we will refund you 110 per cent of the difference.

Example 3: Another Price Beating Guarantee

If you buy a qualifying service on our website, and then find the exact same service at a lower price online, we will refund the difference and we will give you a \$50 discount on future purchases. Just submit your claim.

Example 4: A Most Favoured Customer Clause

Company X represents and warrants to Company Y that the prices offered to Company Y under this Agreement are no less favourable than the prices offered to any other party purchasing or licensing similar quantities. In the event Company X offers more favourable prices to any other party, Company X will promptly notify Company Y of such event and offer such more favourable prices to Company Y commencing upon the date such more favourable prices were offered to the other party.

Example 5: An Across-platforms parity agreement

In order to offer customers the best possible experience on our website, we are asking sellers who choose to sell their products on www.companyx.com not to charge customers higher prices on our website than they charge customers on other websites. This implies that the item price and total price (total amount payable, including delivery charges but excluding taxes) of each product offered on www.companyx.com must not be higher than the corresponding prices at which the seller, or its affiliates, offers the product on other non-physical sales channels.

Example 6: A pricing relativities agreement

Retailer A agrees that it shall not, at any time during the duration of this agreement, charge in any of its shops a retail price, including any discount, for the product of manufacturer Y higher than the retail price, including any discount, it charges for the product of manufacturer X.

A broad classification of PRAs

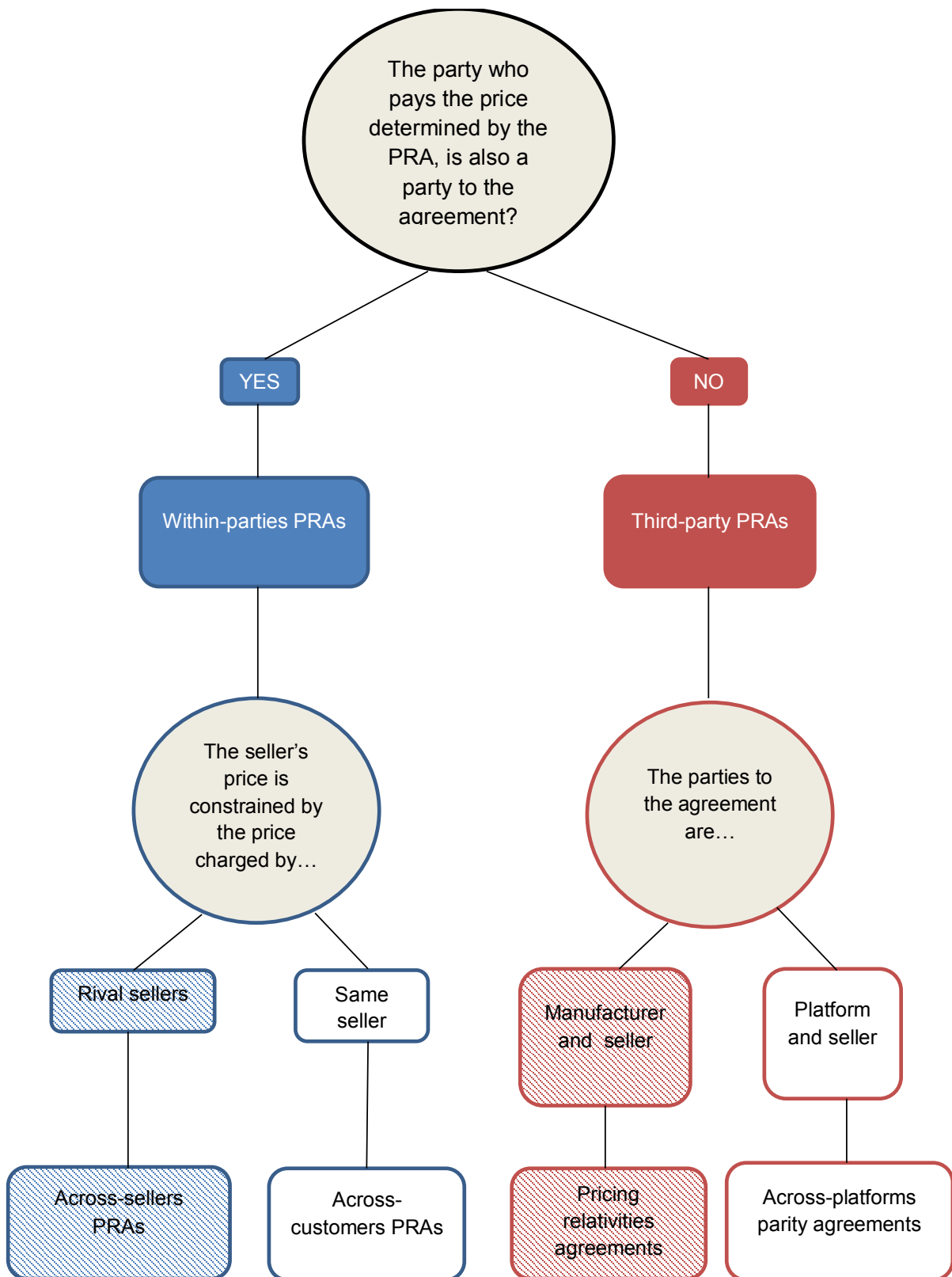
- 1.5 The examples presented above show that PRAs vary along many dimensions.
- 1.6 First, a PRA may involve a mere promise from a seller to its buyers, usually final consumers, (examples 1, 2 and 3). Alternatively it can be embedded in a contractual clause (examples 4, 5 and 6).

- 1.7 Second, a PRA can differ in terms of who controls the terms and who is directly impacted by the constrained price. While a PRA always concerns the price that a buyer pays to the seller, the promise or the agreement may not always be between the same buyer and seller. Examples 1 to 4 refer to PRAs in which the promise/contractual clause is between the seller and the buyer. If the seller does not match the lowest competitor's price or does not bring the price in line with that it charges other customers, the buyer can activate the policy and ask the seller to match, or beat, the lower price offered by another seller or to another buyer. However, in examples 5 and 6, even though the agreement imposes a constraint on the level of the price paid by the final buyer, the agreement is stipulated between the seller and an input provider or intermediary. In both these examples the final buyer is a third party with respect to the agreement, even though the agreement directly pertains to the price she pays. In these latter examples if the price paid by the final buyer does not fulfil the conditions set out in the agreement the buyer cannot ask the seller to change its price, because she is not a party to the agreement. In this kind of PRAs the agreement provides the platform/manufacturer with the right to request the seller to fix the price charged to the final buyer.
- 1.8 Third, PRAs may also vary according to the subjects whose prices are taken into account. A PRA may make the price offered by a seller dependent on the price offered by other sellers for the same or similar products (examples 1, 2 and 3), or by the same seller to other customers (example 4) or for the sale of the same product on other platforms (example 5), or for the sale of other manufacturers' competing products (example 6).
- 1.9 Fourth, a PRA may include a promise to 'match' another price (examples 1 and 4) or to 'beat' it (examples 2 and 3). The 'beating' of the price can be by a percentage of the difference (example 2) or by an absolute amount (example 3). The beating can refer to the specific purchase (example 2) or can be applied to the price of future transactions (example 3).

- 1.10 Finally, PRAs may differ with respect to the specific prices they refer to. The policy may be based on the advertised price (example 2) or on the effective price, that is, the price that is paid after all discounts and coupons (examples 3, 5 and 6).
- 1.11 In summary PRAs can differ in a number of features. In this report we centre on only a few of these different classifications in order to understand their competitive effects.
- 1.12 First, we consider whether or not the party who pays the price determined by the PRA, is also a party to the agreement/promise. If the buyer is a party to the agreement we term it a 'within-parties PRA'.⁷ If the buyer is not a party to the agreement we term it a 'third-party PRA'.
- 1.13 Second, within-parties PRAs are further classified according to whether the prices determined by the PRA are those charged by rival sellers, or by the same seller to other customers (or to the same customer over time). The first group of PRAs we term 'across-sellers PRAs', whilst we term the second group 'across-customers PRAs'.
- 1.14 Finally, we separate third-party PRAs into those agreements where the parties are a manufacturer and a seller, and those where the parties are a platform owner and a seller. The first group we term as 'pricing relativities agreements'; while we term the second 'across-platforms parity agreements'. Given the relative newness of third-party PRAs there might exist other types which involve other types of firms which are not considered here.
- 1.15 Figure 1.1 illustrates this classification.

⁷ In some cases the PRA is a unilateral promise made by the seller to the buyer. Its being a promise does not alter the fact that the buyer has an enforceable right to see the promise fulfilled.

FIGURE 1.1 - A FORMAL CLASSIFICATION OF PRAS



- 1.16 This report mainly focuses on within-parties PRAs (involving an agreement or promise between a seller and a buyer). These PRAs appear to be more commonly adopted and analysed within the economic literature. In the rest of the report we term them by their subcategories: **across-sellers PRAs**, when the price offered by the seller depends on the prices offered by its competitors and, **across-customers PRAs**, when the price offered by the seller depends on the prices charged by the same seller to other customers or to the same customer over time.
- 1.17 With regards to third-party parities, the economic literature that examines their effects is less developed. However this report uses related literature to provide initial views on those PRAs in which the buyer is not a party to the agreement, In the rest of the report we term by their two subcategories: **pricing relativities agreements**, when the agreement is between a manufacturer and a seller (a retailer), and **across-platforms parity agreements**, when the agreement is between a platform and a seller.

Report structure

- 1.18 The next four chapters describe in detail the existing literature on within-parties PRAs. Chapter 2 reviews the theoretical literature on across-sellers PRAs and Chapter 3 reviews the theoretical literature on across-customers PRAs. Chapter 4 provides an overview of the empirical contributions that have been written on both types of PRAs, while Chapter 5 focuses on the results of the experimental literature on the subject.
- 1.19 Chapter 6 includes a discussion of the possible competition effects of third-party PRAs. Chapter 7 provides some considerations on the legal issues raised by PRAs, while Chapter 8 presents our conclusions and policy suggestions.
- 1.20 The report is completed by two Annexes. Annex A describes two screening devices for across-sellers and across-customers PRAs to identify their most likely competition effects, Annex B provides a

summary of a selection of cases involving PRAs investigated in the US, UK, EU and Italy.

2 ACROSS-SELLERS PRAS: LITERATURE REVIEW

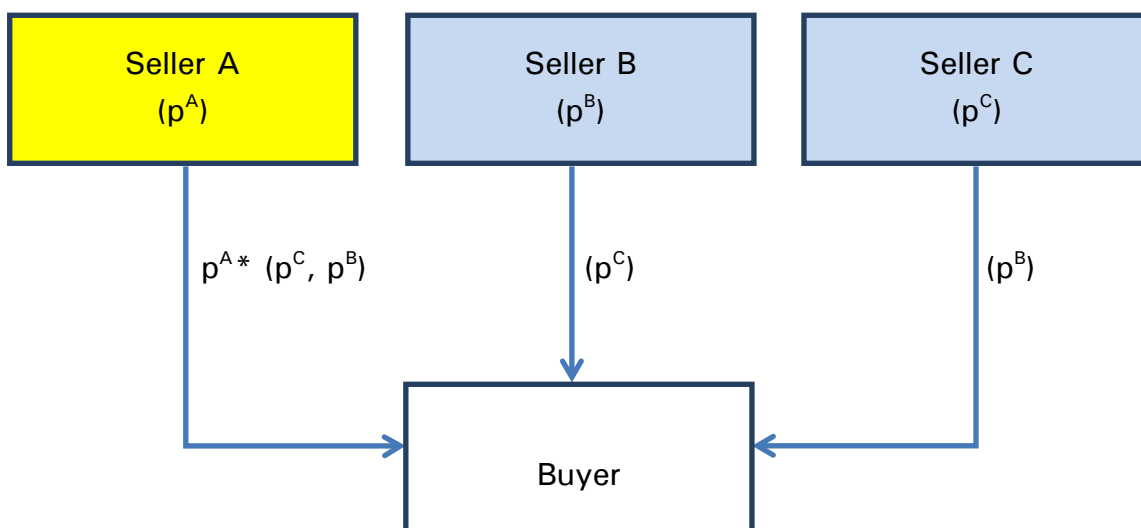
2.1 This Chapter reviews the existing theoretical literature on across-sellers PRAs.

Definition

2.2 As stated in Chapter 1, an across-sellers PRA is a promise made by a seller to its customers⁸ that if a customer finds a competitor offering a lower price for the same product, it will match that lower price. This promise may be either in an advertisement, or embedded in a long-term contract.

2.3 Figure 2.1 below illustrates an across-sellers PRA. Buyer 1 can buy an identical product from three sellers, A, B and C. Seller A adopts an across-sellers PRA so that the price that the buyer can ultimately pay to A (p^{A*}) depends on A's listed price (p^A) and on the prices (listed or effective) charged by B (p^B) and C (p^C).

FIGURE 2.1 - AN ACROSS-SELLERS PRA



⁸ Hence it gives the customer - that is, the buyer - an enforceable right if the seller does not fulfil the promise.

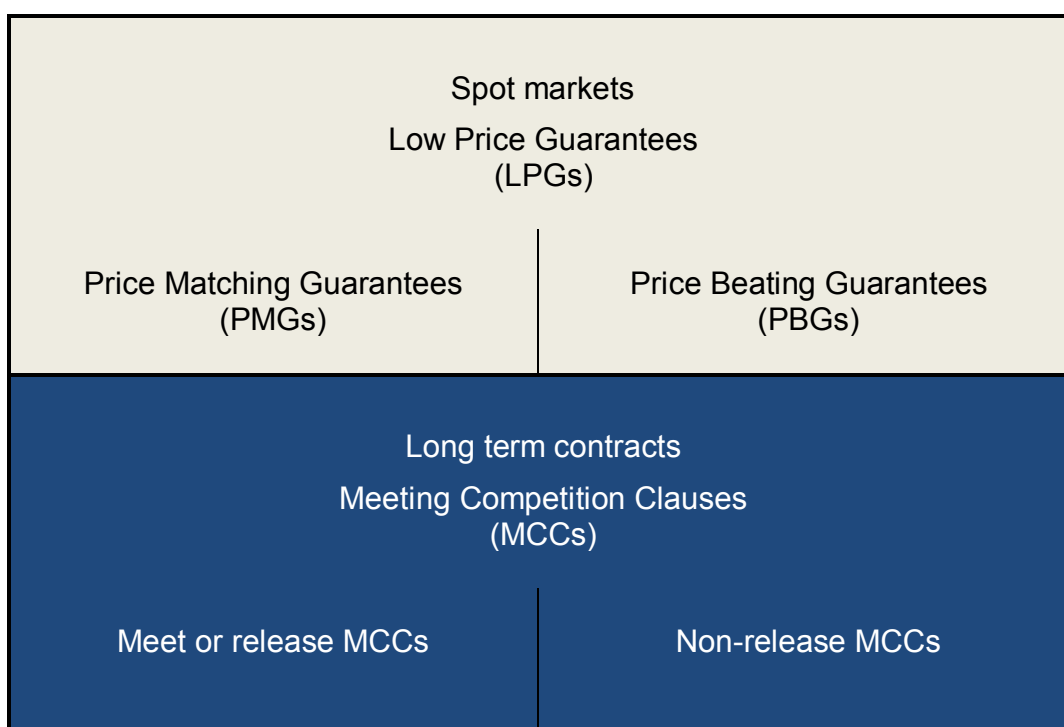
- 2.4 In the rest we shall refer to the promises made by retailers to their customers as low price guarantees (LPGs), while we shall refer those embedded in long-term contracts between input suppliers and manufacturers as **meeting competition clauses** (MCC).⁹
- 2.5 LPGs can take two forms: the retailer can promise to match the price of its competitors, in which case the PRA is normally referred to as a **price-matching guarantee** (PMG), or it can offer to beat its competitors by a positive amount, in which case the PRA is referred to as a **price-beating guarantee** (PBG).¹⁰
- 2.6 MCCs instead only include a promise to match the offer made by a competitor, but they can take two forms depending on whether they bind the supplier to effectively match it or not. A **non-release** MCC commits the supplier to match any better offer a customer may receive, while a **meet-or-release** MCC allows the supplier to choose whether to match the offer or release the customer, who can then accept the competing offer.¹¹
- 2.7 Figure 2.2. illustrates this classification.

⁹ These types of clauses are also referred to as English clauses when the buyer is required to report any better offer to his supplier and is allowed to accept such offer only when the supplier does not match it.

¹⁰ The beating can be by a specified (absolute) amount, it can be by a percentage of the lowest price or by a difference in the two prices.

¹¹ The customer can accept the competing offer only if the supplier does not match it, otherwise it is contractually bound to remain with the original supplier.

FIGURE 2.2 - CLASSIFICATION OF ACROSS-SELLERS PRAS



A more formal definition

- 2.8 A more formal definition of an across-sellers PRA can be provided under three simplifying assumptions. First, assume that there are only two sellers in the market; seller 1, who is offering the PRA, and seller 2, its rival. Second, assume that the PRA offered by seller 1 is a price matching guarantee. Third, assume that the promise refers to the list price offered by seller 2.
- 2.9 When seller 1 adopts a price-matching guarantee it offers two prices in the market: a list price p_1^{List} , which is the one quoted in its advertisements and its shops, and an effective price, p_1^{eff} , which is the price that is charged when the guarantee applies. The two prices may or may not coincide. If the rival charges a price p_2^{List} that is not lower than p_1^{List} , then the guarantee is ineffective and $p_1^{\text{eff}} = p_1^{\text{List}}$. Instead, if the rival charges a price p_2^{List} that is lower than p_1^{List} , a

buyer that buys from seller 1 can activate the guarantee, in which case he pays $p_1^{\text{eff}} = p_2^{\text{List}}$. Hence $p_1^{\text{eff}} = \min \{p_1^{\text{List}}; p_2^{\text{List}}\}$.¹² If, however, the buyer buys from seller 1, but does not activate the guarantee, he pays p_1^{List} .

2.10 Let us denote with α the fraction of seller 1's sales for which the buyers activate the guarantee. The average price received by seller 1, p_1^e , is:

$$p_1^e = (1-\alpha)p_1^{\text{List}} + \alpha p_1^{\text{eff}} = (1-\alpha)p_1^{\text{List}} + \alpha \min \{p_1^{\text{List}}; p_2^{\text{List}}\}.$$

2.11 This equation captures two key features of an across-sellers PRA.

2.12 First, the demand functions of sellers 1 and 2 without the PRA are $q_1 = q_1(p_1^{\text{List}}, p_2^{\text{List}})$ and $q_2 = q_2(p_1^{\text{List}}, p_2^{\text{List}})$. However when seller 1 adopts a price-matching guarantee they become $q_1 = q_1(p_1'(p_1^e), p_2^{\text{List}})$ and $q_2 = q_2(p_1'(p_1^e), p_2^{\text{List}})$, with $p_1'(p_1^e) = p_1^{\text{List}}$ if $p_2^{\text{List}} \geq p_1^{\text{List}}$ and $p_1'(p_1^e) < p_1^{\text{List}}$ if $p_2^{\text{List}} < p_1^{\text{List}}$; this means that the demand function of firm 2 remains the same as long as $p_2^{\text{List}} \geq p_1^{\text{List}}$, but becomes **less elastic**¹³ when $p_2^{\text{List}} < p_1^{\text{List}}$. In this case any price reduction by 2 entails an automatic reduction of the average price of firm 1 and, therefore, a lower increase in 2's sales.¹⁴

2.13 Second, when it adopts the PRA seller 1 is **delegating**, to some extent, its pricing policy to seller 2. Indeed, if seller 1's listed price is the not the lowest, its average price will be $p_1^e = (1-\alpha)p_1^{\text{List}} + \alpha p_2^{\text{List}}$, which is in part defined by the pricing decision of seller 2. More specifically, seller 1 will receive from its buyers two distinct prices,

¹² If the PRA is a price beating guarantee, the effective price is $p^{\text{eff}} = f(p_1^{\text{List}}, p_2^{\text{List}})$ where $f(p_1^{\text{List}}, p_2^{\text{List}}) = p_1^{\text{List}}$ if $p_1^{\text{List}} \leq p_2^{\text{List}}$, and $f(p_1^{\text{List}}, p_2^{\text{List}}) < p_2^{\text{List}}$ if $p_1^{\text{List}} > p_2^{\text{List}}$. The description given in the main text remains valid if we substitute $\min \{p_1^{\text{List}}, p_2^{\text{List}}\}$ with $f(p_1^{\text{List}}, p_2^{\text{List}})$.

¹³ It can be easily proven that the reduction of the elasticity of the rival's demand curve is stronger if seller 1 adopts a price-beating-guarantee.

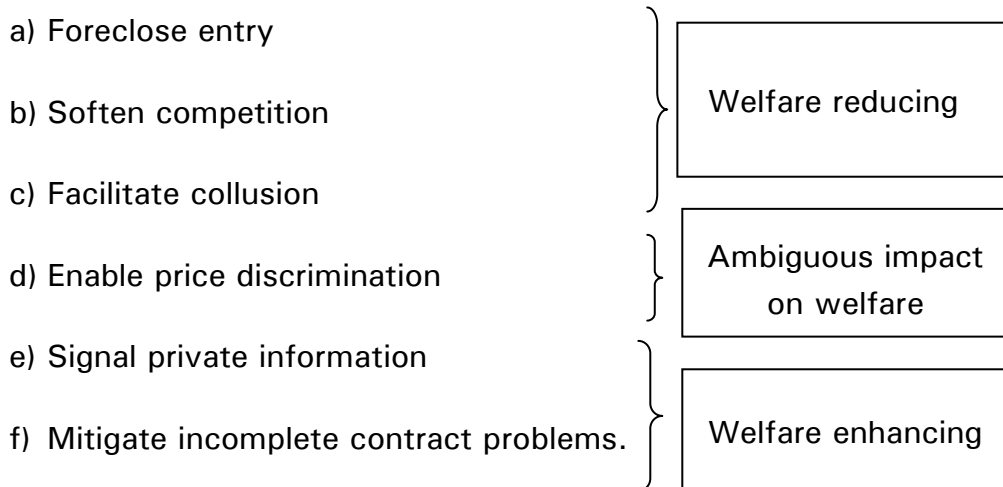
¹⁴ If $p_2^{\text{List}} < p_1^{\text{List}}$ also the demand function of seller 1 becomes less elastic **with respect to its list price**. Indeed an increase in the list price of seller 1 entails a lower reduction of seller 1's sales because its **effective** price does not change, or it increases by a lower amount.

one that is set by the seller 1 itself (p_1^{List}) and one that is indirectly decided by its rival (p_2^{List}).

- 2.14 These two properties both depend on the probability that the buyers will successfully activate the guarantee (α). This probability can be seen as the fraction of buyers who find it worthwhile to incur the costs of requesting the price guarantee in order to obtain the refund or the lower spot price. It will depend on three main factors. First, the characteristics of the buyers (for example, their level of information, the value they give to time, etc.); Second, the contractual provisions that discipline the application of the guarantee (for example, who has the burden of proving the discount, what type of evidence is required to make the claim, etc.). Third the characteristics of the market environment (for example, degree of price transparency, etc.).

Potential market effects of across-sellers PRAs

- 2.15 The economic literature has identified the following potential effects¹⁵ of across-sellers PRAs:



¹⁵ Hviid (2010) argues that these guarantees can also be used: 1) to show to consumers willing to bargain for a lower price under which conditions they can do so, in order to avoid unnecessary requests for lower prices, and 2) by specialized sellers to signal to multi-product sellers that they should not focus on their product as the loss-leader, because they will fight a hard price war. However, he only mentions them, but does not examine in details, nor have these been explored by other authors so far.

- 2.16 Effects a) to c) identify possible ‘theories of competitive harm’ engendered by the use of across-sellers PRAs, effect d) has ambiguous welfare consequences and, as such, cannot be identified ex-ante as having positive or negative effects on welfare; while effects e) and f) are possible efficiency justifications for the adoption of these policies.
- 2.17 Effect b) and c), softening competition and collusion, may appear very similar and one may wonder why they are classified separately. Indeed, from a competition policy perspective the distinction could seem irrelevant, as in both cases there is a reduction in price competition that determines a loss of consumer welfare. Yet, from an analytical perspective, one must recognize that the two scenarios rest on different theories of harm.¹⁶
- 2.18 Each of the effects discussed above may motivate the adoption of an across-sellers PRA, but they may also occur independently of the reasons that explain its adoption as more than one effect can occur simultaneously. For example, a seller may decide to offer a LPG to signal to its potential customers that it is a low-cost low-price seller, but the existence of less informed consumers may lead to price discrimination. Furthermore the policy may also soften competition if rival sellers are discouraged from cutting their prices.

¹⁶ In both cases the PRAs modify the strategic interaction between the adopter and its rivals and facilitate the achievement of a supra-competitive outcome. However, the ‘softening competition’ outcome refers to a modification of the equilibrium of a one-shot game, which is the equilibrium that sellers achieve when they take into account that their profits depend on both their own decisions and the decisions made by its rivals, but do not condition their behaviour on what they and their competitors did in the past. Instead a collusive outcome refers to a market equilibrium in which sellers coordinate their behaviour (in an infinitely repeated game) by adopting history-dependent strategies, which requires them to monitor each other and punish any deviation from the coordinated conduct. This is the reason why some authors (for example, Baker 1996) refer to the first effect as ‘dampening competition’ and to the second effect as ‘facilitating collusion’. This distinction can also be found in the 2010 EC Guidelines on vertical restraints, where the Commission mentions as possible anticompetitive effects both collusive coordination and softening competition (see 2010 EC Guidelines on Vertical Restraints paragraph 100 ii) or iii)), and in merger control, where mergers can lessen competition by determining ‘unilateral effects’ or ‘coordinated effects’.

- 2.19 In the rest of this chapter, we shall discuss the main contributions that analyse these effects.
- 2.20 We would like to highlight that the economic literature that examines the possible effects of across-sellers PRAs focuses mostly on LPGs, and in particular on PMGs. Few papers discuss the implications of the use of MCCs. Hence we shall often refer to LPGs, but the results obtained for price matching guarantees can often also be extended to MCCs. This means that the conclusions reached on PMGs in the softening competition and collusion sections apply also to MCCs, while those possible effects that specifically concern retailers and final consumers (that is, signalling and price-discrimination) do not. Instead the mitigating incomplete contract explanation refers only to MCCs, because only these across-sellers PRAs are embedded in long-term contracts. Moreover the distinction between business-to consumers and business-to business LPGs may be important in assessing whether the foreclosure theory is plausible.

Foreclosure

- 2.21 A possible effect of LPGs examined in the literature is foreclosure. The literature has considered whether guarantees can be used by a dominant player to deter entry in a market and it supports the potential for LPGs to be used to foreclose the market, because this type of agreement reduces the price elasticity of the rival's demand.

Informal analysis: limit pricing and the commitment problem

- 2.22 In his seminal contribution on PRAs Salop (1986) discussed the role of LPGs in deterring entry, although he focused predominantly on the role that these clauses can play in softening competition and in facilitating collusion.
- 2.23 He refers to the famous models of limit pricing, developed by Bain (1956) and Sylos Labini (1962), which argue that an incumbent monopolist can charge a monopoly price and still deter entry by threatening to reduce its price in the event entry occurs.

- 2.24 Salop argues that this threat is normally not credible as, once entry occurs, it is in the incumbent's interest to accommodate the entrant by behaving cooperatively. Hence, knowing this, a rational entrant would not be deterred. However, if the incumbent offers to its customers a non-release PMG or PBG, it commits to an aggressive response giving credibility to its threat. The credible aggressive reaction of the incumbent deters a rational potential entrant; thus supporting Bain's and Sylos Labini's conclusions.¹⁷
- 2.25 Edlin (1997) and Winter (2009) argue, along similar lines, that an incumbent can offer a PMG to all or to a sufficient number of its customers.¹⁸ This shows any potential entrant its commitment to an aggressive pricing strategy if entry occurs. When the entrant needs to obtain a certain share of the market to reach a minimum efficient scale, or if it has to incur high sunk investments, such guarantees can discourage it from entering the market.¹⁹

Formal analyses

- 2.26 A more formal treatment of the foreclosure hypothesis can be found in Arbatskaya (2001). She considers the case of a monopolist in a perfectly contestable market,²⁰ where consumers are perfectly informed and incur no hassle costs to invoke a guarantee.²¹ She also assumes that the incumbent acts first and chooses which, if any, guarantee to offer and the price to charge, and then the entrant makes its choices.

¹⁷ In Chapter 8 we briefly discuss whether buyers may be willing to accept such a clause even if they may reduce competition in the market in which they make their purchase.

¹⁸ Both papers are intuitive and do not provide analytical proofs for their conclusions.

¹⁹ Both Winter and Edlin mention, as an example of this strategy, the adoption of a PMG by an established seller in the Chicago funeral home industry to counter an aggressive entrant in the early 1990s.

²⁰ A contestable market is a market where an entrant has access to all the production techniques available to the incumbents and where entry decisions can be reversed without cost

²¹ Hassle costs are those costs that a buyer has to incur to invoke the LPG. They may be the time necessary to find evidence of the existence of a lower price or to fill in a form, or the monetary cost of providing documentation. These costs may differ among consumers.

- 2.27 Arbatskaya argues that, under these conditions, the adoption of LPGs does not always deter entry into the market. More precisely she shows that entry is deterred when the incumbent adopts a PBG which offers a rebate over the effective price charged by the entrant.²² This sets the incumbent's price equal to the entrant's price less a specific amount, or to the entrant's price less a percentage of it.
- 2.28 However, if the incumbent offers any other type of LPG based on effective prices, the entrant will enter, and an equilibrium emerges in which the two sellers set supra-competitive prices and share supra-competitive profits.²³ Hence, in a contestable market an LPG may act as an incentive management device that induces the entrant to be less aggressive, rather than deter entry. Regardless of whether the entrant is foreclosed or enters, consumers experience higher prices than without the LPG.
- 2.29 Finally, she shows that if the incumbent offers a PMG or a PBG (using any mode of beating) that applies only to list prices, entry is not deterred nor is competition softened. This is because competition takes place on actual prices which are unaffected by the PMG or PBG. This is the same outcome that would arise if the incumbent did not offer any guarantee.
- 2.30 Her results are interesting, but they cannot immediately be extended to markets in which the conditions of perfect contestability are not satisfied.
- 2.31 Belton (1987) considers when foreclosure can be achieved in a market with differentiated products, where sellers compete on prices and there are two types of consumers. One type of consumers shops around for the best deal, while another group buys from a preferred

²² A beat any deal guarantee applies not just to the list price of the competitor(s), but also to its effective price and even if this price is not lower than the price offered by the seller offering the guarantee (but the latter price becomes lower once the rebate is applied).

²³ The reason for this result is that if the lower demand elasticity of the new entrant is not sufficient to discourage entry, the two sellers will settle on a less competitive equilibrium, as will be clarified in the softening competition section.

seller (either the incumbent or new entrant) independently of the prices charged. He argues that, if the entrant cannot rely only on the sales of those consumers that prefer its product to find entry profitable (because these do not allow it to cover entry costs), the incumbent can deter entry by simply adopting a PBG. The PBG commits the incumbent to a predatory strategy in case of entry, such that the potential entrant's expected profits from entering the market would be negative. This discourages the new entrant from starting production and the incumbent can earn monopoly profits. The impact on consumer welfare is always negative, because foreclosure allows the incumbent to price higher than if entry were to occur.

- 2.32 A weakness of these foreclosure theories is that even if the incumbent is actually able to solve the commitment problem which affected the limit price model, it does so by delegating its 'predatory' price to the entrant. This means that the incumbent does not control the 'investment' that it needs to make to keep the potential rival out of the market. Certain pricing strategies by the entrant may result in the incumbent incurring large losses, for example if the incumbent uses a PBG and the entrant prices at or below cost. This strategy is unlikely to be part of a competitive equilibrium as it would not be profitable for the entrant. However, since it could be used to force the incumbent to an effective pricing strategy that entails large losses for the incumbent but not for the entrant, it may mean that a foreclosure strategy pursued by means of a LPG is less credible.
- 2.33 This problem is less serious for an MCC if this is coupled with a release clause which typically occurs in business-to-business long-term contracts. In this case, the incumbent retains control on the losses it will make if it matches (or beat) the price offered by the entrant because this loss will occur only for those customers that are not released. Moreover also the entrant makes a loss if it offers a very low price and the incumbent releases the customer that has received the offer. Hence, the risk that the entrant decides to offer a very low price for the only purpose of inflicting a large loss on the incumbent is much less likely.

- 2.34 We have to add that a meet-or-release MCC may be adopted to foreclose the market also for another reason. If customers are heterogeneous in the sense that some are more profitable than others and this characteristic is a private information held by the incumbent, the incumbent will release only the least profitable customers, that is, those that become unprofitable at the lower price offered by the potential rival. Knowing this the entrant will decide to stay out of the market.

Softening competition

- 2.35 Promises by retailers to match (or beat) the offers of their competitors may give an impression of fierce price competition. A common view in the economic literature, however, is that the adoption of LPGs softens price competition. The rationale is that LPGs can support prices above the competitive level, because they prevent rival sellers from gaining market share by cutting price. Indeed, when LPGs are in place, any price cutting is immediately matched or beaten by rivals, thus leading only to lower prices without increasing the market share of the seller that was the first one to lower its price. As a consequence, rivals have lower incentives to reduce their prices.
- 2.36 The softening competition argument was first informally developed by Hay (1982) and by Salop (1986), and subsequently formally explored by several authors.
- 2.37 In its simplest version the economic model assumes two symmetric sellers sell a homogenous product to fully informed consumers that face no hassle costs. In the absence of LPGs, Bertrand competition drives the prices down to marginal costs. However, when sellers have the option to offer LPGs, there can be equilibria where sellers choose to adopt LPGs and charge monopoly prices (see Chen 1995 and Corts 1995 for example).
- 2.38 Economists have devoted significant attention to the study of how robust the above result is to specific features. For example, the type of LPGs offered (such as whether the guarantee is price-matching or price-beating); the price it conditions on (such as whether it is based

on list prices only or on effective prices); and the introduction of more realistic market characteristics (such as sellers' asymmetry, consumers' heterogeneity, and hassle costs). Each of these assumptions which relax the basic model is considered below.

Matching v. beating

- 2.39 Economists have debated whether PBGs are more, or less, effective than PMGs in discouraging sellers from competing on price. Chen (1995) shows that, as long as **all** sellers (he considers a duopoly) adopt a LPG, it does not matter whether it is a PMG or a PBG. Monopoly pricing is a possible equilibrium. However other papers have questioned whether this means the two clauses have the same anticompetitive potential.
- 2.40 Sargent (1993) argues that PBGs are more effective in softening competition; they entail a harsher reaction if a seller lowers its price. If all sellers adopt such a guarantee undercutting would be further discouraged. However, Corts (1995), and Hviid and Shaffer (2004) show that when all sellers adopt a PBG, a seller can undercut rivals' price by offering a list price **above** the price listed by its competitors. In this case the guarantee makes the seller's effective price **lower** than the rivals' price. Once the possibility of undercutting is re-established, supra-competitive equilibria are no longer sustainable.
- 2.41 Kaplan (2000) argues that Corts' finding is based on the assumption that the price clause applies to the **list** prices. If the beating condition is modified so as to apply to **effective** prices, the competition-softening effect of PBGs is fully restored.

List vs. effective price

- 2.42 Kaplan brings us to question of whether the price to which the LPGs apply matters in assessing their potential to discourage price cuts. Edlin (1997) and Arbatskaya et al. (2004) share Kaplan's view that the ability of PBGs to support supra-competitive prices is reinforced if the guarantee applies to effective prices. Arbatskaya, Hviid and Shaffer (2006) empirically test these predictions. Their results show

that PMGs are more effective than PBGs in dampening competition when they apply to list prices. This is consistent with Corts' argument. However, they also find that the anti-competitive potential of PBGs is restored when these apply to effective prices, which is consistent with Kaplan's findings.

Positive hassle costs

- 2.43 All the contributions mentioned so far implicitly assume that all consumers redeem their guarantee as soon as they find a lower price. However, this assumption is rather unrealistic, because often customers must incur some costs in order to activate the guarantee.
- 2.44 The first authors to deal with hassle costs are Hviid and Shaffer (1999). They show that the presence of positive hassle costs render PMGs much less effective in discouraging undercutting. The intuition behind their finding is that consumers may not find it worthwhile to invoke a firm's guarantee if the price savings they would thereby achieve in activating the guarantee is less than the hassle. When there are hassle costs, under-cutting can attract consumers because the hassle costs discourage them from buying from the higher priced seller and then request a refund. This implies that price cutting can be effective in increasing sales, and, therefore, that each seller may have an incentive to undercut its rival's price even when PMGs are adopted.²⁴
- 2.45 Edlin (1997) questions this conclusion. He argues that Hviid and Shaffer overstate the impact of hassle costs on the behaviour of consumers, because some firms may try to offer price-beating pledges or other bonuses in an effort to reduce or eliminate hassle costs.

²⁴ In the Hviid and Shaffer model even very low hassle costs eliminates the possibility of a price rise if the market is symmetric (that is, if in the absence of LPGs in equilibrium the two firms charge the same price). In asymmetric markets hassle costs strongly reduce the impact of LPGs on prices.

Heterogeneity of sellers and consumers

- 2.46 In addition to the specific features of the LPGs, economists have also explored whether relaxing the assumptions of sellers' symmetry and consumers' homogeneity affects the softening competition potential of LPGs.
- 2.47 Indeed LPGs are frequently observed in industries where sellers (for example, firms or stores) are different, either with respect to their production costs, or to their location, or to the level of services provided, or to other characteristics. Hence, some authors have examined what happens when the hypothesis of symmetric sellers is dropped.
- 2.48 Logan and Lutter (1989) show that LPGs can soften price competition even when sellers have asymmetric costs, provided that the cost differences are not too big. When there exist very large cost differences the only possible equilibrium is to charge Bertrand prices (see also Hviid and Shaffer, 1999; Morthy and Winter, 2006).
- 2.49 The logic of this finding hinges on the price-delegation element imposed by LPGs. When a high-cost seller adopts an LPG, it essentially delegates its pricing decision to the low-cost rival, which sets its price at its monopoly level (that is, the one relative to its cost structure). When cost differences are small the monopoly price set by the low cost firm may be higher (and yield greater profits to the high cost firm) than the competitive price that the high price firm would set otherwise. As cost differences increase the low-cost firm has an incentive to set a monopoly price that is lower than the Bertrand equilibrium. At this point the high cost firm no longer finds it profitable to use the LPG. Hence for large cost differences the high cost seller does not adopt the guarantee and prices settle at the Bertrand Nash equilibrium.

Endogenous product differentiation

- 2.50 All of the above contributions assume that the degree of sellers' differentiation is exogenously given. By contrast, Zhang (1995)

employs a version of the Hotelling model where sellers decide their location in addition to setting the level of prices and choosing whether or not to offer an LPG. He finds that both price competition softening and minimum product differentiation occur in equilibrium. Since both sellers choose to have the guarantee, with perfectly informed consumers each one expects that a unilateral price cut below the rival's price will be matched by its competitor. This expectation reduces their incentives to undercut the rival and soften price competition. As a consequence the main focus of competition becomes the share of the market each seller serves. Thus, in deciding their location both sellers gravitate towards the middle of the product space to prevent the rival from leapfrogging. Hence, the minimum differentiation outcome emerges.

Uninformed consumers

- 2.51 So far all the contributions examined have assessed the effect of LPGs under the assumption that consumers have complete and perfect information of the existing list prices. In general this assumption may be rather unrealistic (especially in retail markets) because obtaining, organizing and memorizing information on the prices of several products offered by numerous retailers can be very costly. Several authors have thus investigated how the presence of uninformed consumers affects the incentives towards price softening.
- 2.52 This issue was first analysed by Edlin (1990), who argues that when some consumers are uninformed, an LPG allows a seller to profitably raise its price, even if its rivals do not. Indeed, a seller that offers an LPG can exploit its uninformed customers (for which it still decides the price to charge), confident that its LPG will protect it against the loss of informed customers (for which it delegates its pricing decision to the rival sellers). This effectively allows the seller to price discriminate between customers.
- 2.53 Along the same lines, Morthy and Winter (2006) argue that even the presence of a small number of uninformed consumers strengthens the softening competition outcome. The intuition is that when LPGs are adopted a seller's payoff is given by the sum of: i) the payoff from

selling to informed consumers in competition with the other sellers and ii) the payoff from selling to a share of the uninformed customers. While with respect to informed buyers, the monopoly price is only a weakly dominant strategy, however when it comes to the uninformed customers charging the monopoly price is a strictly dominant strategy. As a consequence, the overall payoff yields the monopoly price as a strictly dominant strategy.

- 2.54 Finally, Hviid and Shaffer (1999) show that the fact that some consumers are uninformed does not affect their argument that hassle costs eliminate, or strongly reduce, the softening competition effect produced by LPGs.

Degree of PRA's adoption among sellers

- 2.55 A further issue that has attracted attention in the literature is whether LPGs have to be universally adopted in a market in order to soften competition. This question seems to be of particular relevance if one tries to identify those markets where it is more likely that LPGs can raise the equilibrium prices above the competitive level.
- 2.56 Many authors share the view that in homogeneous and symmetric markets, LPGs lead to supra-competitive prices only if all the sellers in the market adopt them. The intuition is that a seller's LPG affects the best response curve of its rivals by reducing the rivals' incentive to charge a lower price, but it does not affect its own incentive to cut prices. Therefore, as long as there is at least one seller which does not adopt a LPG, the competitors will still have some incentive to undercut in order to capture the customers of the rival not offering the clause. In a homogeneous and symmetric market this incentive fully restores the competitive outcome.
- 2.57 Doyle (1988), for example, considers a symmetric Bertrand oligopoly where all sellers have the same marginal cost and can adopt two strategies: announce their price or announce their price and offer to match their rivals' announced prices. He shows that a supra-competitive price can be supported in equilibrium only if all sellers commit to match.

- 2.58 Empirical observations show that in general LPGs are not universally adopted. Although this may indicate that LPGs are used for other reasons than to soften competition, a number of contributions in the literature have shown that the non-universal adoption of LPGs is still compatible with the competition softening effect. With slightly different assumptions (differentiated Bertrand), Logan and Lutter (1989), Corts (1995) and Hviid and Shaffer (1999) show that anti-competitive prices may be supported even if not all parties adopt price matching.
- 2.59 Logan and Lutter (1989) demonstrates that when sellers have different marginal costs, the low-cost seller may be indifferent between adopting or not the LPG, but the high-cost seller prefers to offer it, as long as the cost difference is not too big. Despite only one seller adopting the guarantee, prices are higher than in a standard Bertrand equilibrium.
- 2.60 Belton (1987) considers a product differentiated duopoly where firms may have different marginal costs. He notes that when only one seller commits to a PMG, the rules of the oligopoly game change to a leader-follower arrangement and prices under a Stackelberg game are higher than those resulting from a Nash-Bertrand equilibrium. In other words, when only one seller commits to matching its rivals' prices the equilibrium price, although it exceeds the Bertrand outcome, is lower than the one that prevails when all sellers make the commitment.

Market concentration

- 2.61 Edlin and Emch (1999) argue that the softening competition effects may occur also in unconcentrated markets. Moreover, they prove that if entry in the market is feasible a price matching policy may even cause a greater welfare loss because it will come from two sources: the Harberger deadweight loss from the price increase and the Posner welfare loss from increased average cost due to excessive entry. They conclude that unconcentrated industries should not be immune from public scrutiny.

Combination of across-sellers and across-customers PRAs

- 2.62 A last interesting contribution is that of Hviid and Shaffer (2010), who study how LPGs and most-favoured-customer clauses may be complementary.²⁵ They show that when both guarantees are offered in combination by the same firm they are much more powerful than if adopted in isolation.. Indeed, the seller's LPG reduces its rivals' incentive to cut prices, but does not affect its own incentive to cut prices. However, this effect is achieved through its most-favoured-customer clause., They also show that, when the two clauses are jointly applied even by a single seller, this may be sufficient to lead to monopolistic prices.

Collusion

- 2.63 Another (very limited) strand of the literature has examined whether sellers may choose to implement LPGs in order to sustain a collusive equilibrium. This literature considers infinitely repeated games and examines the impact of LPGs on the gains obtained from cheating and on the relative punishments.
- 2.64 Salop (1986) first argued (without a formal analysis), that PMGs can strengthen collusion by making cheating less likely. PMGs allow all deviations to be quickly identified as consumers signal them, thus removing the need for monitoring. Furthermore they allow swift punishments of deviation as the lower price is immediately matched.
- 2.65 Winter (2008) notes that LPGs facilitate the achievement of a cooperative outcome by reducing the advantage of a price decrease because the matching /beating is immediate, and by signalling to rivals the commitment one is willing to make to keep prices high.
- 2.66 Edlin (1997) goes further and argues that LPGs make explicit agreements less necessary to achieve coordination, thus rendering cartel-like behaviours more likely, even in markets where explicit

²⁵ Most favoured customer clauses are across-customers PRAS and are discussed in Chapter 3.

agreements would be harder to enforce. The reason is that PMGs are a promise to individual customers and not a threat to all sellers, hence, they are 'cheaper' to enforce. In addition the cost of monitoring is passed on to a large extent to customers.

- 2.67 The only formal analysis of the collusive effect of LPGs in a dynamic context has been provided by Liu (2011). Liu finds that LPGs makes explicit and tacit collusion easier to sustain and stress the fact that this finding does not depend on the type of guarantees, on the level of the hassle costs or on the degree of sellers' heterogeneity.
- 2.68 For example, Liu argues that when hassle costs are considered in the context of a fully dynamic model, they play only a minor role in that they only affect the extent to which LPGs facilitate collusion, but they do not eliminate the risk. The intuition is that hassle costs would slightly increase the incentive to deviate by lowering the price, but they do not affect the punishment.

Price-discrimination

- 2.69 Another view posits that sellers may adopt LPGs to discriminate between consumers with different sensitivity to prices.
- 2.70 The general intuition is that by adopting an LPG sellers can set a high listed price to extract welfare from those consumers that do not shop around or that face hassle costs which are too high to justify their redeeming the guarantee. The LPG, however, allows them to still attract those consumers that search for a better deal or find it inexpensive to claim a guarantee, by offering them a low effective price. If the guarantee includes a meet-or-release clause, the seller can even decide which consumers it wants to retain.
- 2.71 Once again the price discrimination theory hinges mainly on the delegation function of the PRA. The seller that adopts it is delegating to its rivals the price charged to the most price sensitive consumer. Since the delegation of the price is effective one expects to observe non-negligible rates of redemption.

- 2.72 The price discrimination theory is also based on the effect of across-sellers PRAs on the demand elasticity. However, in this case what matters is the reduction of the **own** demand price elasticity, since the PRA allows the seller to charge a higher price to those (uninformed) consumers that are less likely to shop elsewhere.
- 2.73 Corts and Hviid (Corts, 1996 and Hviid, 2010) show that a necessary condition to price discriminate is the presence of heterogeneous consumers. It is precisely because only some consumers find it worth their while to invoke the guarantee that such PRAs are capable of achieving price discrimination.
- 2.74 In addition, they show that there must be some price dispersion, so that it requires some effort to be informed about prices. For example, this happens if there is significant variation in the non-price attributes of the product (such as in the case of tyres or electronic goods), which justifies the existence of price differences, but makes it difficult for consumers to compare prices.

Welfare effects of LPGs as a means to price discriminate

- 2.75 When LPGs are adopted to allow firms to price discriminate, the welfare effects are not known a priori. Hence, we can distinguish between those models that predict positive welfare effects and those that predict negative welfare effects.

Models with positive effects on welfare

- 2.76 Corts (1996) and Chen et al. (2001) show that LPGs can be used to discriminate in the presence of heterogeneity about price information among consumers and that, in some scenarios, this can improve consumer welfare.
- 2.77 More specifically Corts (1996) concludes that informed consumers are always better off when a PBG is offered. Moreover, for some demand

parameters the use of PBGs can unambiguously benefit all consumers.²⁶

2.78 Chen et al (2001) consider a model with three types of consumers: 1) those that always search for the best deal, 2) those that do not shop around and are loyal to one shop, and 3) those that have a preference for a specific store, but try to save when possible.²⁷ Under these conditions they reach the interesting conclusion that there are equilibria in which prices and profits are strictly lower when all stores adopt PMGs.

2.79 The intuition behind their result is that the adoption of PMGs encourages price search by consumers who are loyal, but also price conscious and who want to benefit from the lowest possible price. As a result the number of purchases from the consumers that would have

²⁶ More precisely he identifies two cases with the following welfare rankings:

Case 1: the welfare ranking differs between the two groups of consumers:

- for uninformed consumers no guarantee > PMG > PBG and
- for informed consumers PBG > no guarantee > PMG

Case 2: the welfare ranking is the same for both groups:

- PBG > PMG > no guarantee

The selection between the two cases depends on the elasticity of demand of the informed consumers. More precisely, if the high-priced firms compete vigorously with the low-priced firms for informed consumers a LPG changes the price-setting behaviour of low-priced firms. Informed consumers become relatively less important for them since some of these consumers will redeem the LPG. Hence the low-priced firm will set a price closer to the informed consumer optimal price. Depending on the relative elasticity of the informed consumers at the appropriate prices, this may lead the low-priced firm to raise (Case 1) or lower (Case 2) its price.

²⁷ In their model consumers belong to one of four groups: **switchers**, who have little store loyalty and do extensive price search before shopping so as to always buy at the store with lowest price; **loyals**, who are loyal to one store and never search for the lowest price; **opportunistic** **loyals**, who have a strong preference for one store and hence always buy at the favourite store, however when their favourite store adopts a PMG they search the price of the other store and, activate the PMG if they find a lower price at the other store; and **bargain shoppers**, who are loyal to one store but engage in limited price search (hence, if stores do not offer PMGs they search one store and buy from that store if the price is not above their expected price; if one store adopts a PMG they search for price information in the other store and buy from the store with the PMG. If both stores offer PMGs, they price search in one store and buy in the other store).

paid the full price is reduced and this encourages stores to price more aggressively in order to obtain more incremental sales. This competition enhancing effect can more than offset the softening price competition effect (which is still possible due to the presence of the bargain shoppers that only consider price in their purchasing decision).

- 2.80 Which of the two effects prevails and, thus, whether the effect on consumer welfare is negative or positive depends on the relative proportion of the various types of consumers.

Models with negative effects on welfare

- 2.81 Nalca et al. (2010) consider a market in which consumers differ along two dimensions: (i) the amount of the price-search costs they face, and (ii) the level of their store switching costs. With respect to search costs consumers are either (perfectly) informed or totally uninformed, while with respect to switching costs consumers are either willing to switch, if the product is unavailable or if the price is too high, or unwilling to switch.²⁸
- 2.82 Starting from this premise they investigate why retailers condition the PMG to the consumers who verify the availability of the same product at a lower price in a different shop.²⁹ The authors show that this type of verification allows sellers to price discriminate among consumers on the basis of both characteristics. If retailers do not set the availability of the product as a prerequisite for invoking the guarantee, they can only utilize PMGs to make the uninformed customers pay the high list price, while matching the low price offered by their competitor for the informed customers. However, by using the availability of the product

²⁸ Consumers that are unwilling to switch and cannot buy in the store they visit (or do not want to buy because the price is too high) simply leave the market.

²⁹ For example the guarantee is not valid if the product is out of stock in the low-price shop.

they can also discriminate between switchers and non-switchers,³⁰ thus increasing their profits and reducing consumer welfare.

- 2.83 Belton (1987) also concludes that the welfare impact of price discrimination is negative. He examines a market with differentiated products where sellers compete on prices. His model considers the existence of informed and uninformed consumers, some with a preference for the product of the incumbent and some for that of the entrant. He argues that if the incumbent cannot foreclose the market (see section on foreclosure) it can use a PBG to induce the entrant to settle on a less competitive equilibrium. In addition, by using a PBG the incumbent can obtain a monopoly price from the uninformed consumers, and a lower but still supra-competitive price from the informed ones. This result requires that the uninformed consumers that have a preference for the incumbent's product have a higher willingness to pay than that of the informed ones.
- 2.84 In this separating equilibrium the incumbent's profits are not as high as the equilibrium where there is foreclosure but they are higher than in the single price collusive equilibrium. In addition, informed consumers are better off than in the pooling equilibrium, because they pay a lower price by exploiting the PBG, while the uninformed ones are worse off, as they no longer benefit from the searching activity of the other group of consumers. Furthermore, in this model all consumers would be better off if entry led to stronger competition, rather than collusion.
- 2.85 Edlin (1997) and Winter (2009) show that when LPGs are used as a price discriminating device they reduce social welfare, because their simultaneous exercise causes all list prices to rise. Hence, they argue that even when the original reason for introducing the LPGs is to price discriminate among consumers, the guarantee lead to a softening of competition.

³⁰ As mentioned above, the model assumes that only switchers are willing to check the availability of the product, and hence if a consumer has verified availability it reveals it is a switcher.

2.86 To stress his point, Winter presents the same argument in a different manner. He argues that in a market where not all consumers search for lower prices, non-searchers benefit from the search activity of the searchers, because this forces sellers to lower their prices to all consumers. Hence, active search by a fraction of consumers generates a positive externality that renders the market more competitive. The use of LPGs limits the spread of these externalities and, thus, puts a lid on the discipline that searching imposes on list prices. As a result average prices (which include both list and effective prices) rise. Winter does not provide any formal proof of his conclusion.

Optimal search behaviour

2.87 All the discussed papers above have the limitations that, even if they account for differences in the amount of price information possessed by heterogeneous consumers, these differences are exogenously imposed. Yankelevich (2010) goes a step further and considers a market where consumers have different search costs, sample prices sequentially³¹ and choose rationally whether to keep searching on the basis of the cost they face.³² He shows that when consumers optimally search for price, PMGs can lead to an increase in prices.

³¹ A consumer continues to search until the marginal benefit of the additional search is higher than the marginal cost.

³² A few prior papers have investigated the effects of price-matching on consumers' search behaviour. Lin (1988) builds a model where some consumers engage in limited sequential search with no recall (that is, consumers who leave one seller to sample the price of another cannot choose to go back to make a purchase in the previous seller). However, the model relies critically on seller heterogeneity and the assumption of increasing marginal search cost to reach the somewhat dubious conclusion that price-matching sellers encourage increasingly costly search behaviour that allows them to set higher prices. Likewise, Moorthy and Winter (2006) and Moorthy and Zhang (2006) construct models of price-matching with respectively, horizontal and vertical seller differentiation, where consumers consider their location or service preferences when choosing where to purchase and uninformed consumers use price-matching as a signal that influences their price expectation for a particular seller. As in Lin, seller heterogeneity is crucial in achieving the desired asymmetric equilibrium.

- 2.88 In equilibrium, sellers randomize over lower prices to attract those consumers that shop around to obtain the lower price (shoppers), and over higher prices to realize greater profits from those who end up not searching beyond the first seller sampled (non-shoppers). Without PMGs the seller with the lowest listed price captures all the shoppers, because they freely observe every price. However, when sellers price-match, some shoppers can use the guarantee to obtain the lowest price at a seller listing a higher price. This option diminishes sellers' incentive to lower prices because the lowest listed price no longer guarantees that a seller will capture all the shoppers. As the number of shoppers that rely on PMGs to choose where to buy grows, the incentive to lower prices diminishes, leading to higher profits for sellers and lower welfare for consumers.
- 2.89 Since all consumers act rationally in this model, non-shoppers understand this price-increasing effect and anticipate higher prices in sellers they have not sampled. Hence, a second price increasing effect arises from the fact that price-matching lowers the marginal benefit of search for consumers with positive search costs, inducing them to accept higher prices.
- 2.90 A third consequence of PMGs is a multitude of asymmetric equilibria where homogenous sellers select different pricing strategies. These equilibria fall into two categories, those where both sellers price-match, but sellers focus on serving different consumer segments, and those where only one seller matches. When both sellers offer PMGs, shoppers can obtain the lowest price wherever they prefer to buy. As a result, more shoppers may choose to frequent one seller instead of the other. In this case, the other seller plays a pricing strategy that attracts a larger proportion of non-shoppers, resulting in an equilibrium outcome where one seller serves more non-shoppers while the other sells to more shoppers. In an outcome where only one seller offers a PMG, more non-shoppers frequent the seller without a guarantee and the other seller uses the guarantee to make sure that it captures more shoppers. In both cases prices and profits are higher than when PMG cannot be offered.

- 2.91 These price increasing effects grow with the share of consumers who rely on PMGs, as well as with the amount of asymmetry that prevails in equilibrium.³³

Signalling through LPGs

- 2.92 A further strand of the literature considers LPGs as a complementary instrument to a low-price policy. Using an LPG can help signal a low price policy to imperfectly informed consumers.
- 2.93 The intuition behind this explanation hinges on the delegation aspect of LPGs. An LPG essentially delegates to the low-price low-cost sellers the pricing decision for the informed consumers. If the high-price, high-cost sellers do not find it convenient to take such a step, the LPG is a credible signal that those offering it are the low-cost seller because they can afford to offer the guarantee.
- 2.94 The signalling theory implies that there should be a zero, or negligible, rate of redemption as this behaviour is out of the equilibrium path. This is because in equilibrium only the low-cost seller adopts the PMG, while the high-cost seller cannot afford to. Hence, the PMG is not redeemed because the low-cost seller is setting the lowest listed price.
- 2.95 A number of conditions need to be satisfied for the signal to be credible (see Winter, 2001, Moorthy and Winter, 2006 and Hviid, 2010). First, sellers must be heterogeneous, so that the optimal prices of the sellers differ and the high-priced sellers are unwilling to

³³ As the disparity in the proportion of each consumer segment that sellers serve grows, seller profits increase at the expense of consumers. The higher the proportion of non-shoppers a seller serves, the more profit it will lose from these 'captive' consumers by lowering its price to attract shoppers, and the less inclined it is to do so. The upward shift in this seller's price distribution implies that the seller that focuses on catering to shoppers does not need to lower prices as much to capture the same proportion of them and its price distribution shifts upward as well. Hence, the more asymmetry that price-matching entails, the greater the welfare loss to consumers.

delegate their prices to the low-price ones.³⁴ Second, information about prices must be costly to obtain and these costs must vary across consumers, so that some search for lower prices and others do not. However, pricing policies, unlike prices, must be easily observed by all consumers. Further, there must be a sufficient number of informed consumers, who are aware of the list prices charged by the sellers. These consumers are the ones that act on the guarantee and require the lower price, thus avoiding that high-cost sellers can try to cheat.³⁵ Last, but not least, there must be some consumers who are willing to shop at the high-cost high-priced sellers (for example, because they prefer the product these sellers offer).

- 2.96 If these assumptions are satisfied, PMGs can be a credible way to communicate to uninformed consumers that a seller is low-priced. This signal is valuable to the seller who sends it, because it increases the seller's demand from uninformed consumers. And It is credible because high-cost sellers find it too costly to delegate their price decisions for informed consumers to their low-cost rivals.

Welfare effects of signalling

- 2.97 Arbatskaya (2005) shows that when the above conditions are satisfied, only sellers with relatively low costs adopt LPGs. She also shows that sellers adopting LPGs have incentives to lower their price, because it reduces the number of the informed consumers who claim refunds. Hence, she concludes that on average all consumers benefit from the existence of LPGs.
- 2.98 Arbatskaya also highlights two further interesting results. First, LPGs may lead to higher levels of concentration (since price guarantee attract informed customers to low-cost sellers), but despite this effect

³⁴ This heterogeneity may arise from differences in production costs, in the location of the stores or in the level of service offered.

³⁵ Hviid (2010) argues that the need for informed consumers renders these models not sustainable in the long run, because their number would dwindle over time if the signal is credible, as these consumers will start free riding on each other's effort.

prices are lower. Therefore, she argues that concentration may not capture the intensity of competition in markets where sellers can adopt LPGs and hence the number of sellers is not a good predictor of market performance. Prices in equilibrium do not depend on the number of sellers in the market, but on the number of sellers adopting price guarantees

- 2.99 Second, price differentials in markets where LPGs are adopted are lower. The average gap between the price of a seller offering an LPG and the lowest market price is lower than without LPGs. With LPGs sellers adopting price guarantees set their prices closer to the lowest price in the market (to reduce redemptions). Hence, in the presence of such clauses, the lack of dispersion in prices may look more coordinated and may be wrongly interpreted as indicating that LPGs lead to collusive outcomes, even though prices are lower than in a collusive outcome.

Signalling with product differentiation

- 2.100 Moorthy and Winter (2006) show that in a duopoly *à la* Hotelling, where the conditions listed in paragraph 2.90 are met, only the low-cost seller adopts a PMG.
- 2.101 Their analysis is very interesting because they start from a very simple market, where there is no product differentiation, all consumers are perfectly informed, and sellers are homogeneous. They then progressively abandon these assumptions and show the impact of each change on the market equilibrium.
- 2.102 In the very simple market, if both sellers adopt PMGs, a monopoly equilibrium may arise, although many other equilibria are possible. The introduction of uninformed consumers strengthens the softening price competition role of PMGs, because each seller considers that it can charge the monopolist price to (at least a part of) the uninformed consumers. Hence, the presence of uninformed consumers makes the monopoly equilibrium a strictly dominant strategy. However the signalling role of PMGs emerges when firms sell vertically differentiated products or have different production costs. In both

cases there might exist a high-price firm that is not willing to delegate its price to a low-price firm. If this is the case, a low-price firm may exploit this situation and use a PMG to signal to uninformed consumers that its price is indeed the lowest in the market.

- 2.103 Moorthy and Winter argue that the adoption of PMGs to convey information about prices allows a more efficient allocation of consumers to sellers on the basis of their price preferences. In addition, if vertical differentiation is included, they argue that PMGs also allow a more efficient match of consumers to sellers on the basis of their quality preferences.

Mitigating incomplete contracting problems

- 2.104 So far we have concentrated on LPGs, as most contributions on across-sellers PRAs deal with promises made by firms to end consumers through public announcements. However, as set out in the beginning of this chapter, across-sellers PRAs also include meeting the competition clauses (MCCs). These are elements of long-term contracts generally signed between input suppliers and firms.
- 2.105 An additional explanation is provided in literature which applies only to MCCs in business-to-business contracts. These clauses are often adopted to address incomplete contract problems. Indeed MCCs may increase the efficiency of contracts by introducing price flexibility in extended exchange relationships. Price rigidity in a long-term contract isolates the parties from exploiting new opportunities due to changes in market conditions (see Baker 1985 and Hart 1993). An MCC permits the contract price to vary with changes in exogenous elements outside of the contracting parties control (for example the cost of substitute inputs, or in the technology, or in other market conditions), thus introducing some flexibility in the long-term contract. If this clause is also coupled with a meet or release clause, it does not unduly burden the supplier and allows it to exit the contract if changes in market conditions mean that matching the lower price for the existing supply contract is no longer profitable.

Summary and conclusions

- 2.106 This chapter has provided an overview of the theoretical literature on LPGs and MCCs.
- 2.107 The existing literature shows that the adoption of across-sellers PRAs can lead to a reduction of competition in the market through softening of competition, collusion or foreclosure. However, these PRAs can also increase the level of competition because they allow low cost sellers to signal their types to consumers. They may also be used to mitigate incomplete contract problems. Finally, across-sellers PRAs can also be used to price discriminate, which may increase or reduce consumer welfare depending on the assumptions.
- 2.108 Not all areas of this literature are as developed as others. Most of the existing literature focuses on promises made to final consumers (that is, LPGs) and in particular on their potential to soften competition. The key conclusions are that this effect is less likely if consumers face hassle costs to redeem the guarantee and that that PMGs are more likely to lead to a softening of competition than PBGs, unless the PBGs refer to effective prices.
- 2.109 Some attention has also been devoted to the possible foreclosure effect of across-sellers PRAs. The existing economic literature concludes that PBGs are more effective than PMGs in generating foreclosure effects, especially when they apply to effective prices. In addition, MCCs embedded in business-to-business long term contracts may be a more credible threat to potential rivals especially when they include a meet-or-release clause. Finally, even if the literature does not address this aspect explicitly, we believe that foreclosure is a more plausible explanation of an across-seller PRA if the seller, which adopts the PRA, enjoys a substantial level of market power.
- 2.110 Very little formal analysis has been undertaken on the facilitating collusion properties of across-sellers PRAs and this area could benefit from more formal research.

- 2.111 The existing literature appears to concentrate primarily on the examination of the anticompetitive effects of across-sellers PRAs, while there are few papers on the efficiency effects.
- 2.112 This literature suggests that MCCs may be used to mitigate the problem of incomplete contracts. However, it does not provide any suggestion on the conditions under which this effect is. It also studies when LPGs can be used as a signalling device and conclude that this is possible when: sellers are heterogeneous in terms of costs; consumers face search costs and not all of them are willing to incur these costs to look for lower prices, but a sufficient number of them are and thus are willing to make use of the guarantee, and consumers have heterogeneous preferences, so that there is some demand for the products of the high-cost sellers.
- 2.113 Despite its limitations, the existing literature provides some suggestions to determine which effects are more likely given the characteristics of the PRA and of the affected market:
- (i) Foreclosure: this effect is more credible if the PRA is included in business-to business long term contracts in the form of a meet-or-release MCC; moreover foreclosure is a more likely explanation if the seller, which adopts the PRA, enjoys a substantial level of market power.
 - (ii) Softening competition/Collusion: if one observes that most sellers offer an LPG; and there is very little price dispersion combined with a very low rate of redemption, softening competition or collusion may be more likely than other explanations.
 - (iii) Signalling: If there is some price dispersion, the sellers that adopt the LPG have the lowest prices in the market, and there is a low rate of redemption, then signalling may be more likely than other explanations.
 - (iv) Price discrimination: price discrimination may be the most likely outcome if there is a high rate of redemption of the guarantees, prices are dispersed and the sellers that adopt the PRAs are those that charge the highest prices in the market.

3 ACROSS-CUSTOMERS PRAs: LITERATURE REVIEW

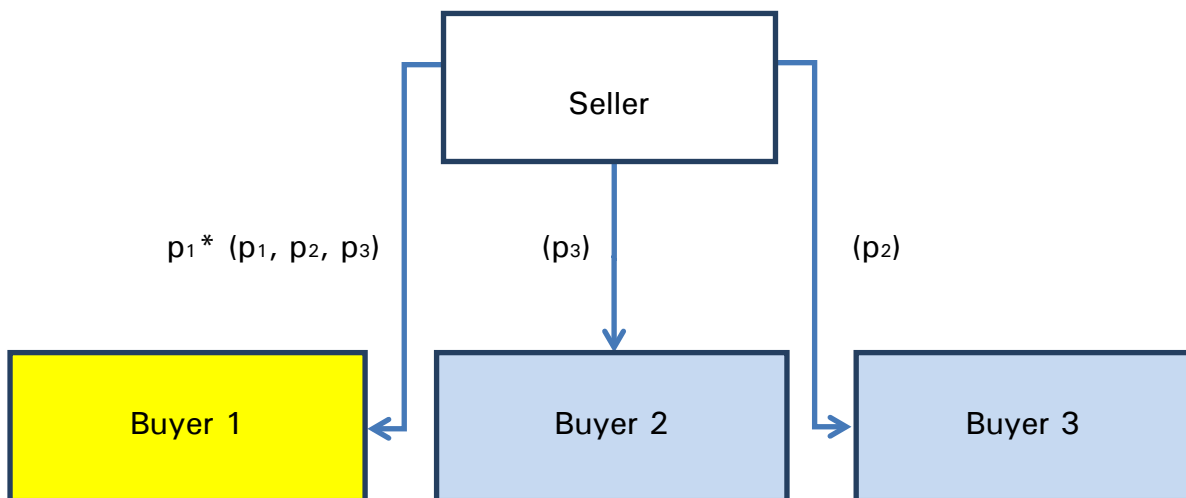
3.1 In this Chapter we review the existing theoretical literature on the possible effects of across-customers PRAs on competition.

Definition

3.2 An across-customers PRA is a contractual obligation on a seller to offer to a customer the best price it offers to any other customer during a specific period of time.

3.3 Figure 3.1 below depicts an **across-customers** PRA. A seller supplies three buyers (1, 2 and 3). If it adopts an across-customers PRA with respect to buyer 1, the effective price this buyer can pay to the seller (p_1^*) depends on the price offered by the seller to that buyer (p_1), as well as on the prices offered by the same seller to buyer 2 (p_2) and to buyer 3 (p_3).³⁶

FIGURE 3.1 - AN ACROSS-CUSTOMERS PRA



3.4 This pricing policy can either be contemporaneous or retroactive. It is **contemporaneous** if the prices taken into account are only those that

³⁶ Buyers 2 and 3 can be also thought as the same buyer at different points in time

are available at the point in time in which the purchases is (or can be) made, while it is **retroactive** if it includes the prices that will be available over a pre-defined period of time and requires the seller to refund the buyer for previous purchases. These PRAs are normally referred to as 'most-favoured customer clauses' (MFCCs).³⁷

Sometimes they are also referred to as 'non-discrimination clauses', as they discourage the seller from offering different prices to different buyers.³⁸

- 3.5 A useful way to conceptualize an MFCC is to view it as a penalty that the seller suffers if it **lowers** the price to another buyer. The penalty can be described by the following equation:

$$\text{Penalty} = \alpha(p^{\text{MFC}} - p^{\text{L}})q^{\text{MFC}},$$

where:

p^{MFC} is the price charged to the customer protected by the MFCC

p^{L} is the lower price offered to another customer

q^{MFC} is the volume of sales to the protected customers, and

α is the probability that the buyers protected by the MFCC will benefit from the clause.

- 3.6 This equation makes it clear that the size of the expected penalty imposed on the seller by the MFCC depends on three factors: (i) the difference between the prices; (ii) the volume of the sales protected by the clause and (iii) the probability that the clause is applied.

³⁷ Sometimes also as 'most-favoured nation clauses' (MFNs).

³⁸ This label is misleading for two reasons. First, an MFCC may not be included in all the contracts; hence, a specific buyer may sign a contract where the MFCC is absent and the seller can discriminate and charge this buyer a price which is higher than the price it charges to the buyers protected by the MFCC. Second, as we will clarify later in the chapter, MFCCs prevent sellers from adopting a third degree price discrimination scheme, but they allow some forms of second degree price discrimination.

- 3.7 The penalty is proportional to the difference between the price charged to the customer protected by the MFCC (p^{MFC}) and the lower price offered to another customer (p^L).
- 3.8 Second, the penalty is increasing in the volume of sales made by the buyer whose contract contains the MFCC (q^{MFC}). An MFCC can impose a significant penalty on the seller even if it applies to just a few customers (or a single customer) provided that they purchase a large amount of the product (Baker, 1996, p. 521).³⁹
- 3.9 Third, the expected penalty depends on the probability that the buyers will successfully activate the MFCC (α). This probability depends on the extent that the MFCC is automatically enforced by the seller or on the fraction of buyers who are willing to incur the costs of invoking its application. This probability depends on a number of different elements: the characteristics of the buyers (for example, informed versus uninformed, high versus low hassle costs, etc.); the contractual provisions that discipline the application of the MFCC (for example, who has the burden of proof, what type of evidence is required to make the claim valid, whether the refund is subject to other conditions, etc.); and the characteristics of the environment (for example, degree of price transparency, etc.).
- 3.10 The penalty represents the cost a seller adopting a contemporaneous MFCC expects to bear when it decides to offer a selective discount. With regards to a retroactive MFCC it is the penalty that the seller bears when it reduces its price to its customers (or over time to the same customer). Since this cost is zero if the seller does not offer the MFCC, the immediate effect of the clause is to diminish the incentive of the seller to lower its price.
- 3.11 MFCCs, since they are related to the prices offered by the same seller who offers the clause, can alter the market equilibrium even in the

³⁹ For instance, when the Government asks its suppliers to include an MFC provision in its contracts, this alters significantly the sellers' incentive to lower the price to other clients in all those markets in which the Government's demand is a large portion of the overall demand.

absence of any strategic interaction. This is not possible in the case of across-sellers PRAs because these can operate only when other sellers are present in the market.

Potential market effects of across-customers PRAs

3.12 The economic literature has highlighted the following potential market effects of across-customers PRAs:

a) Foreclose entry	}	Welfare reducing
b) Soften competition		
c) Facilitate collusion		
d) Prevent or enable price discrimination	}	Ambiguous impact on welfare
e) Improve the seller's bargaining position		
f) Signal private information	}	Welfare enhancing
g) Mitigate incomplete contract problems.		

3.13 As for across-sellers PRAs, effects a) to c) identify possible 'theories of competitive harm' engendered by the adoption of across-customers PRAs. Effects d) and e) cannot be classified *ex-ante*, because they have ambiguous welfare consequences. Finally effects f) and g) are possible efficiency justifications for the use of these policies.

3.14 These effects may motivate the adoption of an across-customers PRA, but like across-seller PRAs, they may also occur independently of the reasons that led to its adoption. This is particularly important given more than one effect can occur simultaneously.

3.15 In the rest of this chapter, we outline the main contributions in the economic literature regarding each of these effects.

Foreclosure

- 3.16 There are no contributions in the economic literature that examine explicitly whether an MFCC may be adopted with the aim of foreclosing rivals.⁴⁰ At first glance, because a seller may want to reduce its price exactly when a new competitor enters the market, this policy may seem inappropriate for foreclosure. The MFCC penalises the incumbent if it fights the new entrant with an aggressive price, and therefore it should induce the incumbent to accommodate entry. Hence, MFCCs seem to facilitate entry rather than discourage it. Indeed Edlin (1997) makes this argument to argue that MFCCs affect welfare negatively exactly because it leads to excessive and inefficient entry.
- 3.17 Although MFCCs cannot deter entry in the upstream market, it might be an effective means to foreclose the downstream market. Cooper and Fries (1991) imply this possibility, even though the two authors do not explicitly discuss it. In their model an upstream monopolist bargains sequentially with two heterogeneous buyers. If the monopolist adopts an MFCC in the first contract, the price negotiated with the first buyer acts as a floor for the second buyer. This affects the monopolist's pricing incentives with respect to both buyers. Coppers and Fries show that the MFCC may improve both the position of the monopolist and that of the first buyer. The latter obtains from the monopolist a price that is below the price that it would have paid otherwise; the former obtains higher profits by setting a higher price for the second buyer. This higher price more than compensates the monopolist for the lower price charged to the first buyer. If the two buyers compete in the downstream market, the MFCC can be an effective means to create a cost disadvantage for the second buyer (possibly a potential new entrant in the downstream market).

⁴⁰ The only exception might be considered Baker (1996). However his raising rivals' cost explanation of MFCCs is suggested to argue that they can be used to discipline rivals and facilitate a form of horizontal coordination (see paragraph 3.33).

- 3.18 This situation is reminiscent of the entry deterrence theory developed by Aghion and Bolton (1987). In their model an upstream monopolist and a downstream seller sign an exclusive contract to foreclose the downstream market.⁴¹ In both cases the foreclosure strategy operates through the imposition of a penalty on the parties if one of them breaches the contract. Furthermore in both cases the penalty is the means through which the new entrant is forced to share its rents with the parties of the first contract.

Softening competition

- 3.19 MFCCs have been studied formally within finitely repeated games. This literature has first focused on **retroactive** MFCCs and then on **contemporaneous** MFCCs.

Retroactive MFCCs

- 3.20 The seminal paper of this literature is Cooper (1986). He considers a two-period market in which two sellers sell differentiated non-durable goods. He shows that if one of the two sellers adopts a retroactive MFCC, it modifies its second period reaction function creating a discontinuity in correspondence to its first period price. This in turn induces the other seller to charge a higher price, since it knows that this higher price will not be undercut by the adopter of the MFCC. As it will predict what will happen in the second period, the seller which includes the MFCC in its contracts will choose a higher price also in the first period. This yields higher profits for both sellers.⁴²

⁴¹ See also Hart and Tirole (1990) and Rey and Tirole (2007).

⁴² Suppose that without the MFCC in equilibrium both firms charge 10 in both periods. Now suppose that a firm adopts a MFCC clause and charges 11 in the first period; in period 2 the same firm is not willing to offer small price cuts from 11 because the loss due to the penalty implied by the MFCC exceeds the gain from increased sales. Hence, if the rival charge a price above 10, the MFCC firm would keep charging 11 and this would still be an equilibrium for the second period. The example also clarifies that the choice of the first period price influences the price that both firms will charge in the second period.

- 3.21 The intuitive explanation of this result is that the price protection enables the adopter to act as a Stackelberg leader. This is because the adopter's choice of the price in the first period effectively determines both sellers' prices for the second period. This control over prices allows the Stackelberg leader to impose a higher price and gain higher profits. Since prices are strategic complements, the rival also charges a higher price and both sellers increase their profits. Cooper, thus, proves that there exists an equilibrium in which at least one seller offers a retroactive MFCC and both sellers earn higher profits.
- 3.22 This result has been challenged to some extent by Neilson and Winter (1993). They study the same setting used by Cooper (1986), but they investigate whether there exists a sub-game perfect equilibrium in which **both** sellers adopt an MFCC. They find that such an equilibrium exists only if the demand exhibits a restrictive and very unlikely property. This property is that the demand of at least one of the sellers must be more responsive to changes in its rival's price than to changes in its own price. Since this condition is rarely satisfied, they conclude that in most cases the competition-softening explanation of the MFCC does not apply if all sellers adopt this policy.
- 3.23 However Neilson and Winter's conclusion has also been questioned. Schnitzer (1994) considers a duopoly in which the two firms produce a homogeneous durable good,⁴³ and compete for a finite number of periods.⁴⁴ In each period new customers can enter the market and decide strategically whether to purchase immediately or postpone their purchase for a limited number of periods. In each period the two sellers have to decide whether to offer a price protection clause, choosing between a retroactive MFCC or a PMG, and which price to charge. In the case in which the sellers can adopt an MFCC, Schnitzer

⁴³ Remember that Coopers (1986) and Neilson and Winter (1993) consider a market in which differentiated non-durable goods are sold.

⁴⁴ Schnitzer's paper can be considered an extension of the paper by Holt and Scheffman (1987), who study the competitive effects of a combination of practices, which include retroactive MFCC, across-sellers price matching guarantees and price announcements. Holt and Scheffman show that this combination of strategies softens competition, but it is not clear which one is really responsible for this effect and/or their relative importance.

finds that all sellers must adopt it for the clause to have any competition-softening effect and that there exists an equilibrium in which both sellers do so.

- 3.24 An additional result of this paper is that it shows that there are also equilibria in which MFCC have no effect. Specifically MFCCs cannot prevent sellers from competing if there is entry of new consumers, because each seller will lower its price, at least by a small amount, if it hopes to win at least some of this new demand. Consumers who expect this price competition prefer to postpone their purchase in order to buy at a lower price in a future period. This waiting behaviour on the part of the consumers renders the MFCC ineffective and eliminates its anticompetitive consequences.

Contemporaneous MFCCs

- 3.25 Besanko and Lyon (1993) consider the effects of adopting **contemporaneous MFCCs**. These are clauses that guarantee buyers that they will pay the same price offered to other customers at the same point in time in which the purchase is made. The authors describe a game in which n sellers compete in a market for differentiated products. Each seller faces two types of prospective buyers: 'non-shoppers' and 'shoppers'. Non-shoppers are loyal to one seller and, hence, represent a non-contestable demand for each seller. Shoppers buy from any seller and, therefore, represent a contestable demand. Sellers are fully informed about the characteristics of the consumers and can choose to either price discriminate or adopt an MFCC that prevents price discrimination. They model a two-stage game in which sellers first decide whether to adopt the MFCC and then set price simultaneously.
- 3.26 If firms do not adopt an MFCC they can charge the monopoly price to non-shoppers and compete aggressively for the shoppers. If they adopt the MFCC the prevention from price discriminating across buyers means sellers compete less aggressively for the shoppers' demand (thereby increasing profits). However, unlike price discrimination they can no longer charge the monopoly price to non-

shoppers (thereby reducing their profits relative to the situation without an MFCC).

- 3.27 Some interesting and useful results derive from this model. First, Besanko and Lyon show that the MFCC has a 'bandwagon' effect. The more sellers adopt this clause the more profitable it is for other sellers to follow suit.⁴⁵ The reason is that the degree of price competition for shoppers decreases as the number of MFCC adopters increases. Hence, as the number of firms offering an MFCC increases, the price charged to shoppers rises and approaches the price the seller would have charged to non-shoppers if it price discriminated. Therefore, adopting the MFCC becomes more attractive as each seller realises that the sacrifice it must bear from earning lower profits from non-shoppers becomes smaller.
- 3.28 Second, the 'bandwagon' effect also implies that, if sellers are identical, the sub-game perfect equilibrium must be symmetric: either all sellers adopt the MFCC or none does.
- 3.29 Third, they show that there exist both dominant-strategy Nash equilibria in which sellers adopt the MFCC and others in which they do not. Which of these equilibria prevails depends on the specific characteristics of the market. In particular, Besanko and Lyon show that adopting the MFCC (as a dominant strategy) becomes more likely when some specific conditions are satisfied. First, when reservation price of the non-shoppers is small, because this reduces the cost of adopting the clause due to the lower profits that can be obtained from non-shoppers. Second, when the product differentiation in the shoppers' market is strong, because stronger differentiation reduces the cost of adopting the clause due to the loss of market share in the shoppers segment.⁴⁶ Third, when the ratio of the non-shoppers to the

⁴⁵ This is true not only if sellers choose simultaneously to adopt the MFCC, but also if they do so sequentially.

⁴⁶ However, note that a lower degree of product differentiation increases the magnitude of the price increase that can be obtained in the shoppers market (a benefit of adoption). Hence this result is more ambiguous and depends on the linear demand structure assumed in the paper, as the authors recognize.

shoppers is large, because higher ratios reduce the cost of adopting the clause due to the lower of profits obtained from non-shoppers. Moreover, if the sellers' costs are not too different, the adoption of MFCC is more likely when there the number of sellers is small. This is because sellers adopt the MFCC only if it allows them to charge a higher average price and earn a higher profit.

- 3.30 The welfare consequences on consumers (and **a fortiori** on total welfare) are unclear, because the MFCC has two effects. On one hand, it **increases** the price charged to shoppers. However, on the other hand it reduces the price charged to non-shoppers. As in all cases in which price discrimination is involved, the impact on consumer welfare of preventing or permitting price discrimination depends on the relative size of the two different types of consumers and on their relative demand price elasticity.
- 3.31 To further complicate the matter, Besanko and Lyon show that the adoption of MFCCs may also affect the cost structure of the industry. A MFCC may shift production from higher cost sellers which are more likely to adopt the clause and charge higher prices, to lower cost sellers which are less likely to adopt the clause and thus charge lower prices).

Collusion

- 3.32 In the economic literature we have not found any formal model that studies the impact of MFCCs on the sustainability of a collusive equilibrium in an infinitely repeated game. The main contributions on the topic are those by Salop (1986) and Baker (1996), but they only present an informal discussion of the issue.
- 3.33 As economic theory on collusion indicates, a collusive equilibrium in an infinitely repeated game is sustainable when the expected short-run gain a colluding firm can obtain by deviating is offset by the long-run loss it expects to suffer from other sellers' punishment measures. The sustainability of such an equilibrium increases when the deviant's short run expected gain decreases and its long run expected loss increases. This is the case when the effectiveness of the other sellers'

punishment strategies grows. A further element that affects the sustainability of a collusive equilibrium is the response of firms which are not among the coordinating sellers, that is new entrants or buyers. However an MFCCs may change these incentives.

- 3.34 The adoption of an MFCC affects both the incentive to deviate and the ability to punish cheaters. An MFCC imposes a penalty on the seller that adopts it if this offers selective discounts or lowers its price over time. Starting from a collusive equilibrium, a seller may consider the possibility to cheat by offering discounts to some buyers or by lowering its price. This may occur if the present value of the stream of profits the seller can obtain if it deviates from the collusive price is greater than the one that would result from colluding. It may also happen when the seller wants to punish a seller that has deviated from the collusive price.
- 3.35 Salop (1986) notes that a retroactive MFCC discourages sellers to deviate as it 'requires the seller to pay a monetary penalty if he reduces his price' (p. 274). Thus, he argues that 'if all rivals provide all buyers with MFN protection, the co-operative outcome can be stabilized, once it is achieved' (p. 274). However a contemporaneous MFCC, unlike a retroactive one, penalises only selective discounts and not general price cuts. As a consequence contemporaneous MFCCs make a collusive equilibrium more stable in those situations in which sellers might be tempted to deviate by adopting secret and selective discounts.
- 3.36 Salop does not discuss how an MFCC affects the ability of sellers to retaliate against deviations, but he notes that when a seller adopts a contemporaneous MFCC, it may not find it convenient to fight a selective discount strategy by a rival. In a world in which selective punishments are available, the MFCC forces the firm to implement a general price cut in order to punish, and this will increase the cost of punishment. This argument can be extended also to a retroactive MFCC. Indeed, any punishment undertaken by a seller that adopts such a policy is even more costly, since the seller must refund its previous customers who are protected by the MFCC. In conclusion, since retroactive and contemporaneous MFCCs discourage deviations

and render punishments more costly, its overall impact on the sustainability of a collusive equilibrium may not always be clear.⁴⁷

- 3.37 Baker (1996) identifies other ways in which an MFCC may help to sustain a collusive equilibrium. He argues that the MFCC reduces the buyers' ability to negotiate because the seller finds it expensive to offer discounts. Moreover if the buyer is a seller on some downstream market, it has less incentive to bargain aggressively if also the other buyers are protected by the MFCC, because it would not obtain any competitive advantage over them. These effects mitigate the buyers' response to an increase in price and, therefore, make the collusive equilibrium more stable.
- 3.38 Baker also notes that MFCCs may be employed as a means to raise rivals' costs and induce some competitors to reduce output and raise price. In this way the colluding sellers may be able to discipline the market behaviour of sellers outside the collusive scheme (that is, maverick competitors) or to discourage the entry of new sellers. Baker argues that this effect may be achieved if some sellers negotiate with an upstream input provider (or with a downstream distributor) a contract containing an MFCC. This arrangement raises the costs incurred by the colluding sellers, but these are off-set by the supra-competitive profits they can earn by preventing mavericks or new entrants from destabilising the collusive equilibrium.

Prevent or enable price discrimination

- 3.39 As already explained, a **retroactive** MFCC strongly reduces the incentive of the seller to lower the price over time because of the penalty these would impose on it. Hence, such a clause may offer a solution to the problem faced by a monopolist seller of durable goods, known as the Coase conjecture.

⁴⁷ This suggests that the use of both an across-customers PRA and an across-seller PRA has a significantly larger impact on collusion since they change both the incentive to deviate and that of punishing.

- 3.40 The Coase conjecture (Coase, 1972) maintains that a monopolist of a durable good, which faces consumers with different valuations of the good, finds it profitable to charge a high price initially, so as 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 other consumers. However, the consumers with the highest valuation, if they are patient enough, will wait for the lowest price. Hence, the monopolist will have to offer a competitive price from the very first period.
- 3.41 The monopolist would like to find a way to credibly commit to its first period supra-competitive price, in order to avoid the competitive outcome that leads to lower aggregate profits. Further, if the production of the durable good entails non negligible fixed costs, the competitive price might be insufficient to cover the initial investment.
- 3.42 Butz (1990) shows that a retroactive MFCC solves this commitment problem. The penalty it imposes on the monopolist that lowers its price over time, acts as a commitment not to price discriminate. The fact that such a commitment increases the price to consumers is not in itself a benefit to them. However, such a price increase may be beneficial if it allows the monopolist to produce a good that would not otherwise have been produced.
- 3.43 Butz identifies some conditions that affect the effectiveness of the MFCC. He argues that this policy is more successful if prices are publicly observable and refunds are inexpensive to distribute, that is, in our formulation if the probability of the MFCC being invoked (α) is high. He also argues that an important condition is that the product must be homogeneous. Indeed, if the monopolist can offer subsequent customers higher quality, better warranties, free delivery or other perks, the protection offered by the MFCC may be worth very little.
- 3.44 On similar grounds, we may add that the MFCC becomes unnecessary if the monopolist is able to offer (slightly) inferior versions of the same product in subsequent periods.

- 3.45 Finally, Butz maintains that the MFCC is relatively more advantageous when buyers are more risk-averse, or less well-informed than the seller.
- 3.46 The fact that MFCCs may be used as a commitment not to discount means they are also referred to as 'non-discrimination' clauses. However as we have already argued, MFCC can prevent a third degree price discrimination scheme, but may allow some forms of second degree of price discrimination. If the buyers are heterogeneous in their ability/willingness to activate the protection obtained from the MFCC, a form of second-degree price discrimination may emerge, provided that the seller charges different prices to different buyers or at different points in time. Furthermore it should be noted that an MFCC only penalizes (but does not physically prevent) third degree price discrimination.⁴⁸
- 3.47 Second degree price discrimination may be more efficient than a simple form of third-degree of price discrimination. Specifically if the seller is not fully informed about the characteristics of the buyers that affect their willingness to pay (or their demand price elasticity). Under these circumstances the self-selection mechanism engendered by the MFCC determines a more profitable allocation of the various prices offered by the seller.

Improving the seller's bargaining position

- 3.48 It has been suggested that MFCCs may also improve the bargaining position of a seller. Nelson and Winter (1994) examine the case of a monopolist that bargains with a sequence of successive buyers who stay in the market for just one period.^{49 50} The price that the seller

⁴⁸ If a seller adopts a MFCC and charges different prices, all buyers can pay two prices: the one that is charged to them and the one that would result from the application of the clause. Even if the latter is lower (not higher) by definition, not all buyers will find worthwhile spending their time or other costs to ask for the activation of the clause. Hence buyers will end up paying different prices and each buyer will (implicitly) select the price to be paid.

⁴⁹ The logic of this paper is similar to that of Hart and Tirole (1990), though in a different context. While Hart and Tirole describe a non-cooperative game where two upstream firms and

and the buyer will agree upon is a function of the buyer's reservation price (that is, the maximum price he is willing to pay to complete the transaction), and the seller's reservation price (that is, the minimum price the seller is willing to accept).

3.49 If the seller adopts an MFCC, its reservation price increases over time. Suppose that the monopolist has zero costs and, therefore, that it has a zero reservation price in the first period. If the first negotiation ends with the definition of a positive price, p_1 ; in the second period any concession below p_1 would trigger the payment of the penalty defined by the MFCC; hence the monopolist is not willing to accept any price below the implicit penalty. This creates an increase in its reservation price from zero to p_1 . If the bargaining solution is increasing in the seller's reservation price,⁵¹ the monopolist will be able to obtain prices that are increasing over time.

3.50 Cooper and Fries (1991) obtain a similar result in a model where the seller bargains sequentially with two heterogeneous buyers. They assume that the two buyers differ in their willingness to pay and that, without the MFCC, the monopolist of the intermediate good would accept a lower price from the second buyer. The MFCC prevents this outcome, as the price negotiated with the first buyer limits the 'discount' that can be given to the second buyer. However, Cooper and Fries move one step forward. They recognize that the price charged to the first buyer affects the price paid by the second buyer; therefore, the monopolist and the first buyer will take into account this second order effect when they transact. As already explained in paragraph 3.17, Cooper and Fries show that the MFCC may improve

two downstream firms make independent strategic decisions, in the paper by Neilson and Winter a monopolist interacts with a sequence of buyers in a cooperative game.

⁵⁰ This paper is also similar to the one by Butz (1990), discussed in the previous sub-section.

Though Butz shows that a MFCC can be used by a monopolist to commit to a permanently high price, whereas Neilson and Winter consider a monopolist who *negotiates* a price with each successive customer.

⁵¹ Neilson and Winter show that this property holds for the Kalay-Smoradinsky solution or if the seller and the buyers engage in an alternating offers bargaining process.

both the position of the monopolist and that of the first buyer, at the expense of the second buyer.

- 3.51 The interesting result reached by Cooper and Fries is that both the seller and the first buyer (although not the second buyer, who does not benefit from it) are happy to include the MFCC in the contract. This contrasts with those contributions that consider across-customers PRAs as an instrument to impose higher prices on buyers (who, hence, would resist them); or with the conventional wisdom which considers these clauses as a 'protection' that is requested by the buyers.

Signalling high quality

- 3.52 There is also a limited literature that suggests that MFCCs may be used to signal some unobservable characteristics in the quality of the adopting seller's product.
- 3.53 Levy (2004) analyses a two-period setting where two monopolists sell products of different quality. Consumers are uninformed about the seller's product quality in period 1, but become fully informed before making any purchase in period 2. He first notes that a high-quality monopolist can signal its quality by asking in the first period a price that is higher than its full-information monopoly price. This signal is costly because the price is above the profit maximizing level. The low-quality monopolist would not mimic the high quality seller's behaviour because the cost of distorting its pricing policy is above the benefit it could obtain (see Bagwell, 1991). By offering a retroactive MFCC, the high-quality monopolist may obtain the same result even if it offers a first period price that is lower than the price it would charge to signal the quality of its product without the MFCC (though still higher than the full information monopoly price). At the same time the low-quality monopolist is not willing to adopt an MFCC because it wants to retain the ability to reduce its price in period 2 (when consumers become fully informed) and cannot afford the cost stemming from the penalty associated to the MFCC.

- 3.54 Since the adoption of the MFCC reduces the price distortion necessary to send a credible signal, it increases both the profits of the high-quality monopolist and the consumer surplus and, therefore, is welfare enhancing.

Mitigating incomplete contracting problems

- 3.55 In the literature there are no formal models that examine the ability of MFCCs to mitigate problems arising from incomplete contracts. However, this explanation for their adoption is suggested (sometime in passing) in informal or empirical papers.
- 3.56 Goldberg (1987) views MFCCs as a mechanism to increase the efficiency of contracts by introducing price flexibility in extended exchange relationships. He argues that price rigidity in a long-term contract isolates the parties from market changes, such as cost or demand shocks. To the extent that an MFCC permits the contract price to be linked to other spot prices, the contractual parties are confronted with more precise signals of the cost associated to their production and consumption decisions.
- 3.57 Contemporaneous and retroactive MFCCs may also be used to protect buyers from unfavourable modifications of the seller's pricing decision. This protection may be particularly needed when the buyers make relation-specific investments and may fear the subsequent opportunistic and exploitative behaviour of the seller. In this situation a buyer, which is a seller in a downstream market, may require the seller to treat it as all of its other rivals in order to avoid being competitively disadvantaged in its own market, solving the hold-up problem. Without this protection the buyer may forego investments that are beneficial to both parties, as well as to the end consumers. (Williamson, 1979 and Williamson, 1985).

Summary and conclusions

- 3.58 This Chapter has provided a review of the existing theoretical literature on across-customers PRAs.

- 3.59 This literature shows that, by adopting an across-customers PRA, a seller imposes on itself a penalty if it offers selective discounts or charges different prices over time. This penalty changes the seller's pricing incentives and allows it to commit to a certain pricing strategy. This commitment increases the bargaining position of the seller and reduces the bargaining power of, at least some, of its buyers.
- 3.60 The contributions discussed show that the adoption of across-customers PRAs can have many of the same potential effects on the affected market that have been identified for across-sellers PRAs: foreclosure, softening competition, collusion, mitigating incomplete contracts problems, signalling and price discrimination. In addition, some papers have shown that across-customers PRAs can also improve the bargaining position of a monopolist seller.
- 3.61 However, there are some differences with the conclusions reached for across-sellers PRAs, which justifies examining the two types of PRAs separately.
- 3.62 With respect to foreclosure, the papers that examine this possible effect show that it can only affect the 'downstream' market, that is the market in which the buyers compete. By adopting an MFCC a seller commits to a high price and this cannot discourage entry in the 'upstream' market.
- 3.63 The softening competition effect seems to be less strong than for across-sellers PRAs. Indeed, while the latter may support a monopoly price, a retroactive MFCC may lead to an equilibrium in which the price is above the competitive level, but below the full monopoly price. Contemporaneous MFCC appear to be less harmful than either across-sellers PRAs or retroactive MFCCs, although they may still provide pricing above the competitive level.
- 3.64 With regards to collusion, there are no papers that analyse the impact of across-customers PRAs on the sustainability of a collusive equilibrium in a formal way. Only informal arguments have been put forward, which highlight that MFCCs reduce the incentive to deviate by offering selective discount. However, MFCCs may also increase the cost of punishing in situations where targeted price cuts were

previously possible. This is because MFCCs force firms to implement price cuts across the board, thus increasing their expense. When both deviations and punishments are discouraged the overall effect on collusion is unclear. Some economists have also argued that MFCCs may be used to foster collusion by limiting buyer power or by disciplining maverick competitors.

- 3.65 As for the pro-competitive effects of MFCCs, it can be argued, though to a more limited extent than for across-sellers PRAs, that these clauses may be used to signal information on the quality of the products on offer. MFCCs can also mitigate problems stemming from incomplete contracts.
- 3.66 Finally, MFCCs can also be used to enable or prevent price discrimination or to improve the bargaining position of a monopolist seller. In these two cases the impact on consumer welfare cannot be determined ex-ante.
- 3.67 It is worth noting that there are no papers in the literature that suggest that an MFCC might improve the bargaining position of the buyer. This is in contrast with the conventional wisdom, which considers these clauses as a 'protection' that is requested by the buyers. Indeed it cannot be denied that there are real life instances in which the clause is actually requested by the buyer. One possible explanation is that the buyer wants to harm a competing buyer (as discussed above). Another possible explanation is that the buyer is ordering the possible outcomes of a negotiation from best to worst as follows. First it would rather pay a lower price than the other buyers. If it cannot achieve this, it would prefer to pay the same low price as the other buyers. However, if this too is not possible, it would rather pay the same high price as the other buyers. The worst outcome is when it pays a higher price than the other buyers. If it believes that the worst outcome is possible, the buyer may want to adopt an MFCC even if this implies the risk of paying more than it would have paid

otherwise.⁵² Of course this does not mean that the industry benefits from an MFCC, and indeed if all firms follow the same logic the industry may face higher prices and consumers may suffer.

3.68 Finally, it is worth stating that the literature on across-customers PRAs is less developed than the one on across-sellers PRAs. We believe that competition policy in this area would benefit if there was a greater body of economic literature regarding this type of PRAs.

⁵² For instance, in a simple Bertrand model with homogeneous goods a seller with a cost disadvantage is driven out of the market so that it would prefer to pay more for an input, provided that its competitors pay the same price.

4 EMPIRICAL EVIDENCE: LITERATURE REVIEW

- 4.1 In this Chapter we review the existing empirical papers that study the effects of across-sellers and across-customers PRAs on competition. Two different approaches have been used in this literature: the direct and the indirect approach.
- 4.2 The direct approach consists in measuring the effect of the adoption of PRAs on consumer welfare, and in particular on prices. This approach exploits the cross sectional and/or time series variation in the data with respect to different types of PRAs adopted, relating this variation to the observed pattern of prices. The methods employed range from simple cross-sectional studies, to before-and-after and difference-in-differences studies.
- 4.3 The studies that adopt the direct approach focus on measuring the overall effect of PRAs on consumer welfare. Less attention is paid to which of the possible theories of harm or efficiency justifications explain these effects.
- 4.4 However, within this framework, it is possible to exploit the ex-ante expected impact of PRAs to verify whether the observed evolution of prices is consistent with a specific explanation. Estimating difference-in-differences models allows the identification of a causal relationship between PRAs and consumer welfare through the use of data on the evolution of prices before and after the introduction of a given clause. It is then possible to test whether such an evolution is consistent with the different empirical predictions deriving from the theoretical literature.
- 4.5 The second, indirect, approach to determine the impact of PRAs on consumer welfare is to study PRAs observed pattern of adoption. This is then used to verify whether it is consistent with a particular theory of harm or efficiency justification identified in the theoretical literature. For example, it might be possible to test the consistency of the observed pattern of adoption of PMGs in a specific market with the collusive theory by verifying whether the adoption of such PMGs is correlated with the magnitude of the hassle costs that they entail.

- 4.6 The papers that use the indirect approach model the probability of adopting a specific PRA as a function of different seller and market characteristics. The models are then estimated through dichotomous discrete choice models (for example, probit or logit models).
- 4.7 In the contributions that we have examined, each paper follows only one of the two approaches, though there is a notable exception: Manez (2006), who merges the two approaches and looks both at the pattern of adoption of PRAs and at their effect on prices.

Across-sellers PRAs

- 4.8 In this section we review the empirical literature on across-sellers PRAs. We start with the contributions that follow the direct approach, and then consider those that employ the indirect approach.

Direct approach

- 4.9 The key contribution that employs the direct approach is the paper by Hess and Gerstner (1991). The authors look at the welfare effects of the adoption of a PMG by Winn Dixie, a supermarket in North Carolina. The PMG targeted a single competitor, Food Lion. A set of preliminary descriptive evidence shows that the PMG resulted in a higher degree of price coordination, not only between Winn Dixie and Food Lion, but also with respect to the prices of other supermarkets.
- 4.10 The paper performs a before-and-after analysis. The authors estimate the impact of the introduction of the PMG (captured by a dummy variable) on the relative prices of a group of products covered by the price guarantee with respect to a group of excluded products. The hypothesis tested is that the ratio between the two average prices should go up after the adoption of the PMG, if such a policy softens competition. The authors find that the data confirms this hypothesis, which suggests that PMGs can have an anticompetitive effect and reduce consumer welfare.
- 4.11 The result also holds when a measure of 'effective matching' is used. This replaces the dummy variable capturing the introduction of the PMG by a variable that measures the ratio between the percentages of

identical prices of products covered by the PMG across the two supermarkets over the percentage of identical prices of excluded products.

- 4.12 A further result obtained by Hess and Gerstner is related to the pricing strategy of Food Lion, Winn Dixies' main competitor. The authors show that, in line with the prediction of the softening competition theory, Food Lion also increased its prices after by its competitor introduced the PMG.
- 4.13 Finally it should be noted that whilst an interesting result, the anticompetitive effect of the Winn-Dixie's PMG is identified within the framework of a very simple empirical model, in which at most two regressors are employed to control for the influence on prices of factors other than the PMG. Moreover, the dependent variable employed in the model is an aggregation of prices over many products and across different supermarkets. Therefore there may be questions as to how much the methodology affects the results obtained.

Indirect approach

- 4.14 Two papers by Arbatskaya et al. (2004, 2006) adopt the indirect approach. In the first one, the authors look at the LPGs adopted by retailers in different business sectors, using data taken from newspapers in numerous metropolitan areas across the US. Their purpose is to verify if the pattern of adoption of the PMGs is consistent with the theoretical contributions that predict a softening of competition when these guarantees are offered.
- 4.15 These theoretical contributions suggest that LPGs that apply to effective prices (rather than to advertised prices) are more likely to lead to an anticompetitive outcome, while they argue that the presence of high hassle costs mitigates the LPGs' welfare reducing effect.
- 4.16 The authors examine the LPGs adopted by a wide set of retailers focusing on these two particular features. They measure the magnitude of the hassle costs by identifying the number of restrictions limiting the right to redeem a guarantee, and verify whether the PRAs

apply to effective or advertised prices. The evidence obtained, which is based on simple pair-wise comparison statistical tests, suggests that the majority of LPGs show features that are not consistent with the softening competition theory, since most guarantees apply to rivals' advertised prices and/or are associated with high hassle costs.

- 4.17 The authors also consider whether the LPGs offer to match or to beat the rivals' prices. They find that PBGs have features that are much less consistent with a welfare reducing strategy than PMGs. Overall, 90 per cent of the PBGs examined have features that are inconsistent with the theory that PRAs soften competition and raise prices, while only 44 per cent of the PMGs had features which were inconsistent.
- 4.18 In their second paper, Arbatskaya et al. (2006) introduce a simplified model to formulate a testable prediction about the adoption patterns of PMGs and PBGs. The model considers a static game and shows that if a seller offers a LPG but sets the lowest price in the market, this does not lead to a competition softening effect, at least in the static setting considered in the model.⁵³ This behaviour seems to be consistent with alternative theories, such as signalling.
- 4.19 The authors test this prediction by collecting information on tire prices from all tire dealers that place advertisements on Sunday newspapers in the US over a three-month period. As well as prices, they collect data on whether the guarantee offered was a PMG or a PBG, and whether the guarantee applied only to advertised prices or also to effective prices. The authors define a 'tire match' as a pair of price quotes on the same make and model from two competing tire dealers advertising in the same city, on the same date, in the same newspaper. They then test statistically the prediction that the LPG provider will set the lowest price. The authors find two main results.

⁵³ As pointed out in Chapter 2, a LPG reduces the rivals' demand price elasticity measured at the points in which the rivals' price is equal or below the price charged by the firm that adopts the LPG. If, without the LPG, the rivals charge a higher price than the LPG firm, this pricing policy does not affect the price elasticity of the relevant portion of the rivals' demand and the static equilibrium does not change.

First, the majority of paired observations involving sellers that have PMGs are consistent with a competition softening explanation. However the majority of paired observations involving sellers with PBGs are not. This suggests that the two types of LPGs may be serving different purposes. Second, they find that it matters whether the guarantee applies to advertised or effective prices: observations on guarantees that refer to advertised prices were less consistent with a competition softening theory.

- 4.20 The overall conclusion reached by the authors is that their data did not support the view that PRAs were primarily adopted to reach an anticompetitive outcome. This is particularly true for PBGs. Indeed they caution that even when the evidence is consistent with the anticompetitive theory (the seller offering a PRA advertises a higher price than the seller without the guarantee), there may be alternative explanations for this observation, such as the price discrimination theory.

Combining the direct and the indirect approach

- 4.21 The paper by Mañez (2006) combines the two methodological approaches described above. The author analyses the effects of PBGs on supermarkets' pricing patterns using UK data between 1995 and 1997. In particular, the paper examines the introduction of a PBG by Tesco in the Coventry area, using a difference-in-differences approach.
- 4.22 The paper's first part follows the indirect approach to verify whether the adoption of the PBG is consistent with the competition softening or the signalling theory. According to the author, the evidence rejects a competition softening explanation in favour of a signalling one. First, the seller that adopts the PBG is the lowest priced one. Second, Tesco introduced the policy on those products on which it already had a marked price advantage. Third, the signal is credible, as it entails little cost for the seller that uses it. Finally, none of the competitors responded by adopting a PBG.

- 4.23 The paper then uses the direct approach to test whether signalling is the correct explanation to explain Tesco's adoption of the PBG. To test this the paper uses data on two baskets of products, the first includes items covered by the PBG and the second only 'excluded' products. The author uses a difference-in-differences approach to exploit the availability of price data on the selected baskets of goods before and after the introduction of the PBG. The overall pattern shows an average decline in the prices of the goods considered thus questioning the anticompetitive use of the PBG.
- 4.24 However, the most interesting results stems from the interaction of the before and after policy variable with the different supermarkets fixed effects. The author shows that, for the goods covered by the PBG, the prices of Tesco's competitors decreased significantly more than Tesco's own prices. This result suggests that Tesco was seen as the low price competitor by consumers and its rivals responded to this signal by reducing their prices.

Across-customers PRAs

- 4.25 This section reviews the empirical literature on across-customers PRA. We again start by considering the contributions that follow the direct approach and then those that employ the indirect approach.

Direct approach

- 4.26 Scott Morton (1997) analyses the effect of the introduction of the Omnibus Budget Reconciliation Act (OBRA) on the prices charged by the pharmaceutical firms for their branded products. The OBRA included a rebate program that featured an MFCC for Medicaid reimbursement. In particular, the OBRA provided that Medicaid would pay manufacturers the lowest price offered to any other buyer.
- 4.27 The author provides a clear description of the expected effect of the MFCC introduced by the OBRA. When a seller that can price discriminate across different distribution channels fixes the 'best' price in presence of an MFCC, it has an incentive to raise such price compared to the situation in which the clause is absent. This is due to

the fact that raising the 'best' price has an indirect effect on profits coming from all Medicaid consumers, independently of the segments in which they buy the medicines.

- 4.28 The author also considers the expected strategic effect of the MFCC on the producers of generic products which were excluded from the regulation. She argues that generic producers should also alter their prices, internalizing the softening competition effect that affects the branded product producers. However, the strength of this incentive depends on the market structure and in particular on the number of generic producers for a given drug. The more concentrated the market, the greater the incentive to soften competition.
- 4.29 Scott Morton tests her predictions by analysing how prices behaved over a two-year window around the introduction of the OBRA. The approach she takes is not simply to verify the impact of the policy change on average prices, but also to assess whether the price changes are correlated with characteristics that increase the sellers' incentives to raise prices. These characteristics include Medicaid's market share for a particular drug, and the level of price dispersion before the introduction of the MFCC.
- 4.30 Controlling for product specific fixed effects, trends and seasonal effects, the author finds that the prices of branded products increased after the introduction of the MFCC in the Medicaid reimbursement policy, and they did so consistently with the theory proposed. Indeed, larger price increases were associated to a larger Medicaid's share in the market for a given drug and to higher price dispersion. The results for generic products were less robust, but in general they are consistent with the theory, as their prices show a pattern similar to that of branded products.
- 4.31 Chen and Liu (2010) examine the introduction of an MFCC in the electronic distribution sector to test the effect of this clause on prices. In the summer of 2003, Best Buy, the leading US electronics retail chain, added an MFCC to its pricing policy, promising to refund the difference if customers found a lower price at Best Buy within two weeks of their purchase. The authors test the impact of the adoption

of this MFCC using a dataset of 23,145 daily prices for 55 consumer electronic products relative to the period between April 2003 and March 2004.

- 4.32 The authors found that after controlling for several factors affecting product prices (for example, product fixed effect, sellers fixed effects, seasonality and product lifecycle fixed effects), Best Buys' adoption of the MFCC led to a reduction in prices. In particular, Best Buys reduced its prices by 1.6 per cent on average while the competitors reduced their prices by a higher amount.
- 4.33 The authors test the robustness of this result using three different strategies. First, they assemble two datasets, one including observations only for the before period and one including observations only for the after period. Second, they introduce a pseudo policy change (a dummy that separates arbitrarily at mid-point the relevant period): absent any actual policy change, as expected, the price-reducing effect disappears from these regressions on the sub samples. Finally, they include factors accounting for seasonality and product life cycle effects, modelling the latter both with a parametric and a semi-parametric approach and find that results are robust to these changes.
- 4.34 The authors explain their empirical findings in terms of the efficiency gains associated to price-discrimination. Through the MFCC, Best Buys attracts only consumers with low hassle costs from its rivals. To retain them its rivals, who do not offer an MFCC, must cut their list prices. By lowering their list prices, the rivals attract also the high hassle cost consumers, who find it too costly to invoke the MFCC. This in turn forces Best Buys to reduce its list prices.⁵⁴ The overall outcome is that all the sellers reduce their prices.

⁵⁴ Without the MFCC each firm charges a single price to all consumers, despite their having different hassle costs. However, when Best Buy adopts an MFCC clause, it can price discriminate between the two groups of consumers: it offers one list price to all, but it charges the (high) list price only to the high hassle cost consumers, while it charges a (lower) effective price to the consumers with low hassle costs because these invoke the MFCC.

- 4.35 The authors also find that Best Buys reduces its prices less than the competitors. They argue that this is due to the fact that Best Buys' customers interpret the introduction of the MFCC as a vertical differentiation of its products, and this generates an upward pressure on Best Buys' prices.
- 4.36 A paper that shares the same approach of Chen and Liu (2010) is Bilotkach and Rupp (2009). This paper studies the impact of the introduction of a MFCC in the US market for online travel services. In this market all the players offered a PMG, but in 2008 Orbitz, one of the biggest players, introduced an MFCC.
- 4.37 The market possesses several interesting features, compared to that analysed in the paper by Chen and Liu (2010). In particular, the product sold is non-durable.
- 4.38 The data employed refers to two periods, one before the introduction of the MFCC (2006) and one after (2008-2009). The authors collect the quotes offered by the three leading online travel agents (Orbitz, Expedia and Travelocity) on fifty randomly selected airport-pairs. For each date-airport-pair-travel agent combination, they retain the lowest fare quoted by every airline providing non-stop services.
- 4.39 They then estimate the effect of the introduction of the MFCC by Orbitz using a difference-in-differences estimator. The dependent variable is the lowest fare described above, while the main independent variable is a before and after dummy for each travel agent. The results show that Orbitz has, controlling for a time trend and for time invariant seller specific effects, significantly lower fares (about 3 per cent less) in 2008-2009 compared to the other online travel agents. This is interpreted as evidence that the MFC had pro-competitive effects. In particular, Orbitz's fares decreased with respect to Expedia, and did not change with respect to Travelocity.

Indirect approach

- 4.40 The paper by Crocker and Lyon (1994) uses the indirect approach to examine the adoption of MFCCs. The authors wish to discriminate between an anticompetitive and a pro-efficiency rationale behind the

pattern of adoption of MFCCs in natural gas contracts signed by well owners and pipelines. According to the efficiency explanation, MFCCs act as a mechanism to introduce price flexibility in extended contract relationships. In long term contracts this flexibility allows the parties to adapt to changes in market conditions. To the extent that an MFCC permits the contract price to reflect changes in cost of substitute supplies or the value of the product in alternative uses, the parties can make more efficient production and consumption decisions.

- 4.41 The market for natural gas consists of numerous small well owners selling to a few large vertically integrated pipelines. Market power lies on the side of the buyers and the MFCCs could be an instrument in support of a collusive strategy.
- 4.42 The authors start by showing that the collusive and the efficiency explanations yield different empirical predictions. First, if MFCCs are used to facilitate the attainment of a collusive outcome, their adoption should be negatively related to the number of buyers. If they are used to increase efficiency, their use should be positively related to the number of buyers, since the benefits increase with the number of alternatives in the market. A corollary to this hypothesis is that if the MFCCs are used to increase efficiency, then their adoption pattern should parallel that of fuel price indices.
- 4.43 Second, when used to facilitate collusion, MFCCs should cover all the regions in which buyers compete for supplies. Alternatively, if they are used to introduce price flexibility in the contracts, the regions should include only areas where the sellers have alternative sale possibilities.
- 4.44 The authors examine 239 contracts between well owners and buyers. They use a probit model to analyse the determinants of the adoption of the MFCCs. The results show that the probability of a contract containing an MFCC is strongly and positively related to the number of buyers in the gas field, which supports the efficiency rationale for MFCCs. A further result shows that the pattern of adoption of fuel price indices exactly parallels that for the adoption of MFCCs, which again lends support to the efficiency hypothesis.

- 4.45 Finally, the authors check the second hypothesis, and find that the non-discrimination area (the area in which the MFCC applies) is in general very small. The size of MFCC regions stands in sharp contrast to the geographic magnitude of the buyers' supply opportunities, and again this is in contrast with the collusive explanation. All in all, the results of this work support the efficiency motivation for the adoption of MFCCs.

Summary and conclusions

- 4.46 The empirical literature that examines the welfare effects of PRAs and their pattern of adoption is limited. Therefore, care should be taken in using these results as proof of any general theory.
- 4.47 Two different approaches are used in this literature to test the impact of PRAs: 1) a 'direct' approach, which tries to measure the effect of the adoption of these policies on prices, exploiting the cross sectional and/or time series variation present in the data; and 2) an 'indirect' approach, which studies the pattern of adoption of PRAs in order to verify whether it is consistent with a particular theory of harm or an efficiency justification identified in the theoretical literature.
- 4.48 The literature that examines across-sellers PRAs using the direct approach does not obtain conclusive results on their welfare effects. The two papers that examine the grocery distribution sector obtain opposite results. One implication of this may be that the same policies have different effects depending on the context in which they are adopted. The papers that employ the indirect approach, are clearer in their conclusions regarding a lack of anticompetitive rationale behind these pricing policies.
- 4.49 Turning to across-customers PRAs, the empirical papers that we have surveyed do not find any evidence that MFCCs have anticompetitive effects. Indeed, most of the papers that follow the direct approach show that MFCCs are associated with a reduction in prices. Similarly, the only paper that uses the indirect approach suggests that efficiency justifications explain better their adoption pattern.

- 4.50 The only contribution that finds evidence of anticompetitive outcome (that is, an increase in the level of prices) after the introduction of an across-customers PRA is the paper by Scott Morton (1997). Nevertheless, this paper studies a very specific and unusual case: a government intervention which imposed the adoption of an MFC.
- 4.51 There is clearly scope for expanding this literature, in particular those studies that employ the indirect approach. The theoretical contributions reviewed in this report can provide suggestions for further developments.

5 EXPERIMENTAL EVIDENCE: LITERATURE REVIEW

- 5.1 In this Chapter we review the existing experimental papers that study the effects of across-sellers and across-customers PRAs on competition. This literature, so far, has mostly studied LPGs.
- 5.2 This literature is fairly recent and has developed mostly during the last decade. It relies on the performance of, small scale, controlled experiments in which participants face abstract 'real-life' scenarios and are asked to answer questions or to take 'economic' decisions.^{55,56} The controlled environment allows the authors to change the variables of interest while not altering other factors, such as the market characteristics. Hence, experiments allow academics to identify clear causal relationships that are otherwise difficult to determine.⁵⁷
- 5.3 Within the experimental literature there are two different strands of research. One strand tries to understand why sellers choose to adopt LPGs. These papers, mostly by economists, test the validity of the softening of competition hypothesis. The other strand of experimental literature, which mostly includes contributions by market research, studies how consumers react to PRAs.
- 5.4 In the next two subsections we review these two strands of the experimental literature.

⁵⁵ Experiments are usually performed in controlled settings. Further, participants are often not aware of the true goals of the experiment they are taking part in order to reduce the possibility of biases in the responses). In some settings, in order to mimic economic incentives, they receive payments for their decisions.

⁵⁶ When participants act as consumers they are usually asked to choose between stores; while, when they act as store managers, a typical economic decision they are asked to take is to set the price and the promotional campaigns of the store.

⁵⁷ Although experiments can clearly identify causal relationships, their small scale and the artificial settings in which they are run raises concerns about the validity of their results.

Experimental studies of PRAs adoption

- 5.5 As we have seen in Chapter 2, a large part of the theoretical literature suggests the adoption of LPGs may lead to higher prices, as these policies reduce the incentives to compete on prices.
- 5.6 Starting from these theoretical findings, the experimental literature has studied the rationale behind the unilateral adoption of LPGs. The findings are usually based on experiments in which the subjects act as sellers and play a dynamic game in which they learn over time the pricing policy and the price level that maximize their profits.
- 5.7 One of the first papers to study the adoption of LPGs through the use of experiments is by Deck and Wilson (2003). They model a symmetric oligopoly with four sellers. The market environment is similar to the one in Varian's model of sales (Varian, 1980), in which some buyers are informed about all market prices, and some are uninformed.
- 5.8 In the experiment sellers can adopt one of three possible pricing policies that are implemented as automated pricing algorithms: 1) price beating (PBG); 2) price matching (PMG); and 3) trigger strategies. The experimental results are then compared to a baseline scenario in which the subjects set their prices autonomously (that is, without using any automated algorithms).⁵⁸
- 5.9 The authors find that when sellers set their prices autonomously, the distribution of the prices tends to coincide with the competitive Nash equilibrium. However, when sellers adopt the automated algorithms the authors find that: (i) the PMG delivers the highest market prices, (ii) the trigger policy leads to the lowest prices (even below the game-

⁵⁸ They model LPGs as automated pricing algorithm. Sellers monitor other sellers' prices and apply their rule to automatically match or beat any better price offered. Hence, there is no difference between advertised prices and effective prices. This is akin to having perfectly informed consumers with no hassle cost.

theoretic predicted prices) and (iii) the PBG leads to prices that lie between the two but close to the competitive Nash equilibrium.⁵⁹

- 5.10 Fatás and Mañez (2004) reach similar conclusions in an experiment in which they explicitly model a duopoly with two symmetric sellers, differentiated goods and perfectly informed buyers. The subjects are asked to select the price policy and price level that maximize their profits. Fatás and Mañez find that when subjects are free to adopt a PMG, they learn that this policy creates higher profits and, therefore, almost all sellers end up adopting it. Moreover, they find that when both sellers adopt a PMG, prices converge to the joint-profit maximization level. They also find that when sellers do not have the choice to adopt PMGs, prices converge to the Bertrand-Nash equilibrium.
- 5.11 Fatás et al (2005) studies the adoption of PBGs in an experimental framework similar to the one examined by Fatás and Mañez (in the paper described above). The experiment assumes a duopoly market structure with differentiated goods and symmetric sellers. Again, participants to the experiment are sellers. Fatás finds that, when both sellers adopt PBGs, prices converge to the Bertrand-Nash equilibrium prices or to even lower prices. Moreover, Fatás find that, as subjects learn that PBGs leads to lower profits, they tend not to adopt them.
- 5.12 Hence, when buyers are fully informed and sellers are symmetric, the experimental literature seems to support the view that PMGs soften price competition, while PBGs appear less able to sustain higher prices and may have pro-competitive effects resulting in lower prices (at least when PBGs applies to advertised prices).
- 5.13 These experiments also seem to suggest that it is not necessary for sellers to theoretically predict other sellers' actions to be able to sustain higher prices. The experiments show that agents simply learn

⁵⁹ The Nash Equilibrium is attained both when the sellers set their prices autonomously and when they employ the PBG automated algorithm. This leads Deck and Wilson to conclude that players, when setting prices autonomously, must follow some sort of undercutting rule.

that PMGs leads to higher prices.⁶⁰ Finally, the experimental evidence seems to suggest that PMGs help sellers to solve the equilibrium selection problem, as they easily learn to coordinate on higher prices.⁶¹

- 5.14 The results of the above experiments are dependent on (strong) assumptions on the behaviour of consumers and on the characteristics of the sellers. For example perfect information, no hassle costs, and symmetry. When these assumptions are relaxed the anti-competitive potential of PMGs appears to be reduced (Dugar and Sorensen 2006; Mago and Pate 2009).
- 5.15 For example, when consumers face hassle costs, Dugar and Sorensen (2006) show the hassle costs act as a market disciplining device, that reduces the collusive potential of PMGs. They show that, as the share of buyers with positive hassle costs increases, the average market price converges to the competitive price. These results support the theoretical conclusions reached by Hviid and Shaffer (1999). Dugar and Sorensen also suggest that the presence of uninformed buyers regarding the PMGs policy can restore more competitive prices, as does the presence of buyers with hassle costs.
- 5.16 Mago and Pate (2009) study the anti-competitive potential of PMGs when sellers have cost asymmetries. They analyse a duopoly framework where sellers sell a homogeneous good, and all buyers have perfect knowledge about market prices and pricing policies. In each period sellers simultaneously post their prices whilst in every four periods they also decide whether to adopt a price guarantee. Demand is fully automated: 10 buyers are programmed to purchase from the lowest-priced seller as long as the price is less than their reservation price. The experimental design includes two treatment variables: availability of PMGs and level of cost asymmetry between sellers.

⁶⁰ Participants do not use game theory to find their best strategy or to infer other sellers' responses to their actions, as they seem to be unaware of the anti-competitive potential of PMGs. Participants simply learn that PMGs generate higher profits.

⁶¹ See Dugar 2007.

- 5.17 Mago and Pate find that if sellers have symmetric costs they prefer to adopt PMGs, and this adoption of PMGs leads to market prices consistent with a collusive equilibrium. However, when cost asymmetries are introduced, they find that sellers adopt PMGs less frequently and that prices do not converge to the fully collusive level. Moreover, the extent of the cost asymmetries seems to be inversely related to the capacity to sustain anti-competitive prices. This confirms the theoretical conclusions reached by Logan and Lutter (1989) discussed previously.
- 5.18 The experiments of Dugar and Sorensen (2006) and Mago and Pate (2009) clearly show that when consumers or sellers are heterogeneous the anti-competitive potential of PMGs is mitigated, and sometimes annulled.
- 5.19 To our knowledge, there is no experimental literature testing whether PRAs are adopted for reasons other than softening competition (for example, to signal private information or to price discriminate).

Consumers' perception and their response to PRAs

- 5.20 There is a growing experimental literature, mostly generated by market research, that looks at how buyers perceive PRAs and react to them. The objective of this experimental literature is to study how buyers change their beliefs and behaviours when they face LPGs.
- 5.21 This area of the experimental literature is aware of the theoretical result that PMGs might soften competition. However, more or less explicitly, most of these papers take the view, albeit without proving or modelling it, that PMGs or PBGs are adopted by sellers for other motivations.
- 5.22 Some contributions seem to support the view that sellers adopt LPGs to signal low prices (Jain and Srivastava 2000; Srivastava and Lurie 2001, 2005; Biswas, Dutta, and Pullig 2006; Kukar-Kinney, Walters, and MacKenzie 2007). Nevertheless, some authors recognize that sellers might send 'false' low price signals and use PMGs to price discriminate between informed and uninformed consumers or to

disguise consumers (Srivastava and Lurie 2001; Kukar-Kinney, Walters, and MacKenzie 2007).

- 5.23 Another view (Kukar-Kinney and Walters 2003) is that sellers might adopt LPGs to retain customers, instead of losing them for a small price difference.
- 5.24 These studies are typically based on experiments in which buyers are asked to make hypothetical purchasing decisions in a variety of settings. The information given to buyers are usually manipulated in order to uncover possible interactions or to control for confounding effects.
- 5.25 This literature shows that the adoption of PRAs affects consumers' perception about prices.
- 5.26 Jain and Srivastava (2000)⁶² collect experimental evidence on how consumers respond to PRAs and study the adoption of PMGs in a model that incorporates the insights provided by these evidence.
- 5.27 The two authors first run a series of experiments which show that PMGs improves the seller's price image⁶³ and increases consumers' willingness to make a purchase. Then, they incorporate these experimental findings on consumer behaviour in their theoretical framework, in which they model the interaction between differentiated sellers and imperfectly informed consumers. They show that under these conditions the adoption of PMGs might be consistent with the signalling theory (that is, the lowest price sellers adopt PMGs).
- 5.28 Hence the two conclude that on average consumers, when they are unable to observe all prices, believe that sellers offering LPGs have relatively lower prices. This is reflected in a higher willingness to buy from sellers that offer an LPG. Hence consumers use the observation of the presence of LPGs to infer the position of the sellers in the price distribution. Jain and Srivastava (2000) rule out this perception is

⁶² No participant acts as a seller. Sellers' pricing decisions are derived from economic theory.

⁶³ Consumers perceive that low price stores adopt PMGs or PBGs.

dependent on the perceived quality, or on the perceived operating costs of the sellers adopting PRAs. Hence, they support the view that sellers adopt LPGs to signal that they offer low prices.

- 5.29 Subsequent research has further investigated consumers' behaviour in the presence of LPGs. Biswas et al. (2002) show that consumers use LPGs to make inferences on sellers' prices when they are uninformed about market prices. When consumers are perfectly informed LPGs are ignored.
- 5.30 Srivastava and Lurie (2004) study the impact of market characteristics on the effectiveness of using PMGs as a signal of low prices. They find that the effectiveness of PMGs as a low price signal depends on the strength of the disciplinary mechanism in place (that is, on other consumers' willingness to enforce the guarantee), because the potential enforcement of PMGs affects the cost of sending false signals. When consumers perceive that the market is characterized by very low consumer search or low willingness to claim reimbursements, they believe that the PMG is not a credible signal.
- 5.31 In a separate paper, Srivastava and Lurie (2005) find evidence in support of the view that PMGs affect the consumers' perception of prices. They show that when consumers observe PMGs they raise their expected low and average price. As a consequence of this process the price of the seller offering PMGs seems more competitive.⁶⁴ However, when consumers are informed about the price range, PMGs have no effects on consumer perception. Finally, they also find that offering PMGs does not change consumers' perception about a seller's quality.
- 5.32 Biswas, Dutta and Pullig (2006) consider how the perceived level of price dispersion affects the effectiveness of PMGs as a low price signal. They show that PMGs are used by consumers as heuristics for low prices only when it is less risky for them to do so. When price

⁶⁴ Consumers perceive that LPGs are adopted by low price sellers. Hence, when they observe a price combined with an LPG, they update accordingly their beliefs about the price distribution.

dispersion is high, consumers are more sceptical about PMGs. With high price dispersion sellers might take advantage of information asymmetries. Consumers are aware of it and, hence, rely less on PMGs. However, the authors find that in presence of high price dispersion, the introduction of penalties (PBGs) helps restore the effectiveness of the low price signal. However when price dispersion is low, the introduction of penalties is redundant.

- 5.33 Dutta and Biswas (2005) study how LPGs change buyers' post-purchase search intentions. The experiments discussed so far show that the LPGs modify pre-purchase search intentions: consumers are more likely to purchase from sellers offering an LPG and to reduce their search effort prior to purchase. However, Dutta and Biswas (2005) show that LPGs are likely to increase post-purchase search. Furthermore, this effect is higher among those consumers who are keen to enhance the value of their purchase. They also find that, for PBGs, the higher the refund the more intense the post-purchase search.
- 5.34 With respect to the interplay between the value of the promised refund and consumers' perception, Kukar-Kinney and Walters (2003) show that PBGs that offer high refunds enhance the value of the offer and increase store patronage. However, they identify a trade-off, as higher refunds also change the perceived credibility of the offer this in turn reduces store patronage. More modest refunds contribute to the credibility of the PBGs. Kukar-Kinney and Walters also find that sellers with high reputation can mitigate the negative effects of large refunds. Finally, they also prove that sellers can improve the signalling effect of LPGs on consumers by increasing the geographical scope of the PMGs or PBGs, with no adverse effects on credibility.
- 5.35 Two papers (Kukar-Kinney and Grewal 2006, and 2007) study the relationship between how easily customers can claim a refund and their perception of the guarantee. First, these papers show that consumers assume that internet markets entail higher refund hassle costs. This suggests that the cost of offering LPGs should be lower for internet retailers. However, this lower cost hampers the signalling credibility of these policies (Biswas et al. 2002). Countering this they

find that store reputation matters. When low-reputation sellers offer an LPG, consumers are likely to ignore them, while they tend to trust LPGs adopted by high reputation sellers.

- 5.36 Kukar-Kinney, Walters, and MacKenzie (2007) segment consumers on the basis of their price consciousness to study how the various segments respond to differences in the size of the refund, the length of guarantee and its scope. They argue that less price conscious consumers are more likely to look for signals from sellers to help their purchasing decisions and reduce their price search. Hence, this type of consumers interprets LPGs as a low price signal.
- 5.37 Differently, high price conscious consumers face lower search cost and gain higher benefits from searching. Hence, they carefully scrutinize the signal provided by the LPGs.
- 5.38 Kukar-Kinney, Walters, and MacKenzie (2007) also demonstrate that price consciousness is a crucial consumer characteristics that interacts with the other three elements they have considered (that is, size of the refund, length and scope of the guarantee). They find that when sellers offer high refunds they can successfully attract both price conscious and less price conscious consumers. However, price conscious consumers perceive these stores as being high price store, offering one-off discounts. Hence, they conclude that sellers which are more concerned with building a reputation for low prices should adopt LPGs with moderate refunds.
- 5.39 Furthermore, they demonstrate that price conscious consumers react to the length and scope of the policy by significantly increasing their post-purchase price search. At the same time they find a high level of 'inactivity' among less price conscious consumers that, even when faced with high refunds, do not change their post-purchase search.
- 5.40 Finally, there is one paper that runs an experiment to explicitly test whether consumers suspect collusion when sellers offer PMGs (Chatterjee, Heath, and Basuroy, 2003). They find that consumers perceive these clauses as a competitive device and that they prefer to purchase in markets offering PMGs. Hence, they conclude that

consumers fail to recognize the change in the sellers' incentives caused by the LGP and the resulting possible anti-competitive effect.

- 5.41 Chatterjee, Heath, and Basuroy (2003) also devise an experiment in which they ask consumers to act as a regulatory authority and examine markets for anti-competitive behaviours. They show that, even when consumers are directly asked to think about the collusive potential of PMGs, they fail to recognize it. Relative to a benchmark market in which there are no PMGs and no public price announcements, consumers identify markets with PMGs as being more competitive. This result is not due to the fact that consumers fail altogether to suspect collusion. Indeed, for instance, they suspect collusion in markets in which sellers make public announcement about their price changes.
- 5.42 Interestingly, given the experimental evidence on consumers' behaviour, Chatterjee, Heath, and Basuroy, come to question the ability of manager to understand themselves the collusive potential of PMGs. However, this does not seem an appropriate conclusion as it has been showed in other experiments (see Deck and Wilson 2003; Fatás and Mañez 2004; Dugar 2007) that experimental sellers quickly learn to adopt PMGs and charge higher prices.

Summary and conclusions

- 5.43 This chapter illustrates the existing experimental literature on PRAs. This literature is fairly recent and has developed mostly during the last decade. All the contributions we are aware of study LPGs.
- 5.44 This literature can be divided into two areas. One examines why sellers to adopt LPGs and most of the contributions are by economists. The other analyses how consumers perceive and respond to LPGs. These works mostly originate from the marketing research field.

- 5.45 The papers that belong to the first strand show that repeated unilateral decisions of independent subjects can quickly lead to supra-competitive prices.⁶⁵ However, these results depend upon potentially strong assumptions on the characteristics of consumers and sellers: i) consumers must be perfectly informed, ii) consumers must face no hassle costs, and iii) sellers must be symmetric. Experiments based on these assumptions may be ill equipped to explain the adoption of LPGs in most real markets. Indeed, when these assumptions are relaxed the anti-competitive effect is mitigated and sometimes annulled.
- 5.46 The experimental literature that originates from market research provides useful insights on how consumers react to LPGs. First of all, these experiments suggest that consumers do not suspect any anti-competitive potential in the use of LPGs; rather they see them as a sign of a healthy and competitive environment.
- 5.47 Second, these studies show that consumers, who are not informed about prices, are more likely to visit and purchase from sellers offering LPGs. Nonetheless, the same literature warns that, although under certain market conditions consumers are correct in assuming that the sellers who offer LPGs are the cheapest, under other conditions consumers might be misled by these price policies and perceive stores as being low price when in fact they are not.
- 5.48 Further, the market research show that limited price dispersion, low hassle costs, high price consciousness, and the positive reputation of the retailer are all elements that make consumers more likely to react positively to the signal provided by the LPG.
- 5.49 The experimental research suggests some interesting areas for new theoretical research on PRAs. For example the consumers' characteristics included in the theoretical models could be aligned with the experimental evidence. At the same time the experimental literature could attempt to model a full market in which both

⁶⁵ Experiments are dynamic and the equilibrium with supra-competitive prices is reached over time.

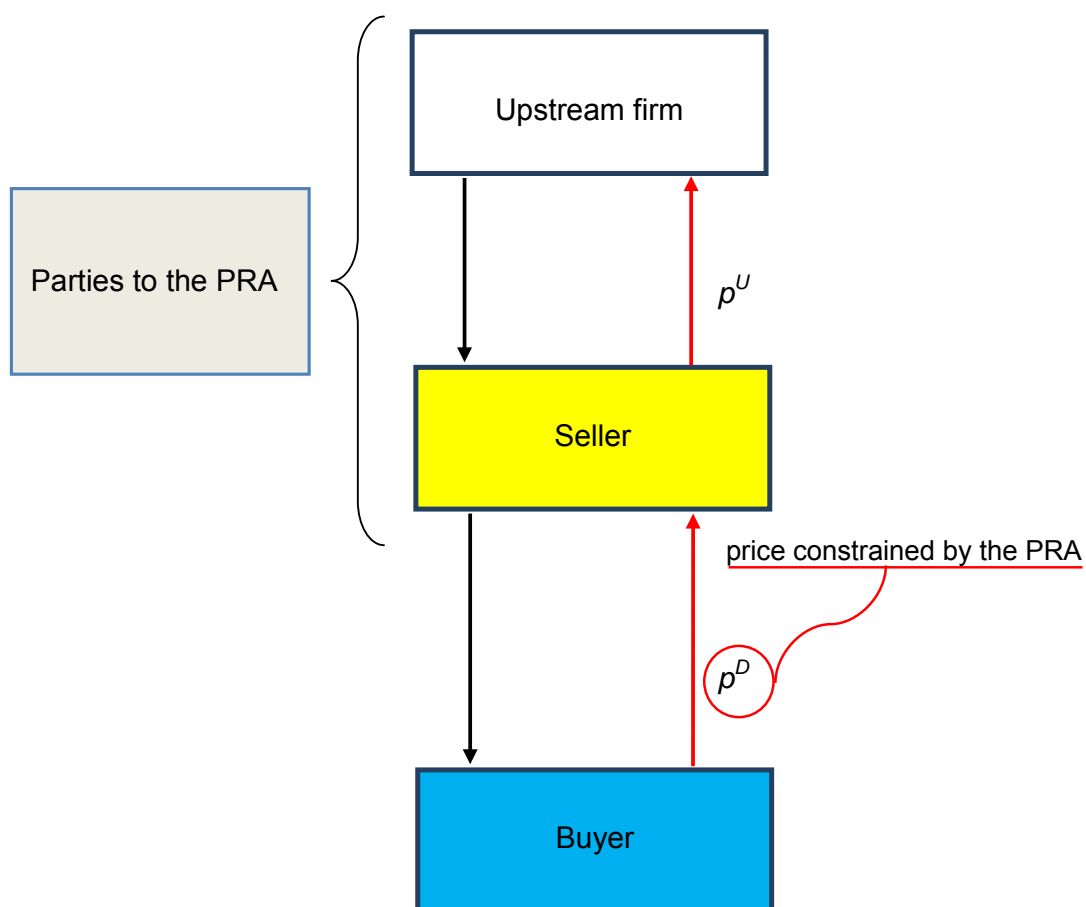
consumer and sellers interacts rather than only one side as has been modelled to date. Finally more complete experiments could also be performed through computer simulations, for instance by using Agent Based Models.⁶⁶ These simulations may offer a flexible and cost effective means for investigating the pattern of adoption of PRAs, the resulting price distributions and likely effects on consumers' behaviour.

⁶⁶ A broad definition of Agent Based Models, also known as models of Agent-Based Computational Economics, is offered by Tesfatsion and Judd (2006): 'Agent-Based Computational Economics is the computational study of economic processes modelled as dynamic systems of interacting agents who do not necessarily possess perfect rationality and information. Whereas standard economic models tend to stress equilibriums, These models stress economic processes, local interactions among traders and other economic agents, and out-of-equilibrium dynamics that may or may not lead to equilibriums in the long run. Whereas standard economic models require a careful consideration of equilibrium properties, these models require detailed specifications of structural conditions, institutional arrangements, and behavioural dispositions.'

6 THIRD-PARTY PRAS

- 6.1 As discussed in Chapter 1, PRAs can differ depending on whether the price that is defined by the PRA concerns: (i) the transaction between the parties to the agreement, or (ii) the transaction that one of the parties to the PRA will conclude with a third party. In the first case the buyer of the good or service whose price is determined by the PRA is a party to the PRA and, thus, has an enforceable right towards the seller. In the second case the buyer pays the price determined by the PRA, but is not party to the agreement and may not even be aware that such an agreement exists. In these cases, the agreement is stipulated between the seller and a platform/manufacturer. The agreement does not grant the buyer any right to complain/obtain redress if the seller does not satisfy the terms of the PRA or if they prove unfavourable.
- 6.2 Chapters 2 to 5 have examined the first case of PRAs. In this Chapter we shall provide some general considerations on the effects of the PRAs which fall in the second category, which we term 'third-party PRAs'.
- 6.3 We have not found any economic literature that specifically studies the possible competition effects of third-party PRAs. However, these PRAs combine some elements of a classical Resale Price Maintenance (RPM) agreement and some elements of within-parties PRAs discussed in chapters 2 to 5. Hence some insights may be drawn from the literature that analyse these two practices.
- 6.4 In order to better understand how third-party PRAs work and thus their likely effects, we start by identifying all the parties affected by such PRAs. These parties operate at different levels of a vertical chain.
- 6.5 Figure 6.1 shows the parties, the transactions they have with each other and the legal ties between them.

FIGURE 6.1 - A THIRD-PARTY PRA



- 6.6 The first player from the top is the 'upstream firm', who might be a manufacturer or a platform. The upstream firm provides the second player, the 'seller', with a good or service (black arrow). In exchange the upstream firm receives a price p^U from the seller (red arrow).
- 6.7 The seller, who might be a retailer or a manufacturer, either resells the good or service bought from the upstream firm to the last player, the 'buyer', or incorporates it in the product it then sells to the buyer (black arrow). In exchange the buyer pays a price p^D (red arrow).

- 6.8 Whilst the buyer is often an end consumer it may also be a firm that uses the seller's product in its production process.
- 6.9 The upstream firm and the seller sign the third-party PRA, which constrains the price p^D that the seller charges to the buyer.
- 6.10 Two transactions take place: First, a sale from the upstream firm to the seller at a price p^U . Second, a sale between the seller and the buyer at a price p^D . The third-party PRA establishes how the price of the second transaction, p^D , should be set. The buyer pays this price p^D , that is constrained by the PRA, but he/she is not involved in the agreement. Only the upstream firm and the seller are parties to this agreement.⁶⁷
- 6.11 The rest of the chapter is structured as follows. The next section provides some initial considerations on the possible competitive effects of third-party PRAs concluded by manufacturers (the upstream firm) and a retailer (the seller). We term these PRAs as 'pricing relativities agreements'. We will then focus our attention on PRAs where the upstream firm is a platform. This latter type of PRAs requires the seller to sell on the platform with which it signed the PRA, a price that is not higher than the prices the seller charges on other platforms. We term these PRAs 'across-platform parity agreements'.

Third-party PRAs between manufacturers and retailers: pricing relativities agreements

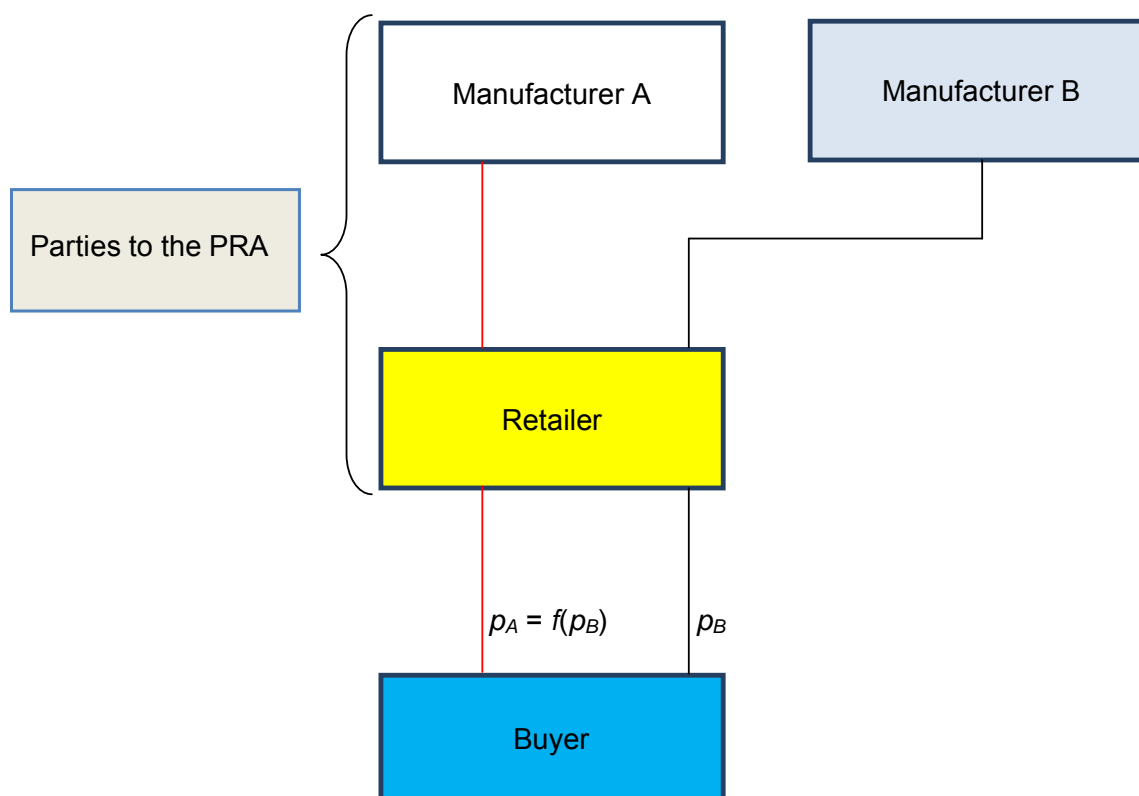
- 6.12 Figure 6.2 shows the structure of a third-party PRA in which a manufacturer (A) who signs the PRA with a retailer, competes with

⁶⁷ Sometimes an additional transaction takes place between the upstream firm and the buyer, if the former provides some services also to the latter. For example when the upstream firm is a platform, it offers sales related services not just to the seller, but also to the buyer (for example automatic advice services, parking facilities, guarantees or reviews of the products). Whilst there might exist such an economic relationship between the buyer and the upstream firm, the existence of this additional transaction does not affect the PRA.

another manufacturer (B), who trades with the same retailer but without signing a similar agreement.

- 6.13 By signing the agreement the retailer undertakes to set the price at which it resells manufacturer A's products (p_A) with reference to the price at which it sells the products of manufacturer B (p_B). The agreement may take different forms: the retailer may undertake to maintain a parity between p_A and p_B , or to keep a fixed differential between the two prices, or to guarantee that the difference between the two retail prices never exceeds a given level.
- 6.14 A key characteristic of these agreements is that they do not determine the absolute retail price level (which makes them different from RPM agreements): price relationship agreements establish how the retail price of a manufacturer's product relates to the retail prices of its competitors.

FIGURE 6.2 - A PRICING RELATIVITIES AGREEMENT



6.15 Despite the fact that pricing relativities agreements are different from RPM agreements, we believe that some of the findings that the economic literature has reached on the latter apply also to the former.⁶⁸ In addition, pricing relativities agreements have some of the features of across-sellers PRAs, because the price the buyer pays to purchase one manufacturer's product is automatically adjusted when rival manufacturers change their wholesale prices and thus cause a change in retail prices. Hence, some similarities exist with respect to the policy implications of these two types of PRAs.

⁶⁸ For a survey of this literature see Rey and Vergé (2008).

- 6.16 Below we discuss our preliminary conclusions on the possible competitive effects of pricing relativities agreements between manufacturers and retailers.

Theories of harm for PRAs between Manufacturers and Retailers

- 6.17 The first point that should be highlighted is that these PRAs may affect competition both in the upstream market (that is, inter-brand competition between manufacturers) and in the downstream market (that is, intra-brand competition between retailers of the same manufacturer).
- 6.18 As in the case of RPM agreements, price relativity agreements may facilitate collusion in the upstream market if they improve price transparency.
- 6.19 Telser (1960), Mathewson and Winter (1998) and Jullien and Rey (2007) have presented this argument with respect to RPM agreements. These economists argue that if retailing costs vary over time, manufacturers cannot correctly infer wholesale prices from retail prices. Hence, they may fail to identify manufacturers' deviations from the collusive conduct, which makes collusive agreements less stable. RPM improves the ability of manufacturers to detect deviations and, thus, facilitates collusion. The same objective may be pursued by a pricing relativities agreement which limits the influence of retailing costs on retail prices and, therefore, improves the possibility to infer a manufacturer's pricing decision from the latter.
- 6.20 Second, a pricing relativities agreement may also soften competition in the upstream market. If the agreement forces the retailer to set the price of a manufacturer's product equal to the price of competing products (possibly less a fixed percentage), the competing manufacturers may refrain from adopting aggressive pricing policies. They anticipate that a price reduction will not change relative retail prices and, therefore, will not determine an increase in the demand for their products as high as the one that would have occurred if relative prices had been free to move. Hence, the agreement renders retail prices less sensitive to wholesale price changes, and, since the

manufacturers' demand is derived from the retailer's demand, it reduces the manufacturers' demand elasticity.

- 6.21 This effect is akin to the one identified for across-sellers PRAs (see paragraphs 2.9) and, for the reasons described in Chapter 2, it may lead to a less competitive static equilibrium.
- 6.22 Third, the same impact on the rivals' demand elasticity explains why pricing relativities agreements may yield a market foreclosure effect. Indeed, if this agreement forces the retailers to maintain a price differential, or a parity, between the incumbent's price and the prices set for the sale of products manufactured by potential, or actual, entrants, it may be used to credibly implement a limit pricing strategy that discourages entry (see paragraphs 2.18 to 2.22).
- 6.23 Finally PRAs may also soften intra-brand competition. If the agreement sets a fixed (absolute or relative) differential between two products, a retailer that wants to price aggressively needs to reduce both manufacturer prices by the same (absolute or relative) amount. There may be instances in which a certain price reduction is profitable for a specific manufacturer's product but unprofitable when there is a PRA. In such a circumstance the retailer will refrain from lowering both prices. Moreover, a PRA impedes a retailer's ability to use the manufacturer's product as a loss leader, therefore potentially limiting its ability to compete on prices with other retailers thereby reducing retailer competition.

Potential efficiencies for PRAs between Manufacturers and Retailers

- 6.24 Whilst there are a number of theories of harm, in certain specific circumstances PRAs may also generate efficiencies. First, RPM agreements that set a maximum resale price may be used to mitigate double marginalisation problems, or other vertical coordination problems, which tend to hinder vertical relationships (see Mathewson and Winter, 1998). PRAs may, in specific circumstances, be adopted

for the same purpose,⁶⁹ though are unlikely in most cases to be as effective as RPM in achieving these efficiencies.

- 6.25 Suppose that manufacturer A, who has market power, distributes its product through a retailer that is able to obtain a significant mark-up on these products. If the PRA links the retail price of A's products to the retail price of other products for which the retailer has limited, or no, ability to increase the price, the retailer's mark-up on A's products is constrained.
- 6.26 However, it is important to note that, since the PRA may soften upstream competition it will additionally create incentives for the manufacturers of the linked products to raise wholesale prices. In this case the 'anchor' to which manufacturer A is linking the price would no longer be fixed and so the PRA would become less effective as a solution to double marginalisation. Moreover, whilst the PRA may mitigate to some extent the double margin problem for manufacturer A's product, it will induce the retailer to add a margin on the other product (product B). In effect this creates a cross subsidy between manufacturer A and B. Whilst consumers who buy A may be better off, those who buy B will be worse off with the parity.⁷⁰
- 6.27 Second, in the RPM literature, a price floor may also serve to mitigate free-riding problems in the provision of pre-sales, or other ancillary, services (see Telser, 1960). Similarly, pricing relativities agreements may also, in some cases, be used to address the free-riding issue. Suppose that retailer 1 provides some pre-sale services for product A (but not for product B), on which retailer 2 may free-ride by charging lower prices. The manufacturer of product A may avoid this outcome by asking retailer 2 to sign a pricing relativities agreement that requires it to keep the retail price for product A equal to retail price for

⁶⁹ See Mathewson and Winter (1998) for a discussion of how RPM can be used to mitigate double marginalization or other vertical coordination problems

⁷⁰ Since the double margin problem may be mitigated for one product and exacerbated for another it is much less likely that the PRAs are signed to address this problem when a significant number of manufacturers sign them.

another product B (for which there are no free-riding problems). This agreement implies that if retailer 2 wants to free-ride on retailer's 1 pre-sale services for product A it must charge a lower price for both product A and product B, thus giving up some of the profits it can make on the sale of this latter product. If the reduction in profit from the sale of product B is sufficiently strong to offset the gain retailer 1 obtains from free-riding on retailer 2's pre-sale services, the PRA would effectively prevent it from free-riding. Of course, this explanation requires that retailer 2 cannot free ride on the provision of services for both products A and B.

6.28 As for the double-marginalization justification discussed previously, this explanation requires specific conditions to be satisfied. In particular the precise situations in which a PRA on a rival manufacturer's product mitigates free riding from retailer 1 to retailer 2 may be limited.⁷¹

6.29 Whilst both arguments above may generate efficiencies, it is important to remember that they do not consider the strategic effect of PRAs on manufacturer's incentives and hence provide only a partial analysis of the overall effect. A fuller analysis would consider the impact of the efficiencies in conjunction with any change in manufacturer's incentives for setting wholesale price.

PRAs between Manufacturers and Retailers and Across-seller PRAs

6.30 As mentioned earlier, pricing relativities agreements have some of the features of across-sellers PRAs because the retail price the buyer pays to purchase one manufacturer's product is automatically adjusted when rival manufacturers change in wholesale prices causes a change in their retail prices. Indeed both pricing relativities agreements and across-sellers PRAs can lead to a softening competition, can support collusion and can be used to foreclose entry. However, some

⁷¹ Similar to the previous example, this explanation may also be unlikely to apply when several manufacturers sign PRAs with their retailers.

important differences between across-sellers PRAs and pricing relativities agreement must be noted.

- 6.31 First, the literature on across-sellers PRAs has highlighted the importance of ‘hassle costs’, especially when buyers are end consumers, to understand the competitive effects of these practices. In the case of pricing relativities agreement, buyers’ hassle costs are irrelevant in determining the impact of the PRAs. The reason is exactly that buyers are not part to the agreement and play no role in their enforcement.
- 6.32 Second, signalling low cost (and low prices) to buyers seems an important explanation of across-sellers PRAs in some cases, especially when buyers are heterogeneous end-consumers and acquiring information on prices is costly. This explanation does not seem applicable to pricing-relativities agreements, 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.
- 6.33 Further, while across-sellers PRAs can be used to discriminate between consumers with different sensitivity to prices, pricing relativities agreements do not seem appropriate for this purpose. The reason is that across-sellers PRAs 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 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.

Conclusions

- 6.34 To conclude, it is worth highlighting that a complete analysis of pricing relativities agreements, given the lack of literature, falls beyond the scope of this report. We have only provided some initial

considerations on their possible effects on competition derived from their similarities with across-sellers PRAs and RPM agreements.

Third-party PRAs between platforms and retailers: across-platforms parity agreements

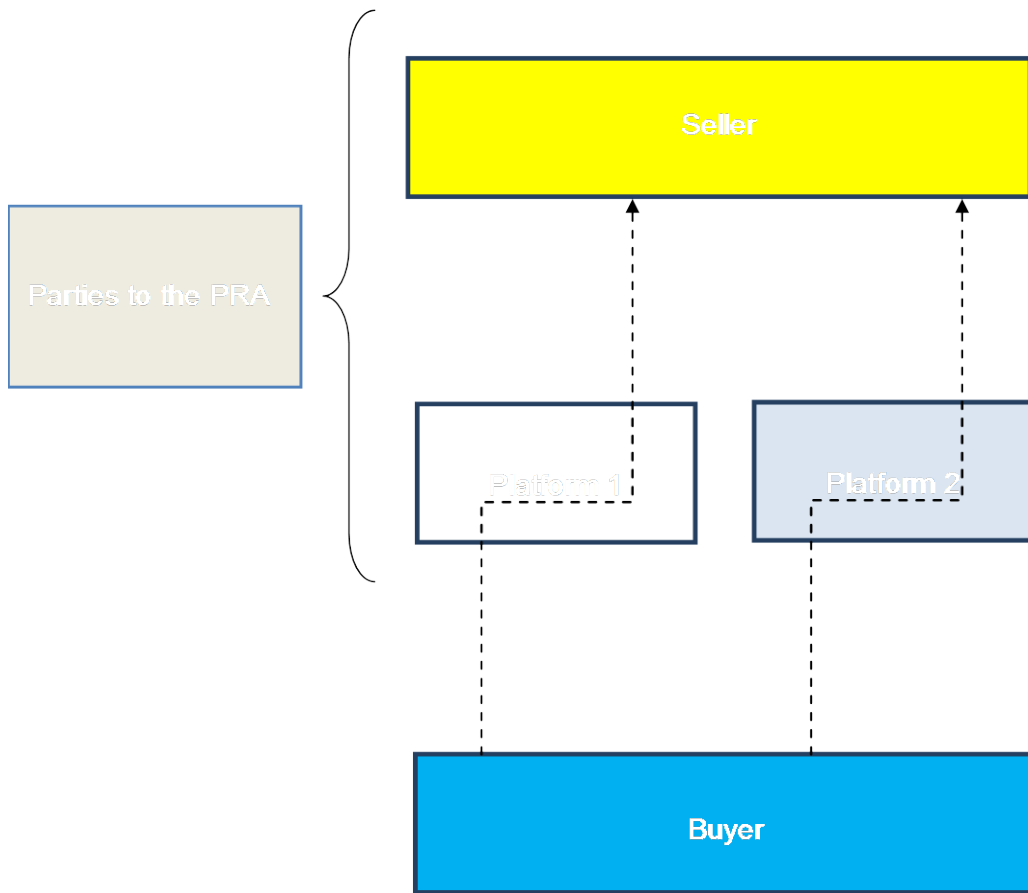
- 6.35 In this section we provide some initial considerations with regard to across-platform parity agreements. In these cases the PRA is between a platform, which provides trading services, and the sellers, who are manufacturers or retailers that sell to buyers (consumers) via the platform.
- 6.36 It is worth clarifying that the platforms we discuss here are those that act as a trading platform or market-place. These platforms allow consumers and retailer to meet and trade directly. The platforms do not buy the product from the seller and offer it to the buyer, but act only as an intermediary to facilitate the exchange.⁷²
- 6.37 The across-platform framework is not exclusive to the online world. One 'real' world example of a platform is that between shopping malls and retailers. A shopping mall provides the platform (the mall) for sellers (retailers) to sell their products to buyers (customers). An agreement that stipulates that retailers cannot price below the price they charge at the shopping mall in any of their other retail presences, is an example of an across-platform parity agreement.
- 6.38 The specific nature of the platform implies that this may provide services not just to sellers, but also to the buyers. Hence, the platform may also have an economic relationship with the buyer. In most cases platforms charge sellers a fee for their services, which can be charged either per-transaction or as a one-off access fee or it may include both elements (that is, a two-part tariff). However, platforms can also

⁷² Note that this paper does not address the extent to which online platforms or retailers should be in a position, legally, to discount or engage in retail price competition, irrespective of whether such platforms or online retailers take title in the goods of services in questions prior to selling them to end customers.

charge buyers a fee for access to the platform or for their purchase support services.

- 6.39 Where there are multiple platforms buyers and sellers can access more than one. In such cases sellers may be able to offer the same product across a number of platforms (unless there are exclusivity clauses) and buyers can choose on which one to buy the product. When buyers or sellers participate to multiple platforms it is said that they engage in multi-homing.
- 6.40 By signing an across-platforms parity agreement, the seller undertakes to charge, for the transaction with the buyers, a price that is the same as (or no higher than) the price charged for the same transaction on other platforms. The agreement is signed by the seller and the platform (that is, the upstream firm). It must be stressed that a platform parity agreement only concerns the relative level of the price which the seller charges to the buyer. It does not refer to the fee paid by the buyer or the seller to the platform. By definition a platform parity agreement is binding only if sellers have the ability to multi-home.
- 6.41 Figure 6.3 below depicts an across-platforms parity agreement between a seller that multi-homes on two platforms (1 and 2). As a consequence of this agreement, the price (p_{1D}) the seller charges to buyers on platform 1 is constrained to be no higher than the price (p_{2D}) the seller charges to buyers on platform 2 (that is, p_{1D} must be not higher than p_{2D}). The dark dotted lines show that the prices p_{1D} and p_{2D} refer to the purchase made by the buyer from the seller via the platforms.

FIGURE 6.3 - AN ACROSS-PLATFORMS PARITY AGREEMENT



6.42 In the rest of the chapter we outline the main possible competitive effects of across-platforms parity agreements and the possible incentives that drive platforms and retailers to sign them.

Potential effects of across-platforms parity agreements

6.43 It should be highlighted that, since the seminal paper by Rochet and Tirole (2003) on platforms, a burgeoning literature has developed which deals with competition among platforms (also referred to as two-sided markets). However, to date this literature does not study the competitive effects of across-platforms parity agreements. Therefore like the (previous) discussion on pricing relativities agreement, this section provides an assessment of the potential effects on competition of across-platforms parity agreements based

on the existing literature on across-sellers PRAs, on RPM and on across-customers agreements.

6.44 The most relevant competitive effects are likely to occur in the market where the platforms compete against each other. There appears to be strong analogies between across-platforms parity agreements and across-sellers PRAs. Indeed, the main consequence of an across-platforms parity agreement is that the price of the goods/services sold on that platform is defined in relation to other competing platforms.

6.45 Hence, on the basis of this similarity, we have identified several possible effects that these agreements can have on platform competition:

- a) foreclosing entry of other platforms
- b) softening competition between platforms
- c) facilitating collusion between platforms, and
- d) signalling information about platforms' costs.

6.46 We do not think that the price discrimination explanation would apply to these agreements, because this type of agreements do not allow to charge different types of prices to different consumers so as to exploit differences in willingness to pay. They actually impose greater uniformity of prices.

6.47 However, we think that there may be an additional efficiency justification for such agreements:

- e) protecting platforms' investments.

6.48 Below we examine these effects one by one. In addition we also discuss the possible collusive effects that these PRAs can have on the market in which sellers compete.

Foreclosing entry

- 6.49 Across-platforms parity agreements may impede the effective entry of rival platforms. Suppose that there is a monopolist platform and that another platform would like to enter the market. One strategy the entrant could adopt is to charge a lower transaction fee to the sellers, so as to allow them to charge lower prices and, hence, attract buyers to the new platform. However, if the monopolist has signed an across-platform parity agreement with its sellers, covering also new entrants, these sellers cannot charge lower prices on the new platform. This reduces the ability of the new platform to attract buyers and sellers and, hence, may discourage it from entering. Entry may be deterred if it is not economic to compete on non-price factors. This may be particularly relevant when a platform must reach a critical number of buyers and sellers in, for example when there are strong network effects. In such a case entry may be prevented even if the new entrant is more efficient than the incumbent.
- 6.50 Across-platforms parity agreements may also foreclose entry of platforms that try to adopt a different business model. Suppose that there exist one or more incumbent platforms that charge a fee to the sellers that include a per-transaction element, but do not ask the buyers for a fee. A new platform may decide to enter the market with a different price structure: it will charge a fee to the buyer and a lower per-transaction fee to the sellers. This business model is aimed at attracting a sufficient number of heavy-buyers, who are willing to pay a membership fee if this allows them to buy items at a lower price. The lower usage fee allows the sellers to pass on this saving to the buyers, thus lowering their price and increasing their sales. The new platform may obtain sufficient membership on both sides to make the new business model viable. Across-platforms parity agreements can prevent this type of entry by hampering their ability to attract members.
- 6.51 One question that arises is why would sellers sign such agreements if they reduced platform competition? Sellers would sign it only if they think that being on the platform, even with the price parity requirement, allows them to increase their sales more than not being

on it and maintaining complete pricing freedom. Such situation is more likely the stronger the market power of the platform, though it may not require that the platform enjoys a dominant position in an antitrust sense.⁷³

- 6.52 A second reason may be the existence of side payments, or bonuses, flowing from the platform to the retailers. These non-linear contracts allow the platform to compensate the retailer for any loss of profits, whilst resulting in higher profits overall.
- 6.53 The welfare impact of this mechanism is clearly negative and is probably a serious cause of concern related to the use of this type of agreements.

Softening competition between platforms

- 6.54 An across-platforms parity agreement can also soften competition among platforms, thus increasing the fees paid by the sellers and, as consequence, the prices charged by the sellers to the buyers.
- 6.55 Suppose that two platforms, A and B, compete to attract sellers and buyers, that all sellers multi-home and that platform A requests a higher transaction-based fee from the sellers that use it than platform B. Without across-platforms parity agreements, all else being equal, the sellers would charge a higher price to the buyers that purchase through platform A, to reflect the higher marginal cost of being on this platform.
- 6.56 However if, the sellers have signed an across-platforms parity agreement with platform A, they will have to charge on A a price that is not higher than the price charged on platform B. Hence, they will have to spread the higher fee charged by this platform across both prices, thereby reducing the price that they would charge to buyers on platform A and increasing the price they would charge to buyers on

⁷³ In some cases the seller may not have the ability to negotiate the PRA clause with the platform. In these cases the question is whether the seller is better off selling through the platform with a PRA, or not selling through the platform at all.

platform B. In such a situation the buyers on platform B will, to some extent, subsidise the buyers on platform A.

- 6.57 This subsidy lowers platform B's incentive to decrease the fee it charges to the sellers, compared to case in which no across-platforms parity agreements is present, since this reduction would benefit buyers on both platforms. Indeed, the sellers would have to spread this reduction across both prices (as p^A cannot be higher than p^B) and, therefore, by reducing its fee, platform B cannot increase its share of transactions carried out through the two platforms. Hence, platform B has a reduced incentive to decrease its fee. For the same reason, the parity agreement also increases A's incentive to raise its fee as sellers would have to spread this increase across prices on both platforms. The outcome is that both platforms charge a higher fee to sellers.
- 6.58 Moreover, if both platforms impose an across-platforms parity agreements, then both have a lower incentive to reduce the sellers' fee and a higher incentive to raise seller's fee: Hence, **a fortiori** a supra-competitive fee can emerge on the sellers' side. This softening competition effect is similar to the one generated by many sellers in the markets having across-sellers PRAs, such as PMGs (see par. 2.35-2.61).
- 6.59 The welfare effects of this softening of competition are negative in that they tend to determine an increase of the fees paid by the sellers and, hence, of the prices paid by the buyers, above the competitive level.
- 6.60 The possible effects on platform competition of this PRA are strengthened by the indirect externalities that characterize platforms. Buyers and sellers, in deciding whether to access and use a platform, take into account: the fees charged by the platform, the price of the final transaction and the probability that they will be able to transact with the other side of the market.
- 6.61 If a seller charges a price on platform B which is lower than the price charged on platform A, ceteris paribus, this will make platform B more valuable to buyers. If more buyers use platform B to transact with sellers, platform B will become more valuable to sellers. This effect

allows platform B to grow. As explained above, across-platforms parity agreements impedes this mechanism and, therefore, lowers the incentive of rival platforms to reduce their usage fee charged to the seller.

Facilitating collusion between platforms

- 6.62 An across-platforms parity agreement may facilitate collusion between platforms.
- 6.63 Again the analogy with across-sellers PRAs is apparent. If platforms set collusive fees to the sellers, the advantage of deviating by reducing the sellers' fee is strongly diminished by the parity agreements, because the fee reduction will be passed on also to the buyers that use other platforms. Moreover, an across-platform parity agreement improves the platforms' ability to monitor each other because, when a platform deviates, it is more likely that sellers will complaint against the higher fee that they have to pay on other platforms if they do not have the possibility to price discriminate across platforms.

Facilitating collusion between sellers

- 6.64 In principle across-platforms parity agreements may also affect the degree of competition in the market where sellers compete, because they limit the ability of sellers to price-discriminate across-platforms. One may argue that across-platforms parity agreements, insofar as they reduce the variety of prices offered by sellers, may facilitate collusion. Less price variety improves the sellers' ability to monitor each other pricing decisions and reduces the costs of enforcing a horizontal agreement.
- 6.65 However, this potential collusive effect arises each time sellers assume an obligation that limits the complexity of their pricing strategies and it is not just specific to across-platforms parity agreements.

Signalling private information

- 6.66 Across-sellers PRAs may be used to signal private information on costs and prices (see paragraphs 2.87 to 2.91). Under certain circumstances signalling the fact that a platform is a low cost one may also provide a rationale for the adoption of across-platform parity agreements. An across-platform parity agreement may be used as a means to inform buyers that all the goods and services sold on that platform are not available at a lower price anywhere else and therefore no better deals can be made by shopping around. The signal will be credible if high cost platforms find it too costly to make the same commitment. The result is that only the low cost platforms can offer the guarantee and, hence, this guarantee is credible.
- 6.67 Whilst this explanation may be superficially attractive it requires the fulfilment of a number of conditions, some of which may not hold in platforms.
- 6.68 First, as in the case of across-sellers PRAs, information about prices must be costly to obtain and these costs must vary across consumers, so that some consumers search for lower prices and others do not. However the existence of the across-platforms PRA, unlike prices, must be easily observed by consumers. In situations where the buyers are not aware these agreements exist because they are only in the contracts between the retailers and platforms, then such a signalling rationale is less likely.
- 6.69 Second, in equilibrium, there must be some consumers who are willing to shop at the high-cost high-priced platform (for example because they value the ancillary services it offers).
- 6.70 Third, for such an equilibrium to be efficient, a key requirement is that only the low-cost low-price platform adopts this strategy whilst high cost platforms do not (that is there is a 'separating equilibrium'). Hence, there must exist one or more high-cost platform that does not

want that their sellers to commit to charge the same price across all platforms.⁷⁴

Protecting investments by platform-owners

- 6.71 An across-platforms parity agreement may help a high cost/high quality (or high reputation) platform to defend its quality (or reputational) investments, by preventing other platforms from free-riding on them.
- 6.72 Suppose that an on-line platform offers (for free) a number of pre-sale services and a rich assortment of products. If buyers use this high quality/high cost platform to search and then buy on a lower quality/lower cost platform, the high quality platform will not be able to obtain a return from its investments. Similarly, if the platform has invested over time in building a reputation for its services (for example, how it selects the sellers present on it, how it grades their reliability, the quality of its reviews and so on), it may not want retailers to benefit in attracting buyers, but then have buyers make their purchases on the lower quality/lower cost platform.
- 6.73 Across-platform parity agreements stop low cost platforms from free-riding on the high cost platform's investment, because sellers are prevented from selling at lower prices on these platforms.
- 6.74 More generally a platform may have an incentive to attempt to influence the retailer price because it has an impact on the number of consumers the platform can attract. Although the across-platforms PRA is a constraint on the price charged by the seller to the buyer and hence the platform neither pays, nor receives the price to which the

⁷⁴ This latter condition seems rather unlikely. Indeed, in the across-sellers PRA case, the high-cost firm may not be willing to adopt a price matching (or price beating) guarantee because it would force it to delegate its price to the low-cost firm. In the platform parity case, the high-cost platform, by requesting its sellers to charge on it a price that is not higher than the price charged on other platforms, does not delegate any of its prices to the low-cost platform. Therefore, there seems to be less of a reason for why a high cost platform would be unwilling to enter into this type of PRA.

agreement refers to, there is a potential externality for the platform. The price paid by a buyer to a seller when he purchases a good or a service through the platform influences the willingness of buyers to make purchases through that platform and hence the attractiveness of that platform. For example suppose that a consumer visits two shopping malls (A and B) to buy an item. If he finds the same item at a lower price in shopping mall A, he will buy it in that shopping mall. Moreover, he might infer that in general shopping mall A is generally cheaper than shopping mall B, even if the price he pays is not decided by the shopping malls, but by the shops. The buyer may then decide to visit first, or only, shopping mall A for his future purchases of other products. Hence, since the seller's pricing decisions entail adverse (external) effects that are borne by the platform, the former will try to find some means to influence it and, therefore, may ask the sellers to agree to an across-platforms PRA.

6.75 Of course such a PRA will also mean that low-cost platforms will find it more difficult to compete because they can no longer decide to simply provide a lower level of service at a lower price. Whether the overall effect on consumer welfare of this use of across-platforms parity agreements is positive will depend on the facts of the situation. For example, in the high quality/high reputation case the overall welfare effect depends on the benefits buyers obtain from this quality/reputation (for example, from the pre-purchase services the platform offers) on one side and on the possible harm due to a lower degree of price competition among platforms on the other side. In addition, there may be alternative ways for these benefits to be realised that would not have the same possible harm from reduced competition.

Conclusions

6.76 Finally, like the discussion of retailer manufacturer PRAs, we would like to conclude by stressing that the above analysis provides preliminary thoughts on a complex issue. Whilst it provides a good first move towards identifying the possible anti-competitive and pro-competitive incentives, it does not exhaust the discussion of this type

of agreements. This is an area in which more theoretical and empirical economic research as well as more case work would be valued.

7 SOME GENERAL CONSIDERATIONS ON THE EXISTING CASE-LAW

- 7.1 In this Chapter we present an analysis of the case-law on PRAs in four selected jurisdictions (US, EU, UK,⁷⁵ Italy) from an economic perspective. A detailed summary of a selection of these cases can be found in Annex B.
- 7.2 The analysis of the case-law shows that there is a general paucity of cases in which competition authorities and courts have directly dealt with PRAs, and significant degree of heterogeneity among the different legal systems, both in terms of focus and of treatment.
- 7.3 With respect to the heterogeneity among the different legal systems, a clear divide line seems to exist between the US, one side, and the EU, Italy and the UK, on the other. Whilst in the US practically all cases involving PRAs, particularly in the recent past, relate to MFCCs (and thus to across-customers PRAs), in Europe cases appear to be more varied, in that they cover both across-customers PRAs (mostly MFCCs) and across-sellers PRAs (in practice only MCCs, also referred to as 'English clauses').
- 7.4 This highlights antitrust authorities and courts have mostly examined MFCCs, and MCCs. LPGs have not been considered at all. Very little attention is also awarded to third-party PRAs.
- 7.5 The above is in contrast with the economic literature on PRAs, which considers a much wider variety of clauses and mechanisms. This is particularly evident with respect to across-sellers PRAs, in relation to which economists have analysed, not just MCCs, but also, and much more extensively, LPGs.

⁷⁵ The UK cases herein discussed do not include non-public or on-going cases. The OFT's Tobacco case, which was under appeal at the time of writing this report, is not included.

Theories of harm

- 7.6 There also appears to be a notable difference, between the US and the European jurisdictions, with respect to the theories of harm underpinning the assessment of the various clauses.
- 7.7 In the US, the MFCCs have been analysed both from a foreclosure (*Ocean State, Blue Cross and Delta Dental*) and a softening competition/collusion (*Starr, General Electric, and Ethyl*) perspective.
- 7.8 On the contrary, the predominant antitrust concern considered in the EU cases has essentially been foreclosure. The MCCs inserted by the dominant undertaking in their contracts (*Hoffmann-La Roche, Solvay*), or included in a vertical arrangement by an undertaking with significant market power (*BP Kemi*), were deemed suitable to lead to foreclosure, by allowing the supplier to gather information on competing offers, as well as by discouraging (potential) competitors from entering the market, or competing on prices, since the clause meant that their offer would always be met by the incumbent. The same applies to Italy, where the main cases (*Unapace/Enel* and *Telecom Italia*) concern formerly legal monopolists that were trying to prevent entry in the soon-to-be liberalised markets they dominated.⁷⁶ The barriers to entry created by means of long-term agreements, which included an MCC, were also the main concern in the UK *White Salt* case.
- 7.9 At EU level, foreclosure was the main competitive concern also in most MFCC cases (*Ruhrgas* and *Digitisation of European cinemas*), where the across-customers PRAs was considered as a means to

⁷⁶ In the *Hoffman-La Roche, Solvay* and *BP Kemi* cases, as well as in the Italian ones, reference is also made, respectively, to the 'information' on the market gathered through, and the 'artificial transparency' brought about by, the English clauses. This suggests a possible collusion risk, which, however, was not further explored. In this respect, the *Industrial Gases* case holds some relevance, as the adoption of English clauses was deemed acceptable provided – inter alia – that the identity of the company making the better offer was not disclosed when the clause was invoked.

ensure that competitors could not obtain a key input at better conditions. The only EU case which has, so far, explicitly considered PRAs within a collusive theory of harm perspective is the *Hollywood Studios* case. Unfortunately, the only documentation available on this case is a press release, which does not explain how the MFCCs could have led to price coordination.

PRAs in guidelines and soft law

- 7.10 Consistently with these findings, few references to PRAs can be found in the EU 'soft' law, all of which appear to confirm that the Commission's main concern with respect to these pricing policies is foreclosure.
- 7.11 The 2010 EC Guidelines on Vertical Restraints explicitly deal with MCCs in the context of single branding. According to these Guidelines a 'so-called 'English clause', requiring the buyer to report any better offer and allowing him only to accept such an offer when the supplier does not match it, can be expected to have the same effect as a single branding obligation, especially when the buyer has to reveal who makes the better offer'.⁷⁷
- 7.12 Interestingly, the reference to the increased transparency brought about by the MCCs that could facilitate collusion, which was present in the 2000 EC Guidelines on Vertical Restraints,⁷⁸ was not

⁷⁷ OJ C 130, 19 May 2010, para. 129.

⁷⁸ In the 2000 EC Guidelines on Vertical Restraints at para. 152 it was noted that: '...by increasing the transparency of the market [such clauses] may facilitate collusion between the suppliers. An English clause may also work as quantity-forcing. Quantity-forcing on the buyer is a weaker form of non-compete, where incentives or obligations agreed between the supplier and the buyer make the latter concentrate his purchases to a large extent with one supplier. Quantity-forcing may for example take the form of minimum purchase requirements or non-linear pricing, such as quantity rebate schemes, loyalty rebate schemes or a two-part tariff (fixed fee plus a price per unit). Quantity-forcing on the buyer will have similar but weaker foreclosure effects than a non-compete obligation. The assessment of all these different forms will depend on their effect on the market. In addition, Article 82 specifically prevents dominant companies from applying English clauses or fidelity rebate schemes...'

maintained in the 2010 version. Further, the 2010 EC Guidelines on Vertical Restraints include substantially the same provisions contained in the 2005 DG Competition *Discussion paper on the application of Article 82 of the Treaty to exclusionary abuses*⁷⁹ on these clauses. These were, however, excluded from the *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* adopted in 2009.⁸⁰

7.13 With respect to across-customers PRAs, these are only considered in the 2010 EC Guidelines on Vertical Restraints, where MFCCs in favour of final customers adopted by a retailer upon request from its supplier are considered as a means to facilitate RPM practices.⁸¹ For the sake of clarity, we note that these 'retail MFCCs' differ from those agreements under which a manufacturer requires one or more distributors to set its retail prices (that is, those charged to final customers) on the basis of specific pricing relativities between the manufacturer's product and those of its competitors.

7.14 These clauses are third-party PRAs because the final buyer is not party to the agreement, even though they determine the level of the price this has to pay. We note that these clauses could also be seen as an across-customers scheme in the sense that the retailer grants its supplier (that is, more precisely, reversing their position, the retailer, which provides the distribution services, grants to its customer-supplier) the right to obtain that the retail prices of its products are a function of the prices of its other customer-suppliers. In addition, these clauses could also be seen as a form of RPM, insofar as they restrain the freedom of distributors of freely fixing retail prices.

⁷⁹ Staff discussion paper, December 2005, para. 150.

⁸⁰ 24 February 2009, 2009/C 45/02

⁸¹ Where it is stated that '...direct or indirect price fixing can be made more effective when combined with measures which may reduce the buyer's incentive to lower the resale price, such as the supplier printing a recommended resale price on the product or the supplier obliging the buyer to apply a most-favoured-customer clause' (para. 48). This was also stated in the 2000 EC Guidelines on Vertical Restraints, at para. 47.

Legal treatment in the various jurisdictions

- 7.15 In terms of the legal treatment, any thorough comparison between the four jurisdictions would be hazardous, due to the limited number of cases. Nonetheless, a few observations may be made.
- 7.16 In Europe there appears to be a quite consolidated strict position with respect to MCCs when these clauses are combined by a dominant player with loyalty mechanisms, such as rebates.
- 7.17 The situation is less clear in scenarios with non-dominant undertakings, particularly when the incumbent supplier cannot ascertain who is making the competing offer (see the *Industrial gases* case), and the clause is requested by the purchaser. Further, in the past there have been attempts to emphasize that, in a setting where no dominant player is present, these clauses are still similar to exclusivity provisions, but have a more attenuated effect, as the customer could still benefit from the competitive offers existing on the market, albeit indirectly. This argument was however expressly rejected in *BP Kemi*.
- 7.18 Further, whilst in the 1983 Commission notice on the vertical block exemptions (on exclusive distribution and exclusive purchasing) provided that '[c]lauses which allow the reseller to obtain the contract goods from the other suppliers, should these sell them more cheaply or on more favourable terms than the other party, are still covered by the block exemption...',⁸² the subsequent 2000 and 2010 EC Guidelines on Vertical Restraint no longer included this passage. In addition, Regulation No. 1984/83⁸³ required that long-term supply agreements between beer producers and resellers that leased their premises from these producers, in order to fall under the block

⁸² Commission notice concerning Commission Regulations (EEC) No 1983/83 and (EEC) No 1984/83 of 22 June 1983 on the application of Article 85 (3) of the Treaty to categories of exclusive distribution agreements and exclusive purchasing agreements (OJ C 355, 30 December 1983), para. 35.

⁸³ EC regulation no. 1984/83 on application of Article 85(3) of the Treaty to categories of exclusive purchasing agreements (OJ 1983 L173/5), article 8(2)(b).

exemption should have contained a clause that would give the reseller the right to obtain drinks, except beer, from other undertakings, were these offered them on more favourable conditions than the supplier did not meet. The 1983 EC guidelines and provisions summarised above could give credit to the idea that an English clause would be compatible with competition law as long as it did not contain a non-release condition. However, this argument was excluded from any subsequent relevant legislation and has found not much success in the various cases where it was raised.

- 7.19 As already mentioned, no antitrust case on across-sellers PRAs could be found in the US.⁸⁴ As for MFCCs, the case-law in the US suggests that they are examined under a 'rule of reason' approach. In particular, this current approach (see *Delta Dental* and *Starr*) has only recently been adopted after cases that, instead, displayed a very favourable attitude towards MFCCs (see for example, Judge Posner in *Marshfield Clinic*).

Conclusions

- 7.20 In this Chapter we have provided a few considerations on the existing case-law on PRAs in EU, Italy, UK and the US. In particular we have highlighted the differences between the EU and US both in terms of the type of PRAs examined and the theory of harms on which the enforcement has focused.
- 7.21 There are also some interesting differences in terms of focus between the legal enforcement, which we have briefly presented in this chapter, and the economic debate, discussed in the earlier chapters.

⁸⁴ In this respect, nonetheless, it may be worth noting that the Federal Trade Commission's website, in a consumer advice section, contains the following statement: 'Look for price matching policies. Some merchants will match, or even beat, a competitor's prices'. Although this statement was issued in relation to general financial advice for the average U.S. consumer, and does not present even a cursory analysis of competitive effects, nevertheless it does lend some credence to the notion that at least part of the agency may view certain PRAs as pro-competitive in principle. (www.ftc.gov/bcp/edu/microsites/moneymatters/managing-your-spending.html).

First, the economic literature devotes a lot of attention to LPGs, while there are no competition cases involving this type of policy. This may be due to the fact that LPGs between sellers and end consumers would not engage certain competition law prohibitions which apply only where there are agreements between undertakings.

7.22 Further, a large share of the cases, particularly in the EU, is related to the use of PRAs by dominant undertakings to foreclose markets, while the economists have mostly focused on the softening competition effects caused by the adoption of PRAs. This difference is particularly significant with respect to MFCCs, in relation to which the foreclosure aspects have barely received attention in the economic literature.

8 POLICY CONCLUSIONS

- 8.1 The economic literature that we have discussed in the previous chapters, as well as the case-law, shows that firms adopt PRAs for many different reasons and that a large range of competition effects may derive from them. PRAs can foreclose a market, soften competition and facilitate collusion. They may also be used by firms to signal private information to customers or mitigate incomplete contract problems. Further, PRAs may allow, or prevent, firms from price discriminating or can improve their bargaining position.
- 8.2 Given this extremely wide range of possibilities and their different, and sometimes uncertain, impact on consumer welfare it may be difficult to give overarching or general conclusions. Nevertheless, we think that the existing economic literature has obtained some results that are sufficiently solid to be used to provide guidance to competition authorities.
- 8.3 As already discussed, we believe that the level of development of the economic literature makes it possible to give some policy indications for the assessment of across-sellers and across-customers PRAs, but the across-platforms parity agreements and pricing relativities agreements is less developed. With respect to these types of PRAs, we have only been able to provide some initial thoughts and suggestions (see Chapter 6).
- 8.4 In this Chapter we shall outline the conclusions we have reached on how one can identify, among the possible competition effects of across-sellers and across-customers PRAs, which one (or ones) are the most likely in the circumstances examined.
- 8.5 It is important to stress that our analysis focuses on the effects that these pricing policies have on competition and, as a consequence, on consumer welfare. Hence, we are not going to address the consumer protection issues that may arise as a consequence of the adoption of

these policies.⁸⁵ Further, not all the competition effects with a negative impact on consumer welfare that we have identified can necessarily be addressed through the traditional antitrust legal instruments (that is, Article 101 and Article 102 TFEU). These may, nevertheless, be tackled (often, though not always) through market studies or market investigations (in those countries, like the UK, where these are available).

What can help in determining when PRAs may harm consumer welfare?

- 8.6 PRAs can discourage entry in the market, may soften competition among sellers or facilitate collusion, thus reducing competition and consumer welfare. However, they may also signal low costs or high quality and therefore provide consumers with information that improves their ability to choose, or they can mitigate incomplete contract problems and foster investments aimed at improving production processes or product. Both these effects can lead to an increase in consumer welfare. Further, PRAs may allow, or prevent, firms from price discriminating or can improve their bargaining position, which, depending on the circumstances of the case, may lead to an increase or a reduction in consumer welfare.
- 8.7 More than one of these effects may take place. Hence, the total welfare impact of PRAs depends on the balance between the reduction in competition they induce and the efficiency effects they may generate.
- 8.8 From the existing literature, it is possible to derive some interesting suggestions on the characteristics of the PRAs, the features of the market in which they are used and the nature of the sellers adopting them, which may help in determining the possible effects of these

⁸⁵ For example an LPG can be worded so as to impose so many obstacles to the redemption of the guarantee that the promise becomes void. In this case the LPG, rather than signalling the nature of the firm, may mislead consumers and a policy intervention may be necessary to protect consumers.

pricing policies. Below we summarise what we believe are the policy indications that can be derived from these papers for across-sellers and across-customers PRAs. In the rest of this Chapter when we refer generically to PRAs we intend to refer to these two types of agreements.

Characteristics of the market in which the PRAs are adopted

8.9 The market characteristics that we believe should be given the greatest consideration when assessing the likely effect of the adoption of a PRA are the following:

- 1) **degree of concentration** - collusion and softening of competition are more likely in oligopolistic markets, although the softening competition effect may occur also in unconcentrated markets; foreclosure effects are more plausible if the incumbent firms enjoy a significant degree of market power (see para. 8.11).
- 2) **degree of heterogeneity of the sellers** - more heterogeneity downplays the risk that the adoption of PRAs may lead to collusion or to a softening of competition, and increases the plausibility that PRAs are used by firms to signal private information to buyers or to price discriminate.
- 3) **degree of heterogeneity of the buyers** - price discrimination and signalling require the existence of different types of consumers, in terms of information on prices (discrimination) and preferences (signalling). In both cases buyers need not to have perfect information on prices.
- 4) **level of barriers to entry** – high barriers to entry and expansion, such as high sunk costs or a cost structure that requires as a high minimum efficient scale, increase the risk of foreclosure effects.
- 5) **type of contracts** – if the market is characterised by the widespread use of long-term contracts it is more likely that PRAs are adopted to write more complete contracts when other price regulation mechanisms are not feasible.

- 8.10 Clearly this list cannot be exhaustive. It highlights those characteristics that, in the light of the current economic thinking on the subject, we believe have a strong impact of the nature and magnitude of the effects caused by the PRAs, but there may be other features, not mentioned here, that could be relevant in specific cases.

Characteristics of the sellers adopting the PRAs

- 8.11 The characteristics of the seller(s) adopting the PRAs which should be more carefully assessed are the following:
- 1) **degree of market power** – if the firm which adopts the PRA is dominant the risk of foreclosure effects is very high, especially if the agreement involves those buyers that are more likely to switch or that represent a large share of the demand.
 - 2) **level of their prices** – if the sellers which adopt the PRA have the lowest prices relative to the other sellers in the market, it is plausible that the pricing policy are employed as a signalling device. If these sellers have the highest price, discrimination is more plausible. In the former case a positive welfare effect is more likely whereas in the latter case the welfare effect is more ambiguous.
 - 3) **number of firms** – if all or most of the sellers active in the market adopt the PRA the risk of collusion or of softening of competition increases.
- 8.12 Again this list cannot be complete; it aims to provide the main indications that can be derived from the existing literature.

Characteristics of the PRAs

- 8.13 The characteristics of the PRA, and of the contract in which it is embedded (if any), which should be taken into consideration when assessing the effects of a PRA are the following:
- 1) **ease of renegotiation of the contract (for across-sellers)** – if it is difficult, or costly, to renegotiate a contract, for example because

one of parties has undertaken some specific investments, a PRA could be used to mitigate contractual incompleteness problems.

- 2) **inclusion in the contract of a price indexing mechanism (for across-sellers)** – if the contract already includes an indexing mechanism it is unlikely that a PRA is added to it to mitigate incomplete contract problems.
- 3) **inclusion in the contract of another PRA** – when an across-sellers and an across-customers PRA are offered together the risk of a softening of competition effect is much stronger.
- 4) **level of hassle costs (for across-sellers)** - if consumers face high hassle costs there is a lower risk that collusion and softening of competition will lead to significant effects.
- 5) **observed frequency of redemption (for across-sellers)** – a low rate of redemption is less compatible with the use of PRAs as a means to price discriminate, while a high rate of redemption is less compatible with PRA being used as a collusion or softening mechanism. Likewise a high rate of redemption is less compatible with the PRA representing a signal of private information to the consumers.
- 6) **promise to meet or beat (for across-sellers)** – if the LPG promises to beat the prices of the competing sellers the risk of foreclosure is higher, while if the LPG promises to match the rivals' prices, there is a greater risk of collusion and softening of competition. Further, if the LPG promises to beat any rival's price it is more likely that the PRA could be used as a signalling device.
- 7) **price to which it applies (for across-sellers)** – if the LPG applies to the rivals' effective (rather than listed prices) the risk of foreclosure is higher, if a PBG applies to the rivals' listed prices there is a lower risk of collusion and softening of competition.
- 8) **whether it allows the release of the seller (for across-sellers)** – a meet-or-release MCC increases the risk of foreclosure, as the entrant may obtain an adverse selection of buyers.

9) **If it is contemporaneous and retroactive (for across-customers)** – a contemporaneous MFCC is less powerful than a retroactive one in leading to a collusion or softening competition effect, because the ‘penalty’ a firm imposes on itself is clearly larger when the clause applies over a longer period of time.

8.14 Also this list is not exhaustive, it summarises the insights obtained from the literature we have examined. More features may turn out to be relevant in specific cases or as the literature develops.

8.15 We would like to add that during the two roundtables, which have been held as part of this project,⁸⁶ two further characteristics were suggested as relevant: the nature of the buyers and which of the two sides asks/offer the PRA.

Other factors that we have considered

8.16 Below we briefly discuss two other factors that were discussed during the two roundtables that were held as part of this project:

- (i) the nature of the buyer(s), and
- (ii) the side who asks for the PRA.

Nature of the buyers

8.17 During the roundtables it was debated whether the fact that the buyers were final consumers or firms made a difference in terms of the likely effect of a PRA.

8.18 From a strictly legal point of view this characterization may be crucial. An agreement must include two or more economic undertakings to constitute an ‘agreement’ under Article 101 TFEU and therefore

⁸⁶ As part of this project the OFT and Lear have organised two roundtables, in Brussels and London, during which a group of academics and practitioner, with considerable experience in competition policy, have discussed the preliminary findings of this project and have brainstormed on possible policy suggestions for the assessment of the competition effects of PRAs.

Article 101 would not be applicable if the agreement is between an undertaking and one or more final consumers.⁸⁷

- 8.19 From an economic point view there are no clear indications that the nature of the buyer is decisive. Indeed, some economic justifications are more likely if the buyer is a firm. For instance, a PRA is more likely to be adopted to protect the buyer's specific investments when the latter is a firm.
- 8.20 A different possibility is that final consumers' shopping decision may reflect preferences, or behavioural biases, that do not affect firms' procurement decisions, and that these preferences/biases may explain why retailers adopt these policies **vis-a-vis** their customers better than any other economic theory. For instance, consumers may prefer firms that offer a PRA because they feel protected by the guarantee, or because they think that it is fair that they pay the same price as all the other buyers. Across-sellers and across-customers PRAs then represent a sort of 'non-price' feature of the products which can affect consumers' purchasing decisions. If consumers effectively derive utility from the presence of these policies, then these may be an efficiency.
- 8.21 The problem is that it is not totally clear how one should treat these 'preferences' in assessing consumer welfare. Normally economists take an agnostic position. They argue that if consumers are willing to pay a higher price to drink a coffee that a famous and attractive actor declares he likes, one should assume that they are better off if they drink that coffee, even if its taste is the same as that of other coffees. Indeed, non-informative advertising is a means to soften (price) competition, but nobody has ever suggested that competition authorities should prohibit it.

⁸⁷ Hay (2000) maintains that Section 1 of the Sherman Act should be applicable also to unilateral conducts that facilitate collusion and that therefore an agreement as defined in the text is not necessary. It seems unlikely that this position can be applied also to EU competition law.

- 8.22 Yet, it is not obvious that we can apply the same agnostic view to PRAs, as the 'non-price' features of the product concerns the price. While the coffee drinker (maybe unconsciously) trades the (perceived) glamour with a higher price, the PRA's consumer might trade the protection against an unfair price with a higher price. Can we assume that consumers are better off if they feel protected against an excessive price, even if they end up paying more? We have found no clear answers to these questions in the literature and we do not intend to provide our own. We just think that these questions deserve some reflections.
- 8.23 Consumers may derive other, less controversial, benefits from PRAs policies. Across-sellers PRAs send the following message: 'buy here because you will not lose (or may even gain) if you find the same item for less in another shop'. Across-customers PRA's message might be 'buy now, because you will not lose if we lower the price in the future'. Both messages can induce consumers to consume earlier and, therefore, improve their welfare.⁸⁸
- 8.24 We think that these considerations are very interesting and they provide material for promising economic research.

Side which asks for the PRA

- 8.25 Another issue that was raised during the roundtables was whether it matters which side has asked for the PRA. Indeed when a PRA is embedded in a contract (between two firms) both parties must voluntarily adhere to the agreement. Yet, it has been argued that ascertaining which of the two parties **proposed** the pricing agreement may help in identifying its likely competition effects.

⁸⁸ One may think that these PRAs benefit consumers also because they reduce the amount of search that consumers perform. However, while PRAs may indeed induce consumers to search less before their purchase they may increase the post-purchase search activity, so that the overall effect on search costs is not clear.

- 8.26 We think that this approach requires caution on behalf of competition policy makers for a variety of reasons.
- 8.27 First, as the economic literature on exclusive contracts has shown,⁸⁹ buyers may be individually interested in signing a specific agreement, even if collectively they may be harmed by it. For instance, buyers may individually require to be 'protected' by an across-customers PRA, as this prevents them from ever having to pay more than their competitors. Yet, this clause may lead to a less competitive upstream market and thus to higher input prices. Hence, if they fail to coordinate, buyers may propose agreements that are against their interests as a group.
- 8.28 Second, the motives behind the adoption of a PRA and the effects it generates may not be aligned. A competition authority is likely to be interested in the welfare effects of a practice, and while the reasons that explain why firms adopted it may be useful to understand what these effects are, they should not necessarily influence directly any policy intervention. Of course to the extent that information on the intention aids in differentiating between pro-competitive and anti-competitive agreements, this may be useful information.
- 8.29 Finally, both parties may have anticompetitive reasons for wanting to adopt a PRA. While most of the literature focuses on the effects of the PRA on the sellers' market, across-customers PRAs may also be used by buyers to foreclose the downstream market where they compete.
- 8.30 For these reasons we think that ascertaining which of the two parties offered/requested the PRA should be treated with caution in order to determine the likely effect of the agreement.

⁸⁹ See Rasmusen et al (1991) and Segal and Whinston (2000)

Two screening devices

- 8.31 On the basis of the findings of the literature we have reviewed in this report, we propose two possible screening devices (one for across-sellers PRAs and one for across-customers PRAs), which may help a competition authority in the preliminary assessment of these PRAs.
- 8.32 These screening cannot establish the legality or illegality of a PRA, but may be the base for an informed decision on whether a case should be pursued further and what are the theories of harm or the economic justifications on which the investigation should focus.
- 8.33 The detailed description of the two screening devices is provided in Annex A, here we will just provide a general outline of their structure.
- 8.34 Both devices consist of a questionnaire, accompanied by a series of tables.
- 8.35 The questionnaires are based on a distinction between two separate groups of theories of harm: foreclosure, on one side, and softening competition/collusion, on the other side. This distinction corresponds broadly to the legal distinction between conducts that may fall under Article 102 TFEU and conducts that may fall under Article 101 TFEU.⁹⁰
- 8.36 If the seller that adopts the PRA is dominant, our questionnaire verifies the likelihood that the pricing policy may lead to market foreclosure by asking questions on: a) the characteristics of the PRA; b) the characteristics of the seller(s) that adopts it; c) the characteristics of the buyers; and d) the existence of other contractual restrictions.

⁹⁰ In the roundtables we held in London and Brussels to discuss a preliminary version of this report, several participants suggested that the question of whether Article 101 and Article 102 may apply is an important one. However this is not discussed within the current scope.

- 8.37 The questionnaire also verifies if there may be one, or more, efficiency justifications, whose positive effect on welfare may outweigh the risk of foreclosure.
- 8.38 If the seller that adopts the PRA is not dominant (or are unlikely to be dominant), the questionnaire asks a series of questions to verify if the PRA may soften competition or could help to reach a collusive equilibrium. These questions concern: a) the characteristics of the PRA; b) the number of the sellers that adopts it; c) the existence of price dispersion; d) the existence of exogenous or endogenous hassle costs; and e) the frequency of redemption of the policy.
- 8.39 A set of Tables, which provides further elements that could help competition authorities in forming an initial view on the likely impact(s) of a specific PRA.
- 8.40 The screening devices have been designed with the aim to identify the theory of harm or the efficiency justification that **prima face** are more likely and that may be addressed first by an in-depth investigation. However, one should bear in mind that the various theories of harm or efficiency justifications are not mutually exclusive. Therefore, it may be useful to answer all the questions without following the suggested sequence.

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ANNEXE A. TWO SCREENING DEVICES

- A.1 In this report we have identified a number of possible competition effects that may be generated by the adoption of across-sellers and across-customers PRAs. In this section we propose two screening devices that could help competition authorities in forming an initial view on the likely impact(s) of a specific PRA. This should help in deciding whether to further investigate the pricing policy or not and what to focus on. These devices, however, cannot provide definitive and firm conclusions on the effects of competition of a pricing policy.
- A.2 These two devices are based on a set of questions placed along a decision tree. They are integrated by a set of tables that provide some additional elements to be considered in order to complete this preliminary analysis.
- A.3 Three important caveats should accompany these tools. First, they apply only to across-sellers and across-customers PRAs because these agreements have been sufficiently studied in the economic literature. For the other PRAs we believe more academic literature and case law is needed before use of a screening tool would be appropriate.
- A.4 Second, there exists a wide variety of PRAs. These can differ along many dimensions and can be adopted in markets that present many different structural characteristics. The screening devices proposed here do not try to explore all the possible combinations; they suggest instead a simplified path through the most significant characteristics of the market and of the PRA to reach some initial policy indications.
- A.5 Third, the tools should not be considered to be definitive in their conclusions. The tools provide indications of what types of effects are **more or less likely**, they do not provide definitive conclusions. Thus whilst one effect may be less likely, it does not necessarily follow that it will not exist. Moreover, since the various theories of harm or efficiency justifications are not mutually exclusive, it may be useful to answer all the questions without following the suggested sequence. In any case, these tools are not intended to substitute for an analysis of the facts of each specific case.

A.6 A detailed description of how the graph is structured is provided below.

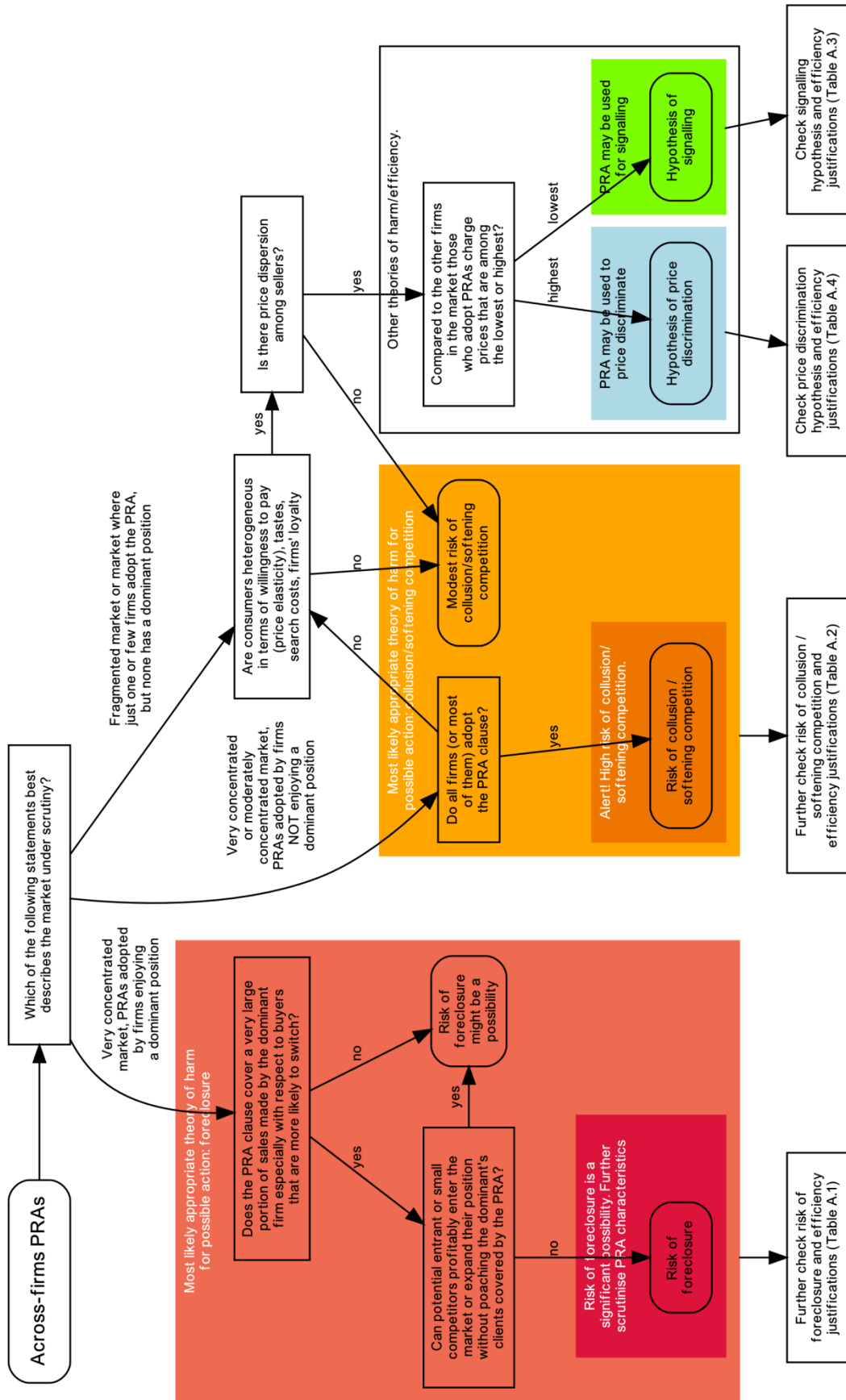
- At the start the practitioner is asked a few general questions aimed at identifying the key characteristics of market in which the PRA under exam is adopted. These questions should help to determine the most likely theory of harm or, if more appropriate, the most likely efficiency justification.
- The practitioner is then asked to further analyse some specific characteristics of the PRA and of the market concerned in order to assess the potential risk/gravity of the alleged competitive harm or the plausibility of the efficiency justification identified earlier.
- Third, some checks - specific to the underlying hypothesis – are proposed in order to further test the plausibility of the conclusions reached.

A.7 The screening device for across-sellers PRAs is presented in Figure A.1 and the one for across-customers PRAs is presented in Figure A.2. The additional checks suggested at the end of each figure are reported in Tables A.1 to A.9 and in Figure A.3.

A.8 By answering all questions and performing all the suggested checks, one should be able to identify the theory of harm or the efficiency justification that are the most likely in the case under exam, and to form an **initial** opinion on its likelihood. As we have pointed out throughout the report, PRAs can engender multiple effects. Hence, even if the practitioner ends up identifying one theory of harm or one economic justification that is the most likely in the specific case, he should never completely disregard other possible competitive impacts.

Across-sellers PRAs

FIGURE A.1 - ACROSS-SELLERS PRAS



Further checks for across-sellers PRAs

TABLE A.1 - FORECLOSURE CHECKS (ACROSS-SELLERS PRAS)

Observed circumstance	Interpretation suggested
PRA promises to beat (not just match) any rivals' price	risk increasing factor
PRA applies to rivals' effective price instead of listed price	risk increasing factor
PRA includes a meet-or-release MCC)	risk increasing factor
Entry entails high sunk costs	risk increasing factor
PRA clause is part of a long term contract	risk increasing factor
Renegotiation is difficult or costly due to specific investments	PRAs could be used to mitigate the contractual incompleteness problem, perform checks in Figure A.3
Dominant seller adopting the PRA charges prices that are among the lowest in the market	PRA could be used as a signalling device, perform checks in Figure A.3.

TABLE A.2 - SOFTENING COMPETITION/COLLUSION CHECKS (ACROSS-SELLERS PRAS)

Observed circumstance	Interpretation suggested
PRA promises to match (not to beat) any rivals' price	risk increasing factor
If beating, the guarantee applies to rivals' effective prices	risk increasing factor
If beating, the guarantee applies to rivals' listed prices	risk mitigating factor
Consumers face significant exogenous hassle costs to redeem the guarantee	risk mitigating factor
The agreement includes an RPM element	risk increasing factor
The PRA imposes relevant endogenous hassle costs	risk mitigating factor
High frequency of guarantee redemption	factor making softening / collusion hypothesis less likely (guarantees are redeemed out of equilibrium path)
Renegotiation is difficult or costly due to specific investments	PRA could be used to mitigate the contractual incompleteness problem, perform checks in Figure A.3

Note: the existence of a network of PRAs may also foreclose the market; this theory of harm needs to be investigated too.

TABLE A.3 - SIGNALLING CHECKS (ACROSS-SELLERS PRAS)

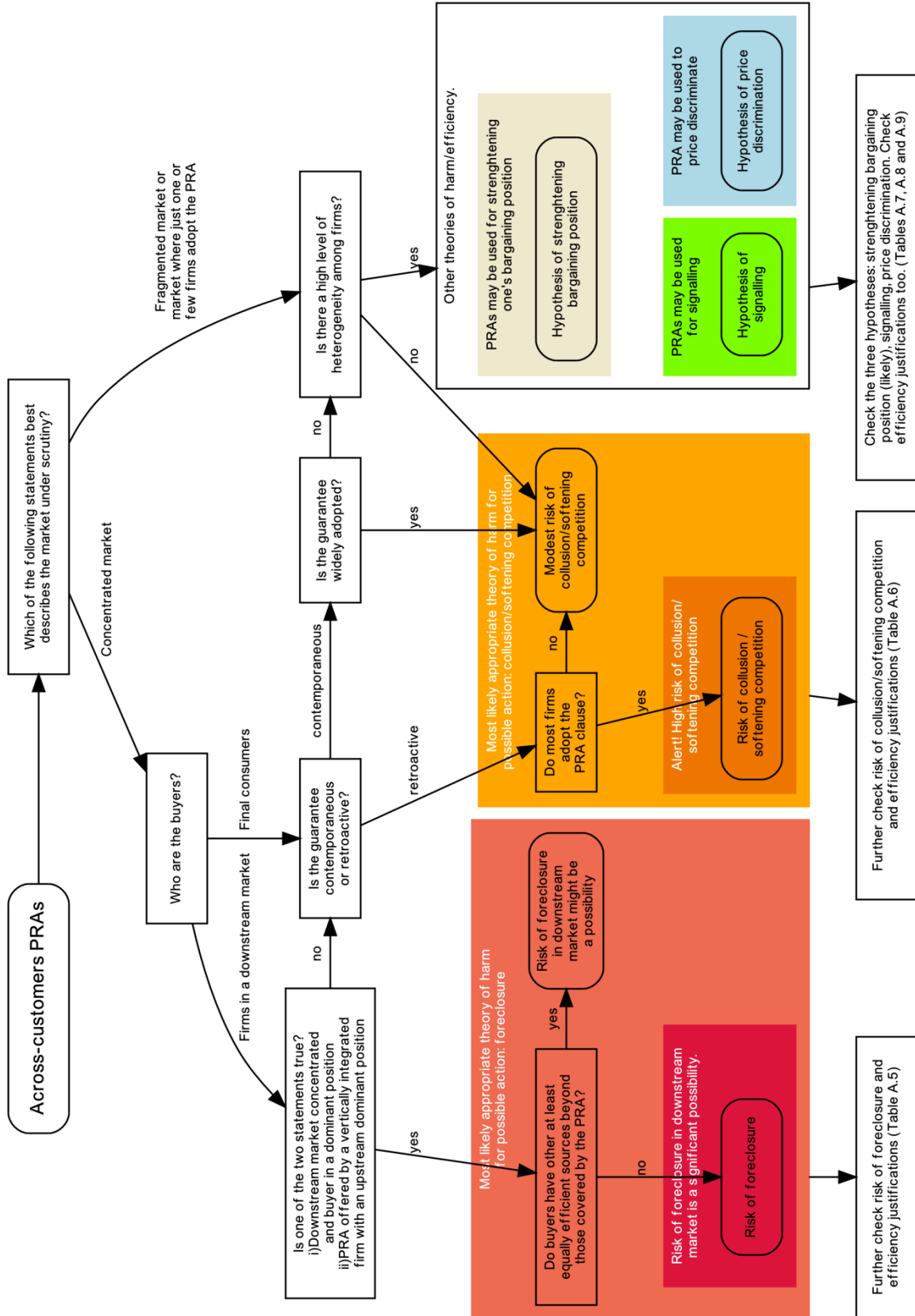
Observed circumstance	Interpretation suggested
PRA promises to beat (not to match) any rivals' price	hypothesis reinforced
High frequency of guarantee redemption	factor making signalling hypothesis less likely (in equilibrium guarantees should not be redeemed)
Renegotiation difficult or costly due to specific investments	PRA could be used to mitigate the contractual incompleteness problem, perform checks in Figure A.3

TABLE A.4 - PRICE DISCRIMINATION CHECKS (ACROSS-SELLERS PRAS)

Observed circumstance	Interpretation suggested
The PRA entails hassle costs	
(i) and there is heterogeneity in hassle costs	hypothesis reinforced
(ii) and there is heterogeneity in price information	hypothesis less likely
Low frequency of guarantee redemption	factor making price discrimination hypothesis less likely (guarantee redemption is part of the equilibrium)

Across-customers PRAs

FIGURE A.2 - ACROSS-CUSTOMERS PRAS



Further checks for across-customers PRAs

TABLE A.5 - FORECLOSURE CHECKS (ACROSS-CUSTOMERS PRAS)

Observed circumstance	Interpretation suggested
PRA clause is part of a long-term contract The PRA is adopted by a monopolist selling a durable good whose production entailed high initial investments	risk increasing factor efficiency factor: a PRA may act as a commitment not to price discriminate that guarantees the recovery of the investment
Renegotiation is difficult or costly due to specific investments	PRA could be used to mitigate the contractual incompleteness problem, perform checks in Figure A.3

TABLE A.6 - SOFTENING COMPETITION/COLLUSION CHECKS (ACROSS-CUSTOMERS PRAS)

Observed circumstance	Interpretation suggested
High degree of heterogeneity among buyers	risk increasing factor
High degree of heterogeneity among sellers The PRA is adopted by a monopolist selling a durable good whose production entailed high initial investments	risk decreasing factor efficiency factor: a PRA may act as a commitment not to price discriminate that guarantees the recovery of the investment
Renegotiation is difficult or costly due to specific investments	PRA could be used to mitigate the contractual incompleteness problem, perform checks in Figure A.3

Note: the existence of a network of PRAs may also foreclose the market; this theory of harm needs to be investigated too.

TABLE A.7 - STRENGTHENING BARGAINING POSITION CHECKS (ACROSS-CUSTOMERS PRAS)

Observed circumstance	Interpretation suggested
High degree of heterogeneity among buyers	hypothesis reinforced
The PRA is adopted by a monopolist selling a durable good whose production entailed high initial investments	efficiency mitigating factor: a PRA may act as a commitment not to price discriminate that guarantees the recovery of the investment
Renegotiation is difficult or costly due to specific investments	PRA could be used to mitigate the contractual incompleteness problem, perform checks in Figure A.3

TABLE A.8 - SIGNALLING CHECKS (ACROSS-CUSTOMERS PRAS)

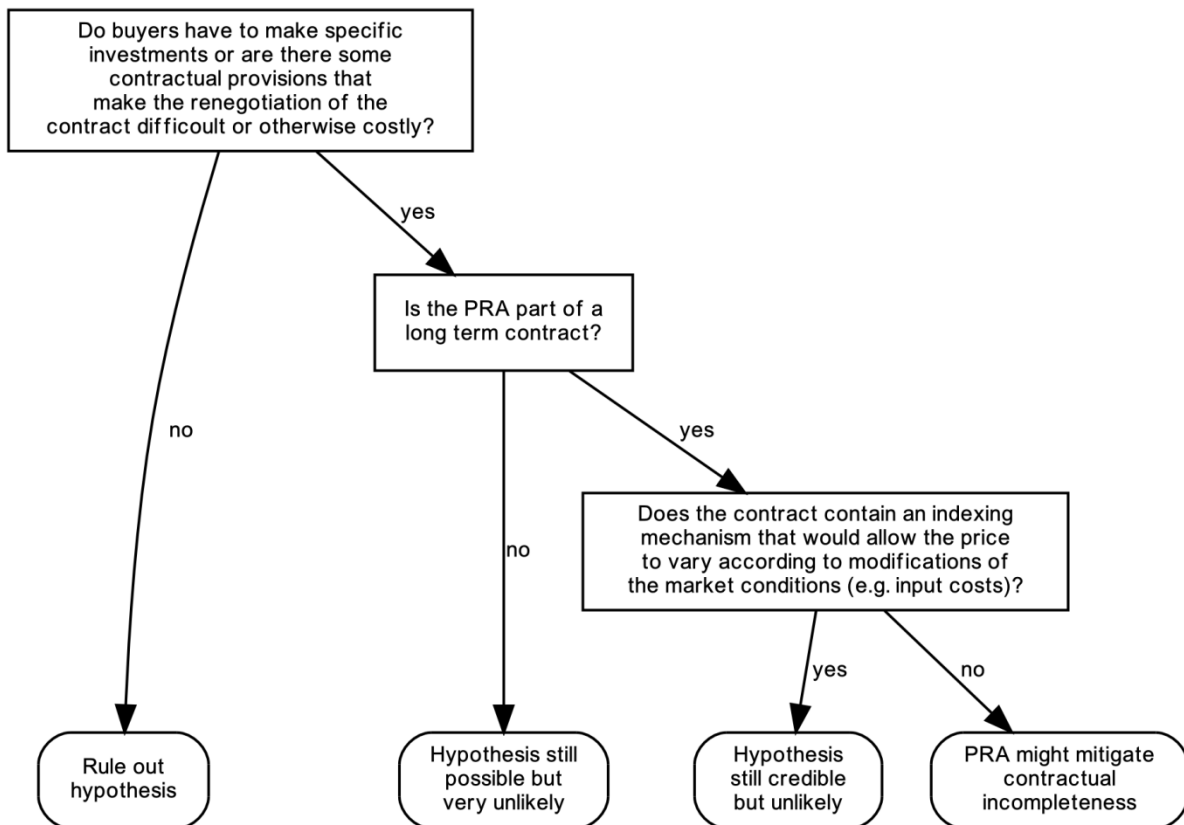
Observed circumstance	Interpretation suggested
High degree of heterogeneity among sellers	hypothesis reinforced
Heterogeneous goods	hypothesis reinforced
The PRA is adopted by a monopolist selling a durable good whose production entailed high initial investments	efficiency factor: a PRA may act as a commitment not to price discriminate that guarantees the recovery of the investment
Renegotiation is difficult or costly due to specific investments	PRA could be used to mitigate the contractual incompleteness problem, perform checks in Figure A.3

TABLE A.9 - PRICE DISCRIMINATION CHECKS (ACROSS-CUSTOMERS PRAS)

Observed circumstance	Interpretation suggested
High degree of heterogeneity among buyers	hypothesis reinforced
Homogenous products and low hassle costs	hypothesis reinforced
A monopolist selling a durable good whose production involves high initial investments	efficiency factor: a PRA may act as a commitment not to price discriminate that guarantees the recovery of the investment
Renegotiation is difficult or costly due to specific investments	PRA could be used to mitigate the contractual incompleteness problem, perform checks in Figure A.3

Further checks for both across-sellers and across-customers PRAs

FIGURE A.3 - CHECK FOR 'MITIGATING CONTRACTUAL INCOMPLETENESS'
EXPLANATION



ANNEXE B. THE EXISTING CASE-LAW

- B.1 In this Annex we summarise a selection of cases, involving PRAs, that have been dealt with by competition authorities and courts in four jurisdictions: United States (7 cases), European Union (7 cases), UK (3 cases) and Italy (3 cases).
- B.2 Table B.1 provides a list of these cases together with some basic information.

TABLE B.10 - SUMMARY OF THE EXISTING CASE-LAW ON PRAS AND LITIGATION OUTCOMES ACROSS JURISDICTIONS

Case name	Year	Type of PRA	Th. of harm	Efficiency justification	Outcome
Jurisdiction: United States					
United States v. General Electric Co and Westinghouse	1977	Across-customers	Collusion	MFCCs adopted to benefit purchasers concerned about overpaying	Settlement
Du Pont v. FTC	1984	Across-customers	Collusion	MFCCs as a guarantee against price discrimination between customers (who competed downstream)	No violation (reversal of FTC finding)
Ocean State Physicians Health Plan v. Blue Cross & Blue Shield of Rhode Island	1989	Across-customers	Foreclosure	'Prudent Buyer Policy' aimed at lowering costs and passing these savings on to subscribers	No violation

Case name	Year	Type of PRA	Th. of harm	Efficiency justification	Outcome
Blue Cross & Blue Shield United of Wisconsin v. Marshfield Clinic	1995	Across-customers	Foreclosure	Ensure lowest possible price	No violation
United States v. Delta Dental of Rhode Island	1996	Across-customers	Foreclosure	Gather lowest possible price for subscribers	Settlement (MFCCs enforcement ceased).
Starr v. Sony BMG Music Entertainment	2010	Across-customers	Collusion	Overcome contractual incompleteness and avoid lengthy royalty negotiations	Pending
U.S. v. Blue Cross Blue Shield of Michigan	2010	Across-customers	Foreclosure	Ensure reasonable costs	Pending
<i>Jurisdiction: European Union</i>					
Hoffman – La Roche	1979	Across-sellers	Foreclosure	MCC as a ‘remedy’ toward the restrictive effect on competition both of the exclusivity agreements and of the fidelity rebates.	Violation

Case name	Year	Type of PRA	Th. of harm	Efficiency justification	Outcome
BP Kemi – DDSF	1979	Across-sellers	Foreclosure	Clause in the interest of the buyer	Violation
Industrial Gases	1989	Across-sellers	Foreclosure	-	Settlement (clauses eliminated)
Soda ash – Solvay	2000	Across-sellers	Foreclosure	-	Violation (decision under appeal before the ECJ)
Hollywood Studios	2004	Across-customers	Collusion	-	Settlement (clauses eliminated)
E.ON Ruhrgas – Gazprom	2005	Across-customers	Not specified	-	Settlement (clauses eliminated)
Digitisation of European cinemas	2011	Across-customers	Foreclosure	Protection from the risk of free riding	Settlement (clauses eliminated)
Jurisdiction: United Kingdom					
White Salt	1986	Across-sellers	Foreclosure	The clause had been requested by customers	Violation

Case name	Year	Type of PRA	Th. of harm	Efficiency justification	Outcome
Foreign Package Holidays (Tour Operators and Travel Agents)	2001	Across-customers	Softening of competition	Overcome contractual incompleteness (that is, reduce the frequency of negotiation and allow for simpler contracts and less market monitoring)	Statutory instrument forbidding these clauses unless specific conditions are met
English Welsh and Scottish Railway Limited	2006	Across-sellers	Foreclosure	-	Violation
Jurisdiction: Italy					
Unapace/Enel	1999	Across-sellers	Foreclosure	-	Settlement (clauses eliminated)
Abusive conducts of Telecom Italia	2004	Across-sellers	Foreclosure	-	Violation

Case name	Year	Type of PRA	Th. of harm	Efficiency justification	Outcome
Football rights	2006	The combination of pre-emption and first negotiation clauses was considered akin to an English clause	Foreclosure	Ensure recoupment of investments made for the purchase of the broadcasting rights	Settlement (clauses eliminated)

UNITED STATES

United States v. General Electric Co and Westinghouse (*General Electric*)⁹¹

- B.3 The *General Electric* case marks one of the first instances in which a most favoured nation provision was challenged by a U.S. antitrust authority on the basis of the Sherman Act.
- B.4 The U.S. Department of Justice (DoJ) was not concerned about the MFCC per se, but rather with its role as the 'enforcement mechanism' for a tacit agreement to stabilize prices. Hence, the theory of anticompetitive harm on which the case was brought is collusion.
- B.5 The affected market was the market for the sale of electricity-generating turbines in the United States. The buyers were large public and private electricity utility companies.
- B.6 In 1963 both parties, General Electric (GE) and Westinghouse,⁹² began publishing similar and unusually extensive price books, which enabled each of them to predict not only the exact price that the other would bid in a particular situation, but also the precise type and size of the turbine.
- B.7 In addition, both companies adopted a so called 'price protection plan' which required GE or Westinghouse to retroactively reduce the prices of large turbine generators sold within the previous six months should any newer customer receive a better price. The discount was automatically offered by the seller should the conditions be met.
- B.8 This 'protection plan' can be classified as a retroactive MFCC.

⁹¹ 19 September 1977, Eastern District of Pennsylvania, Civil No. 28228.

⁹² General Electric and Westinghouse were the largest manufacturers of electricity turbines in the United States. Previously, in the 1950s, a secret agreement among competitors in this industry was discovered and dissolved. Following the end of that cartel, prices in the industry had declined 50 per cent between 1958 and 1963.

- B.9 The government alleged that this PRA guaranteed both manufacturers that the other would not engage in discounting because of the substantial self-imposed penalty involved. In addition, both companies published a list of outstanding bids whenever there was a price change, so that there would be no confusion as to which customers were being charged the old rate and thus no suspicions of discounting could arise.
- B.10 In this case it was unnecessary for the parties to secretly meet to discuss price movements — public dissemination of otherwise confidential pricing information and punishment for price undercutting was sufficient to lead to anticompetitive effects.
- B.11 Both GE and Westinghouse argued that the MFCCs adopted in its contracts were intended to benefit purchasers, many of which were public utilities highly concerned about overpaying. These defences, however, were not thoroughly analysed in the published consent decree.
- B.12 In the end, the parties entered into a consent decree with the U.S. DoJ prohibiting them the public dissemination of price information and the adoption of most favoured nation agreements with their customers. It should be remarked that this was only a consent decree, hence the Court did not rule on the merits of the case at hand.

Du Pont v. FTC (*Ethyl*)⁹³

- B.13 The Second Circuit Court of Appeals reversed the FTC's finding that Du Pont's and Ethyl's use of most favoured nation clauses were unlawful under the FTC Act. The decision was based on the view that, by itself, the uniform adoption of a facilitating practice does not permit to infer a concerted action.
- B.14 The affected market was the market for lead antiknock gasoline additives in the United States. Du Pont Co. and Ethyl Corp. were the largest manufacturers of those additives.

⁹³ 23 February 1984, *E.I. Du Pont De Nemours & Company v. Federal Trade Commission, Ethyl Corporation v. Federal Trade Commission*, 729 F.2d 128 (1984).

- B.15 The case was based on the theory of anticompetitive harm of collusion. The FTC argued that the defendants' adoption of MFCCs had created an artificial price floor in the relevant market, and was an 'unfair' pricing policy under Section 5 of the FTC Act. The FTC further argued that the MFCCs in conjunction with other market dynamics (for example, that the market players provided advance notices of price increases to the press; that they used contract clauses requiring at least 30 days advance notice to customers of any changes in price), amounted to a form of collusion.
- B.16 As a defensive argument, Du Pont and Ethyl argued that the MFCCs acted as a guarantee against price discrimination between its own customers, who competed against each other in the sale of gasoline containing antiknock compounds.
- B.17 The Court in this case found nothing 'unfair' or inherently anticompetitive about the MFNs at issue. With respect to this particular case, the Court found that the similarity in prices between the parties was the result of a declining market with few large players. Although the decision focused significantly more on elaborating the minimum standards the FTC must meet in pleading a Section 5 case, the Court implicitly rejected the notion that MFCCs own enough to lead to a finding of collusion. Rather than viewing all the allegedly anticompetitive behaviour as part of a single collusive scheme, the Court found that no single aspect of the competitors' behaviour constituted collusion. In fact, the behaviours under scrutiny had been initially adopted when there was a single firm in the market, so it was held that they must have served functions other than (or in addition to) price coordination: uniform adoption of a facilitating practice does not, by itself, permit to infer a concerted action.

Ocean State Physicians Health Plan v. Blue Cross & Blue Shield of Rhode Island (*Ocean State*)⁹⁴

- B.18 The Court found that a MFCC adopted by the health insurance company Blue Cross was valid and did not constitute a violation of the Sherman Act (Sherman Act, Section 2, 15 U.S.C. Sec. 2). *Ocean State* came to stand for the general proposition that MFCCs are pro-competitive as a matter of law, but many commentators criticised the decision for it failed to adopt a rigorous ‘rule of reason’ standard.
- B.19 The parties involved were Blue Cross Blue Shield of Rhode Island (the defendant) and Ocean State Physicians Health Plan (a competing regional health insurance provider, as complainant). Both parties contracted with physicians and other health care professionals to purchase health-related services for their members.
- B.20 The market affected was the market for the provision of health insurance in the U.S. state of Rhode Island.
- B.21 The PRA involved a retroactive MFCC (a so called ‘Prudent Buyer’ policy). Under the provisions of that clause, Blue Cross would not pay a providing physician for a given procedure more than that physician was accepting from any other health insurance company.
- B.22 Physicians — the sellers of health care services in this case — carried the burden of proof, being required to certify that they were not accepting lower fees from any other health insurance company. If a physician failed to provide the certification, Blue Cross would reduce the fees it paid that physician by 20 per cent.
- B.23 The theory of anticompetitive harm on which the case was based is foreclosure.

⁹⁴ 21 August 1989, decision *Ocean State Physicians Health Plan v. Blue Cross & Blue Shield of Rhode Island*, 883 F. 2d 1101 (1st Cir. 1989).

- B.24 Ocean State argued that Blue Cross' MFCC were not implemented to control costs, but rather to injure Ocean State and other Blue Cross competitors. Indeed, after Blue Cross implemented its 'Prudent Buyer' policy, 350 of Ocean State's 1200 participating physicians resigned from Ocean State in order to avoid Blue Cross' reduction of their fees.
- B.25 On the contrary, Blue Cross argued its 'Prudent Buyer Policy' was aimed at lowering costs and passing these savings on to its subscribers.
- B.26 The Court discussed a number of interactions between the PRA under scrutiny and other factors.
- B.27 First, with regard to general aims of competition law, the Court recommended that '...courts [...] should be [...] reluctant to condemn too speedily [...] an arrangement that, on its face, appears to bring low price benefits to the consumer'.
- B.28 Second, the Court argued that a business policy of insisting on low price is legal provided that the price offered is neither 'predatory' nor 'below the supplier's incremental cost'.
- B.29 Last, the Court also tied its analysis to the nature of the product (medical costs in this specific case), noting that '...courts should be reluctant to interfere in the domain of medical costs, an area of great complexity where more than solely economic values are at stake'.
- B.30 Ocean State came to stand for the general proposition that MFCC are pro-competitive as a matter of law. Many commentators criticised the decision for it failed to evaluate whether, on the facts, application of the MFCCs generated anticompetitive effects that outweighed their pro-competitive justifications. In this case, several facts clearly indicated that Blue Cross hoped its 'Prudent Buyer' policy would destroy or weaken its competitors.
- B.31 Nevertheless, the Court found that 'as long as Blue Cross's course of conduct was itself legitimate, the fact that some of its executives hoped to see Ocean State disappear is irrelevant. Under these circumstances, Blue Cross is no more guilty of an antitrust violation than a boxer who

delivers a perfectly legal punch — hoping that it will kill his opponent — is guilty of attempted murder’.

**Blue Cross & Blue Shield United of Wisconsin v. Marshfield Clinic
(Marshfield Clinic)⁹⁵**

- B.32 The Marshfield Clinic case asserted the notion that, although MFCCs may not be per se pro-competitive, complainants would have high hurdles to overcome in rendering them invalid.
- B.33 The case was brought before the Court on the legal basis Sections 1 and 2 of the Sherman Act. Judge Richard Posner rejected the challenge by Blue Cross & Blue Shield United of Wisconsin⁹⁶ to a MFCC contained in the agreements between a competing health maintenance organization (HMO), owned by Marshfield Clinic,⁹⁷ and its affiliated physicians.
- B.34 The market affected was the one for healthcare insurance in central and northwest Wisconsin. Marshfield was the largest health insurer in the relevant geographic area. In addition, Marshfield operated the largest network of clinics in the area, which provided medical care for many non-Marshfield/Security patients.
- B.35 The Court declined to find that HMOs constituted a separate market, holding instead that HMOs should be considered another means of financing healthcare that competed with standard indemnity insurance and preferred provider organizations (PPOs). Under this broader market definition, Marshfield moved from controlling 90 per cent of the HMO market for the relevant geographic region to controlling potentially less than 50 per cent of the market for general healthcare insurance in the same geographic region.

⁹⁵ 18 September 1995, Blue Cross & Blue Shield United of Wisconsin v. Marshfield Clinic, 65 F.3d 1406 (7th Cir. 1995).

⁹⁶ The complainant – Blue Cross & Blue Shield of Wisconsin – is the owner of CompCare, an HMO in the U.S. state of Wisconsin.

⁹⁷ Marshfield Clinic is the owner of Security, the largest HMO in a 14 county region of north-central Wisconsin.

- B.36 Marshfield included MFCCs in contracts with independent physicians providing that Marshfield would not pay those physicians more for services than those physicians charged other payers.
- B.37 Both Marshfield and the physicians could provide the proofs to activate the price policy. As Marshfield was a vertically integrated health provider (running its own clinic and HMO, as well as employing its own physicians), it had continual access to the records of its own physicians, but also had an audit process in place that allowed it to inspect the billing records of affiliated physicians.
- B.38 The theory of anticompetitive harm on which the case was based is foreclosure.
- B.39 The complaint alleged that local independent physicians had little choice but to acquiesce to Marshfield's terms, since a high percentage of patients in the relevant geographic area were insured by Marshfield.
- B.40 According to the court: '...the only evidence of collusion is that the Clinic [Marshfield], when buying services from the affiliated physicians either directly or through Security, would not pay them more than what these physicians charge their other patients. This is said to put a floor underneath these physicians' prices, since if they cut prices to their other patients their reimbursement from the Clinic will decline automatically.' (Marshfield at 1416).
- B.41 Blue Cross argued that the contracts between physicians and Marshfield served to crowd Blue Cross and other competitors out of the relevant market. This, in turn, led to less vigorous competition and higher prices for consumers.
- B.42 Marshfield, instead, argued that its MFCCs ensured that independent physicians with whom it contracted always charged Marshfield the lowest possible price.
- B.43 The Court's decision to reject the challenge was influenced by Marshfield's lack of monopoly power in the region at issue (given the court's market definition). The Court was also swayed by the fact that

among the 900 independent physicians who contracted with Marshfield, only 6 per cent of these physicians' income derived from those contracts with Marshfield. In the Court's opinion, this suggested that Marshfield lacked sufficient 'market dominion' to cause actionable competitive harm through its MFCCs.

- B.44 According to Judge Posner: "[m]ost favored nations' clauses are standard devices by which buyers try to bargain for low prices, by getting the seller to agree to treat them as favourably as any of their other customers. [Marshfield] Clinic did this to minimize the cost of these physicians to it, and that is the sort of conduct that the antitrust laws seek to encourage. It is not price-fixing'. Hence the notation that, although MFCCs may not be per se pro-competitive, rendering them invalid could prove very difficult.

United States v. Delta Dental of Rhode Island (*Delta Dental*)⁹⁸

- B.45 The *Delta Dental* case is interesting because the Court took the view that MFCCs should be evaluated on a case-by-case basis for their possible anticompetitive effects. In addition, the case was decided by a lower Court subservient to the First Circuit Court of Appeals, which had earlier decided *Ocean State* (see supra), a decision many interpreted to mean that MFN clauses are pro-competitive as a matter of law.
- B.46 The legal basis for *Delta Dental* was Sherman Act, Section 1, 15 U.S.C. Sec. 1.
- B.47 The Court found that MFCCs can be either pro-competitive or anticompetitive, depending on the facts at hand. It determined that a 'rule of reason' analysis should be used when evaluating such clauses.
- B.48 In practice, the Court rejected *Delta Dental's*⁹⁹ motion to dismiss the claim brought by the U.S. Department of Justice (DOJ). The DOJ

⁹⁸ United States v. Delta Dental of Rhode Island, 2 October 1996, 943 F. Supp. 172 (D.R.I. 1996).

⁹⁹ Delta Dental of Rhode Island, the largest dental insurer in the U.S. state of Rhode Island.

ultimately reached a settlement with Delta Dental, in which the latter agreed to cease enforcement of its MFCCs.

- B.49 The market concerned was the market for dental insurance in the U.S. state of Rhode Island.
- B.50 Delta Dental's MFN clause, named 'Prudent Buyer' policy, required dentists with whom Delta had participant contracts to charge Delta no more for dental services than they charged any other dental insurance company.
- B.51 Delta Dental, as an insurer, entered into supply agreements with dental practices throughout Rhode Island to procure dental services for its subscribers.
- B.52 The time span covered by the clause was retroactive. Delta Dental could recoup any 'overcharges' it paid a dentist from the time that dentist entered into a lower-priced reimbursement plan with another dental insurer.
- B.53 The burden of proof for lowering prices in activating the policy lay on the buyer. Delta Dental's contracts entitled it to audit the records of any dentist from which it purchased services in order to ensure that it was receiving the lowest rate the dentist provided.
- B.54 The theory of anticompetitive harm on which the case was based is foreclosure.
- B.55 The Court found that a claim of 'concerted action' could be sustained in this case because Delta's 'Prudent Buyer' clause was not a unilateral policy, but was instead a contractual clause with which Delta's participating dentists agreed to comply. Given that Delta controlled 35-45 per cent of the dental insurance market in Rhode Island, its MFCC was alleged to have had the capacity to unreasonably restrain competition in three ways: (i) by excluding potential competitors from the relevant dental insurance market; (ii) by preventing existing competitors from expanding their insurance programs; and (iii) by substantially increasing dental insurance costs in Rhode Island.

- B.56 As a defensive argument, Delta Dental claimed that by utilizing the ‘Prudent Buyer’ MFN clauses, it was garnering the best possible prices for its subscribers, thereby lowering their dental care costs.
- B.57 The Court in this case used a fact-intensive ‘rule of reason’ analysis, in which it balanced the pro-competitive characteristics of the MFCC against their anticompetitive effect. The Court seemed especially swayed by Delta Dental’s high market share in Rhode Island, claiming that use of an MFCC by a party with high market shares could make an MFCC more anticompetitive than its use by a party with a lower share.
- B.58 To sum up, Delta Dental distinguished itself from Ocean State on two grounds. First, the Delta Dental Court held that the MFCC at issue in Ocean State had led to clearly lower prices for buyers, whereas the MFCC at issue in Delta Dental were alleged to have led to higher prices. Second, Delta Dental suggested that the Section 2 abuse of dominance claim at issue in Ocean State had been analysed under a less stringent standard than was necessary in a Section 1 claim. Specifically: ‘§ 2’s standard is less stringent than § 1 because it is difficult for a Court to distinguish between vigorous competition and anticompetitive conduct when analysing the actions of a single firm’.
- B.59 Many commentators view Delta Dental as offering the correct analysis of MFCCs, and that the ‘rule of reason’ analysis employed in this case should be used in all evaluations of this type of clauses, whether brought under Section 1 or Section 2 of the Sherman Act.

Starr v. Sony BMG Music Entertainment (*Starr*)¹⁰⁰

- B.60 The 2nd Circuit Court of Appeals reversed a lower court’s dismissal of a class action brought against several music licensors¹⁰¹ alleging, inter alia, the licensors’ use of MFCC to raise prices for subscribers to online music services by facilitating an agreed upon price floor of 70 cents per song

¹⁰⁰ 13 January 2010, *Starr v. Sony BMG Music Entertainment*, 592 F.3d 314 (2nd Cir. 2010).

¹⁰¹ The largest digital music producers and licensors in the U.S., including Sony BMG, Universal Music Group, and Warner Music Group (hereinafter, the Defendants).

downloaded. The Court held that the plaintiffs had alleged sufficient facts for the case to proceed.

- B.61 The legal basis for the case was Section 1 of the Sherman Act.
- B.62 The affected market was the market for digital music in the U.S. distributed through internet channels.
- B.63 The clauses at issue required licensees of the defendants' music to offer each of the defendants terms no less favourable (in terms of price and restrictions on distribution of electronic content) than those they offered any other music licensor.
- B.64 The buyers in this case were online digital music distributors — parties who sold music licensed from the large music producers/licensors via individualized distribution platforms.
- B.65 The burden of proof for lowering prices in activating the price policy lay on the buyers, although there was some suggestion that at least one of the large music licensors was pushing for contractual terms that would allow it to regularly audit the books of its licensees to determine if any licensors were getting better terms.
- B.66 The theory of anticompetitive harm on which the case was based is collusion.
- B.67 Defendants were alleged to have created a price 'floor' for music royalties, which was enforced in part through the MFCC. For example, one defendant could demand a royalty price increase from an online music distributor, knowing that this price increase would also automatically apply to all the other defendant licensors. The complaint alleged that this structure helped prices for digital music remain nearly as high as prices for music on compact disc ('CD'), even though digital music had virtually none of the overhead costs associated with music distributed via CD (for example, CD manufacture, packaging, etc.).
- B.68 The defendants described the MFCC as enabling them to bring innovative products to market more quickly because these clauses helped obviate the need for lengthy royalty negotiations with online

music distributors. Each defendant would automatically know that it was receiving the best offer available from an online distributor.

- B.69 The Court in this case seemed concerned with the market structure, since the defendants exercised control over more than 80 per cent of the relevant market. Also of interest to the Court were the defendants' alleged attempts to 'hide' the MFCC inside letters separate from the main licensing agreements.
- B.70 Although the Court in this judgment ruled only on whether plaintiffs had alleged facts sufficient to overcome a summary judgment motion, the decision shows an evolving scepticism on the part of courts about the per se legality of MFCC. Without describing the clauses at issue as inherently problematic, the Court indicates that such clauses should be analysed closely to determine if their effects are collusive and/or anticompetitive.

U.S. v. Blue Cross Blue Shield of Michigan (*Blue Cross*)¹⁰²

- B.71 The U.S. v. Blue Cross Blue Shield of Michigan is currently in litigation. The legal basis is Section 1 of the Sherman Act. A motion to dismiss was filed by Blue Cross on Jan. 20, 2011.
- B.72 The affected markets are several regional markets for health insurance throughout the U.S. state of Michigan.
- B.73 The type of PRA to which the case relates is a contemporaneous MFCC. The DOJ alleged that a first set of 'Equal-to' MFCC in Blue Cross' contracts with 40 small, independent hospitals throughout Michigan required those hospitals to charge other health insurers at least as much as they charge Blue Cross. Hospitals failing to agree to the Equal-to MFCCs would be paid about 16 per cent less by Blue Cross than if they were to accept the clauses.

¹⁰² Complaint filed on 18 October 2010, U.S. v. Blue Cross Blue Shield of Michigan, Civil Action No. 10-cv-14155-DPH-MKM.

- B.74 DOJ further alleged that another set of 'MFC-plus' clauses in contracts with 22 other hospitals required those hospitals to charge other commercial insurers more than they charged Blue Cross, usually by a specified percentage differential (sometimes by up to 40 per cent).
- B.75 Blue Cross acted as a purchaser of medical services from Michigan physicians on behalf of its subscribers.
- B.76 The theory of the anticompetitive harm on which the case was based is foreclosure.
- B.77 DOJ argued that Blue Cross had market power in the relevant geographic markets, with shares ranging from 40 per cent to 80 per cent. In any event, Blue Cross was the 'dominant' health insurer throughout Michigan. The MFCCs were alleged to have forced many hospitals to either '(1) raise prices they charge Blue Cross' competitors by significant amounts or (2) demand prices for services that are too high to allow competitors to compete, effectively excluding them from the market.'
- B.78 As a defensive argument, Blue Cross asserted that its Equal-to MFCC facilitated its provision of health care throughout the state of Michigan at a reasonable cost (Blue Cross has not acknowledged the validity of the DOJ's claim regarding MFC-plus clauses).
- B.79 The defendant further argued that it is a 'state actor' in the provision of health care insurance throughout Michigan because (i) it is a non-profit, tax-exempt organization and (ii) it is so heavily regulated by the State of Michigan (in particular, the Michigan Non-profit Health Care Corporation Act) that any business decisions it makes with the goal of providing greater health care access to Michigan residents should be exempt from federal antitrust scrutiny.

EU

Hoffman-La Roche¹⁰³

- B.80 *Hoffmann-La Roche* is the case usually mentioned in the antitrust legal literature with respect to MCCs (or English clauses), as well as the standard reference for the definition of dominant position under article 102 TFEU.
- B.81 In this case the European Court of Justice (hereinafter the ECJ) confirmed the Commission's finding that Hoffmann-La Roche¹⁰⁴ abused its dominant position. The abusive conduct by Roche consisted in entering into exclusive or preferential agreements with its customers (known as fidelity agreements), according to which the latter undertook to purchase all, or most, of their total requirements of vitamins from Roche. In return Roche applied to all their purchases its best price for the quantity involved, as well as an English clause mechanism. In addition, each year, or in certain cases every six months, Roche paid a rebate (between one per cent and five per cent) to those customers who had obtained all or most of their requirements from Roche.
- B.82 The markets concerned by the abuse were the markets for wholesale synthetic substances belonging to seven groups of vitamins. Each group constituted a separate market. The relevant geographic market was identified with the EU common market.
- B.83 The type of PRA involved in this case was a meet-or-release MCC. The clause provided that customers had to inform Roche if any 'reputable' manufacturer offered a price lower than the one charged by Roche to allow the latter to match this price. If Roche did not match it, the customers were free to buy from the other manufacturer, without losing

¹⁰³ 13 February 1979, Judgment of the Court of Justice, *Hoffman-La Roche & Co. AG v Commission of the European Communities*, case 85/76, affirming Commission Decision of 9 June 1976 (76/642/EEC, IV/29.020 – Vitamins).

¹⁰⁴ Hoffmann-La Roche & Co. is a Swiss global health-care company and the world's largest vitamin manufacturer.

the fidelity rebate on their purchases from Roche. The same principle applied if Roche was unable to cover the entire requirements of the customer.

- B.84 Almost all of the undertakings which entered into the fidelity agreements with Roche were very large customers which, with very few exceptions, purchased the entire range of vitamins produced by Roche.
- B.85 The theory of anticompetitive harm on which the case was based is foreclosure.
- B.86 'The English clause under which Roche's customers are obliged to inform it of more favourable offers made by competitors together with the particulars above mentioned – so that it will be easy for Roche to identify the competitor – owing to its very nature, places at disposal of the applicant information about market conditions and also about the alternatives open to, and action of, its competitors which is of great value for carrying out of its strategy; the fact that an undertaking in a dominant position requires its customers or obtains their agreement under contract to notify it of its customer's offer, whilst the said customers may have an obvious commercial interest in not disclosing them, is such a kind as to aggravate the exploitation of the dominant position in an abusive way; finally by virtue of the English clause it is for Roche itself to decide whether, by adjusting its prices or not, it will permit competition; it is able this way, owing to the information which its own customers supply, to vary its market strategy in so far as it affects them and its competitors' (ECJ, paragraphs 107 and 108). 'It is therefore the decision of Roche in each case, depending on the circumstances, whether to admit partially, or to deny access to, a competitor to the market which Roche has reserved for itself' (Commission, paragraph 25).
- B.87 In light of the above, the issue of information on the market which Roche could obtain via the operation of the English clause does not appear to have been considered as instrumental to the creation/facilitation of collusion.

B.88 The defensive arguments examined in the decision are as follows: '[i]n the applicant's view this clause destroys the restrictive effect on competition both of the exclusivity agreements and of the fidelity rebates. In particular, in the case of those contracts which do not contain an express undertaking by the purchaser to obtain his requirements exclusively from Roche the English clause eliminates the 'attractive effect' of the rebates at issue since the customer does not have to choose between acceptance of Roche's less attractive offers or losing the benefit of the fidelity rebates on all purchases which he has already effected from Roche. There is no doubt whatever that this clause makes it possible to remedy some of the unfair consequences which undertakings by purchasers to obtain their requirements exclusively from Roche on all purchases accepted for relatively long periods, might have in so far as those purchasers are concerned. Nevertheless, it is necessary to point out that the purchaser's opportunities for exploiting competition for his own benefit are more restricted than appears at first sight [according to the fidelity agreements, the alternative offer must come from a large supplier, that is, not from commercial agents or brokers (which excludes non-European companies, acting through such intermediaries), be comparable to those of Roche in terms of quality and also continuity, and - at least in some cases - originate from the 'local market'] (ECJ, paragraphs 103 and 104).

B.89 The ECJ seemed to accept that in principle an MCC clause may attenuate the 'unfair' effects generated by the exclusivity agreements and the system of rebates because it allows purchasers not to be locked in to a long-term contract when there are more favourable choices available in the market. Nonetheless, it apparently did not support Roche's argument that this 'destroyed' the foreclosing effects attached to such agreements, given the supplier's discretion in deciding on whether to keep the client by matching the more favourable offers. Thus, the ECJ accepted that the MCC represented a potential 'remedy' (but not in the specific case, due to the narrow scope of the clause) towards the aforesaid 'unfair' effects, but it held that the remedy was not enough to offset the risks of foreclosure.

B.90 The ECJ made it clear that, ‘even in the most favourable circumstances’ (that is, even in the case of an MCC with wider scope than that at stake), ‘the English clause does not in fact remedy to a great extent the distortion of competition caused by the clauses obliging purchasers to obtain their requirements exclusively from Roche and by the fidelity rebates on a market where an undertaking in a dominant position is operating and where for this reason the structure of competition has already been weakened’ (ECJ, paragraph 107).

BP Kemi – DDSF (*BP Kemi*)¹⁰⁵

B.91 The *BP Kemi – DDSF* case involved a complex agreement that was deemed to restrict competition. Thus it was investigated under the article 101 TFEU (then 85 EEC Treaty). The agreement had both horizontal and vertical aspects and included an MCC.

B.92 The two companies involved were BP Kemi,¹⁰⁶ a major producer of synthetic ethanol, and DDSF,¹⁰⁷ a producer of spirits.

B.93 The agreement stipulated that DDSF was to buy a large share of requirements of synthetic ethanol from BP Kemi (up to a pre-specified quantity), but was free to buy the quantities in excess of this ceiling from third parties, provided that it first gave BP Kemi the opportunity to supply such quantities itself on the same terms and conditions as those applied to the first part of supply. Either party could terminate the

¹⁰⁵ 5 September 1979, Commission Decision, 79/934/EEC, IV/29.021 – BP Kemi – DDSF.

¹⁰⁶ A trading undertaking, operating only in Denmark, selling petrochemical products such as detergents, plastic raw materials and different grades of ethanol. BP Kemi is a wholly-owned subsidiary of the group headed by the British Petroleum (BP) (a global oil and gas company) along with BPCL. The latter produced around 45 per cent of the synthetic ethanol produced for sale in the (then) EEC. Through undertakings of the BP Group, this ethanol was sold in a number of EEC countries, including the United Kingdom, Ireland, Belgium, as well as Denmark.

¹⁰⁷ DDSF is primarily a production undertaking whose main product is agricultural ethanol. Most of it is used by the undertaking itself in the production of schnapps and other potable spirits; the remaining is sold to producers of vinegar, fruit wines, etc. DDSF also bought synthetic ethanol, which underwent some simple processes (denaturing, addition of certain substances, etc.) before it was resold.

agreement by giving not less than 12 months' written notice. The prices fixed in the contract could be increased by BP Kemi with a six-month notice. The Agreement also included the following provisions: BP Kemi could sell directly to the largest customers, but only up to 25 per cent of the combined DDSF and BP Kemi annual sales of spirits in Denmark; it would have to pay a compensation to DDSF in case such limit was overcome; BP Kemi was to keep to DDSF's listed prices for ethanol; and the two parties had to exchange certain information on their sales.

- B.94 To sum up, the horizontal price agreement appears to have been entered by DDSF (whom for many years was the only undertaking selling ethanol in Denmark) to compensate the quasi-exclusivity granted to BP Kemi which, in turn, was incapable of supplying the entire Danish market by itself, since it did not have the necessary contacts with users of ethanol, nor the necessary denaturing, drumming, canning and bottling facilities.
- B.95 The market affected was the one for sale of ethanol in Denmark.¹⁰⁸
- B.96 The type of PRA to which the case relates is a meet-or-release MCC. This clause originally provided that '...in so far as DDSF could prove an offer at a lower price from another source, BP Kemi would either match this price or withdraw from the contract, provided that the offer fulfilled a number of detailed conditions regarding inter alia quantity and quality...' (paragraph 28 (f)). Subsequently, under an addendum to the parties' agreement the MCC could be invoked against a wider range of offers from competitors, and it was provided that, if the clause was invoked, '...BP Kemi could either reduce its price or the quantity which DDSF was obliged to buy, but in the latter event BP Kemi was also entitled to terminate the agreement' (paragraph 30).
- B.97 The burden of proof for activating the price policy was on the buyer. The clause, however, provided a disincentive DDSF from doing so, as when it reported to BP Kemi that it had received a more favourable offer, the latter was entitled to stop the whole supply.

¹⁰⁸ Ethanol was used in the production of potable spirits, vinegar, pharmaceutical products, cosmetics, solvents, and products for domestic applications, as well as for chemical synthesis.

- B.98 The theory of anticompetitive harm on which the case was based was foreclosure.
- B.99 First of all, the foreclosing effect of the clause was due to the information on competitors BP Kemi was able to gather, as well as to the discretion as to whether or not to continue its whole supply to DDSF that BP Kemi maintained. As noted in the decision, ‘...the English clause restricted competition between BP Kemi and its competitors because it provided it with information about their prices which it would not otherwise have been likely to get. The application of the English clause also means that it was up to BP Kemi in each case to decide, in view of all circumstances, whether a competitor who was offering ethanol at lower prices and under the other conditions stipulated in the clause was to be allowed to supply DDSF’ (paragraph 64).
- B.100 To defend their agreement ‘[t]he parties have argued that the English clause [...] means a protection of the interests of DDSF since DDSF as a result of the clause can buy at a lower price when the conditions of the clause are fulfilled, and since the clause means that such purchases may possibly be made from another supplier’. However, the ECJ argued that ‘the conditions for the clause coming into play are so severe that its practical importance is limited. The clause, moreover, by its nature confirms the restrictive relationship between the parties and means a protection of the interests of BP Kemi’ (paragraph 62).
- B.101 ‘In spite of the alleged advantage of the English clause for DDSF, it is even doubtful whether the clause could help in bringing the prices down to the level prevailing in a competitive situation. In a competitive situation it would be expected that a supplier who learns that his price has been underquoted by a competitor would seek to get the order through a further price reduction, but a competitor with knowledge of the English clause might not reduce his price further, if this were possible, because he might think such a reduction was likely to be useless’ (paragraph 65).
- B.102 The ECJ also commented on the length of the contract: ‘[w]hen on such a market, which already displays a weak competitive structure, one of the most important suppliers enters into long-term contracts [six years]

with one of the most important purchasers, which induce the purchaser to take all his requirements or the major part of his requirements from the same supplier, there exists an appreciable disadvantage for the supplier's competitors and for purchasers, and there is thus a restriction of competition [...] DDSF's interest in a regular guaranteed supply is to be recognized, as is BPCL's interest in lasting and steady sales of its output. But these interests could be met by concluding purchasing agreements stipulating fixed quantities, without reference to the purchaser's unspecified or not precisely specified requirements and without the restrictions resulting from an English clause; such agreements could be regularly renewed after renegotiating to adapt them to changing interests and the shifting competitive position' (paragraph 68).

- B.103 Further, the ECJ highlighted how the anticompetitive effects of the English clause were exacerbated by the structure of the affected market: '[t]he restrictive effects of the purchasing obligation as supplemented by the English clause are particularly clear in the market in question. The undertaking tied to BP Kemi by these clauses, DDSF, is the largest buyer on the Danish market with a market share of 71 per cent in 1973 and 56 per cent in 1976. Considering that BP Kemi itself had a market share in those years of 21 per cent and 28 per cent respectively, only a minor part of the market was open to other suppliers. Moreover, supply is oligopolistic throughout the Community' (paragraph 67).
- B.104 In a somewhat contradictory way (and to some extent similarly to Hoffman-La Roche), the Court affirmed that the English clause could have overcome the consequences of the purchasing exclusivity clause (had it been less stringent), but it also argued that it could lead to foreclosure because it discourages rivals from approaching DDSF.
- B.105 'If DDSF had not been bound by the purchasing obligation as supplemented by the English clause, DDSF would also have been free itself to look for offers on the spot market or elsewhere which did not fulfil the conditions of the English clause but which would have been economically attractive for the company' (paragraph 66). In respect of the market power held by BP Kemi, which apparently led to such contractual conditions (despite DDSF's market share and the bargaining

power presumably attached thereto) the Commission noted that ‘... [a]part from BPCL the only producers to be taken into consideration are SODES in France and Veba-Chemie and Erdölchemie in Germany. However, Erdölchemie is not a really independent competitor; it is a joint undertaking in which Bayer and BP (through a German subsidiary) each holds a 50 per cent stake, and which, since Bayer has no other interests in the ethanol field, is strongly influenced by BP. Apart from these producers, there are only a few suppliers to be considered as competitors of BP Kemi on the Danish market; these trade in ethanol produced in the Community or in non-member countries and sell only limited quantities’ (paragraph 67).

Industrial Gases¹⁰⁹

- B.106 The world's major producers of industrial gases (namely, L'Air Liquide SA, AGA AB, Union Carbide, BOC plc, Air Products Europe Inc, Linde AG and Messer Griesheim GmbH, accounting for approximately 95 per cent of piped industrial gas in the Community and 75 per cent of bulk supplies) committed to amend clauses in their sales contracts for oxygen, nitrogen and argon within the Community, following an investigation by the European Commission.
- B.107 In particular, the Commission's concerns regarded the clauses in gas contracts specifying exclusivity, duration, storage equipment, prohibition on resale as well as the 'English clause' which obliged the customer to give the supplier details of competitors offering better terms. In the case of BOC and L'Air Liquide (for which two additional elements were relevant: the requirement of an initial deposit in tonnage contracts and a specific method in indexing prices) a breach of the prohibition of abuse of dominant position was also maintained.

¹⁰⁹ Press Release by the Commission, 7 June 1989, 'European gas producers amend contract clauses following commission investigation', IP/89/426; Commission XIX (1989) Annual Report.

- B.108 Thus, this case included treatment of an across-sellers mechanism (probably meet-or-release MCCs, as the relevant press release is somewhat obscure on the relevant details).
- B.109 The proposed remedies, which according to the Commission would have allowed ‘...customers to choose among the various gas suppliers’, provided ‘...more transparent contractual relations between customers and suppliers...’ and would have ‘improve[d] the trade in gas between Member States’, included inter alia the elimination of exclusivity supply commitments, reduction of duration of contracts, avoidance of tying of gas supply with rental of tanks, elimination of ban to resale.
- B.110 In addition, they committed to cease any use of the English clause. However, it was provided that if a customer requested its inclusion, the clause could have been inserted but specific precautions would have been taken to ensure that the supplier was unable to identify competitors making more favourable offers.
- B.111 The theory of harm underpinning the investigation, in light of the above, appears to have been mainly foreclosure (as well as obstacles to the Community market integration). Nonetheless, whilst it is not known how many undertakings actually used the English clause, the acceptance of the remedy that the competing offeror’s identity had to be maintained undisclosed suggests that transparency and collusion attached to the use of such clause were likely also among the Commission’s concerns.

Soda ash – Solvay (*Solvay*)¹¹⁰

- B.112 The Commission found that during the 1980s, Solvay had abused its dominant position in the market for soda ash by establishing a system of ‘top-slice’ rebates designed to avoid any danger of real competition from other suppliers.

¹¹⁰ 13 December 2000. Commission decision, 2003/6/EC, COMP/33.133-C: Soda ash — Solvay, confirming a Commission prohibition decision of 1990 which had been annulled on purely procedural grounds.

- B.113 Solvay was the largest single producer of synthetic soda ash both worldwide and in the Community, where, with some 60 per cent of the West-European market, was the undisputed market leader.
- B.114 The major users of soda ash are glass manufacturers. Most of them had one main supplier for their core requirements plus another, so to avoid being completely dependent on just one. Solvay was often the main supplier, given its size. To minimise the risk of being supplanted by these alternative suppliers, Solvay developed a two-tier pricing system. This stipulated that the core tonnage was sold at the list price, whilst the additional quantities that the customer might have otherwise bought from another supplier - the 'top slice' - were offered at a substantial (and secret) discount (sometimes virtually half price). To qualify for the discount, the purchaser had to buy most, if not all, of its requirements from Solvay.
- B.115 The markets affected were those for the production and sale of soda ash. The relevant geographic market was identified as continental Western Europe.¹¹¹
- B.116 The type of PRA to which the case relates is a meet-or-release MCC which was referred to, by the Commission, as the 'competition clause'.
- B.117 The clauses included in the majority of the supply contracts, stated that: 'If X is able to prove through a certified accountant that it received an offer for soda from another supplier during the term of this contract at a better price and on comparable terms, the product originating in a country with a free market economy, and [Solvay] does not match that price within four weeks, X shall be free to purchase soda from that supplier. [Solvay] may in such a case cancel the contract with immediate effect' (paragraph 114).

¹¹¹ Central and Eastern Europe were excluded due to the then existing trade barriers.

- B.118 In a (very) few cases, the clauses allowed the customer to set off purchases from the competitor against its contractual obligations vis-à-vis Solvay. In one case the agreement gave Solvay the option of terminating the contract upon receiving notice of a competing offer, even if the customer did not actually commit itself to accept it.
- B.119 The theory of anticompetitive harm on which the case was based is foreclosure.
- B.120 ‘The various forms of ‘competition clause’ and other similar mechanisms [...] all reinforced the tie with Solvay, limited the opportunities for the customer to change suppliers and made entry for competitors at established Solvay customers more difficult. The purpose of these various clauses was to give Solvay as the established supplier a built-in advantage over any other supplier attempting to compete for all or even a part of the business of the customer in question’.
- B.121 ‘Far from mitigating the anticompetitive effect of the long-term supply agreements with Solvay (with their fidelity rebates and de facto exclusivity), the competition clauses in fact strengthened the tie between Solvay and the customer and were exclusionary in object and effect. They allowed Solvay to be fully informed of the details of competitors’ activity while effectively excluding the possibility of the competitor actually obtaining any business. ‘Competition clauses’ which give the dominant supplier the option of terminating the whole agreement if the customer obtains even a small part of its supplies from a competitor are already a deterrent to competition: the customer is extremely unlikely to jeopardise its security of supply in such circumstances’ (paragraphs 177-178).
- B.122 The English clauses were regarded as anticompetitive both on their own merit and in combination with other foreclosing contractual arrangements (de facto exclusivity and rebates).
- B.123 ‘Even considered on their own, each of the arrangements described tended to bind the customer to Solvay in such a way as to exclude competitors. The combined effect of the various devices was such as to

ensure that Solvay's dominant position was almost wholly protected from competition' (paragraph 180)

- B.124 Within the same investigation, the Commission ascertained that a similar abuse had been carried out in UK against another producer (COMP/33.133-D: *Soda Ash – ICI*). Despite a reference to the use of English clauses also in this context, these were not specifically assessed by the Commission.
- B.125 With a third related decision, the Commission fined Solvay also for the infringement of article 101 TFEU (then 81 EC Treaty) because towards the end of the 1980s Solvay concluded an agreement guaranteeing a German company a minimum volume of sales, with Solvay itself buying up any shortfall, so as to keep the price of soda ash artificially high in Germany.
- B.126 The Commission's decision against Solvay was upheld in 2009 by the General Court, which granted Solvay a fine reduction. On 14 April 2010 the Advocate General, during the appeal proceedings before the ECJ, suggested that the two antitrust rulings against Solvay (respectively for breach of article 101 and 102 TFEU) should be annulled, due to errors in rules governing access to file and defence rights. No decision has been reached yet.

Hollywood Studios¹¹²

- B.127 In 2004 the Commission investigated the contracts concluded by some of the major Hollywood studios¹¹³ for the sale of their entire film production to European pay-tv broadcasters under article 101 TFEU.

¹¹² 26 October 2004, Press release by the Commission, IP/04/1314: 'Commission closes investigation into contracts six Hollywood studios with European pay-TVs'.

¹¹³ The involved parties were eight cinema 'majors', namely NBC Universal, Paramount Pictures Corp. Inc. (subsidiary of Viacom), Buena Vista International Inc. (subsidiary of The Walt Disney Company), Warner Bros Entertainment Inc, 20th Century Fox Film Corp., Sony Pictures Entertainment Inc., MGM Studios Inc., and Dreamworks LLC

Remarkably, this appears to be the only case where PRAs were considered by the European Commission in a collusion perspective.

- B.128 The contracts under scrutiny originally included a MFCC which gave the studios the right to benefit from the most favourable terms agreed between a pay-tv company and any one of them.
- B.129 The market affected was that for the sale of film production rights for TV broadcasting.
- B.130 According to the Commission's preliminary assessment of the contracts 'the cumulative effect of the clauses is an alignment of the prices paid to the Majors. This is particularly because any increase agreed with a Major triggers a right to parallel increases in the prices of the other studios. The Commission considers that under these circumstances of cumulative effect such anomalous way of setting prices is at odds with the basic principle of price competition' (IP, page 1). Unfortunately, this does not really explain how the MFN mechanism could lead to the feared collusive outcome (at least in terms of increase of prices).
- B.131 The investigation was concluded for six studios, which withdrew the clauses.

E.ON Ruhrgas – Gazprom (*Ruhrgas*)¹¹⁴

- B.132 In this case the Commission raised concerns about some MFCCs contained in the gas supply contracts between the German gas company Ruhrgas¹¹⁵ and the Russian gas producer Gazprom, the largest in the world.

¹¹⁴ 10 June 2005 Press release by the Commission, IP/05/710: 'Commission secures changes to gas supply contracts between E.ON Ruhrgas and Gazprom'.

¹¹⁵ Ruhrgas, part of the E.ON group, is a gas service provider operating in almost all European countries.

- B.133 The investigation was closed when changes were made to these contracts. In particular, Ruhrgas and Gazprom committed to delete most favoured customer clauses from their agreements.
- B.134 The market concerned was that for gas distribution.
- B.135 The MFCCs under exam 'obliged Gazprom to offer similar conditions to Ruhrgas as it would have offered to Ruhrgas's competitors in Germany' (IP, page 1).
- B.136 The Commission never referred to the theory of anticompetitive harm underlying its competitive concern with respect to these clauses. The main interest of the Commission was to stop practices that could hamper the development of an integrated European gas market (IP, page 1).
- B.137 The Commission also acknowledged that 'gas-to-gas competition (that is, not only competition between gas from different geographic sources, but also competition between wholesalers who buy gas from the same geographical source) has yet to develop effectively' (IP, page 1). In this respect, the most favoured customer status, which was presumably granted to Ruhrgas in consideration of the geographical restraint, was perhaps seen by the Commission as able to hinder competition downstream between gas companies purchasing gas from Gazprom (presumably, as Ruhrgas had thereby obtained that no competitors could have access to the input, the natural gas, sold by Gazprom at better conditions).

Digitisation of European cinemas¹¹⁶

- B.138 In March 2011 the Commission reported that it had closed an antitrust investigation concerning the digitisation of European cinemas.

¹¹⁶ 4 March 2011, Press release by the Commission, IP/11/257: 'Commission closes probe into Hollywood studios after they change terms of contracts for digitisation of European cinemas'.

- B.139 The investigation was closed after several major U.S. Hollywood film studios revised their contracts, by eliminating the concerned clause, with third party intermediaries ('integrators') and cinema exhibitors which concerned the financing and installation of digital projection equipment in European cinemas.
- B.140 To encourage cinemas to install digital equipment, the major Hollywood film studios applied a commercial model called 'virtual print fee' (VPF). Under the VPF model, both film distributors (including the major Hollywood film studios themselves) and cinemas contribute towards the investment costs. Typically, the 'integrator' pays for the digital equipment and installs it in cinemas. It recovers this cost through a one-off upfront payment made by the cinema and the VPFs paid by the film distributors every time one of their digital films is shown in the cinema.
- B.141 The Commission opened an ex officio investigation into these contracts because many contracts gave the Hollywood studios the right to benefit from the most favourable terms, including lower VPF payments, that had been agreed between a given integrator and any other film studio or distributor. The Commission was concerned that the MFCC could lead to foreclosure.
- B.142 The affected markets were those for the distribution of movies to digital cinemas and production of digital films.
- B.143 'The Commission took the view that whilst the contracts provided incentives to the roll out of digital projection equipment in European cinemas, they could also hinder integrators from signing contracts with distributors of independent/art house films whose business models differed from the major Hollywood film studios. This is because under the original contract provisions, the integrators would have to offer major Hollywood film studios the same terms as those offered to independent/art house film distributors' (IP, page 2). Apparently, protection of independent cinema production (that is, arguably a not 'pure' competition policy objective) had hence a decisive weight in the Commission's concerns.

B.144 Hollywood studios defended themselves arguing that the clause would protect them from the risk of free riding. '[T]he stated rationale of these provisions was to ensure that competitors (primarily the other major Hollywood film studios) would not contribute less to the digital switchover while getting equal access to the digital projection equipment in European cinemas' (IP, page 2).

UNITED KINGDOM

White Salt¹¹⁷

- B.145 In the White Salt case the Monopoly and Merger Commission (hereinafter, the Commission) found a monopoly operating against the public interest, pursued by means of exclusive and/or long-term supply contracts which included meet-or-release MCCs.
- B.146 The parties to the agreement were the producers of white salt in the United Kingdom, including Staveley Industries plc. (hereinafter, Staveley), its subsidiary British Salt Limited (hereinafter, British Salt) and Imperial Chemical Industries plc. (hereinafter, ICI). The affected market was the one for the supply of white salt in the UK.
- B.147 Some of the supply contracts signed by these producers with their main customers included 'competition clauses' under which 'prices may be reduced on evidence of competing that is, lower prices offered to the customers' (paragraph 5.50).
- B.148 The theory of anticompetitive harm on which the case was based was foreclosure. The Commission claimed that the MCCs and the length of the contracts containing these clauses constituted significant barriers to entry (paragraphs 5.69 and 9.16).
- B.149 Staveley argued that it had seen no evidence to justify the Commission's statement that its long-term agreements with major consumers created 'difficulties for potential market entrants'. Any long-term aspects of its agreements with its major customers had been requested by those customers. British Salt did not have the bargaining power to compel those customers to accept long-term agreements.

¹¹⁷ June 1986, Presentation of the Report by the Secretary of State for Trade and Industry to the Parliament, 'White Salt: A report on the supply of white salt in the United Kingdom by the producers of White Salt'.

Foreign Package Holidays (Tour Operators and Travel Agents)¹¹⁸

- B.150 In 1997 the Monopoly and Merger Commission (MMC) carried out an investigation in the market for the supply of travel agents' and tour operators' services in relation to foreign package holidays in the UK.
- B.151 As a result of this investigation, the MMC identified a number of practices which distorted competition in the market and gave rise to complex monopoly situations within the meaning of the Fair Trading Act 1973.
- B.152 One of these practices consisted in the inclusion in the contracts between tour operator and travel agent of 'most favoured customer' clauses, which effectively required the travel agent, whom it offered a discounts on a tour operator's foreign package holidays, to apply it to all the other tour operators' foreign package holidays.
- B.153 The clauses were usually contemporaneous and the activation of the policy was carried on automatically by the seller.
- B.154 The theory of anticompetitive harm identified, but not explicitly stated in any of the relevant documents, appears to be softening of competition.¹¹⁹
- B.155 In MMC's opinion these 'most favoured customer' clauses refrained travel agents from offering discounts which they would have been prepared to offer, the adverse effect of which was higher prices for consumers.

¹¹⁸ December 1997, Presentation of the Report by the Secretary of State for Trade and Industry to the Parliament, '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' (MMC - Cmnd 3813).

¹¹⁹ The MMC used the term 'distort' competition rather than 'soften' competition. Hviid and Akman (2006) criticized this choice because – they wrote – the former sounds more like actions which benefit one firm to the detriment of others, which is not the effect of the clauses at stake.

- B.156 Tour operators put forward a number of efficiency justifications for the adoption of these clauses. First, they argued that the purpose was to ensure that their foreign package holidays were not placed at a disadvantage with respect to those of their competitors. Hence, they said, the clauses neither were intended, nor had the effect, to discipline the discount policies of the travel agents. Second, the tour operators claimed that without the MFC clause the sheer dynamics of the market, with discounts changing frequently, even in the course of a single day during the key booking periods, would have forced the tour operators to continually monitor both the demand and the price of its product relative to those of its rivals and negotiate with travel agents corresponding adjustments in the level of the discount funding.
- B.157 These justifications were dismissed and it was deemed 'unlawful for a tour operator to make or carry out an agreement (whenever made) with a travel agent which obliges the travel agent to comply with a most favoured customer requirement except in circumstances where the tour operator is required to compensate the travel agent for the value of the inducements required to be offered by the travel agent as a result of a most favoured customer requirement'.¹²⁰

EWS Railway¹²¹

- B.158 In the English Welsh and Scottish Railway Holding Limited (EWS)¹²² case, the Office of Rail Regulation (ORR) ascertained that EWS had

¹²⁰ Foreign Package Holidays (Tour Operators and Travel Agents) Order 2001 No. 2581, which came into force on 20th August 2001.

¹²¹ Decision of the Office of Rail Regulation No. 17/11/2006, 'English Welsh and Scottish Railway Holding Limited'.

¹²² The principal activities of the EWS group were: bulk freight (including commodities such as coal, steel, and petrochemicals); intermodal (including the movement of containers); international traffic via the Channel Tunnel; infrastructure maintenance support services for Network Rail; special passenger charter services; and also train maintenance and driver hire. Hence, EWS was not simply a rail freight haulage operator. If required, it could act as a vertically integrated undertaking having the capability to provide complementary inputs both for itself and third parties along the length of the rail transport supply chain.

abused its dominant position, thus infringing the prohibition imposed by Article 102 TFEU (than 82 EEC Treaty).

- B.159 The market affected was the one for coal haulage by rail in Great Britain. EWS held a dominant position in this market with a share of 100 per cent up to January 2001, and higher than 80 per cent in the period following January 2001. The market was also characterized by significant barriers to entry.
- B.160 The decision concerned a number of abusive behaviours, including exclusionary contracts, discrimination and predation.
- B.161 In particular, the coal carriage agreement between EWS and Powergen/E.ON contained clauses that allowed to use a haulier, other than EWS, when 'another haulier had offered a lower price and EWS had declined to match it'. The ORR considered that these provisions gave EWS effective exclusivity over E.ON's flow of coal.
- B.162 This provision amounted to a meet-or-release MCC. The burden of proof for lowering the price was on the buyer (E.ON).
- B.163 The theory of anticompetitive harm on which the case was based is foreclosure.
- B.164 EWS claimed that the ORR had mischaracterised the clause, and denied it had any exclusionary effect. In its view the clause did not impose on the customer any requirement to inform EWS of competing offers and did not remove any incentive to use alternative suppliers.
- B.165 The ORR rejected this argument and claimed the MCC posed 'severe restrictions on E.ON's ability to switch haulage to an alternative supplier of coal haulage by rail'. In addition, ORR argued that the clause forced to notify EWS when another haulier had approached it and to specify the Train Movement Charge that EWS would have had to offer in order to leave E.ON financially neutral. Hence, the clause entitled EWS to information on what price competing suppliers offered E.ON and required to accept EWS's offer, if it matched the competitor's one.
- B.166 The ORR fined EWS.

ITALY

Unapace/Enel¹²³

- B.167 In the Unapace/Enel case, the Italian Antitrust Authority (IAA) ascertained an abuse of dominant position which involved, inter alia, the use of an English clause. The decision makes reference to, and declared to follow, the EU Hoffmann-La Roche and BP Kemi cases.
- B.168 In the end no sanction was levied against Enel, the infringing firm, as it had eliminated such clause from its contract and had amended other potentially foreclosing arrangements relating to the duration of the contract and the right of termination (see infra) before the entry into force of the legislative decree no.1999/79 liberalising the energy market in Italy (in accordance with Directive 99/62/EC).
- B.169 The markets affected by the abusive conduct were those for distribution and sale of electricity in Italy to large industrial users.¹²⁴
- B.170 The type of PRA to which the case relates was a contemporaneous meet-or-release MCC.
- B.171 The clause stated that, once the supply contract was signed, the client was allowed to switch to an alternative supplier only if Enel did not match the competing offer. Such contractual arrangement was referred to by the IAA as an 'English clause' characterized by the following elements: 'i) the demonstration by the buyer of the existence of a more favourable offer made by an alternative supplier, (ii) the possibility for the original supplier to identify the content and the author of the competing offer, (iii) the existence of a right of pre-emption by the

¹²³ 9 April 1999, final decision no. 7043, closing the Italian Antitrust Authority's proceedings opened on 12 November 1998 with decision no. 6539 (case no. A263).

¹²⁴ The buyers were industrial firms with significant annual procurement of energy, as this was the only category authorized to change suppliers (that is, the first eligible clients under the EU liberalization directives of the energy market).

original supplier, as a consequence of which (vi) only if the latter refuses to match the new offer the client has a right to accept it' (paragraph 63).

- B.172 The burden of proving that the Enel's offering was 'less competitive' than the one proposed by a competitor laid on the buyers. In particular, buyers were obliged to communicate alternative offers, unless they wanted to renegotiate their terms of supply or terminate the contract.
- B.173 Despite the reference to the 'creation of an artificial transparency' hinting a concern for possible collusion, the theory of anticompetitive harm on which the case was based is clearly foreclosure.
- B.174 'The distortion of competition caused by such clause is due to the creation of an artificial transparency on the future liberalised market. In fact, the mechanism of the English clause [...] would have allowed Enel to obtain information on the market situation as well as on initiatives of competitors (particularly useful for planning its own commercial policy) which would not otherwise be available. In addition, the English clause would have allowed Enel to neutralise the offering of alternative and more advantageous supplies, thus making competitors' attempts to increase their market share bound to fail [...]. In fact, on one hand it would be in the eligible customers' interest to communicate to Enel the receipt of better offers; on another hand, competitors would have no incentive to formulate offers more advantageous than the Enel's existing ones, as the latter's alignment could not lead to any move of clients in their favour' (paragraphs 65 and 66).
- B.175 The IAA considered that the English clause was aimed at reducing the impact of liberalization process on ENEL's dominant (monopolistic) position.
- B.176 'The anticompetitive effects caused by the English clause are significantly relevant in a market context where competition is already weakened because of the presence of a dominant undertaking. They are even more serious, however, if one considers that, in the case at stake, they would have allowed Enel to hinder the promotion of competition in a market about to be liberalised. In fact [...], the entry into the market of

any competitor would have been made subject to Enel's discretion. Ultimately, the degree itself of openness of the market to competition would have been affected' (paragraph 67).

B.177 In order to overcome the anticompetitive concerns raised by the IAA, Enel deleted the English clause from its supply contract, and, in addition, made it clear, with an 'authentic interpretation statement' applying to its own contracts, that the renegotiation process (to be conducted in good faith) could be activated by the purchaser not only upon relevant legal/tariffs' changes but also as a consequence of new market offerings/opportunities. It also stated that in case of failure to reach a new agreement, the client could terminate the supply contract with Enel. A further right of termination (ad nutum, and to be used within one year from the liberalisation) was also granted by a Resolution of the Italian Regulatory Energy Authority.¹²⁵

B.178 In a subsequent exclusionary abuse case (A333, Enel Trade – Clienti idonei), the IAA found that Enel had (again) included English clauses in contracts. However, the effects of such clauses were not specifically dealt with in the final decision¹²⁶ as they concerned a market other than that under assessment, and also because of Enel's declared intention to suspend such clauses.

Abusive conducts of Telecom Italia (*Telecom Italia*)¹²⁷

B.179 In 2004, the Italian Antitrust Authority (IAA) ascertained an abuse of dominant position carried out by Telecom Italia¹²⁸ (TI) aimed at excluding competitors from the markets of final services to business clients

¹²⁵ A resolution the IAA deemed not to be per se sufficient, hence the above statement by Enel.

¹²⁶ No. 12623 of 27 November 2003.

¹²⁷ 16 November 2004, final decision no. 13752, closing the Italian Antitrust Authority's proceedings opened on 5 June 2003, (case no. A351).

¹²⁸ Telecom Italia S.p.A. is the former State telecommunication legal monopolist, active in the installation and supply of telecommunication infrastructure and offer of related services. TI is also the owner of the public commuted network, through which it offers interconnection services to other companies operating in the markets of final services.

thereby preserving its traditional dominant position both in the markets of final services and in the markets of intermediate services to its competitors.

- B.180 The decision makes reference to the Hoffmann-La Roche and BP Kemi EU cases on English clauses, as well as – at national level – the Unapace-Enel case.
- B.181 The two main conducts identified as abusive consisted in: (i) the use of contractual conditions, such as exclusivity clauses and English clauses, that made it more difficult (or impossible) for competitors to compete with Telecom Italia; (ii) the offer of economic and technical conditions to clients which could not be replicated by competitors
- B.182 The markets concerned were all the markets involved in the provision of telecommunication services on fixed network for business clients. These included both upstream markets (that is, the market for interconnection services, the market for access to the local network, and the market for leased lines) and downstream markets (that is, the market for access services, the market for telephone services, the market for data transmission services, and the market for internet access).
- B.183 The type of PRA to which the case relates is a contemporaneous meet-or-release MCC.
- B.184 Under this clause TI promised to meet any better offer its business clients reported, provided they had met a specified threshold income, although in some contracts the ‘adjustment to the best offer’ took place automatically on a periodical basis.
- B.185 The theory of anticompetitive harm on which the case was based is foreclosure.
- B.186 The IAA stated that ‘[t]he distortion of competition caused by such clause is due to the creation of an artificial transparency on the liberalised market...’ (paragraph 377). In addition, competitors have ‘...reduced incentives to formulate offers more advantageous than those

of the incumbent, as TI's alignment to the alternative offer could not lead to any switching of clients in their favour' (paragraph 378).

- B.187 TI defended itself by arguing that the English clauses did not allow it to gather information on competitors, as TI adjusted itself the prices. The argument appears to have no weight within the IAA's legal assessment, as it claimed that '...customers have all the interest in communicating offers more advantageous than those of the incumbent...' (paragraph 378). Also, contrary to what argued by TI, the IAA made it clear that '...it has no relevance the fact that the realignment was imposed by the client; nor has it the fact that the price monitoring was carried out by a consulting firm, hence an entity independent from TI...' (paragraph 367).
- B.188 The very strong position held by TI in all the affected markets allegedly rendered the foreclosing strategy more effective.
- B.189 It was further stated that, because of – inter alia – the English clause, even the short-term supply contracts (which lasted one year) raised competitive concerns.
- B.190 The decision was challenged for judicial review but the IAA's assessment of the role of the English clauses in this case was substantially confirmed.

Football rights¹²⁹

- B.191 Reti Televisive Italiane (RTI), part of Mediaset, the largest commercial broadcaster in Italy, had managed to contractually secure the rights to broadcast the matches of several football teams. The contracts concerning the broadcasting rights included pre-emption and first negotiation clauses for the licensing of transmission rights on pay-tv relative to all transmission media (both present and future, and even non foreseeable media such as 'next generation mobile terminals'). The IAA opened an investigation aimed at assessing the possible foreclosure

¹²⁹ 28 July 2006, final decision no. 15632, closing the IAA's proceedings opened on 22 March 2005 (case no. A362).

effects of these contracts and provisions on the TV advertising market. The investigation was closed when RTI committed to maintain the exclusivity only for broadcasting on the digital terrestrial television platform, while transferring the rights relating to the other platforms to third parties on a transparent, fair and equal basis. In addition, Mediaset deleted the pre-emption and first negotiation clauses from its new contracts.

- B.192 The theory of anticompetitive harm on which the case was based is foreclosure.
- B.193 The combination of pre-emption and first negotiation clauses resulted into a contemporaneous meet-or-release MCC.
- B.194 Interestingly, the English clause was assessed under the same light shed on this issue by the stream of EU and national cases dating back to Hoffmann-La Roche, although the dominant undertaking taking advantage of the PRA mechanism acted as the buyer (that is, not the seller). That is, the PRA was regarded as a means to obtain strategic information on the competitors' offering as well as to keep the option to match any competing offer (thus becoming the 'arbiter' of entry into the market) and representing a strong disincentive for any other potential offer.
- B.195 RTI argued that the clauses were intended to reinforce the exclusivity, by extending its scope, in order to allow the recoupment of investments made for purchasing the broadcasting rights (see paragraphs 57).
- B.196 However, the IAA concluded that these clauses strengthened the anticompetitive effects of the exclusivity clauses: '[t]he provision for exclusivity clauses, per se not capable of leading to restrictive effects on the competitive structure of the market, insofar as limited within certain time limits, acquires an anticompetitive value when, by means of the clauses of first negotiation and pre-emption, the actual length of the agreement is significantly extended...' (paragraph 129).