

The competitive effects of buyer groups

Economic Discussion Paper

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FOREWORD

This report was commissioned by the Office of Fair Trading (OFT) from RBB Economics. They were asked to prepare a report laying out clearly the effect of cooperation between purchasers upon price, product diversity, quality, technological improvement or other factors.

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

This report is part of the OFT's Economic Discussion Paper series, and is intended to inform current discussion within the competition policy community in the UK about cooperation between purchasers. If you would like to comment on the paper, please write to me, Amelia Fletcher, at the address below. The OFT welcomes suggestions for future research topics on all aspects of UK competition and consumer policy.

Dr Amelia Fletcher
Chief Economist
Office of Fair Trading
Fleetbank House
2-6 Salisbury Square
London EC4Y 8JX

amelia.fletcher@oft.gsi.gov.uk

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Authors of the report

Adrian Majumdar

Leslie Neubecker

Ugur Akgun

Markus Baldauf

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RBB Economics
The Connection
198 High Holborn
London WC1V 7BD

Telephone +44 20 7421 2410
Fax +44 20 7421 2411
Email london@rbbecon.com

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1 OVERVIEW

Introduction

- 1.1 The OFT commissioned RBB Economics to write a report on the competitive effects of buyer groups. The issue of cooperation between purchasers of goods is not subject to the same unanimity of view on cooperation between sellers of goods. On the one hand, joint-purchasing can offer significant cost savings which may be passed on to consumers. On the other hand such cooperation can have potential anti-competitive effects on the upstream and/or downstream markets involved. Competition Authorities need to distinguish between efficiency enhancing cooperation and cooperation which, on balance, harms competition and consumers.
- 1.2 The main aim of this report is to describe the situations in which a buyer group operating in an intermediate market is likely to benefit or harm the competitive process. In intermediate markets buyer groups are active at two levels of the supply chain. At the upstream level, the buyer group procures inputs. At the downstream level, the members of the buyer group also sell on the input to end customers (or transform the input into a product which is then sold on to end customers).
- 1.3 In particular, we address three questions:
- how do buyer groups obtain better terms of supply for their members and under what conditions are these passed on to end customers?
 - when is a buyer group likely to harm downstream competition directly by leading to collusion or otherwise dampening rivalry in the downstream market?
 - when is a buyer group likely to harm downstream competition indirectly through influencing upstream suppliers to offer worse terms to rivals of the buying group, which in turn become less effective competitive constraints in the downstream market?

1.4 We provide a framework in which the competitive effects (both beneficial and adverse) of buying groups can be assessed, focussing largely (but not exclusively) on intermediate markets. In many cases, our analysis carries over to the analysis of behaviour by individual buyers in intermediate markets as well. Unless otherwise stated, we assume that members of buyer groups are not vertically integrated with either suppliers in the upstream market or end customers in the downstream market.

1.5 In the following sections, we summarise our analysis of:

- buyer group structures and activities;
- possible definitions of buyer power;
- situations in which buyer power is more likely to be beneficial;
- theories of competitive harm relating to buyer power;
- implications for market definition; and
- safe harbours, initial screens and a framework for the analysis of more complex cases.

Buyer group structures and activities

1.6 There are several possible buyer agreements that might be termed 'buyer groups', ranging from a loosely structured cooperative of atomistic buyers to a joint venture among buyers. Some groups have relatively open membership criteria, while others are closed to new members. Terms for members can be identical ('symmetric') or non-identical ('asymmetric'). The governance of a buyer group can be 'democratic', dominated by one or a few members, or run by a third party.

1.7 Different buyer group structures may impact on the likelihood of anti-competitive effects. For example, buyer groups that are genuinely open

tend to give less cause for concern (we expand on this point and provide further examples in their relevant contexts below).

- 1.8 It is also helpful to distinguish between the degree of interaction between the buying group and its suppliers. At the 'passive' end of the spectrum, a buyer group might aggregate its members' purchases so as to secure volume discounts (or other benefits available from bulk buying) against a pre-existing pricing schedule. An example would be where a supplier offers an identical price list across the UK, where rebates are available for large orders. Independent 'local' distributors purchasing from the supplier may pay the highest price, while national chains may obtain large discounts. A buyer group of 'local' distributors might then be formed which pools the purchases of many independent distributors across the UK to secure similar buying terms to the national chains.
- 1.9 Buyer groups which form to take advantage of better terms available for bulk buying, but which have no material influence on those terms, are most unlikely to harm competition among their suppliers.
- 1.10 At the 'active' end of the spectrum, buyer groups may bargain on behalf of their members. Rather than simply taking a supplier's terms of business as given, the buying group would seek to influence these terms in favour of its members. The more influence the buyer group has over its suppliers' terms of business, the greater its ability to impact on the competitive process (either beneficially or harmfully).
- 1.11 Chapter 2 provides further details on possible buyer group structures and their activities.

Possible definitions of buyer power

- 1.12 By way of background to the rest of the report, it is helpful to contrast 'buyer power' and 'market power'. Competition authorities typically refer to market power as the ability of a seller profitably to sustain prices above competitive levels (or to sustain quality or innovation below competitive levels).

1.13 While several possible definitions of buyer power have been proposed in policy circles, recently a consensus appears to have emerged that buyer power relates primarily (although not always) to the strength of a buyer in negotiations with sellers.¹

1.14 The bargaining framework is helpful for several reasons. First, in negotiated deals the terms of supply will depend on the bargaining strength of each side. This captures the extreme cases where either the supplier or the buying group is so powerful that it can make a ‘take it or leave it’ offer, as well as intermediate cases where both parties have some degree of bargaining power.

1.15 Second, a bargaining approach allows for a rich discussion in which a powerful buyer group (or individual buyer) can:

- generate efficiencies which increase the size of the bargaining pie;
- act strategically to improve its bargaining strength (as we discuss below, this could be through improving the profit sharing rule, improving the buyer’s fallback option or deteriorating the supplier’s fallback option²);
- act strategically to influence the behaviour of the supplier in a way that harms competition (a less desirable way for buyer groups to increase the size of the available bargaining pie).

1.16 An alternative definition of buyer power is ‘monopsony power’. This occurs where a large buyer purchases fewer units so as to obtain lower

¹ See, for example, the OECD competition committee round table on buyer power and the contributions by OECD members to that debate, summarised in OECD (1998). The OFT and the EC Commission refer to buyer power in a bargaining framework at OFT (2004a), paragraph 6.2 and EC (2004a), paragraph 64.

² A similar schema has been used by Inderst and Shaffer (2006).

prices on all units it purchases. In Chapter 3, we explain that the monopsony model relies on a situation where, as more purchases are made, the purchasing price rises for all units. In our experience, intermediate markets are rarely characterised by this condition. It is more common for input prices to decline as purchases increase. Further, the monopsony model assumes that bargaining does not take place, yet intermediate markets are often characterised by negotiated terms of supply. Nevertheless, monopsony effects may occur in certain commodity markets where there is a uniform input price.³

Degrees of buyer power

- 1.17 A firm can have market power without being dominant, as dominance requires a firm to have substantial market power.⁴ Similarly, a buyer group can have buyer power without necessarily being powerful enough to harm competition.
- 1.18 In most competition cases buyer power is analysed in the context of competitive constraints, i.e. whether the buyer's side of the market is able to resist attempts by a firm to raise (quality adjusted) prices. It is important to distinguish between the degree of buyer power necessary to act as a competitive constraint and the higher degree of power required to give rise to the prospect of harm to upstream competition. Thus we refer to 'substantial buyer power' as the ability of a buyer group (although not necessarily the incentive) to harm competition among its suppliers.
- 1.19 The key to substantial buyer power, as we describe in the next section, is how dependent important suppliers are on the buyer in question.

³ Cost raising strategies based on 'strategic overbuying' (see below) are more relevant in a setting where monopsony power is feasible.

⁴ See, for example, OFT (2004a) at 2.9.

Substantial buyer power

- 1.20 In order for a buyer group to have substantial buyer power, the buyer group would, to a considerable extent, be able to dictate industry terms of supply. Substantial buyer power is likely to require both of the following conditions to apply.
- 1.21 First, the buyer group has a credible threat to switch purchases to alternative suppliers, sponsor new entry, or self supply without incurring substantial sunk costs.
- 1.22 Second, the buyer group is the 'gateway' to market, e.g. because a failure to deal with the buyer group would mean that (a) the supplier must access end customers through highly inferior sales channels or (b) the supplier forgoes substantial economies of scale or network effects. Indicators that a buyer group is the 'gateway' to the downstream market might be that:
- the buyer group accounts for a large share of purchases in the relevant upstream market as a whole, or in an important sales channel (where sales channels are highly differentiated).
 - there would be sufficient barriers to entry and expansion in the downstream market to prevent upstream suppliers circumventing the buyer group by sponsoring alternative distributors and distribution channels or by forward integration.
 - other buyers (or buyer groups) operating in the upstream market are substantially smaller than the buying group.
- 1.23 Notice that the focus of the above definition is on the position of buyers with respect to the supply side of the upstream market. An individual supplier could be heavily dependent on the buyer group, but that would

not necessarily mean that the buyer group had substantial buyer power.⁵ Only if the supplier in question was of particular importance in the upstream market (e.g. through ownership of the most popular brand) would its individual dependence on the buyer group be consistent with a market wide effect.

- 1.24 Other things being equal, the wider the coverage of the buyer group in the upstream market, the greater the risk that the buyer group could be in a position to engage in harmful strategic effects in relation to its suppliers. Further, where several buyer groups and/or large buyers have strong bargaining positions with their suppliers and pursue a similar policy with their suppliers, this may give rise to a substantial cumulative effect on the supply side of the market.
- 1.25 Where a buyer group simply pools its members' volumes to obtain bulk discounts from a given price list (without negotiating with the supplier or otherwise affecting its list prices), such a buyer group would not be likely to exert substantial buyer power.

Situations in which buyer power is more likely to be beneficial

- 1.26 As noted above, our principal focus is on intermediate markets where members of the buying group not only procure inputs but also sell on these goods (or convert them into products that are then sold on) to final consumers (or 'end customers') in the downstream market.
- 1.27 The OFT states that: 'In general, buyer power is beneficial in two circumstances:

⁵ A small supplier that relied on just one buyer group for nearly all of its sales might be 'financially vulnerable' or 'economically dependent' on that group and, as a result, have a very weak bargaining position. However, there may be several other suppliers of similar products that have much greater bargaining strength with the group in question such that the buyer group would not have substantial buyer power in the relevant market. See Chapter 7 for a discussion of economic dependency.

- when there are large efficiency gains that result from the factors (e.g. size) that give the buyer its power and these are passed on to the final consumers (e.g. through downstream competition), and
- when it exerts downward pressure on a supplier's prices and the lower prices are passed on to the final consumer.'⁶

1.28 We address these issues in the next two sections.

Securing efficiencies, lower prices and better terms of supply

1.29 In our view, most buyer groups are established primarily to pursue better terms of supply for their members (often as a reaction to the ability of larger buyers to secure better terms of supply). Buyer groups may obtain better terms of supply for their members in several ways.

1.30 First, buyer groups may generate supply chain efficiencies. For example, buyer groups may reduce transaction costs when dealing with suppliers (e.g. where it is more efficient for the supplier to deal with the buyer group than with each individual member) and may provide security or coordination of demand that allows suppliers to benefit from economies of scale or scope.

1.31 Second, buyer groups may intensify competition among suppliers through improving the credible threat to switch to rival suppliers (including new entrants) and through facilitating the use of competitive tenders in procurement. Both these factors improve the buyer's fallback option or 'threat point'.

1.32 Third, a buyer group may improve the credible threat to withhold an important source of demand or to deny access to an important route to market (e.g. that would be key to allowing the supplier to obtain

⁶ OFT (2004a), paragraph 6.4.

economies of scale or scope) by increasing the coverage of buying activities with respect to the market (or an important sales channel).

- 1.33 Fourth, an additional benefit (available in a negotiating environment) is to influence the profit sharing rule (i.e. for a given bargaining pie, the buyer group may allow its members to obtain a larger share of that pie). This might be achieved through generating superior information on the supplier's cost or providing scope for a sophisticated procurement team (e.g. with a reputation for being 'tough').
- 1.34 Chapter 3 discusses these points in more detail.⁷

Pass through

- 1.35 As the OFT notes, beneficial buyer power is not simply about securing better terms for suppliers, it also involves pass through to final consumers.⁸
- 1.36 Where final consumers exert buyer power to obtain better terms of supply, there is no issue of pass through. A buyer group among final consumers would typically be beneficial (unless there is a 'rent shifting' effect, explained below).
- 1.37 In intermediate markets, the implications for pass through depend on the type of benefit secured by the buyer group for its members, as the following examples explain:

⁷ The endnote to Chapter 3 also summarises the reasons provided in the economic literature for why a price setting supplier (i.e. one that does not negotiate with its buyers) would offer discounts to larger buyers. These reasons include 'limit pricing' to prevent larger buyers sponsoring new entry; suppliers being unable to observe large buyers and so incentivising them to reveal themselves; strategic behaviour by buyers to withhold demand so as to undermine upstream supplier collusion; and strategic behaviour by suppliers to create asymmetries that make downstream collusion less likely.

⁸ OFT (2004a), paragraph 6.4.

- Where a buyer group lowers the input price (for a given quality) this leads to a reduction in the marginal cost of production in the downstream market. Given that the buyer group does not further restrict downstream competition, some degree of pass through is likely (depending on the contribution of the input to the marginal cost of production);
- Where buyer groups lead to efficiencies which expand demand or provide the appropriate framework for investments, such efficiencies would also be expected to benefit end customers through increasing output (or quality) downstream; and
- Where buyer groups secure reduced fixed payments ('fixed' in the sense that they do not vary with the volume supplied), these are less likely to be passed on – especially in the short term.⁹ However, fixed cost savings may be passed on in the following situations: (a) over the longer term (where a reduction in fixed costs translates into a reduction in long run marginal cost, e.g. lower fixed costs may allow more firms to operate profitably in the downstream market), (b) where intense competitive pressure downstream ensures that fixed cost savings are passed on through non price factors (e.g. investment in the customer base), and (c) where buyer group members negotiate with their end customers in the downstream market (providing scope for end customers to obtain a share of the buyer group's fixed cost savings).

1.38 Where pass through is likely, there is a fundamental difference between a horizontal agreement between firms to enhance market power (e.g. to

⁹ Where bargains are 'efficient', the negotiation is not only over the input price but also a fixed fee. Thus, the input price may already be at marginal cost (so as to maximise the size of the bargaining pie) and an increase in a buyer group's bargaining strength could result only in a reduced fixed payment to the supplier. (Lump sum transfers are usually considered to be welfare neutral, although this need not be the case if society places a different value on how the supplier and the buyer would have invested the amount.)

charge higher prices) and a horizontal agreement between firms to enhance buyer power (e.g. to obtain lower prices). In the former case, the enhancement of market power would usually be bad and rarely be beneficial. In the latter case, where pass through occurs, final consumers may gain either directly (where they form the buyer group themselves) or indirectly (where lower input prices are passed on downstream). Thus, where the group demonstrably obtains better terms and passes on a substantial share of these gains to end customers, the case for intervention is weak.

- 1.39 However, where the buyer group obtains better terms of supply but also directly enhances the market power of its members in the downstream market (see below for how this might occur), theory indicates that the market power effect is likely to dominate unless competitive constraints on the members of the buying group in the downstream market are only marginally reduced or the efficiency gains are very large.
- 1.40 Pass through is discussed further in Chapter 4.

Theories of competitive harm relating to buyer power

- 1.41 There are three main concerns as regards the adverse impact of buyer power exercised by buyer groups: direct effects on downstream competition; indirect effects on downstream competition; and rent shifting. We discuss these in turn.

Directly reducing downstream competition

- 1.42 The buyer group might directly harm downstream competition where members of the group have a weaker incentive to compete with each other when they face each other in downstream markets.
- 1.43 The impact of the buyer group on restricting downstream competition cannot be greater than if all the members of the buyer group were to merge. Indeed, the impact would typically be weaker due to the need for the buyer group to coordinate its downstream activities. Thus, concerns

that downstream competition is restricted are unlikely where members of the buyer group (a) have a small combined share of any downstream market or (b) do not compete with each other in any downstream market. (We discuss safe harbours below.)

- 1.44 Where concerns of direct harm to downstream competition are feasible, these are likely to relate to the following three factors: explicit collusion, tacit collusion and 'reduced rivalry'. We discuss these in turn.
- 1.45 First, the buying group could be just a façade to hide explicit collusion in the downstream market. For example, the European Commission came to this view in relation to a Spanish Tobacco cartel, where purchasing quotas were, in effect, market share targets in the downstream market.¹⁰
- 1.46 Second (and more speculatively), there could be an increased likelihood of tacit collusion in the downstream market among members of the buying group. The scope for tacit collusion could be enhanced where the buyer group facilitates alignment on a collusive strategy or internal stability of the collusive group (i.e. the detection and punishment of deviants to the collusive agreement).
- 1.47 For example, the buying group may impact on the scope for a stable collusive scheme through:¹¹

¹⁰ EC (2004b), discussed further in Chapter 5.

¹¹ These draw on the 'check list' features commonly associated with collusion (see for example Church and Ware, 2000). While a check list approach can be helpful in ruling out the scope for collusion, it is not sufficient simply to 'tick the boxes' to determine that collusion is likely. For example, it would not be appropriate to assert that, just because the buyer group increases symmetry of costs, collusion is significantly more likely (see Chapter 5).

- The nature of the agreement (e.g. is there an agreement on purchasing quantities that, in effect, is an agreement to withhold output in the downstream market?);
- Increased contact and information exchange (e.g. where a buyer group pools its purchases, are sufficient steps taken to conceal sensitive information on individual orders? Does the information facilitate the detection and punishment of deviants to a collusive agreement?);
- Symmetry (e.g. do the members of buying group obtain identical terms for an input which accounts for a large share of variable costs in the downstream markets in which members of the buying group compete?);
- Standardisation (e.g. does the purchasing strategy reduce the number of dimensions of downstream competition on which a collusive group must agree?);
- Closed membership (e.g. this may prevent expansion by 'mavericks' or allow for a credible threat to throw a deviant out of the group).

1.48 Where evidence of explicit downstream collusion occurs the buyer group is, of course, anti-competitive. However, establishing compelling evidence that the buyer group facilitates tacit collusion may well be difficult.¹²

1.49 Finally, downstream competition might be dampened where – although there is no explicit or tacit collusion – there is a 'reduction in rivalry'. For example, it might be argued that obtaining lower costs via a buyer group

¹² Tacit collusion is difficult to demonstrate. There is a direct parallel with determining coordinated effects in merger analysis. See for example the decision of the CFI in *Airtours* (CFI, 2002).

is the 'easy option' and the pursuit of efficiencies through organic growth would have been better.

- 1.50 On the other hand, for some buyers obtaining efficiencies through organic growth might not be feasible or could be feasible only through investments to grow market share that are not likely due to the financial fragility of each individual buyer. In that case, lower costs obtained as a member of a buyer group could be the springboard for organic growth and enhanced competition.
- 1.51 A related argument is that the wider the coverage of the buyer group, the greater the risk of 'rigidifying' the market. The fear here might be that the group brings the majority of procurement under the aegis of a single buying group this could damage innovation by reducing the incentives for buyers to seek out better procurement practices so as to steal a march on their rivals.
- 1.52 On the other hand, if the buyer group delivers its members better terms of supply then the preceding argument amounts to suggesting that these short term gains come at the expense of longer term innovation (a proposition that could be hard to prove). Further, the preceding concern is diminished where members of the buying group face effective downstream competition from firms outside of the buying group. In that case, in order to remain competitive in the downstream market (with firms that potentially employ different procurement strategies to the buying group), members would be keen to pursue the most efficient procurement practices themselves. Indeed, it may be that the buyer group facilitates the adoption of such practices (e.g. by disseminating information on 'best practice' or through helping smaller buyers pool R&D into procurement).
- 1.53 In short, concerns about reductions in rivalry must be assessed on a case by case basis, although (as with explicit and tacit collusion), concerns are unlikely to be warranted where members of the buyer group have a small combined share of any downstream market or do not

compete with each other in any downstream market. These issues are discussed in Chapter 5.

Indirect harm to downstream competition by adversely affecting the terms of supply for rival buyers

- 1.54 The buyer group might indirectly harm downstream competition via its actions in the upstream market. For example, the buyer group could harm upstream competition so as to harm downstream competition. (For this discussion, we assume that the buyer group does not have a direct impact on harming competition in the downstream market, i.e. it does not give rise to the collusive behaviour or reduction in rivalry described in the previous section.)
- 1.55 A buyer group may deteriorate the terms of supply for rival buyers (i.e. buyers outside of the buying group) by raising the input costs of other buyers – known as raising rivals’ costs – or by adopting strategies to reduce benefits available to rivals.
- 1.56 For example, a buyer group could raise the costs of rival buyers by striking a (near) exclusive supply deal with the supplier of a key input, thereby ensuring that rival buyers obtain no (or insufficient) access to that input. Another way to raise rivals’ costs would be to bid up the price of an important input – this could be attractive where rival buyers are more dependent on that input than the buyer group. A buyer group could, for example, reduce rivals’ benefits by inducing a supplier to adopt a technology, quality level or means of delivery more favourable to the group members and less favourable to rival buyers.
- 1.57 If, as a result of any of the strategies above, rival firms become substantially weaker competitive constraints in the downstream market, this may enhance the ability of members of the buyer group to charge higher prices (for a given quality) in the downstream market and thereby harm end customers.

- 1.58 However, the following principles are important to bear in mind when considering these theories. First, buyer groups generally do not have an incentive to harm upstream competition because that would harm their own interests.¹³ This is a fundamental point. Cost raising strategies are credible causes for concern primarily where (a) rival buyers suffer substantially greater harm than that incurred by the buyer group and (b) profitability in the downstream market is determined more by relative levels of costs than absolute levels of cost.
- 1.59 Second, buyer groups may face problems in meeting the potentially divergent demands of their members with the effect that cost raising strategies are harder to achieve for buyer groups than they would be for individual purchasers with substantial buyer power.
- 1.60 Third, where buyer groups secure better terms of supply for their own members, theories of 'indirect harm' are much less likely to give rise to harm to end customers (see next section).

Indirect harm to downstream competition via waterbed effects

- 1.61 The preceding point (that indirect harm is unlikely where buyer groups secure better terms for their members) is best explained in relation to the 'waterbed effect'. This is the idea that a powerful buyer (or buyer group) secures lower prices for itself and, as a result, other buyers end up paying higher input prices.
- 1.62 While waterbed effects have been asserted in recent competition cases, the difficulty with finding support for waterbed theories is twofold.¹⁴

¹³ We have assumed that the buyer group does not include vertically integrated buyers. A vertically integrated member of a buying group might have an incentive to harm competition in the upstream market to weaken the competition faced by the upstream business of the integrated firm.

¹⁴ The UK Competition Commission countenanced waterbed effects in mergers in the grocery and private health care sectors (see CC 2000 and CC 2003). In addition, the waterbed

First, if a supplier could profitably charge higher prices, why is it not already doing so? Second, if the buyer group obtains lower prices from a supplier, then (other things being equal) its members become more competitive in the downstream market. As a result, group members would win sales from – and hence reduce input demand placed by – rival buyers. Since demand from rival buyers declines, the supplier would often have a reduced incentive and ability to charge them more than before.

- 1.63 Nevertheless, waterbed effects may occur in certain circumstances. The key is to explain why a shift in demand away from rival buyers in favour of the buyer group (as a result of the better terms of supply obtained by the latter) leads to higher prices for rival buyers. In theory, such an effect could arise (a) where rival buyers offer suppliers less scope to benefit from scale economies or (b) where rival buyers now have a weaker credible threat to switch to rival suppliers (allowing an incumbent supplier to charge them more than before).¹⁵
- 1.64 Waterbed effects (if feasible) are less likely to be harmful than other theories of raising rivals' costs because the buyer group's lower input prices may ultimately benefit end customers.

Raising rivals' costs and reducing rivals' benefits checklist

- 1.65 The following questions are likely to be important in developing a coherent, fact-based story of harm to competition based on cost raising or benefit reducing strategies imposed by a buyer group.

effect is implicitly referred to in the European Commission's Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements (EC 2001, paragraph 126) and in particular 135.

¹⁵ Theories are discussed in Chapter 6. See also Majumdar (2005) and Inderst (2006).

- Does the buyer group collectively have substantial buyer power so as to be in a position to impose terms on suppliers? Does the buyer group have monopsony power (e.g. in a market where all buyers pay the same price and where increased purchases bid up that price)?
- How does the buyer group cause rival buyers to suffer worse terms of supply? Is this through striking an exclusive deal with a supplier of a key input, bidding up the price of a key input that matters more for rival buyers than the buying group, or inducing upstream suppliers to meet a delivery, quality or technology standard that is more compatible with the needs of the buyer group than rival buyers?
- Are rival buyers disproportionately harmed (i.e. if both the buyer group and rival buyers suffer worse terms of supply, are rival buyers harmed much more than members of the buyer group)? For example, is the input in question of greater importance to rivals than it is to members of the buyer group? If not, this raises the question: 'why would the buying group harm itself just as much as its rivals?' This question must be addressed in order to develop a coherent theory of harm.
- What is the nature of the buying group? Is it closed? An open buying group that allowed each member to benefit from the same terms would mean that rival buyers are less likely to be disadvantaged, as they could join the group to obtain the same terms as existing members.
- How important is the input in question in terms of downstream marginal cost? If it accounts for a small share of marginal costs, the overall impact on rival buyers is small.
- How important as competitive constraints are rivals in the downstream market(s) in which they compete with members of the group? Would the likely adverse shift in buying terms for rivals be likely to weaken their effectiveness as downstream competitors

substantially? Are other competitive constraints (e.g. new entry) weak?

- Would end customers pay more as a result of the buyer group activities? Probably not if the buyer group secured substantially lower input prices and the indirect effect on downstream competition from outsiders was only weak.

1.66 These issues are discussed further in Chapter 6.

'Rent sharing' agreements

1.67 Where buyer groups have substantial market power, they might be in a position to 'collude' with a supplier to harm competition. The spoils from such 'vertical collusion' would then be shared between the buyer group and the supplier, hence the term 'rent sharing'.

1.68 The best example of a powerful buyer engaging in vertical collusion relates to the Toys 'R' Us case in the US. Here, a 'gatekeeper' toys retailer (Toys 'R' Us) facilitated collusion among at least seven major toy manufacturers, who agreed not to supply certain toys to discounters. This agreement was brokered and monitored by Toys 'R' Us.

1.69 The agreement stunted the growth by discounters and thereby substantially reduced the pressure on Toys 'R' Us to lower prices on popular toys. Some of the resulting incremental profit gained by Toys 'R' Us was presumably shared with the toy manufacturers to compensate them for lost sales through discount retailers. Manufacturers would also have gained from reduced upstream competition. Chapter 6 provides further details.

'Rent shifting' effects

1.70 The theories of harm discussed above relate to harm to the end customers served by the members of the buying group. However, a buyer group may harm buyers and their end customers in a different

downstream market (i.e. one where members of the buyer group do not operate), through affecting competition among their suppliers.

- 1.71 Suppose there are two manufacturers serving upstream markets A and B. In the largest market, A, there is a buyer group that is the 'gateway' to the downstream market, such that if one manufacturer does not deal with the buyer group it fails to operate at an efficient scale. Further, suppose that if a manufacturer fails to operate at an efficient scale in market A, it will also be inefficient when serving the smaller market B.
- 1.72 In this scenario, even if a buyer group's purchases are large enough to allow both manufacturers to operate at an efficient scale in markets A and B, the group may choose to deal exclusively with just one manufacturer. By so doing, the buyer group would ensure that the chosen manufacturer would earn more profits in market B (since the other manufacturer would operate at an inefficient level in market B). This would allow the buyer group to demand an additional payment from its chosen manufacturer that allows it to gain some of that manufacturer's profits earned in market B. In this way profits are 'shifted' from the B market (where the buyer group does not operate) to the A market (where the buyer group exists). Hence the term rent shifting. Buyers in market B suffer because had the buyer group dealt with both manufacturers in market A, competition in market B would have been more intense.

Other theories of harm

- 1.73 Other theories of harm arising from powerful buyers or buyer groups are often voiced. In our view, to be credible competition concerns, the following assertions would need to be linked to the theories explained above. Some other concerns, while legitimate from a theoretical perspective, appear to be issues of making (difficult) judgements about 'economic welfare' as opposed to rectifying competition concerns. We also note concerns which are somewhat speculative.
- 1.74 Consider, for example, the following claims:

- **Buyer group demands for better terms of supply adversely impact on supplier profitability leading to reduced investment, innovation and increased concentration at the upstream level where some suppliers exit the market.** As explained above, for such theories to be credible, we must answer the question: ‘why would the buyer group harm competition among its suppliers if that would lead to higher prices, lower quality goods, or less innovative products?’ We therefore consider that credible theories of harm will usually draw on the theories discussed above. For example, a buyer group would have a greater incentive to harm innovation if, for example, the new process in question would primarily benefit the buyer group’s rivals.

A buyer group may be well placed to extract better terms from small suppliers, particularly those that are locked-in to supplying the buyer group. However, whether this harms innovation in the market as a whole depends *inter alia* on whether suppliers of similar products with strong bargaining positions (e.g. larger suppliers) would continue to innovate, whether small suppliers would anticipate their reliance on the buyer group and protect themselves contractually from future attempts by the group to negotiate better terms of supply, and whether the buyer group itself would have the incentive to allow innovation to suffer.

Further, we acknowledge that in theory a powerful buyer group may profitably prevent innovation even without a raising rivals’ costs (or reducing rivals’ benefits) motive. For example, it may be that the innovation would primarily benefit end customers in different markets such that the buyer group’s willingness to pay for the innovation is less than the social value of the innovation. If the supplier is unable to ‘make up the difference’ from the remaining beneficiaries of the innovation (perhaps because they wish to free ride on payments made by others) then the innovation does not take place. However, whether this is a competition concern is an entirely different matter.

- **Buyer groups demand more similar terms of supply leading to reduced upstream product variety and diversity.** As above, we need to address the question: ‘Why would a buyer group have an incentive to harm upstream product variety and diversity where these features are valued highly by end customers?’ As with the discussion on innovation above, buyer groups may not support the optimum level of diversity from society’s point of view. However, for this to be a competition concern would usually require the decision to damage diversity to be linked to reducing a rival’s ability to compete.¹⁶
- **Buyer groups induce harmful supplier counterstrategies.** These refer to strategies undertaken by suppliers in response to increased buyer power. For example, it is sometimes asserted that increases in buyer power will lead to harmful supplier mergers. Such a theory is not appealing. First, rational buyer groups would take into account likely supplier reactions. Second, if supplier mergers are anti-competitive, the authorities would presumably block them! Nevertheless, some harmful counterstrategies are credible (e.g. as regards resource misallocation in auctions¹⁷).
- **Harmful ‘spiral effects’.** Occasionally assertions are made that buyer power creates further buyer power. As applied to buyer groups the

¹⁶ Absent good evidence of this exclusionary motive, judging whether the buyer group has harmed welfare by affecting diversity would be difficult, as it would require very detailed information on consumer preferences. Further, where downstream competition is effective, markets would typically respond to consumer desires for more (or less) diversity. See Chapter 7.

¹⁷ In theory, even where rational buyer groups anticipate harmful supplier counterstrategies, end customers may still suffer in certain specific circumstances. An example is where a supplier increases the reserve price in response to the formation of a buyer group in an auction. While the buyer group may be better off, there could still be a welfare loss where there is a reduced chance of the auctioned good being sold. (The seller might trade off a higher reserve price for a lower chance of selling the good.)

argument would be that, if size endows a buyer group with the scope to negotiate larger discounts, that in turn might allow the members of the buyer group to grow further (such that the group negotiates even larger discounts). Eventually, so the argument goes, this process could mean that other firms are driven from the market. However, intervention to 'nip in the bud' growth of the buyer group would greatly risk penalising firms that pursue efficiencies, which is an integral part of the competitive process. For example, if members of the buyer group grow share by passing through the lower input prices obtained from being part of the group, this is beneficial for consumers (unless pass through is at demonstrably predatory levels). Further, scope for supplier counterstrategies to end the 'spiral' would need to be considered, e.g. whether suppliers had the incentive and ability to ensure that rival buyers remained in the market.

- 1.75 We have noted above that theories exist which demonstrate how a buying group could, in theory, harm 'economic welfare' without necessarily harming competition in the sense that competitive constraints are not materially affected by the buyer group. For example, we noted how a buyer group could fail to generate the optimum level of innovation or diversity from society's point of view, simply through the pursuit of better value for money for its members but without any object or effect of harming competition. We note that intervention in such cases would move beyond the correction of adverse competitive effects towards greater 'micro management' of particular industries (i.e. a degree of intervention beyond the scope of this report).

Implications for market definition

- 1.76 We now consider some screening steps useful for analysing the competitive effects of buyer groups. The starting point is usually to consider the relevant market in which a buyer group operates. (This also allows us to apply the safe harbours discussed in the next section.) Our previous discussions on substantial buyer power and potential theories of harm have the following implications for market definition.

- 1.77 We would not advocate turning the hypothetical monopolist test on its head and attempting to define a market by applying a ‘hypothetical buyer group test’, i.e. asking whether a hypothetical buyer group could profitably sustain prices below competitive levels. This is because if an upstream supplier is forced to price below competitive levels this might well imply that the supplier would not earn a normal profit over the long term and so would be better off leaving the industry.¹⁸
- 1.78 Ultimately, market definition should provide an appropriate framework for analysing competitive effects. For example, if the question is: ‘does the buyer group have buyer power?’, it is sensible to define the upstream market on the basis of the standard hypothetical monopolist test and then ask whether, within that market, the buyer group in question has buyer power (and, if so, to what degree).
- 1.79 If the question is: ‘Does the buyer group harm downstream competition directly by leading to collusion in the downstream market?’, it is appropriate to define the downstream market in the standard way, by applying the hypothetical monopolist test, to see if members of the buyer group cover a sufficiently large share of the downstream market for collusion to be sustainable.
- 1.80 If the question is: ‘Does the buyer group harm downstream competition indirectly through influencing upstream suppliers to offer worse terms to rivals of the buying group, which in turn become less effective competitive constraints in the downstream market?’, we can use the standard hypothetical monopolist test to define both the downstream

¹⁸ We note, however, that prices can be sustained below competitive levels where monopsony power is feasible (see Chapter 3). The European Commission suggests that the procurement market could be defined by examining a ‘supplier’s reaction to a small but lasting price *decrease*’ (EC, 2001), paragraph 120. The guideline does not explicitly state that the price decrease is below competitive levels, although arguably this is implicit from the analogy drawn with the standard approach to market definition (which considers the ability of a hypothetical monopolist profitably to sustain prices above competitive levels).

market (where the ultimate harm is alleged to take place) and the upstream market (to see whether competition among suppliers is affected by the buyer group).

- 1.81 We acknowledge, of course, that buying decisions influence market definition in that the key question is how buyers would react to attempts by a hypothetical monopolist profitably to sustain higher prices.¹⁹ Further, with assessments of competitive effects where vertical issues are important, the upstream market is not usually defined independently of the downstream market because the upstream market is affected by the derived demand from the downstream market. However, in neither case does a ‘hypothetical buyer group test’ seem directly relevant to defining the relevant market.²⁰

Safe harbours, initial screens and a framework for the analysis of more complex cases

- 1.82 In this section, we draw on the preceding analysis to identify safe harbours which identify when harm to competition is unlikely. We then summarise the main issues to be addressed in more complex cases.

Market share safe harbours

- 1.83 In the European Commission’s Guidelines on the applicability of Article 81, the Commission distinguishes between purchasing and selling markets and defines a general safe harbour for buying agreements that

¹⁹ Also, issues such as whether sellers are locked-in to dealing with certain buyers may impact on both the bargaining strength of the buyer as well as how the relevant market should be defined (e.g. to include or exclude captive sales).

²⁰ The question of how suppliers would react to attempts by the buyer group to lower prices from current levels is useful in the sense that it helps to assess the relative bargaining power of the parties concerned.

have a market share of at most 15% on both upstream and downstream markets.²¹

- 1.84 Ultimately it is up to the OFT to decide on the appropriate safe harbour for determining when a buyer group is unlikely to give rise to anti-competitive effects. However, we consider that there is scope to increase the safe harbour employed for the share on the downstream market to 25%. This would be more consistent with merger analysis: the buying group agreement can be no worse for competition than a merger of its members.²² Indeed, typically a buyer group will be far less effective than a merger at harming competition due to the difficulties of coordinating the behaviour of each member.
- 1.85 The safe harbour for the share of purchases in the upstream market could also be higher. We have argued that indirect harmful effects arising from strategic buying group behaviour are unlikely unless the buying group is a 'gatekeeper' to the market as a whole (or at least to an important sales channel where sales channels are highly differentiated). A mere 15% of purchases seems too low to give rise to a realistic prospect of gatekeeper effects.²³ (However, if several buyers and buyer

²¹ The Commission is not entirely clear how relevant upstream market is defined. In our view, upstream market should be defined in the usual way (i.e. according to the hypothetical monopolist test) as we explained above.

²² It is a generally agreed principle that where firms have a combined market share below 25%, a merger between them is highly unlikely to lead to unilateral anti-competitive effects. This principle has been reflected in Recital 32 of the ECMR. If the members of the buyer group do not overlap in any downstream market (i.e. produce close substitutes for each other's downstream products) this would also point to the absence of direct effects on any downstream market.

²³ In this regard it is interesting to note that the DOJ and the FTC point to safe harbours that have been defined in Healthcare Statement 7. If the following two conditions are satisfied the Agencies would not challenge any joint purchasing arrangement among health care providers. The first condition is that purchases account for less than 35% of the total sales on the relevant market. (Buyer power is presumed not to be substantial below this level.) The second is that the cost of the products and services purchased by the group jointly accounts for

groups all operate similar procurement policies then, despite their small shares as individual buyers, a cumulative harmful effect may arise from their similar purchasing behaviour.)

Additional possible screens

- 1.86 Where downstream competition is unlikely to be directly harmed by the buyer group (e.g. due to the low combined downstream share of buyer group members, a low increment in downstream share that would arise if buyer group members merged, and/or low entry barriers to the downstream market) and the buyer group's share of purchases in the upstream market is moderate (e.g. less than 30%), upstream competition is unlikely to be affected where:
- the buyer group takes advantage of better terms available for bulk buying but has no material influence on those terms (e.g. the buyer group does not bargain on behalf of its members but simply obtains discounts against a pre-determined price list);
 - the buyer group is 'open' (i.e. there are no substantial hurdles to joining the group) and terms are identical for all members (so that rival buyers would not suffer from worse terms of supply as they could simply join the group).

More complex cases

- 1.87 Where safe harbours and initial screens are not helpful in dismissing cases, further analysis is required.

less than 20 percent of the total revenues from all products or services sold by each competing participant. (This is a proxy for the importance of the input as a share of the downstream selling price – a low share being considered unlikely to facilitate collusion.) See Statements of Antitrust Enforcement Policy in Health Care, Issued by the U.S. Department of Justice and the Federal Trade Commission, August 1996.

- 1.88 While it is true that concerns are greater as the coverage of the buyer group widens, we are not convinced that sensible market share thresholds or other rules can be devised which predict likely harmful effects due, for example, for the need to assess the ease of new entry in both the upstream and downstream markets. Ultimately, therefore, a case by case analysis is required.
- 1.89 To ease the case by case analysis it would be helpful to set out general principles. For example, the authorities might state the following views:
- most buyer groups are formed to pursue better terms of supply for their members and any intervention against buyer groups would be mindful of not dampening this pro-competitive motive for buyer agreements; and
 - most buyer groups tend not to harm competition among their suppliers either because they have insufficient ability (because they do not have substantial buyer power) and/or insufficient incentives (i.e. to do so would typically be against their own interests).
- 1.90 Additional steps in the case by case assessment have been summarised above and are set out in the table below (which also provides a road map to the remainder of this report).

Table: Overall framework and guide to the remainder of the report

Analytical Step	Issues	Relevant Chapter
Assess the degree of buyer power	Market definition Substantial market power? Monopsony power? Safe harbours passed?	Overview
Understand nature of buying group structure and activities	Spectrum from atomistic buyer cooperative to purchasing joint venture Openness of membership Symmetry of terms Provision of information, marketing and/or other services Pooling of purchases Negotiation on behalf of members	Chapter 2
Understand how the buyer group secures better terms for its members.	Supply chain efficiencies Increasing upstream competition Weakening the supplier's fallback option Influencing the profit sharing rule Exerting monopsony power	Chapter 3
Assess potential pro-competitive effects: what is the scope for pass through?	Lower input prices Demand expansion Fixed cost savings	Chapter 4
Assess scope for direct restriction of downstream competition between members of the buyer group	Explicit collusion Tacit collusion Other reductions in rivalry	Chapter 5
Assess scope for indirect effects on downstream competition	Input foreclosure Waterbed Effects Refusal to purchase Rent sharing ('vertical collusion') Rent shifting	Chapter 6

Consider other potential concerns	<p>Reduced investment, innovation and increased concentration at the upstream level</p> <p>Reduced product variety and diversity</p> <p>Harmful supplier counterstrategies</p> <p>Adverse resource allocation</p> <p>Harmful 'spiral effects'</p>	Chapter 7
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2 BUYER GROUP STRUCTURES AND ACTIVITIES

2.1 In this chapter we provide a brief description of types of buyer groups and their activities. The chapter is purely descriptive in the sense that we do not discuss how these structures and activities may impact on the likelihood of anti-competitive effects. That analysis is presented in forthcoming chapters as this allows us to match examples of buyer groups more closely with their relevant contexts.

Buyer group structures

2.2 Buyer groups typically use the combined purchasing power of their members to obtain volume or negotiated discounts on goods and services for use or resale. These groups may also secure better terms for their members (relative to the position of each member acting unilaterally) on product quality, availability and delivery. Such groups can be found in a variety of industries including agriculture, consumer goods (e.g. among grocery retailers or electrical goods retailers), financial services, health care, pharmaceuticals, industrial products, telecommunications and utilities.²⁴

2.3 Buyer groups occur in many formats and there seems to be little uniformity in the set-up used by different organisations and no clear taxonomy appears in the economics literature. For example, buyer groups could cover the following wide array of membership structures:

- **Cooperatives of 'atomistic' buyers.** Perhaps the most common type of buying group (especially in the agricultural sector) is a cooperative of buyers. Typically each individual member is small relative to the size of total purchases in the market hence we use the term

²⁴ See Clarke *et al* (2002) for a discussion of buyer groups in France, Germany, Spain and the UK and Chae and Heidhues (2004) for further examples of buyer groups, with a US focus.

'atomistic'. Power is often 'democratic' as opposed to centrally controlled.

- **First party governed centrally controlled buying clubs.** These clubs are established by a founder member (or founding group) that governs the organisation. The founder might be a large buyer or a group of buyers. The leader would be responsible for the day-to-day operations regarding purchases. The creator of the buyer group asks for a membership fee from the buyers who want to join the group. In return for this fee the members get access to the conditions of purchase obtained by the buyer group. In some cases, there is no membership fee but the founder takes a share of the cost savings that the buyer makes.²⁵
- **Third party governed centrally controlled buying clubs.** These are much the same as described above, other than that the control lies with an outsider that is not a buyer (or seller) of the product or service involved. The third party is sometimes referred to as a procurement service provider (PSP). Examples include buyer groups in the US that obtain health insurance on behalf of their members.
- **Joint ventures.** Buying groups may be, in effect, joint ventures between buyers. (Joint ventures sometimes include suppliers as well, although such 'integrated' buyer groups are beyond the scope of this report.) For example, large national grocery chains (or national buyer groups) may combine to create European wide buyer groups that can be thought of as procurement joint ventures designed to obtain better terms from European suppliers.²⁶

²⁵ For example, as noted in Clarke *et al* (2002), the French food buying group Promodès has independent affiliated firms such as Prisunic.

²⁶ Examples of European wide grocery buyer groups are provided in Dobson and Waterson (1999) and Clarke *et al* (2002). The latter authors note that the European wide groups have not

- **Groups of groups.** Sometimes buying groups form to aggregate the purchases of other buying groups. For example, some national European food buying groups have minimum turnover requirements for new members. Smaller 'local' firms sometimes form a buying group to meet the turnover threshold required to join the national buying group.
- **'Super-buying groups'.** These relate to buying groups uniting distributors of a wide range of diverse products.²⁷
- **Contract specific consortia.** In some cases a buying group may be formed specifically to meet the requirements of a single contract. For example, sometimes a multi-buyer consortium is formed by a number of buyers for the purpose of negotiating a high value contract that runs for a number of years. The activity of the consortium is restricted to the negotiation of the contract.
- **Symbol groups.** A symbol group differs from a buying group due to the former's control on certain downstream activities. Not only does a symbol group aggregate its members' purchases to obtain better terms of supply but also it requires members to operate under the symbol group facia. As a result they must meet certain requirements for unity of style and product offering (although they tend to retain their own financial autonomy). Symbol groups offer marketing support for their members.²⁸

had a substantial impact probably due to the difficulty of meeting the diversity of preferences of their members.

²⁷ Clarke *et al* (2002) note, referring to super-buying groups formed in France in the mid-1980s, that most of these groups collapsed due to the diversity of preferences of their members.

²⁸ Clarke *et al*, (2002), p158. SPAR is an example of a symbol group. SPAR is an international retail food chain that represents the wholesale buying and retail marketing function

- 2.4 Buying groups have different degrees of openness for their membership structures. Buyer groups may have 'open' membership where there are some (easily met) criteria for joining, or more 'closed' structures where membership is determined by strict rules (e.g. minimum turnover requirements) or the decision of just one (or a few) members of the group.
- 2.5 It is also important to note that a buyer group may obtain either 'symmetric' or 'asymmetric' terms for its members. In the former case, each buyer within the group obtains the same terms as other buyers in the group. In the latter case (i.e. asymmetric), terms may differ among buyers in the group. Asymmetric terms may be important in inducing larger buyers to join (e.g. where they wish to maintain a differential with smaller buyers in the group – perhaps in recognition of the greater volumes they contribute) or where suppliers have different costs of supplying members of the group.

Buyer group activities

- 2.6 In this section we set out three types of buyer group activity – providing information, pooling volumes and negotiating on behalf of members.

Providing information

- 2.7 In some cases the buyer group acts only as a central source of information for its members. For example, a 'catalog hub' provides a platform where producers' offers are listed.²⁹ Where purchases are

for its independent retailers. SPAR represents 16,000 stores in 30 countries collectively. See for example http://www.spar.co.uk/retailer_information/ (last opened on 15 March 2006).

²⁹ A catalog hub is a platform which facilitates the exchange of information between buyers and sellers. In principle, catalog hubs could be established by buyers, sellers, or both. A catalog hub is therefore at the limit of the set of structures that might be termed a 'buyer group'. When established by buyers, catalog hubs may require listing fees from the suppliers to cover operational expenses of providing the service.

organised through a catalog hub, there is no pooling of volumes or bargaining over the price. In other words, buyers purchase at the prices posted unilaterally by the suppliers and purchase agreements are bilaterally determined between individual buyers and sellers (as opposed to the hub and the sellers).

Pooling volumes

- 2.8 Some buyer groups pool the purchases of their members to obtain volume discounts (where the discount schedule is determined unilaterally by the supplier).

Negotiating

- 2.9 More generally, buyer groups might be expected to negotiate on behalf of their members. This provides greater scope for the group to enhance its members' profitability (both through pro- and anti-competitive means).

3 STRATEGIES TO SECURE BETTER TERMS OF SUPPLY

Introduction

3.1 In this chapter we consider ways in which a buying group may secure better terms for its members than they otherwise would have obtained. Buyer groups can obtain better terms through:

- obtaining volume discounts
- generating supply chain efficiencies
- improving competition among suppliers
- weakening the supplier's outside option
- influencing the profit sharing rule
- exerting 'monopsony' power

3.2 Buyer groups may also improve profitability for their members through harming downstream competition. These issues are discussed in Chapters 5 - 7.

Obtaining volume discounts

3.3 Buyer groups may pool the purchases of their members to obtain volume discounts. Reasons cited in the economics literature for why price-setting suppliers offer volume discounts are summarised at the endnote to this chapter

Generating supply chain efficiencies

3.4 In this section we describe supply chain efficiencies that could arise as a result of the formation of a buying group. A relationship between a buying group and a supplier is a vertical relationship. It follows that the same types of efficiencies that are discussed in relation to vertical

agreements and vertical mergers potentially apply in relation to buying groups.³⁰

3.5 Broadly speaking, supply chain efficiencies lead to lower production costs, market expansion or 'dynamic' effects, such as greater long term investments. There are many ways to categorise efficiencies in a vertical relationship, in this report we distinguish between the following:

- reducing transaction costs;
- increasing productive efficiency;
- increasing pricing efficiency;
- market expansion;
- providing the appropriate framework for long term investment.

3.6 We discuss these in turn.

Reducing transaction costs

3.7 All contractual relationships are subject to transaction costs. This includes the difficulties of writing contracts to cover unforeseen events (contingencies), as well as monitoring and enforcing the contracts. Where contracting is straightforward, suppliers are less likely to be deterred from dealing with several buyers. However, where contracting is costly, a supplier may prefer to deal with fewer buyers (other things equal).

³⁰ For a wider discussion of efficiencies in a vertical setting, see DG Enterprise and Industry (2005).

- 3.8 Buying groups may reduce transaction costs by (a) providing suppliers with information on the available sources of demand and (b) providing buyers with information on sources of supply. This reduces search costs.
- 3.9 Buying groups can also reduce transaction costs by reducing the number of contracts required to achieve a given amount of trades. For example, suppose that the buying group acts as a single point of contact between the supplier and buyers, this reduces the contracting effort undertaken by the supplier.
- 3.10 Of course, simply acting as a point of contact is not sufficient to resolve contracting problems. If the buyer group acts as the representative of its members³¹, contracting issues may well remain between the buyer group and its members. Thus, in order to solve transaction costs, the buyer group must be better placed than the supplier to contract with its members. This could be the case for the following reasons.
- 3.11 First, the communication within the group may be more efficient than the communication with each group member and the upstream firm. This might be the case if the buyer group acts repeatedly for its members such that the buyer group has greater information about its members than would the supplier.
- 3.12 Second, the rules of membership for a group may mean that a member cedes some authority to the 'group'. Where contracts are incomplete (i.e. do not cover every contingency), a body with authority may be required to make a decision on an issue that is not covered by the contract. Members of a buying group may be more willing to surrender some authority to the 'group' (where the latter has a given decision making process such as a voting mechanism or a governing body) than

³¹ To see that it may be efficient to have the 'group' acting as a representative of the interests of its members, note that if there are n members of a group, then each member makes just one agreement with the 'group' as a whole, rather than $(n - 1)$ bilateral agreements with the remaining members.

to a supplier. In turn, the group would be in a position to represent its members and thereby avoid the need for suppliers to contract individually with each of its members.

- 3.13 Third, the group might have existing structures in place, such as an umbrella agreement that can be modified at little cost to be suitable for dealing with the supplier in question.
- 3.14 Transaction cost savings can be dramatic. In the US, the FTC and the DOJ jointly published a report about health care and competition in which they discuss the significance of group purchasing organisations (GPOs).³² A GPO is an entity that concludes contracts with manufacturers of medical products and services on behalf of hospitals. The report refers to studies on the elimination of wasteful administrative duplication that estimate the hospitals' cost savings achieved by employing GPO to \$155,000 per hospital.

Improving productive efficiency

- 3.15 Buyer groups may allow for more efficient use of inputs or productive assets, e.g. through suppliers being better able to exploit economies of scope or scale or through demand assurance.
- 3.16 First, consider how a buyer group may generate economies of scale and scope. If supplying a downstream firm involves some delivery specific fixed costs there is scope for decreasing these costs through coordinated purchasing.
- 3.17 Consider a hypothetical example. Suppose that three buyers located close to each other demand the same input. Delivery is expensive and so buyers prefer to take one large drop, once a quarter. Suppose that ideally their supplier would deliver their input needs at the same time (to

³² Federal Trade Commission and the Department of Justice (2004), page 43.

avoid duplicating transport costs). If the buyers agree to coordinate their delivery times, this efficiency saving can be achieved.

- 3.18 Further, suppose also that there is a chance that one buyer runs out of inputs and requires an expensive 'top up' delivery. Usually, if one buyer runs out of its inputs, one of the others has some spare stock. By sharing the same storage facility, this reduces the number of 'top up' deliveries that are required.
- 3.19 Second, suppose that in order to achieve an efficient scale for production (or indeed to invest or innovate), a supplier wishes to be assured a minimum quantity of purchases. Buyers acting individually may not be in a position to guarantee sufficient output for a supplier to risk sinking substantial funds in investment. A supplier would then have to contract with several individual buyers to achieve an efficient scale of production.
- 3.20 However, a buying group may be in a position to solve the preceding problem and thereby facilitate investment. The group could, for example, provide a large source of demand where it both provides a single contact point and acts as a guarantor for the demand of its members. (We discuss this further below in the section on sponsoring entry.)
- 3.21 Finally, consider another (less obvious) example of an efficiency –pooling information in a common value auction. In a common value auction, the value of the item depends on a factor which is the same for all bidders, but is not precisely known at the time of the sale (examples of common value auctions are bidding for an unknown amount of oil in a tract or bidding for an object of art, whose resale price is unknown). In such an auction, rational bidders shade their bids to account for the fact that winning implies having the highest estimate of the item's value which is likely to exceed the true value.³³ Since the members of the buyer group

³³ See, for example, Klemperer (2003).

can pool their information, they might well be able to gain a more precise estimate of the true value. Hence, they will shade their bid less.

- 3.22 An additional effect arises from the reduction in the number of bidders. On the one hand, having the highest estimate of many implies that the estimate is likely to exceed the item's true value to a larger extent. Therefore, bidders shade their bids more if the number of bidders is large. On the other hand, increased competition among a large number of bidders suggest that each one submits a higher bid to gain the item. The net effect of a reduction in the number of bidders by the formation of a buyer group is hence ambiguous.
- 3.23 The net impact of reduced bid shading due to the common value of the item might or might not offset the lower price which arises from reduced competition among bidders. The effect on the seller's revenue is thus not clear cut.³⁴ If information pooling within a buying group leads to more trades taking place, it increases both the buyers' and seller's surplus.³⁵

Increasing pricing efficiency

- 3.24 In this section we consider how buying groups can increase pricing efficiency by allowing for more efficient pricing terms.³⁶

³⁴ Consequently, the seller's revenue might increase (Krishna, Morgan, 1997) or decrease (Mares, Shor, 2003).

³⁵ Brock and Smith (1983) demonstrate this efficiency gain in a stylised model of an offshore petroleum lease auction. Here, joint bidding increases the probability that economically viable tracks will be leased.

³⁶ Complex contracts need not always be used to benefit consumers – by allowing for a richer contracting structure, harmful effects may become more possible as well. See, for example, the debate on the ambiguous welfare consequences of slotting allowances (see Federal Trade Commission, 2001) and Rey *et al* (2005) which is discussed further in Chapter 6.

- 3.25 In intermediate markets a problem may arise where both the upstream and the downstream firms charge a mark up over marginal cost. The downstream firm's marginal cost is the true marginal cost of the input plus its supplier's mark up. The downstream firm adds a further mark up and so the price is higher than if the upstream firm had supplied at the true marginal cost (i.e. added no mark up).³⁷
- 3.26 In contrast, with efficient bargaining, the upstream firm would sell to the downstream buyer at marginal cost and take its share of the downstream profit with a fixed fee.
- 3.27 Where there are several buyers, it may be too costly for a supplier to engage in efficient bargaining with each individual buyer. For example, a supplier may be willing to bargain only with buyers above a certain size, while smaller buyers pay the list price.
- 3.28 To overcome this problem, a buyer group may then negotiate on behalf of its members to obtain a lower input price in exchange for paying a fixed fee. The buyer group would then have to recover the fixed fee from its members (but if they were already paying a membership fee, this additional charge may not be costly to implement).³⁸

³⁷ Double marginalisation arises where competition in the downstream market is imperfect (in the sense that setting prices above marginal cost is profitable) and where a wholesaler's payment is determined simply by the list price multiplied by the units purchased by its retailer (there are no discounts or fixed fees). In this case the wholesale price has two purposes: first, to increase the available profit; second, to distribute those profits upstream. The price cannot achieve both objectives optimally. Since the wholesaler wants a mark up on marginal cost to make a profit, price is too high at each level of the supply chain. For a discussion of the double marginalisation problem see Tirole (1988).

³⁸ Marvel and Yang (2006) assume, in a Hotelling setting, that the creation of a Group Purchasing Organisation (GPO) allows suppliers to use non-linear tariffs. As a result, suppliers compete not just for the marginal consumer but also inframarginal consumers and so competition is intensified, lowering prices for consumers.

Market expansion

- 3.29 In the same way that a buying group can act as a guarantor of demand that allows a supplier to achieve economies of scale, the buying group may also sponsor other investments made by suppliers.
- 3.30 For example, suppose that buyers must make a contribution to the supplier's investment before that investment would proceed. In this case, an individual buyer may seek to 'free-ride' on the contribution of others. Provided that, once the investment has been made, free-riders cannot practically be excluded from the benefits of the supplier's investment, each buyer acting individually would have the incentive not to contribute to the investment being made.
- 3.31 As a result, the supplier might curtail its investment plans, leaving buyers as a whole worse off than they otherwise would have been.
- 3.32 A buyer group may solve the problem by, for example, coordinating and monitoring the contributions of its members to the supplier's investment. It might also strike an exclusive deal on behalf of its members to ensure that free-riders could not gain from the investment.

Providing a framework for long term investment

- 3.33 By a similar argument to that employed in the previous section, buying groups can provide a framework for long term investment.
- 3.34 For example, to recover a large investment might require assured sales over the long term, and so suppliers might prefer to deal with 'blue chip' buyers that are unlikely to go out of business. A buying group may be viewed as less risky than any individual member.³⁹

³⁹ This might be because the buying group is more diversified. Output of individual firms could be quite volatile (e.g. due to frequent entry and exit), while the output of the group as a whole could be more stable.

- 3.35 Contractual issues are also important in providing an appropriate framework for investment. With commodity products, contracting is more straightforward and so even a 'loosely' structured buyer group might facilitate investment. However, where complex, large scale investments are involved, a more tightly structured buyer group may be required, such as a joint venture between buyers.
- 3.36 With long term, specific investments contractual problems may be so acute that the buying group and the supplier cannot agree a contract that leads to investment (or innovation). In this case, the buyer joint venture may be extended to include the supplier as well. This is analogous to the need for a vertically integrated solution to solve the 'hold up' problem.⁴⁰
- 3.37 Sometimes it is argued that increased bargaining strength means that suppliers earn less than before and so are less likely to make investments. However, in general, buyers would be expected to realise this. If the investment by the supplier were important, a buying group would limit its *ex post* bargaining power (e.g. through writing an *ex ante* contract). Put differently, buyers may gain from lowering their share of the bargaining pie, if, as a result, the size of the bargaining pie is much larger.⁴¹

⁴⁰ The hold up problem arises, for example, where party A requires a specific investment to be made by party B. The 'asset specificity' means that once B has made the investment, it has no resale value (i.e. it is useful only for A). This means that B would like a contract *ex ante* to guarantee that A will contribute to the costs of the investment. (Once B has already made the investment, its bargaining position with A is weaker and so *ex post* B might not be able to recover its costs.) However, A might be reluctant to commit to financing B's investment. For example, it may be difficult to verify its quality to a third party in the event of a contractual dispute. In this case, contracting could be so difficult that the parties need to form a joint venture so as to internalise the risks of opportunistic behaviour.

⁴¹ For example, in Chen (2003), a dominant downstream firm limits its buyer power to discourage a monopoly supplier from selling too much through a competitive fringe. In Inderst and Wey (2003), buyers limit their buyer power to ensure suppliers introduce a beneficial

Increasing competition among suppliers

- 3.38 In this section we describe strategies that improve the buyer's bargaining strength through increasing the buyer's fallback option (or 'threat point').
- 3.39 Buyer groups may increase competition among their suppliers through making it easier to switch to alternative suppliers (including sponsoring new entry) or through pooling demand to intensify bidding among suppliers.⁴²
- 3.40 By increasing competition among their suppliers, buyer groups could benefit innovation by 'keeping suppliers on their toes'. For example, where such competition keeps profits low, suppliers may have a greater incentive to 'escape competition' by innovating (e.g. because a successful innovation by one supplier would put it in a stronger bargaining position with the buyer group).⁴³

technology. In a setting of competing vertical chains, Milliou, Petrakis and Vettas (2004) note how a downstream firm might limit its power to the benefit of consumers.

⁴² While competition policy cases deliver many examples to support the view that buyer power requires choice (i.e. ease of switching between alternative sources of supply), empirical evidence in the academic literature is limited. Two studies support the view that having a choice of supplier is more important in determining lower prices than size *per se*, see Ellison and Snyder (2001) and Sorensen (2003). (Earlier studies focused only on buyer concentration but not the scope for switching. These are discussed in Ruffle (2005), who notes that several 'SCP' cross sectional studies and one time series study have identified that price-cost margins for sellers decline (controlling for supplier concentration) as the industries to which they sell become more concentrated.)

⁴³ The idea of innovation to 'escape' competition was discussed by Arrow (who called it a 'displacement effect') and formalised in Aghion *et al* (2001). Inderst and Wey (2005) and Inderst and Wey (forthcoming) show how a powerful buyer (or buyer group) could benefit innovation. They make a related point in that the focus should not be on the reduction on total supplier profits caused by the buyer group but on the incentive to innovate to improve profits compared to what would be earned without innovation.

Reducing switching costs

3.41 Buyer groups may reduce switching costs where there are economies of scale in switching. This might arise through costs savings in, for example:

- maintaining a specialist procurement team;
- searching for alternative suppliers;
- monitoring the quality of the products of rival suppliers;
- trialling and testing new suppliers; and
- solving 'coordination failures' (as noted above in the discussion of guaranteeing demand or preventing free riding).

Sponsoring new entry

3.42 Where buyer groups solve 'coordination failures' that would otherwise have occurred, they may facilitate new entry.

3.43 For example, it may be that if buyers purchased together as a group, they could sponsor the entry of an efficient new entrant. However, when acting individually, each buyer may be ineffective in sponsoring entry and/or subject to the 'divide and rule' tactics employed by incumbent suppliers.⁴⁴

⁴⁴ See Rasmusen, Ramsey, Wiley (1991) and Segal and Whinston (2000). The idea is that if enough buyers could coordinate, they could sponsor the entry of an efficient rival. However, buyers acting alone cannot offer the rival sufficient demand to achieve economies of scale and so new entry does not materialise. In the same strand of literature, Fumagalli and Motta (2006) show that efficient entry is more likely if the number of buyers is small since then each of them accounts for a significant share of demand. In the same way a buyer group may find it easier to sponsor new entry since its pooled demand is more likely to allow a new competitor to cover the cost of entry.

- 3.44 Having said this, the buyer group would not necessarily underwrite new entry. Instead, it may use its enhanced threat to sponsor entry to obtain lower prices because the incumbent supplier must now pay greater compensation to them for not dealing with the entrant.
- 3.45 Further, in intermediate markets, the analysis of foreclosure is not straightforward. The nature of downstream competition can both facilitate and hinder the ease of foreclosure.⁴⁵

Facilitating competitive tendering

- 3.46 Where there are fixed costs involved in establishing competitive tenders, a buyer group may pool demand to allow for such a tender to take place. Competitive tenders can intensify competition where there are sufficient credible bidders (i.e. able to meet the buying group's needs) that are not capacity constrained.
- 3.47 Further, a buyer group may allow its members to pool their demand such that contracts are larger and less frequent. In this scenario, supplier collusion is less likely. Intuitively, cheating becomes more profitable

⁴⁵ Fumagalli and Motta (forthcoming) argue that divide and rule strategies may fail in intermediate markets where the new entrant can target a buyer with low prices and where that buyer finds it profitable to pass on lower prices to consumers so as to expand demand for the entrant's product sufficiently to allow the entrant to obtain an efficient scale. This effect is stronger if products are more homogeneous since then a lower price allows the downstream firm to 'steal' a larger amount of sales from locked-in competitors. The buyer's ability to expand demand depends upon a high input price paid by other buyers locked in to the incumbent. On the other hand, Simpson and Wickelgreen (2001) argue that intermediate markets may facilitate (harmful) exclusion where the supplier can create a prisoner's dilemma (if one buyer sponsors entry, the other gains in the next period – each buyer is better off dealing with the incumbent and waiting for the other to sponsor entry with the result that neither sponsors entry).

because the 'prize' is larger and there are fewer opportunities for punishment.⁴⁶

Weakening the supplier's fallback option

3.48 A buyer group may improve bargaining strength for its members by deteriorating the supplier's fallback option. We discuss two examples.

3.49 First, a supplier's access to the group might be important to obtain economies of scale, network effects or other benefits (e.g. quality assurance). In some cases, the group may cover such an important share of the key outlets for the supplier that it becomes the 'gateway' to market (i.e. failure to sell to the group denies the supplier the opportunity to operate effectively) and so the supplier's dependency on the buyer group allows the latter to dictate the terms of supply.⁴⁷

3.50 If a supplier needed to strike a deal with the buyer group before it sold to other buyers, this could improve the scope for the group to act strategically – e.g. this might allow the buyer group to obtain a first mover advantage in negotiations.⁴⁸

3.51 Having said this, it is not necessarily the case that a 'pivotal' buyer group would obtain better terms (where pivotal means that access to the buyer group is a pre-requisite for production to take place).⁴⁹ It depends

⁴⁶ See Snyder (1996) and (1998), discussed at the endnote to this chapter.

⁴⁷ Armstrong (2005) discusses retailers as gateways in a two-sided market setting. A retailer can be thought of as a platform where manufacturers meet consumers.

⁴⁸ In theory, the buyer group may have a first mover advantage – e.g. the ability to contract with suppliers before other buyers (this might arise through being the 'gatekeeper' to market). On first mover advantage for powerful buyers or buyer groups, see Mathewson and Winter (1996), Gans and King (2002) and Majumdar (2005).

⁴⁹ See Raskovitch (2003). Note that if bargaining were sequential, the pivotal buyer could extract some of the surplus available from later bargains (i.e. those bargains that the supplier

on the nature of bargaining. If bargaining is simultaneous and relates to the incremental surplus generated (taking other deals as being struck at their equilibrium levels⁵⁰), then being non-pivotal allows a buyer to free-ride on an investment made by a larger buyer.⁵¹

Influencing the profit sharing rule

3.52 We have so far described the importance of outside options in the bargaining process. We now briefly review some other factors that may improve bargaining power (and thus, for a given bargaining pie, shift the profit sharing rule in favour of the buyer).⁵²

can strike with other buyers as a result of having secured a deal with the pivotal buyer). See, for example, Horn and Wolinsky (1988) who describe how a buyer may gain from first mover advantage if the supplier is in a hurry to strike a deal with both buyers. (Intuitively, the first buyer can delay the deal being struck with the second buyer and this enhances the first buyer's bargaining power.)

⁵⁰ Whether such an assumption is reasonable or not has been discussed, *inter alia* in Horn and Wolinsky (1988), MacAfee and Schwartz (1994) and Rey and Verge (2004).

⁵¹ In this context, buyer groups may be more likely to form where the 'gross surplus function is concave' (i.e. as the supplier strikes a deal with additional buyers, each additional bargain adds less value than the one before and so there is no point in free-riding on deals struck by other buyers). See, for example, Raskovitch (2003), Inderst and Wey (2003) and Chipty and Snyder (1999). (Snyder (2005) notes that a similar effect emerges where the supplier is risk averse as in De Graba (2003) and Chae and Heidhues (2004).) In a related setting, Inderst and Wey (forthcoming) assume that if a deal breaks down, a supplier (costlessly) renegotiates with all other buyers. This means that the supplier must channel more product through fewer outlets which, in the model, leads to diminishing returns, thereby weakening the supplier's fallback option. In a different type of model, Dobson and Waterson (1997) model buyer mergers (modelled by a reduction in the number of downstream firms). A reduction in buyers weakens the supplier's fall back option by 'destroying' an outlet through which sales could have been made (see Chapter 4).

⁵² See Muthoo (2000) for a non technical introduction to bargaining theory.

3.53 Broadly speaking, bargaining strength is improved where a buyer group benefits from:

- Better information. For example, where a buyer group is well informed about the costs of supply⁵³, but the supplier is relatively uninformed about the buyer's profitability downstream – the buyer may then be able to pretend the bargaining pie is smaller than it really is (and so, in effect, obtain a larger share of the true pie).⁵⁴
- A better 'inside option' (this is the pay off received during the process of bargaining, before agreement is reached). For example, if the buyer enjoys bargaining, but the seller finds it stressful, the seller is more likely to be impatient to strike a deal (and thus more willing to cede a higher share of the bargaining pie to the buyer). This may be a factor where buyers have sophisticated procurement teams but sellers do not have a specialist sales team.
- A reputation for 'toughness'. If a buyer has a reputation for being a hard negotiator, this may influence the seller to give in earlier rather than hold out to try to obtain better terms.

3.54 Buyer groups may be better placed to inform themselves about sellers, or to fund specialist negotiating teams or even to establish a reputation.

3.55 There is some support for the importance of reputation from experimental evidence. Ruffle (2005) surveys experimental evidence on

⁵³ This may be because members pool their knowledge on the supplier's costs, conduct joint research into the cost of production in the upstream market (e.g. as would be a pre-requisite to backwards integration), or disclose historic input prices they have paid (which might allow those buyers that had traditionally paid higher prices to demand lower prices on the basis that other 'similar' buyers receive lower prices).

⁵⁴ Where asymmetric information is particularly severe, however, this can hinder bargaining – for example, it can prevent negotiations being struck where one party is unable to verify the quality of the good being traded. See the hold up problem described above.

countervailing buyer power. Buyer power in these models arises from the ability to withhold demand or boycott purchasing. The types of experiments concerned relate to repeated interaction between buyers and one or more sellers in different environments (e.g. information varies, the number of buyers varies).

3.56 Ruffle (2005) notes that human buyers are more likely to withhold purchases than simulated computer buyers that follow a rule by which they purchase from the lowest price supplier whenever the price is below the buyer's valuation. Our interpretation is that human buyers seek to establish a tough bargaining stance early on in the game that allows them to obtain a higher share of the available surplus (this contrasts to the more myopic strategies of simulated buyers).⁵⁵

3.57 Another example of how a buyer group may change the 'sharing rule', even without a bargaining process, comes from standard auction settings. Here the participants gain because their joint bidding reduces the number of competing bids. Consequently, bidders can reduce their bids and the winner will obtain the item on average at a lower price.⁵⁶

⁵⁵ Engle-Warnick and Ruffle (2005) provide experimental evidence that shows that even a monopolist may cede significant reductions in price when faced with fewer buyers. Their experiment suggests that the supplier is more cautious when faced with two buyers than when faced with four buyers. Engle-Warnick and Ruffle's results are perhaps surprising in that the buyers do not have a choice of supplier (and hence do not have a credible threat to switch to a rival). However, buyers do have the choice to purchase inframarginal units, while withholding marginal units for which their valuation is relatively low compared to the competitive price (and for which the supplier's valuation is somewhat higher). In our view, these studies provide an insight into how buyers and sellers may establish their relative 'toughness' (particularly at the start of a repeated supplier-buyer relationship). This would help to explain why buyers would often forgo a small increment in their own surplus to prevent a supplier obtaining a larger increment to its own surplus. Further, sellers are found to lower prices to prevent buyers withholding supplies (as theory would predict).

⁵⁶ See, e.g. Krishna (2002, p.19, 30). This result holds for auctions among risk neutral, symmetric bidders which have independent valuations for the good which are only known to each person individually. This setting is known as symmetric, independent private values auction

Since this is a transfer from the seller to the winning buyer, only the division, but not the size of the 'pie' is affected by the formation of a buying group.

Exerting 'monopsony' power

- 3.58 Moving away from bargaining models, another way that a buyer group can obtain better terms for its members is to exert 'monopsony' power.
- 3.59 When there is only one buyer of an input, that buyer is called a monopsonist in the input market. The textbook monopsonist story indicates that the buyer would withhold purchases so as to obtain a lower price. This result relies on the following conditions: (a) the buyer pays the same price for all of its inputs; (b) the industry supply curve slopes upwards (so purchasing an extra unit increases the purchase price); and (c) suppliers are perfectly competitive.
- 3.60 In these circumstances, the price that the buyer pays is determined by the marginal cost of producing the last unit. Buying an extra unit increases the price. Since that price is paid for all units, there is an adverse impact on the price paid for all previous units. As a result, the buyer has an incentive to withhold purchases below what would occur if there were atomistic buyers (i.e. numerous buyers whose individual purchases accounted for a negligible share of total purchases and so, individually, had no impact on the purchase price).⁵⁷

(SIPV). As we point out in Chapter 7, however, in other settings additional effects might partly offset this decrease in competition among bidders, such as counter strategies by the seller.

⁵⁷ On a technical point regarding the definition of buyer power, it might be tempting to ask: if market power refers to a supplier's ability profitably to sustain prices above competitive levels (or sustain quality below competitive levels), then – turning this on its head – is buyer power the ability profitably to sustain input prices (or other terms of supply) below competitive levels? Such a definition is closely linked to the textbook monopsony view and so is not helpful other than in the specific conditions in which monopsony power is feasible. In a textbook monopsony scenario, a monopsonist purchases at a price below that which would occur if buyers were

- 3.61 A similar result (more likely to be relevant to buyer groups) applies with 'oligopsony', provided similar conditions apply. For example, if there are a few large buyers (one or more of which could be a buyer group) that must pay a higher price on each unit as they increase their purchases, each of the large buyers has an incentive to withhold purchases (compared to a situation where buyers are 'atomistic' and so their purchase decisions do not affect the purchase price).
- 3.62 There are some parallels with the textbook monopoly story. Just as a monopolist gains from reducing output to drive up the selling price, a monopsonist gains from withholding purchases to secure a lower purchase price. Further, in both cases, the reduction in output leads to a welfare loss.⁵⁸
- 3.63 However, while the intuition from the monopoly model applies fairly generally (i.e. if firms cut back output, prices rise), the monopsony model arguably has less empirical appeal. We expect that competition authorities are more likely to be confronted with situations where the monopsony assumptions fail. Final consumers tend to be too fragmented to have monopsony power, while – in intermediate markets – terms of supply are often negotiated (especially where there are relatively few

atomistic. In that sense, sustaining prices below the 'competitive price' is possible. In other situations, however, a buyer could not usually sustain input prices below competitive levels in the long term as that would induce suppliers to earn sub-normal profits and thus leave the industry.

⁵⁸ Note, however, that textbook monopsony models often assume that the downstream market is perfectly competitive and so end customers do not pay higher prices. (When the monopsonist also has market power in the downstream market, this enhances the incentive to restrict output.) See Blair and Harrison (1993) and Dobson, Waterson and Chu (1998).

suppliers) or subject to discounts which mean that prices fall as more purchases are made.⁵⁹

- 3.64 Nevertheless, the monopsony model is relevant in certain situations.⁶⁰ For example, monopsony effects may occur in certain commodity markets where there is a uniform input price. Further, cost raising strategies based on 'overbuying' (see Chapter 6) are more relevant in a setting where monopsony power is feasible.

⁵⁹ Scope for bargaining defeats the textbook monopsony outcome. If there were no contracting costs, the monopsonist would not withhold purchases but would deal individually with each seller to achieve the perfectly competitive level of output.

⁶⁰ For example, monopsony power is recognised in the US 1992 Horizontal Merger Guidelines (revised April 8, 1997): 'Market power also encompasses the ability of a single buyer (a "monopsonist"), a coordinating group of buyers, or a single buyer, not a monopsonist, to depress the price paid for a product that is below the competitive price and thereby depress output.'

Endnote to Chapter 3: Why do price setting suppliers offer volume discounts?

- 3.65 There are many possible reasons why large buyers might be offered volume discounts. This endnote summarises reasons commonly cited in the economics literature.
- 3.66 First, many types of volume efficiencies are possible (as discussed in the main text).
- 3.67 Second, some models are just a straightforward extension of the standard result that where (a) suppliers determine prices and (b) price discrimination is possible, a monopoly supplier would charge higher margins to the least price sensitive buyers. Large buyers may be more price sensitive than smaller buyers due to having a credible threat to source from rival suppliers (see Katz, 1987).⁶¹
- 3.68 Where buyers are not passive (i.e. can actively sponsor new entry), this impacts on the ability of an incumbent supplier to deter entry. The

⁶¹ Katz (1987) considers an intermediate good monopolist that sells to a chain store that can backwards integrate and an independent buyer that does not have this option. The monopolist's offer relates only to the input price (i.e. there are no fixed fees). Katz compares regimes where price discrimination is allowed and where it is prohibited. Price discrimination is good for welfare when it deters integration that would have led to wasteful duplication of upstream fixed costs of production. However, allowing discrimination can reduce welfare by leading to higher prices for *both* downstream firms. This would not happen if both buyers were final consumers. In the intermediate market, however, the threat of backwards integration can mean that, absent price discrimination, the independent buyer benefits from the supplier's desire to ensure that the chain store does not integrate. In contrast, with price discrimination, the supplier can bribe the chain store not to integrate by charging higher prices to the independent – i.e. the chain store is willing to pay higher prices if the independent pays *sufficiently higher* prices. It should be noted that discrimination does not always favour the chain store. Where the chain store has an additional downstream cost advantage (e.g. lower costs of transforming the input into the final good), the supplier may charge it a higher price than the independent. This increases downstream competition and reduces the problem of double marginalisation.

incumbent may for example offer a 'limit' price which leaves the buyer group indifferent between purchasing from the incumbent and sponsoring new entry.⁶²

3.69 Third, the economic literature suggests other possible reasons for discounts for large buyers:

- Snyder (1996 and 1998) offers two related models in which larger buyers must be offered a lower price to ensure the sustainability of *upstream* collusion in an auction. In Snyder (1996), a buyer deals with colluding suppliers. Its buyer power is the credible threat to build up a backlog of orders to create an artificial boom during which the incentives for suppliers to cheat (i.e. break the collusive agreement) would be greater. To induce the buyer not to do this, the colluding suppliers offer it a lower price to purchase in every period. Snyder (1998) draws on a similar intuition to demonstrate why larger buyers may obtain discounts from colluding suppliers.⁶³
- In contrast, Tyagi (2001) develops a model in which large buyers are offered a lower price by a monopolist to prevent *downstream*

⁶² With a view to agricultural markets, Sexton and Sexton (1987) contrast entry deterrence strategies for a monopolist faced with the threat of new entry by a 'for profit' firm or entry underwritten by a cooperative of downstream buyers. They demonstrate that price reductions by an incumbent which might deter a 'for profit' entrant are beneficial for the buyers' cooperative since the latter benefit from lower input prices even in absence of entry. Scheffman and Spiller (1992) obtain a similar result, in that an incumbent sets a limit price to deter backwards integration. This contrasts with entry deterrence models where buyers are passive. For example, in the Spence and Dixit model of entry deterrence limit prices are not rational because it is the *post-entry* price that matters to would-be *suppliers* that face sunk costs of entry (unless current prices affect expectations of the post-entry price).

⁶³ In Snyder (1998), colluding suppliers are faced with successive orders from different sized buyers. Larger buyers are analogous to booms in the Rotemberg and Saloner (1986) model of collusion and so obtain lower prices to ensure collusion is sustainable. (Cheating is more profitable when demand is strong and so the collusive price must be lowered in a boom to deter cheating.)

collusion. The idea is that the supplier wishes to enhance downstream asymmetries, which make downstream collusion harder. This benefits the supplier because output restrictions are less likely and so the supplier sells more goods.

- One model of second degree price discrimination often cited in the buyer power literature is Maskin and Riley (1984). These authors establish the condition in which a monopolist with asymmetric information on buyer types (i.e. whether buyers are large or small) would maximise profits by offering larger discounts to induce larger buyers to reveal themselves.⁶⁴ While Maskin and Riley (1984) is an elegant piece of theory, sellers in intermediate markets would usually know whether their buyers are large or small – especially where buyers and sellers interact repeatedly and so the practical relevance of the model may be limited.

⁶⁴ A sketchy explanation is as follows. Suppose there are two buyers, large and small. The seller does not know which buyer is large and which is small. If the large buyer generates a greater joint surplus than the small buyer (e.g. due to the former's greater demand), then the large buyer can profitably pretend to be a small buyer (its higher demand means that its willingness to pay is higher than that for the small buyer). Therefore, it is important to induce the large buyer not to pretend to be a small buyer (as that would forego joint surplus). In order to induce the large buyer to report its true state, it must be offered some 'informational rent' in the form of a discount (provided that certain conditions apply). In contrast, the small buyer would not pretend to be a large buyer (over consumption is too costly) and so the small buyer is left earning its outside option.

4 ISSUES IN PASS THROUGH

Introduction

- 4.1 In this chapter, we consider principles relevant to whether better terms of supply obtained by the buyer group are passed on to end customers.
- 4.2 Where final consumers exert buyer power to obtain better terms of supply, there is no issue of pass through. A buyer group among final consumers would typically be beneficial.⁶⁵ Therefore, we concentrate on pass through in intermediate markets.

Lower input price

- 4.3 Where the buyer group secures a lower input price (or higher quality for a given price), this leads to a reduction in the marginal cost of production (for a given level of quality) in the downstream market.
- 4.4 Given that the buyer group does not further restrict downstream competition, pass through is likely. The more widespread the coverage of the buyer group, the greater the likely pass through (since the marginal cost reduction is more industry wide).⁶⁶
- 4.5 Where the source of buyer power leading to a reduction in input price also increases market power at the downstream level (as might be the case in a horizontal merger), theory suggests that pass through will not

⁶⁵ Unless there is a 'rent shifting' effect, see Chapter 6.

⁶⁶ In a mergers context, Stennek and Verboven (2001) distinguish between firm-specific and industry-wide pass through and find that, *ceteris paribus*, firm-specific cost savings are generally passed on less.

benefit consumers unless downstream competition remains intense (see below) or the reductions in marginal cost are very large.⁶⁷

- 4.6 Pass through in a buyer power setting is examined by Dobson and Waterson (1997). The authors assume a monopoly supplier sells to symmetric, differentiated retailers in a single downstream market. A retailer's input price is determined by Nash bargaining with the supplier (there are no fixed fees). An increase in buyer power is modelled by a reduction in the number of retailers (i.e. a buyer merger 'destroys' a buyer). This typically reduces the supplier's bargaining power with a retailer by reducing its fall back option (i.e. the profit available from selling to other retailers). However, even though a decline in the number of retailers lowers the input price, it also raises market power in the retail market. The authors find that unless downstream competition is very intense (almost perfect), buyer mergers harm welfare because the market power effect dominates and consumers pay more.⁶⁸

Demand expansion

- 4.7 Where buyer groups lead to efficiencies which expand demand or provide the appropriate framework for investments, such efficiencies would be expected to benefit end customers through increasing output downstream.⁶⁹

⁶⁷ This follows from the analysis of efficiencies in merger simulation models, although it should be noted that the buyer group is unlikely to have as great an effect on the downstream market as would a merger, due to the difficulties of coordination, see Chapter 5. On efficiencies in merger simulation models, see Stennek and Verboven (2001) for example.

⁶⁸ Von Ungern Sternberg (1996) obtains a similar result.

⁶⁹ For example, a buyer group might provide purchase assurances or solve coordination failures among buyers that would otherwise have restricted the scope for investment (including new entry) to take place.

Fixed cost savings

4.8 Where bargains are 'efficient' (e.g. involving both a fixed fee and a price per unit), it may be that buyers were already supplied at marginal cost (to maximise the available bargaining pie), and that improved bargaining strength leads to an increased share of the available bargaining pie (but without lowering input prices for each member). This can be thought of as a fixed cost saving.⁷⁰

4.9 Where there is a fixed cost saving only, there is no change in the (short run) marginal cost of production in the downstream market and so the improvement in terms of supply may not pass through to the downstream market immediately.

4.10 However, fixed cost savings may be passed on in the following situations:

- over the longer term (where a reduction in fixed costs translates into a reduction in long run marginal cost), e.g. lower fixed costs may allow more firms to operate profitably in the downstream market;
- where intense competitive pressure downstream ensures that fixed cost savings are passed on through non price factors (e.g. investment in the customer base);⁷¹ or
- where buyer group members negotiate with their end customers in the downstream market (providing scope for end customers to obtain a share of the buyer's fixed cost savings).⁷²

⁷⁰ In contrast, where the negotiation refers only to the input price and there are no fixed fees, improved bargaining strength leads to a lower input price (e.g. as in the models used by Dobson and Waterson (1997) and von Ungern Sternberg (1996)).

⁷¹ Put differently, intense competition means that firms would be forced to re-invest fixed cost savings in trying to attract more customers.

5 THE IMPACT OF BUYER GROUPS ON COMPETITION AMONG GROUP MEMBERS IN THE DOWNSTREAM MARKET

Introduction

- 5.1 In this chapter we consider possible implications for competition among members of the group in the downstream market that might arise directly from the organisation and operation of the buying group.
- 5.2 First we consider what features of the buying group might facilitate explicit or tacit collusion among its members when they sell into a downstream market. Second, we consider other possible 'reductions in rivalry' that might occur in the downstream market.
- 5.3 We assume prior knowledge of the basic economic theory on 'what determines collusion'. A brief review is provided at Annex A.

How might a buyer group facilitate explicit or tacit collusion?

- 5.4 In coming to an assessment that a buyer group facilitates collusion among members of the group when they sell into a downstream market, it is necessary to show that:
- explicit collusion already exists (in which case the buyer group is simply a façade to hide a downstream cartel);

⁷² For example, an end customer might use a procurement auction for the right to obtain a long term exclusive supply contract. Suppose that the industry structure consists of manufacturer, wholesaler, and end customer. Suppose also that the manufacturer supplies wholesalers at marginal cost but requires them to pay an additional fixed fee which is negotiated individually with each wholesaler. A buyer group among wholesalers might succeed in securing a reduction in that fixed fee for each member. Even though it is not a reduction in (short run) marginal cost, it could benefit end customers where, say, end customers had procurement auctions for an exclusive supply contract. In this case, the members of the buying group would be better placed to offer lower bids, because they would not need to recover as much from the contract to pay the manufacturer's fixed fee.

- tacit collusion already exists in the downstream market and would be strengthened by the operations of the buyer group in the upstream market; or
- the buyer group flips the downstream market away from competitive behaviour towards collusive interactions.

5.5 Since explicit collusion is unlawful, we focus here on the scope for tacit collusion being strengthened by the buyer group.⁷³ We note the parallels with the analysis of coordinated effects in mergers.

5.6 In making this assessment, it is not sufficient to tick boxes on a checklist: for example, it is not sufficient to state that the buyer group increases symmetry and thus collusion is more likely. There is no substitute for a proper analysis of the ‘first principles’. Evidence must be presented which demonstrates the (likely) alignment mechanism and how the agreed strategy is (likely to be) both internally and externally stable.⁷⁴

Strong external constraints

5.7 Collusion is not feasible where external constraints on the colluding group are effective. Thus, the buyer group would not raise concerns over collusion in the downstream market where:

⁷³ The theory underpinning both explicit and tacit collusion is similar. See Annex A.

⁷⁴ Sometimes a checklist approach to assessing collusion is advocated. Under this approach, the analyst considers a list of factors (such as those presented in the endnote to this chapter on what is required for collusion) and then ‘ticks’ how many apply. In our view, this approach potentially has some merit in ruling out cases where collusion is unlikely to occur (or unlikely to be effective, if it did occur). However, the checklist is not appropriate for determining that collusion *is likely*. There is a direct read across to the analysis of coordinated effects in mergers (where the standard of evidence required to demonstrate likely coordinated effects was raised substantially by the CFI in *Airtours*, 2002).

- **members of buyer group sell into different downstream markets.** For example, some buying clubs procure goods and services that are used by many different sectors and therefore their members span a wide range of commercial activities.⁷⁵ Another example relates to pan European buying groups that involve one retailer from each EEA country. If the downstream (i.e. retail) market was no wider than national, there would be no overlap between members of the group in the downstream market. A similar issue arises where large buyers also procure for 'satellite' members.⁷⁶ However, the authorities should be aware of the possibility that downstream collusion could lead to geographic market sharing such that the only reason that members of the buyer group sell into different downstream markets is as a result of a collusive agreement.
- **the combined market share of group members in the downstream market is too low to cause concern.** In the overview, we suggested that if the combined market share of group members in the downstream market(s) is 25% or less, there should be a presumption that no direct effects on downstream competition are likely.
- **other players in downstream market provide effective competition to the group.** This is an extension of the previous bullet. Even if the

⁷⁵ Possible examples of such buying groups are provided by Corporate United (www.corporateunited.com) and The Buying Group (www.thebuyinggroup.com), whose members can get deals on a range of goods and services such as office supplies, courier services and credit card processing.

⁷⁶ In the retail sector, clubs involving a large buyer and 'satellite' members are sometimes found. A report on buyer power in food retail sector published by the European Commission (1999) provides a number of examples of such buyer groups. For example Casino (one of the largest food retailers in France) is known to allow wholesalers for small stores to benefit from its purchase program. In this case, the buying group might be better viewed as a large buyer acting as a wholesaler that sells on to smaller satellite members. Presumably the motivation for selling on to satellite members is to expand sales in areas in which the large buyer's retail operations have a weak presence.

members of the buying group merged and the share exceed a screening threshold, there may be sufficient existing competition remaining in the relevant market(s) such that no competition concerns relating to collusion in the downstream market would arise (e.g. due to the absence of barriers to expansion for the 'fringe').

- **there are low entry barriers to the downstream market.** Even if the buying group acted as one in the downstream market, its attempts to increase price by colluding might be defeated by new entry.⁷⁷
- **buyer power of end-customers is effective.** Strategic responses by buyers could undermine the potential for collusion.

Impact on alignment and internal stability

5.8 Where the analysis of external constraints does not allow an early dismissal of concerns over collusion, a further assessment of alignment and internal stability may be required.⁷⁸

5.9 Relevant questions to consider regarding whether the buying group has an impact on the scope for a stable collusive scheme are set out below:

- **Nature of the agreement.** Is there an agreement on purchasing quantities, does this translate directly into an agreement to withhold output in the downstream market?⁷⁹ What is the motivation for the

⁷⁷ Provided that the buyer group did not raise entry barriers, for example, through strategic behaviour in the procurement market to deny inputs to potential entrants. These issues are discussed in Chapter 6.

⁷⁸ As noted above, we emphasise that determining the scope for (tacit) collusion is not simply a matter of ticking one or more of the following factors. The checklist is better at ruling out collusion than ruling it in.

⁷⁹ The European Commission imposed fines on five companies active in the Spanish raw tobacco processing market for agreeing on prices and quotas relating to purchases of raw tobacco (Case COMP/C.38.238/B.2 Raw Tobacco Spain, 20 October 2004). The processors of

buying group? An understanding of how, why and when the group was formed could be informative (e.g. as regards whether the group was created as a façade to hide downstream collusion).

- **Increased contact.** Does the buying group increase the contact between the firms? Is the procurement team largely separate from the team that decides upon downstream strategies or does the buying group lead to key decision makers meeting more often than before?
- **Information exchange.** What information is exchanged within the buying group? Does each member know about the input price obtained by the other? Does each member learn about the total quantities purchased by other members and does such information indicate likely output in the downstream market? Is there a firewall between the organisers of the buying group and the group members (i.e. which prevents sensitive information being exchanged)? Could

raw tobacco agreed on their shares of raw tobacco purchases and a maximum delivery price (i.e. the transaction price between producer and processor). In case 95/551/EC Stichting Certificatie Kraanverhuurbedrijf (SKN) and the Federatie van Nederlandse Kraanverhuurbedrijven (FNK) the Commission assessed agreements among Dutch crane-hire companies. Both organisations were organisationally linked and had virtually the same members. Furthermore, it was initially impossible and always more difficult for foreign firms to join. The agreement engaged in quality certification (SKN) and proscribed preferential hiring from and hiring out to members as well as adherence to recommended rates (FNK). Thus, it considerably exceeded the scope of a buyer group which would deal with hiring cranes only. In its decision the Commission ruled that the recommendation of rates amounted to downstream collusion by price fixing. Furthermore, the closed membership and the restriction not to hire cranes from non-members were found to be a restriction of competition which was not justified by increased incentives to invest or quality standards which exceeded legal requirements. In so far as these concerns regard the hiring of cranes they imply that the SKN-FNK as a buyer group harmed competition. Official Journal (1995), L 312/79

the information facilitate the detection and punishment of deviants to a collusive agreement?⁸⁰

- **Symmetry.** Do members of the buying group obtain symmetric terms? How important is the input in question as regards symmetry? If the cost of the input is not a major share of downstream marginal cost, symmetry is unlikely to be increased substantially, making collusion less likely. Groups with asymmetric terms are less likely to facilitate collusion.⁸¹
- **Standardisation.** Does the buying group mean that members obtain standardised inputs with the effect that their downstream outputs are less differentiated? If so, does this reduce the number of dimensions of downstream competition on which a collusive group must agree? Furthermore, reduced differentiation is more likely to facilitate collusion since it makes the potential punishment by unrestricted competition more severe.
- **Number of members.** How many members of the group compete in the same relevant market? If there are several members, collusion is harder to sustain.

⁸⁰ Foros and Kind (2006) show that buyer groups may use slotting allowances to dampen downstream competition. In theory, a powerful buyer may accept a higher wholesale price in return for a slotting allowance because the higher wholesale price is a commitment to set higher retail prices (see Shaffer, 1991). However, this requires that wholesale prices are observable. Foros and Kind (2006) argue that *within* a buyer group wholesale prices are more likely to be observable than *across* buyer groups. A buyer group might therefore agree to slotting allowances in return for higher wholesale prices in order to dampen downstream competition among its members. (On slotting allowances, see also Chapter 6.)

⁸¹ In theory, asymmetries could sustain collusion where they substitute for side payments which compensate for differences in each member's interest as regards the optimal collusive strategy. Generally speaking, however, tacit collusion is more likely to arise where members of the colluding group have symmetric costs (and a similar outlook on industry conditions and profitability).

- **Open membership.** With open membership of the group, collusion may be harder to sustain. First, there is no credible threat to punish a deviant by throwing them out of the buying group. Second, open membership may mean that the number of members is large (see previous bullet). Third, open membership may mean that the group cannot exclude 'mavericks' (e.g. heavy discounters in the downstream market).⁸²
- **Other facilitating practices.** Are there any activities that the buyer group adopts that do not appear necessary to secure better terms of supply but which might increase the risk of collusion?
- **Nature of the buyer group.** Catalog hubs are less likely to give rise to concerns about downstream collusion. Their aim is to provide information to buyers on available suppliers (thus there is little scope to share sensitive information). Further, agreements are bilateral (between each group member and a supplier) and so terms are not necessarily symmetric.

Buyer groups with several 'atomistic' members (e.g. some types of agricultural cooperative) would usually have too many members to mean that downstream collusion is feasible.

Buying clubs created by a third party 'founder' may be less likely to facilitate collusion, as a third party should be better placed to ensure that sensitive information is not exchanged.⁸³

⁸² In some cases, how 'open' the group is will be a matter for debate. For example, a buyer group could claim to be 'open' when in fact there is no realistic prospect of another member joining.

⁸³ However, in theory, the third party might have an incentive to take strategic decisions to restrict access to the group in a way that maximises its revenues from membership fees.

Example: Electrical goods buying group

- 5.10 In its report on domestic electrical goods (1997), the Competition Commission described the activities of Combined Independent Holdings (CIH). This was an organisation of 800 electrical goods retailers in the UK. Each retailer was a member of one of 21 local buying groups and the 21 local groups owned CIH. In turn, CIH was a member of a Europe-wide buying group, Euronics, which was able to negotiate discounts for its members.
- 5.11 CIH facilitated and guaranteed (subject to certain limits) payments to suppliers for orders made by individual retailers. The suppliers delivered directly to the retailer while CIH would settle the bill with the supplier (and then bill individual retailers). CIH also purchased goods in bulk which were then sold on to its members.
- 5.12 The Competition Commission noted that local groups operated under an approved membership policy. Notes from meetings of the local groups indicated: (a) a reluctance to admit a prospective new member whose business was in close proximity to an existing member; (b) a requirement that new members should be admitted only if acceptable to existing members; and (c) examples of retailers being rejected on account of their pricing policies (this appears to refer to their heavy discounting).
- 5.13 If these minutes reflect actual practice, it is arguable that the groups sought to dampen local price competition by excluding 'nearby' discounters from the preferential terms (i.e. preventing entry by a 'maverick' that could undermine collusion). However, attempts to sustain collusion may not have been effective due to competition with other electric goods retailers (such as multiples that were able to negotiate competitive terms with their suppliers without being a member of the buying group).

Other ways of reducing rivalry

5.14 In this section we explore how buying groups may impact on reducing rivalry (without explicit collusion) among members of the buying group.

Example 1: Joining the group versus organic growth

5.15 It might be argued that joining a buyer group that aggregates its members' volumes to obtain discounts from a pre-determined list price is the 'easy option'. The argument might be that, instead of joining the group, the buyer should have attempted to sell more in the downstream market by lowering its price. Such 'organic' growth would have allowed the buyer to qualify for larger discounts.⁸⁴

5.16 Yet, even if there is the possibility for 'organic' growth, a profit maximising firm would still participate in a buyer group which obtains a volume discount if that were more profitable than organic growth. In fact, if the firm passes on the discount by charging a lower price it is likely to contribute to the 'organic' demand growth which may not otherwise have occurred.

5.17 Furthermore, it might be argued that small buyers would not rationally expect organic growth would allow them to qualify for substantial volume discounts. For example, suppose that smaller buyers compete with large buyers (and in the downstream market they are, respectively, small sellers and large sellers). It may be that the smaller firms lack the financial resources to invest in growing market share to the necessary degree to obtain the same discounts as the larger firms. In this case,

⁸⁴ This is analogous to a horizontal merger where the merging parties claim that purchasing efficiencies will arise as a result of a merger but the authorities consider that the efficiencies are not merger specific.

allowing smaller firms to use a buying group so as to benefit from the same discounts as the larger firms may enhance competition.⁸⁵

Example 2: Impact on downstream incentives to reduce costs further

- 5.18 Similarly, one might be concerned that the cost reduction gained by members of a buyer group decreases their incentive to reduce costs further by investing, e.g. in R&D or distribution thereby reducing productivity. In particular, the concern might be that the wider the coverage of the buyer group, the greater the risk of 'rigidifying' the market. The fear here might be that the group brings the majority of procurement under the aegis of a single buying group this could damage innovation by reducing the incentives for buyers to seek out better procurement practices so as to steal a march on their rivals.
- 5.19 On the other hand, if the buyer group delivers its members better terms of supply then the preceding argument amounts to suggesting that these short term gains come at the expense of longer term innovation (a proposition that could be hard to prove).
- 5.20 Further, given that firms aim to maximise their profits, members would be expected to take up a profitable opportunity to lower costs or improve distribution efficiency. In particular, the above concern is diminished where members of the buying group face effective downstream competition from firms outside of the buying group. In that case, in order to remain competitive in the downstream market (with firms that potentially employ different procurement strategies to the buying group), members would be keen to pursue the most efficient procurement practices themselves.

⁸⁵ This discussion implicitly assumes that the supplier's discount schedule is given. If not, it should be noted that the supplier might react to the formation of a buying group by changing its pricing offer.

- 5.21 A related concern is that the buyer group could diminish incentives to pursue efficiencies if any gains made by an individual member were shared among group members (e.g. where growth by one member improves volume discounts for all members).
- 5.22 However, the buyer group could also improve the ability to invest through generating better terms of supply, which in turn lead to greater funds for investment. The latter would be important where group members faced borrowing constraints.
- 5.23 Further, the buyer group may facilitate the adoption of best practice (e.g. by disseminating information on 'best practice' or through helping smaller buyers pool R&D into procurement). In a similar vein, for large and/or risky investments, contract specific consortia (i.e. buyer groups formed for a specific project) may be important in allowing smaller buyers to share the risks of investments with one or more other buyer(s). So long as such consortia did not cover a large share of prospective buyers in a relevant market, they could well facilitate investment and R&D.

6 STRATEGIC BEHAVIOUR BY BUYING GROUPS TO HARM THE TERMS OF SUPPLY FOR OTHER BUYERS

Introduction

- 6.1 In this chapter we consider possible strategies a buying group may employ to affect competition among their suppliers, such that (a) buyers outside the group pay higher prices and (b) this weakens competition among suppliers at the downstream level. For this discussion, we assume that the buyer group does not have a direct impact on harming competition in the downstream market, i.e. it does not give rise to the collusive behaviour or reduction in rivalry described in the previous chapter.
- 6.2 An important principle to bear in mind when considering these theories is that buyer groups generally do not have an incentive to harm upstream competition because that would harm their own interests.⁸⁶ Further, buyer groups may face problems in meeting the potentially divergent demands of their members with the effect that cost raising strategies are harder to achieve for buyer groups than they would be for individual purchasers with substantial buyer power.
- 6.3 However, in some specific circumstances, buyer groups with substantial buyer power may weaken upstream competition (or innovation) where the adverse effect falls disproportionately on rival buyers. Such

⁸⁶ We acknowledge that buyers are not always able to protect their own collective self interest. For example, even where buyers are powerful, they may still be subject to a 'coordination failure' whereby their private interest to pursue (say) very low prices undermines the upstream sector with the overall effect that buyers' collective interest is harmed. However, a buying group would tend to mitigate such a coordination failure rather than enhance it (see the discussion of solving coordination problems in Chapter 3). We also note that buyer groups may harm consumers without harming competition, some examples are discussed in Chapter 7.

strategies have been dubbed 'raising rivals' costs' or 'reducing rivals' benefits'.⁸⁷

6.4 These strategies are likely to apply primarily in intermediate markets.⁸⁸ When buyer groups are formed by end customers (whether firms, consumers or the government), there is less likely to be an incentive to harm other buyers other than with rent shifting strategies (discussed below).

6.5 Further, the strategies to be discussed are feasible primarily where a buyer group has substantial buyer power – i.e. while the group can switch easily between alternative suppliers, suppliers are dependent on the group due to its 'gatekeeper' role (see the overview chapter for a more precise definition). The strategies are unlikely to be pursued by buyer groups that simply pool volumes to obtain discounts from a given price list but which do not negotiate with suppliers. Further, as we explain below, buyer groups that are open and offer 'symmetric' terms to all members are less likely to engage in these strategies.

6.6 In this chapter we discuss:

- input foreclosure
- waterbed effects
- refusal to purchase

⁸⁷ On cost raising strategies, see the seminal paper by Salop and Scheffman (1983).

⁸⁸ We do not discuss networks of agreements. However, in principle, there could be (say) a number of local buying groups pursuing similar policies, which have an indirect impact on the downstream market. Further, our analysis assumes that the buyer group does not include vertically integrated buyers. A vertically integrated member of a buying group might have an incentive to harm competition in the upstream market to weaken the competition faced by the upstream business of the integrated firm.

- rent sharing
- rent shifting

6.7 The end notes to this chapter provide examples of the issues described in the main text.

Input foreclosure

6.8 The most likely form of cost raising strategy that a buyer group would employ is input foreclosure (whether absolute or through driving up the price of the input). In the same way that a dominant supplier may foreclose a rival supplier by denying that supplier access to key distribution outlets, a powerful buyer may deny rival buyers access to key inputs.⁸⁹

6.9 It is straightforward to see how a buyer group might raise its rivals' costs. Consider two examples. First, a buyer group could pay the owner of an important resource not to supply anyone other than the buyer group. However, whether it would be profitable for the buyer group to employ such a strategy is another matter. The owner of the resource would need to be compensated for giving up the right to supply other buyers. Thus the strategy of denying other buyers access to the input would have to generate incremental profits for the buyer group (e.g. as a result of reduced downstream competition) that exceed the necessary compensation payment.⁹⁰

⁸⁹ For a detailed discussion of foreclosure of downstream outlets, see the discussion paper on selective price cuts and fidelity rebates written for the OFT by RBB Economics (Office of Fair Trading, 2005).

⁹⁰ Similar principles apply when the agreement is near exclusive. For example, a buyer group may require the supplier to meet the group's needs before serving other buyers. If the supplier is capacity constrained, other buyers may not be able to source their total needs from the supplier in question (or they may need to pay a substantially higher price to obtain their needs).

6.10 Second, a buyer group could over-purchase an input. For example, suppose a buyer group covers firms which used widgets and gadgets to make a final good. Suppose rival buyers have a different technology which allows them to make the same final good only from widgets. If the buyer group purchased more widgets than it needed in order to drive up the price of widgets, this may disproportionately harm its rivals due to their greater reliance on widgets.⁹¹ In this example, the buyer group raises its own costs and so would have to be compensated by substantially reduced downstream competition.⁹²

Checklist – input foreclosure

6.11 The preceding key points indicate that the following checklist of questions will often be useful for assessing whether input foreclosure would lead to harmful effects in the downstream market through raising rivals' costs or reducing rivals' benefits.⁹³

⁹¹ See Salop (2005) on strategic overbuying. Such a strategy requires that when a powerful buyer group increases its purchases, the effect is to drive up the price for other buyers, for example, because suppliers' marginal cost curves slope upwards (steeply). Salop notes that overbuying to raise rivals' costs may be profitable where the input is used disproportionately more by rival buyers, where the strategic buyer is partially integrated with the input supplier, or where downstream profit functions are such that an increase in marginal cost for both firms is profitable (perhaps because this induces a large downstream price increase due to the inelasticity of downstream demand). Salop also considers the possibility of predatory overbuying – a strategy to harm rival buyers so as to maintain monopsony power in an input market. He distinguishes the latter from a strategy directly aimed at raising rivals' costs, arguing that the raising rivals' cost strategies are more likely to be harmful.

⁹² Theoretical models of cost raising strategies are often not robust in that they rely on profit functions in which buyers' profits are not so much determined by absolute cost levels but by *relative* costs. Such profit functions can be highly dependent on the choice of parameters (cf. Mason, 2002).

⁹³ This checklist does not address a type of input foreclosure that may arise in theory (but for which the practical implication is unclear in relation to buyer groups). We mention two important theoretical papers for completeness. Consider a monopoly manufacturer dealing with

- 6.12 **Does the supplier have pre-existing market power?** If not, then denying access to the supplier is unlikely to harm other buyers. If the upstream market has strong existing competition or low barriers to entry and expansion, input foreclosure is less likely.
- 6.13 **Does the buyer group create market power for the supplier?** In some circumstances, access to the buyer group could be crucial for achieving economies of scale (or network effects). If so, the buyer group may be able to create market power for a supplier by choosing to deal with that supplier and refusing to purchase from other suppliers (and hence denying them economies of scale – see the discussion of refusal to deal below). The buyer group may also create ‘monopsony’ power, where it has a large share of a market in which higher purchases push up the input price paid by all purchasers.
- 6.14 **What is the source of the buyer power?** Does the buyer group have substantial buyer power? What credible threats does the buyer group have to switch to alternative suppliers, sponsor new entry by rival suppliers, or otherwise strategically withhold purchases (e.g. that would

two differentiated retailers. Marx and Shaffer (2004) and Rey *et al* (2005) consider whether ‘common agency’ would arise (i.e. whether both, or just one, of the retailers will sell the manufacturer’s good) where the two competing retailers make contractual offers to the monopoly supplier. Marx and Shaffer (2004) show that one retailer will fail to secure supply where retailers cannot offer contracts that are *conditional on exclusivity* (i.e. contractual terms which vary according to whether the other retailer is supplied or not). Rey *et al* (2005) show that if such ‘conditional’ contracts are allowed then common agency will arise if slotting allowances are combined with conditional two part tariffs. Moreover, this outcome will eliminate downstream competition completely. This may be beneficial if common agency would not have occurred with simpler contracts. However, where common agency would have arisen anyway, the complex contracts serve only to eliminate competition and thereby harm consumers. Relating these insights to buyer groups, the formation of a buyer group might allow retailers to strike more complex contracts with their suppliers. While more complex contracts may allow for contracting efficiencies which benefit competition (e.g. reducing double marginalisation, see Chapter 3), where the buyer group has substantial buyer power, they may also be harmful because they provide greater flexibility for powerful retailers to harm competition.

deny the supplier economies of scale)? Does the buyer group have a 'gatekeeper' role or 'monopsony' power?

- 6.15 **How do rival buyers suffer?** By rival buyers, we mean buyers that purchase the same input and compete in the same downstream market. If access to the input requires joining the group, it is natural to ask whether the group is 'open' or 'closed'. Can rival buyers join the buying group and on what terms? Where access to the buyer group is open to all potential buyers on equal terms, raising rivals costs is unlikely (other buyers could join the group and obtain the same terms). Alternatively, are rival buyers forced to pay more through strategies of over-purchasing by the buyer group or because the buyer group has (partially) foreclosed access to a cheap source of supply?
- 6.16 **To what extent do rival buyers have access to suitable alternative inputs?** As explained above, rival buyers are likely to suffer only where they are (partially) foreclosed from a key input, for which there are no (competitively priced) suitable alternatives. On the other hand, where substitute inputs are available at competitive prices, input foreclosure is not likely to be feasible.
- 6.17 **What is the nature of the buying group?** Is it closed? An open buying group that allowed each member to benefit from the same terms would mean that rival buyers are less likely to be disadvantaged, as they could join the group to obtain the same terms as existing members.
- 6.18 **To what extent does any impact on rivals' costs affect downstream marginal costs?** Where the price, quality or other terms of supply of the input in question has a marked impact on the downstream marginal cost of production, it is more likely to have an impact on downstream competition.⁹⁴

⁹⁴ To see why, suppose that the buying group increased rival buyers' input prices by 50%. If the input in question accounted for 100% of the downstream marginal cost of production, marginal cost would increase by 50%. However, if the input cost was only 10% of total

- 6.19 **To what extent are the buyers that might have been harmed, important competitors in the downstream market?** Even if the buying group succeeds in significantly raising the costs of rival buyers, whether downstream competition is affected depends on the importance of those buyers in ensuring that downstream competition is intense.⁹⁵ For example, if the members of the buying group compete intensely with each other in the downstream market, this may be sufficient to deliver competitive prices to end customers (irrespective of whether other sellers are now weakened by their adverse buying terms).⁹⁶
- 6.20 **Are there entry barriers to the downstream market? If not, does the buyer group create entry barriers for new entrants at the downstream level?** Harm to end customers is unlikely where potential competition would defeat attempts by existing competitors in the downstream market to increase prices. However, if the buyer group harms the ability of existing buyers to compete, it may also harm potential downstream entrants that need access to the same input. On the other hand, if new entrants could enter with a different technology and avoid the need for the input in question, they may still provide effective competition.

marginal cost, the latter would increase only by 5%. Note that even a small increment in marginal cost can harm a rival's ability to exert a competitive constraint where margins are very small because end customers are very price sensitive.

⁹⁵ We focus here on the impact on downstream competition. In principle, however, other buyers could face higher costs in markets where they do not compete with the members of the buyer group. See the discussion of rent shifting.

⁹⁶ It is worth noting that similar issues may arise in relation to claims that countervailing buyer power is sufficient to clear a supplier merger. Suppose that two manufacturers merge and claim that the countervailing power of retailers is very strong. It may be that larger retailers could protect themselves against higher prices after the merger, but smaller retailers could not. If the smaller retailers are an important constraint on the larger retailers in the downstream market, final consumers are more likely to be harmed by the merger.

- 6.21 **To what extent are the impacts on rival buyers a side effect of the buying group's pursuit of efficiency?** We discussed in Chapter 3 examples of how buyer groups can generate efficiencies. For example, an exclusive supply contract may be important to prevent other buyers accessing an innovation that had been funded by the buyer group. Where exclusive supply contracts are important in providing a framework for investments, the fact that rival buyers are denied access to the input is less likely to be a concern.⁹⁷
- 6.22 **Are end customers powerful enough to protect themselves?** In some markets the end customer may be powerful enough to prevent any harm to downstream competition. For example, suppose that there is just one end customer, e.g. a government buyer, the end customer may be in a position to prevent any pass through of higher prices. Alternatively, powerful end customers may be able to influence competition not only among their immediate suppliers but also among their suppliers' suppliers.⁹⁸
- 6.23 At the first endnote to this chapter, we provide a hypothetical example where we apply this checklist.

Waterbed effects

- 6.24 An interesting extension to the raising rivals' costs literature is the so called 'waterbed effect'. According to this theory, an increase in buyer

⁹⁷ Where the buyer group demonstrably secures better terms for its members through the pursuit of efficiencies, it is less likely that any adverse side effects on rival buyers were deliberately pursued.

⁹⁸ Consider two possible examples where buyers have been argued to have material influence on their suppliers' suppliers. First, automobile manufacturers are often argued to have a high degree of control over their component suppliers which in turn impacts on the types of inputs that component suppliers can use. Second, supermarkets are often argued to have a material influence on farmers, even where supermarkets do not deal with farmers directly but deal with processors.

power can lower costs for a group of buyers (or merging buyers) and raise costs for the buying group's rivals.⁹⁹

- 6.25 Consequently, the rivals may find it increasingly difficult to compete with the buying group. If, as a result, they become marginalised in the downstream market, the buyer group would benefit both from the lower input price it obtains and the reduced competitive constraint it faces downstream.
- 6.26 Consumers would not necessarily suffer. Whether they do or not depends on whether weaker competition in the downstream market from buyers outside the group offsets the incentives for members of the group to reduce their downstream selling prices (since their input costs are now lower).

Theory

- 6.27 Robust models of waterbed effects are relatively difficult to derive. This is due to a simple intuition: if suppliers could charge other buyers more, why are they not already doing it?
- 6.28 For example, suppose that a retail buying group obtains lower prices from a manufacturer. The question is then whether the manufacturer can charge 'rival retailers' higher prices.

⁹⁹ The waterbed effect is prominent in the European Commission's Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements (2001/C 3/02), paragraph 126 and in particular 135. The waterbed effect was considered by the Competition Commission in two recent mergers. The United Kingdom Competition Commission (CC), during an investigation of several prospective supermarket mergers, stated: 'The exercise of buyer power by the merged entity would have adverse effects on other, smaller, grocery retailers through the "waterbed" effect - that is, suppliers having to charge more to smaller customers if large retailers force through price reductions which would otherwise leave suppliers insufficiently profitable' (CC (2003) paragraph 2.218). The CC also considered that a similar effect might occur as a result of a merger in the private health care market (CC (2000) paragraph 2.180 b).

- 6.29 If the buying group obtains lower prices, then (other things equal) its members become more competitive in the downstream market. As a result, group members would take demand away from the rival retailers. Since demand from rival retailers declines, the manufacturer often has a weakened incentive and ability to charge them more than was the case prior to the formation of the group.
- 6.30 To derive a waterbed effect requires that the decline in demand from rival sales channels allows the manufacturer to charge a *higher price* to those channels. One possibility is where the decline in demand prevents a potential new entrant at the manufacturing level achieving an efficient scale of production. In that case, the rival retailers could have a weaker threat to switch to alternative suppliers, allowing the manufacturer to charge them more than before.¹⁰⁰ Lower volumes may also mean that rival buyers now have a weaker credible threat to switch to backwards integrate or sponsor entry (allowing an incumbent supplier to charge them more than before).¹⁰¹
- 6.31 It is also important to emphasise that the buyer group's lower input prices may ultimately benefit consumers, especially if there is no restriction of competition between members of the buyer group when they sell in the downstream market.¹⁰²

¹⁰⁰ This is the driver of the waterbed effect in Majumdar (2005). Another possibility is that rival buyers fail to qualify for discounts that they otherwise would have done (e.g. where suppliers offer discounts for bulk buying).

¹⁰¹ See Inderst (2006) for a version of a waterbed effect by which a reduction in demand can weaken rival buyers' fallback options. See also Inderst and Valletti (2006).

¹⁰² However, in principle, there could be an effect on other downstream markets where rival buyers do not compete with members of the buyer group. See Majumdar (2005) for example.

6.32 A hypothetical example of a waterbed effect is provided at the second endnote to this chapter.¹⁰³

Implications

6.33 Theory indicates that the challenge is to specify a coherent model, supported by the facts, which explains how a buyer group gives rise to a situation where suppliers are willing and able to charge other buyers a higher price than prior to the merger. Further, we must then demonstrate how end customers will end up paying higher prices as a result, even though the members of the buying group now have better terms of supply than before.

6.34 As a result, we expect that in the large majority of cases where buyer groups secure better terms of supply for their members, harmful waterbed effects will not arise.

Refusal to purchase

6.35 Where a buyer group covers so many important buyers that access to that group is crucial to access the market or to obtain economies of scale or network effects, the buyer group may be in a position to harm competition by refusing to purchase from one or more suppliers.

6.36 For example, suppose that a retail buying group is supplied by a manufacturer, M1. The retail buying group refuses to purchase from

¹⁰³ The term waterbed effect has also been used in relation to multiproduct firms where price caps are imposed. Broadly speaking, the idea is that if a multiproduct firm is subject to a break even constraint (e.g. due to rate of return regulation or due to intense competition from other similar firms) then capping the price on one line of business may allow a price rise on another line of business (i.e. a price rise that previously would have been ruled out by the profit constraint). See Littlechild (2004) for a discussion of waterbed effects in a regulated setting.

M1's rival, M2. If, as a result, M2 operates at a less efficient scale, this could affect competition where all of the following conditions apply.¹⁰⁴

- 6.37 First, sales to the buyer group are crucial to M2 operating at an efficient level. If not, the buyer group cannot strategically harm M2's ability to operate efficiently.
- 6.38 Second, M2 must be a very important supplier for 'rival' retailers that compete with the buying group in the downstream market. If not, then rival retailers can switch to other suppliers (including M1).
- 6.39 Third, rival retailers must face worse terms of supply as a result of the buying group's actions. One possibility is that even though rival retailers could switch to other suppliers, these suppliers are able to charge a higher price than before because they know that M2 is a weaker competitive constraint.
- 6.40 Essentially, the refusal to purchase story outlined above is a variant of the raising rivals' costs or reducing rivals' benefits theories.

Rent sharing or 'vertical collusion'

- 6.41 In principle, a buyer group and a powerful supplier might agree to a cost raising strategy that harms downstream competition. The supplier and the buyer group would then share the extra profit that results ('rent sharing').¹⁰⁵

¹⁰⁴ See Gans and King (2002) for a related example (although their example does not relate to intermediate markets).

¹⁰⁵ Our aim here is to distinguish between behaviour that is largely unilateral, e.g. where a powerful buyer group can impose anti-competitive terms on its rivals, with situations where the buyer group requires the explicit cooperation of one or more sellers in order to achieve its anti-competitive aim.

- 6.42 At the third endnote to this chapter we provide a related example. It does not involve a buyer group, but it involves a powerful buyer (Toys 'R' Us) that was the 'gateway' to market for toy manufacturers in the US. Toys 'R' Us facilitated collusion among manufacturers, ensuring that they restricted supplies to warehouse clubs and thereby dampening an important, growing competitive constraint on Toys 'R' Us.
- 6.43 Manufacturers presumably also gained – perhaps as a result of reduced upstream competition or through higher wholesale prices paid by Toys 'R' Us and/or greater marketing contributions from Toys 'R' Us.

Rent shifting

- 6.44 The theories of harm discussed above relate to harm to the end customers served by the members of the buying group. However, a buyer group may harm buyers and their end customers in a different downstream market (i.e. one where members of the buyer group do not operate), through affecting competition among their suppliers.
- 6.45 Suppose there are two manufacturers serving upstream markets A and B. In the largest market, A, there is a buyer group that is the 'gateway' to the downstream market, such that if one manufacturer does not deal with the buyer group it fails to operate at an efficient scale. Further, suppose that if a manufacturer fails to operate at an efficient scale in market A, it will also be inefficient when serving the smaller market B.
- 6.46 In this scenario, even if a buyer group's purchases are large enough to allow both manufacturers to operate at an efficient scale in markets A and B, the group may choose to deal exclusively with just one manufacturer. By so doing, the buyer group would ensure that the chosen manufacturer would earn more profits in market B (since the other manufacturer would operate at an inefficient level in market B). This would allow the buyer group to demand an additional payment from its chosen manufacturer that allows it to gain some of that manufacturer's profits earned in market B. In this way profits are 'shifted' from the B market (where the buyer group does not operate) to

the A market (where the buyer group exists). Hence the term rent shifting. Buyers in market B suffer because had the buyer group dealt with both manufacturers in market A, competition in market B would have been more intense.¹⁰⁶

- 6.47 A related example could be where a buyer cartel rigs a government auction. Here, the government obtains lower revenues which may have to be recouped in 'different' markets (e.g. from general taxation).

¹⁰⁶ This is a version of an anti-competitive effect described in Bernheim and Whinston (1998).

Endnote 1 to Chapter 6: A hypothetical example of input foreclosure

- 6.48 In the following hypothetical example, we consider an allegation that a raising rivals' costs strategy harms competition. First we provide some background information. Second we apply the checklist of questions set out in the main text and discuss the likelihood of foreclosure.

Background

- 6.49 A government body invites tenders from IT firms to complete a complex, large scale project.
- 6.50 The government body has a preferred supplier list of IT companies. For this particular type of contract, only four companies are listed. Two of these form a joint-venture (JVCo) specifically limited to this contract.
- 6.51 In order to meet the government body's terms of reference, any bidder must use highly specialist programmers. There is a limited supply of such programmers and little prospect of additional programmers being available in the near future.
- 6.52 JVCo wins the contract. The contract represents a very substantial share of demand for specialist programmers. Indeed, three months later, JVCo has contracted with 75% of the available specialist programmers to work on the project. The contracts have a clause that specifies that these specialist programmers do not work for a rival firm in the next five years. The founder members of JVCo would not be able to use the specialist programmers for a separate project without the consent of the other member.
- 6.53 JVCo claims that the contracts are necessary because the project is likely to take up to three years and will require sharing important trade secrets with these programmers.

- 6.54 JVCo publicises its success in winning the large scale contract and makes it widely known not only that it has contracted with around three quarters of the available supply of specialist programmers but also that these programmers are locked in for five years.
- 6.55 One of the other rival IT companies (RivalCo) complains to the Competition Authority that it will not be able to place competitive bids at forthcoming tenders due to JVCo having foreclosed the supply of specialist programmers. RivalCo asserts that there are three future large scale contracts that are likely to arise over the next five years for which it would not be well placed to bid.

Applying the checklist

- 6.56 Does the supplier have pre-existing market power? In this case, the suppliers in question are specialist IT programmers. They were probably too fragmented to exert market power (unless they were represented by a trade body, which we have assumed not to be the case).
- 6.57 Does the buying group create market power? By locking-in 75% of the specialist programmers (and making that lock-in public), the remaining programmers could well realise that they are in a better position to demand higher wages. It is therefore possible that the buyer group has increased market power for those IT specialists that it did not contract with.
- 6.58 What is the source of the buyer power? Since JVCo's needs are less than the available pool of IT specialists, JVCo can play the programmers off against each other. JVCo's bargaining strength would also be enhanced if the specialists did not have good prospects working on other contracts in the near term. (Note that although JVCo accounts for a very substantial share of the demand for specialist programming services, 'size' does not necessarily increase JVCo's buyer power – indeed, it could hinder its power if JVCo's large requirements mean that it had little scope to trade suppliers off against each other.)

- 6.59 How do rival buyers suffer? As explained above, the contracts preclude other buyers from 75% of the available supply, leaving just 25% of the specialist programmers available for the next five years. If this enhances the bargaining position of the remaining 25% of programmers, rival buyers could find it more expensive to hire programmers and may not obtain sufficient programmers to fulfil particularly large projects.¹⁰⁷
- 6.60 JVCo is a joint venture and so no other buyers can benefit from JVCo's input agreements – i.e. other buyers cannot join the 'buying group' so as to access the other 75% of the supply base.
- 6.61 To what extent does any impact on rivals' costs affect their downstream marginal cost? The larger the impact on downstream marginal cost, the greater the scope for harming downstream competition – key questions are: (a) are there sufficient 'free' programmers for rivals to place a credible bid and (b) what share of the overall cost of meeting the project requirements would be accounted for by payments to the specialist programmers.
- 6.62 To what extent are the buyers that might have been harmed, important competitors in the downstream market? This depends on the future contracts that are due to be put out to tender. It may be that RivalCo is now a weaker competitor because it cannot access sufficient numbers of specialist programmers to place a credible bid on a large project. Further, if there are relatively few firms that could place a credible bid in the future as a result of JVCo's contracts with the programmers, downstream competition may well be harmed.
- 6.63 Are there entry barriers to the downstream market? If not, does the buyer group create entry barriers for new entrants at the downstream

¹⁰⁷ Note that before agreeing to deal with JVCo, the other 75% of specialists should rationally consider whether they would be paid more staying outside of the joint venture. It is possible that those who agree to exclusive dealing with JVCo are paid lower wages but are employed more regularly, making it rational to agree to lock-in.

level? JVCo argues that there are several IT firms that could potentially bid for future contracts. RivalCo acknowledges this but states that the ability of new entrants to compete for certain contracts is limited due to the fact that 75% of the specialist programmers are locked-in to JVCo.

- 6.64 To what extent are the impacts on rival buyers a side effect of the buying group's pursuit of efficiency? In this case, this is a difficult question. JVCo claims that the non-compete clauses are essential due to the IP transfer from JVCo to the programmers. This would have to be assessed. If it can be shown that there is no substantial IP transfer from JVCo to the programmers then the JV's justification for the contracts is weak. Where JVCo does transfer substantial IP to the programmers, it would be relevant to consider whether confidentiality undertakings not to divulge that IP to a competitor would be sufficient (perhaps not if such undertakings were not easily monitored). If the non-compete obligations seem necessary, a harder question to resolve is how long they should last and how wide their coverage should be.
- 6.65 Are end customers powerful enough to protect themselves? The government body should be in a position to protect itself from reduced competition among its suppliers at a later stage (e.g. it could have divided up the tender into smaller projects if that would help competition at the bidding stage). However, in this case, the incentives to do so are weakened because the government body is not expecting to contract out similar work for the next five years.¹⁰⁸ Thus, if there are adverse side effects on other buyers, the government department might not take them into account.

¹⁰⁸ The 'knock on' effects of government procurement is considered in detail in OFT (2004b).

Conclusion

- 6.66 In this hypothetical example, the case for intervention turns on following key pieces of information. First, we would like to know (a) the extent to which there is sufficient access to the remaining 'free' specialist programmers to make future credible bids (as, by assumption, it is too costly to train up new programmers) and (b) the share of total costs that payments to the programmers would account for. Second, we would like further information on the importance of the non-compete clauses in protecting JVCo's IP and how important the loss of that IP to a competitor would actually be in practice.
- 6.67 If harm to competition can be demonstrated, it is due to the use of exclusionary input contracts by the buying group. Thus, the formation of the buying group, in itself, is not necessarily the problem (e.g. that might have been required to make a competitive bid during the tender process). Rather, it was the way that having won the contract, the buyer group then locked-in a very large share of an important input.

Endnote 2 to Chapter 6: A possible example of a Waterbed effect

- 6.68 Two UK firms produce an identical product that is used as an important input in the production of widgets. Currently, the domestic price of the input is £12 due to duopolistic competition between firms A and B, whose costs of production are respectively £9 and £11.
- 6.69 The input can be obtained from France at £9 per unit but there is a large fixed cost involved in shipping the product to the UK. Each of the UK widget producers can ship the input from France at a cost of £4 per unit and so they are better off purchasing from UK suppliers than importing.
- 6.70 Scale economies would reduce the transport cost to £1 per unit if a large share of UK demand is imported. A group of buyers form a purchasing group which endows them with a credible threat to import the input at

£10 per unit. They approach the UK producers and demand the same price.¹⁰⁹

- 6.71 Firm A offers to match the price. However, Firm B cannot profitably serve the buying group.
- 6.72 Firm B can still serve UK widget producers outside of the buying group. However, if economies of scale are important it may be that Firm B's cost of production increases because it has lost demand from a substantial share of the market. As a result, Firm B becomes a weaker constraint on Firm A when serving 'outsiders', i.e. buyers outside the buying group. In turn, this may allow Firm A profitably to set a higher price to outsiders.
- 6.73 In the latter case, the buyer group has led to both a lower price for itself and a higher price for outsiders – in other words there has been a so-called 'waterbed effect'.
- 6.74 Whether this harms competition or not is another matter. (Recall the input foreclosure checklist above.) For example, it may be that the lower prices achieved by the buying group mean that widgets are on average sold at lower prices in the UK and so UK consumers benefit.
- 6.75 UK consumers would be likely to suffer only if the higher input prices paid by outsiders, weakened downstream competition for the sale of widgets by a degree strong enough to lead to an increase in the price of widgets.

¹⁰⁹ By 'approaching' the UK producers, the implication is that the buyer group has allowed buyers to negotiate with suppliers when beforehand they were too fragmented to do so. However, this assumption is not necessary. The key point is that the buyer group has improved its members' fallback option and so will obtain a lower price from Firm A even if suppliers make 'take it or leave it' offers.

Endnote 3 to Chapter 6: The Toys 'R' Us case¹¹⁰

- 6.76 This case is concerned with the claim that Toys 'R' Us ('TRU') used its position as a powerful buyer and retailer of toys in the United States to induce toy manufacturers to stop selling desirable toys to warehouse clubs. TRU thereby weakened its competitors which led to a reduction in competition and to a detriment in consumer welfare.
- 6.77 At the time, TRU was the largest US toy retailer with about 650 stores in the US and about 300 stores in foreign countries. On average TRU bought 30% or more of the total output of the toy manufacturers and was usually their most important customer. Moreover, toy manufacturers would have found it difficult to replace TRU.
- 6.78 Warehouse club stores such as Price-Costco, Sam's Club, and BJ's Wholesale Club were a relatively recent retail phenomenon in the US. In the late 1980s these clubs became the fastest growing retail outlets of toys. These clubs were able, as a result of a lean cost structure, to offer branded products at discounted prices compared even to major discount retailers in the US. The FTC found that TRU's average retail margins were close to 30% while the clubs sold with mark ups as low as 9%.
- 6.79 In the past TRU had faced competition from Wal-Mart, Target and other regional or national discount chains and had typically responded by lowering its prices. The FTC found that rather than lowering its prices, TRU responded to the threat from lower priced warehouse clubs by adopting anti-competitive behaviour.
- 6.80 In 1989 and 1990 TRU attempted to eliminate the competitive threat from clubs and began discussions with some of its suppliers with the aim of restricting or cutting off the clubs' supply of key products. The

¹¹⁰ Toys 'R' Us, Inc., Docket No. 9278 (Final Decision and Order, October 13, 1998); Decision of the United States Court of Appeals For the Seventh Circuit, No. 98-4107, Toys 'R' Us v. Federal Trade Commission (argued May 18, 1999, decided August 1, 2000).

FTC found that TRU did this by inducing its suppliers to sell to the clubs only toys that were unique and highly differentiated from the toys sold to TRU. Part of this differentiation was TRU's requirement only to sell more expensive bundles of products (so-called 'combo' packages) to the clubs. The main purpose of the restriction was to impede the final customers' ability to compare prices directly, and thus, to reduce price competition between TRU and the clubs. The FTC found that in 1992 ten manufacturers entered into vertical agreements with TRU to restrict sales to clubs.¹¹¹

- 6.81 To ensure compliance with the policy of restricting supply to warehouse clubs TRU orchestrated a horizontal agreement whereby suppliers monitored each other and informed TRU about breaches of the agreement. TRU enforced the agreement by threatening to stop buying from a deviant supplier. The FTC found evidence that at least seven manufacturers adhered to TRU's restrictions.¹¹²
- 6.82 The impact of the agreement was found to be substantial. TRU halted a pattern of rapid growth of toy sales clubs. Furthermore, TRU was not forced to reduce prices further which would likely have been the case had it not stifled the competition with the warehouse clubs.
- 6.83 TRU's defence was mainly based on an efficiency argument whereby warehouse clubs were free-riding on TRU's advertising and 'showroom' status. The FTC found that it was not the retailer that invested in advertising but usually the manufacturer. It argued that if TRU engaged in marketing activities, it was compensated by the manufacturers.

¹¹¹ The ten manufacturers were Mattel, Hasbro, Fisher Price, Tyco, Little Tikes, Today's Kids, Tiger Electronics, VTech, Binney & Smith and Sega.

¹¹² The seven manufacturers were Mattel, Hasbro, Fisher Price, Tyco, Little Tikes, Today's Kids, and Tiger Electronics.

6.84 The FTC found that that the agreement or orchestrated boycott 'had harmful effects for the clubs, for competition, and for consumers' and that there was 'no business justification for a boycott that had a pronounced anticompetitive effect.' Following the FTC's decision TRU appealed at the United States Court of Appeals For the Seventh Circuit, which upheld the FTC's decision.

7 OTHER POSSIBLE CONCERNS RELATING TO BUYER GROUPS

7.1 This chapter briefly reviews some concerns that are commonly voiced about buying groups (and buyer power more generally) that have not already been covered explicitly (although many have been covered implicitly).

7.2 We consider the following questions:

- Could the buyer group leave suppliers insufficient funds to invest and innovate, or even undermine profitability so much that they exit the upstream market?
- Could buyer groups encourage standardisation of inputs that harms end customers through a reduction in diversity?
- Could establishing a buyer group incentivise suppliers to pursue 'counter-strategies', such as merging in order to strengthen their bargaining position – and would the increase in concentration harm competition?
- Could buyer groups mask private valuations of a product, leading to scarce resources being misallocated (e.g. in an auction setting)?
- Could buyer power lead to a vicious circle (a 'spiral effect') in which powerful buyers get bigger and bigger, eventually driving other buyers from the market?

Reduced funds for investment, innovation and existing competition in the upstream market

7.3 Concerns are often raised that buyer power extracts so much profit from suppliers that they have reduced incentives to invest and innovate, and may even earn insufficient profits to remain in the market.

- 7.4 However, a powerful buyer group would not usually have the incentive to harm competition among its suppliers or to discourage investments and innovations that would be valued by end customers in excess of their cost, and which therefore generate incremental joint profit.¹¹³ Although, this will not always be the case (perhaps due to suppliers and members of the buyer group having different information on the value of the investment).¹¹⁴
- 7.5 Indeed, we described the efficiencies that buyer groups could generate in Chapter 3. These include the possibility that investment and innovation will be increased.¹¹⁵ Some empirical studies on innovation are consistent with the view that where buyers are more concentrated this facilitates

¹¹³ Consider an example. If final consumers are willing to pay £10 more for a higher quality product and if the cost of improving quality is £3 per good, then the investment is profitable – the incremental surplus is £7, i.e. the bargaining pie increases by £7 per unit. Thus, both the supplier and the buying group can be made better off by ensuring that investment and innovation take place. Even if the buyer is so powerful that it takes nearly all of the extra £7, it would be foolish to try to take more than £7 per good – that would prevent the investment taking place.

¹¹⁴ In Chae and Heidhues (2004) a buyer group may lead to under-investment because bargaining means that suppliers will share the gain from an investment partially with their customers (i.e. the higher bargaining power of the buyer group may give rise to a situation where the investment is lower if customers form a group instead of bargaining independently). However, the authors do not consider whether the buyer group would limit their power to prevent the situation occurring. (Put differently, forming the buyer group allows buyers to benefit from earning a larger share of a smaller bargaining pie. However, an efficient bargain would maximise the size of the bargaining pie providing scope to make the buyer group no worse off and the supplier better off. It is not clear in Chae and Heidhues (2004) model why this outcome would not be achieved.)

¹¹⁵ For theoretical models of how a large buyer (or buyer group) can benefit innovation see Inderst and Wey (2005) and Inderst and Wey (forthcoming).

investment (perhaps due to a reduced scope for coordination failures or through providing a more stable base of demand).¹¹⁶

- 7.6 Some argue that the principal concern about innovation relates to small suppliers, as such firms could be particularly vulnerable to having their profits squeezed by large buyers (or buyer groups).¹¹⁷ A supplier might, for example, rely on selling nearly all of its output to a particular buyer. Where the small supplier has made specific investments to meet that buyer's needs (making it difficult to sell to rival buyers), the supplier may be 'economically dependent' on that buyer. This, in turn, might leave the buyer in a strong position to drive the small supplier's profits down to zero.
- 7.7 This begs the question: why did the supplier agree to lock itself in, when, having done so, its bargaining position would be weak? One possible answer is that the small seller was an innovative 'start up' company that would be unlikely to be as effective at bargaining as an established large buyer with a specialist procurement department. Further, such a firm might be reliant on the buyer for funds because it would be relatively risky from a lender's point of view. In this case, it is feasible that innovative small suppliers – including potential entrants – could be discouraged from developing new products on the basis that the expected return from their innovation falls due to the reputation of large buyers for being tough negotiators.
- 7.8 Whether innovation in the market as a whole was harmed or not would depend on the following factors. First, access to the powerful buyers (or buyer groups) might not be essential for an innovation to be made popular (i.e. alternative sales channels might exist for potential entrants

¹¹⁶ Farber (1981) analyses 50 US four digit industries and finds that for concentrated seller industries, R&D activity increases with buyer concentration. Peters (2001) finds a similar result from survey data on innovation processes of suppliers of German auto parts.

¹¹⁷ See Clarke *et al*, (2002), p188 for example.

through which they could distribute their innovations). Second, even if access to the powerful buyer is important, larger suppliers might have sufficient incentives to innovate. Third, buyers might commit to 'fair terms for their suppliers' in order to encourage more innovation or might backwards integrate and innovate for themselves.

- 7.9 Where buyer groups act strategically to undermine upstream investment, we would expect this to be a variant of the cost raising and benefit reducing strategies described in Chapter 6. For example, a buyer group might seek to block an innovation by a supplier that would substantially aid a rival.
- 7.10 We acknowledge that in theory a powerful buyer group may profitably prevent innovation even without a raising rivals' costs (or reducing rivals' benefits) motive. For example, it may be that the innovation would primarily benefit end customers in different markets such that the buyer group's willingness to pay for the innovation is less than the social value of the innovation. If the supplier is unable to 'make up the difference' from the remaining beneficiaries of the innovation (perhaps because they wish to free ride on payments made by others) then the innovation does not take place. However, this would not appear to be a competition concern as the buyer group has not acted strategically to weaken competitive constraints. Further, it is not clear why the buyer group should be expected to pay more than its valuation of the investment just because there would be other beneficiaries.
- 7.11 Summing up, we expect that competition concerns as regards the impact of a buyer group on upstream investment, innovation and concentration would usually be linked to the exclusionary behaviour described in Chapter 6. Whether or not intervention should proceed against buyer groups which are believed to harm investment and innovation but which do not harm competition is beyond the scope of this report.

Diversity

- 7.12 Sometimes buyer power is frowned upon due to its alleged affect on diversity. From a competition perspective, it is important to distinguish between a reduction in diversity that results from a reduction in competition and a reduction in diversity of buying practices that arises simply because a buying group adopts a more uniform buying strategy to obtain better terms of supply for its members.
- 7.13 Put differently, if buyer power harms competition it will be likely to harm consumers, and one way that consumers could suffer is through a reduction in diversity. However, just because a reduction in competition may cause a reduction in diversity, it does not follow that a reduction in diversity implies a reduction of competition.
- 7.14 Our starting point as regards diversity in the upstream market is the same as with upstream competition more generally. If consumers value diversity in the upstream market, then a buying group would be careful not to harm these features, where they would adversely impact on the profitability of the buying group.
- 7.15 Usually, the competition issue boils down to whether the buying group uses a reduction in diversity to raise rivals' costs leading to an adverse effect on competition in the downstream market (see Chapter 6).

Theoretical models

- 7.16 It is possible to develop theoretical models in which buyer power harms consumers through a reduction in diversity, without necessarily raising rivals' costs. These are discussed briefly below.
- 7.17 Inderst and Shaffer (2004), for example, show in a stylised model, where outlets as well as products differ to some extent, that a retail merger which leads to single sourcing may adversely affect product variety. If a merged retailer sources only one variety of the good for all outlets, total industry profit is lower since this good is not the preferred

good for all outlets. However, by sourcing a single variety, the buyer makes the sellers more homogeneous and thereby intensifies competition between sellers. As a result, the merged buyer increases its profit. (The strategy of single sourcing reduces the overall profit pie but allows the buyer to take a larger share of that pie.)

- 7.18 Inderst and Shaffer's model could be applied to a buying group which can mimic the sourcing policy of the merged retailer. However, there may be coordination problems because if each retailer has a different customer base (i.e. a different preferred good), then it will be difficult to agree on the product to be single sourced.
- 7.19 Dana (2004) considers a similar model of buyer groups which bundle their demand and source from a single supplier. He shows that a buyer group is beneficial since it allows participants to aggregate their heterogeneous demand and source as if they were only interested in price. This is all the more true if participants have opposing preferences which 'net out' within the buyer group. Again, the expected gains from increased competition between sellers more than offsets the disadvantage that some buyers receive a variety which they value less than the one they would have bought in absence of the buyer group.¹¹⁸
- 7.20 These papers indicate how buyer groups that intensify competition can deliver too little diversity. In contrast, Matthewson and Winter (1996) demonstrate how a buyer group can restrict upstream competition

¹¹⁸ Dana (2004) extends O'Brien and Shaffer (1997) by endogenising buyers' decisions to form a group. O'Brien and Shaffer showed that if a buyer (or buyer group) committed to purchase exclusively from one supplier, this would benefit the buyer by increasing competition even though the buyer would not purchase its desired allocation (which would be to purchase from more than one supplier).

leading to a reduction in diversity. This may lead to a welfare gain by reducing excessive entry.¹¹⁹

- 7.21 An example of how buyer groups can lead to socially inefficient outcomes which do not obviously arise from restrictions of competition could be where the organiser of the buyer group faces a trade off between securing larger volumes and including buyers with diverse preferences. For example, a smaller group of like minded buyers might allow the group organiser to find a supplier deal that closely matches the preferences of all group members. On the other hand, a wider group might allow greater negotiation strength but mean that the final deal struck with requires group members to compromise on certain features that they value. A possible example is the organisation of health care plans for individual buyers by a 'sponsor' who deals with health care providers on behalf of a group of buyers.¹²⁰

Practical implications

- 7.22 In theory, buyer groups may not support the optimum level of diversity from society's point of view. However, for this to amount to a

¹¹⁹ Matthewson and Winter (1996) consider a reduced form model of symmetric monopolistic competition with free entry. All suppliers are assumed to charge the same price and enter the market only if profits cover their fixed cost of production. Where no buyer has a first mover advantage, all buyers pay the same price, and all suppliers break even. However, where the buying group can make a take-it-or-leave-it-offer to suppliers, it may restrict the number of suppliers it deals with in order to benefit from a lower price, P_i . The buying group offers P_i only if the lost utility due to the reduction in the number of suppliers is more than compensated by the lower price. In order to break even, the restricted number of suppliers must charge outsiders a *higher price*. In this case, only the firms that deal with the buying group supply the market. The authors argue that where there is excessive entry in the benchmark case, the fact that the buying group limits supply may increase welfare. The authors argue that their model might relate to a buying group acting on behalf of its clients to purchase health care services.

¹²⁰ See Che and Gale (1997) for a formal treatment. See also Marvel and Yang (2006) for an example of how buyer groups can improve consumer surplus.

competition concern would usually require the buyer group's effect on reducing diversity to be linked to reducing a rival's ability to compete.

- 7.23 Absent good evidence of this exclusionary motive, judging whether the buyer group has harmed welfare by affecting diversity would be difficult, as it would require very detailed information on consumer preferences. Further, where downstream competition is effective, markets would typically respond to consumer desires for more (or less) diversity. An example is provided at the first endnote to this chapter.

Counterstrategies by suppliers

- 7.24 A concern sometimes raised in relation to buyer power is that it leads to adverse counter-strategies by suppliers.
- 7.25 For example, if buyer power increases, suppliers may then merge to bolster their own bargaining power. This, so the story goes, may increase concentration and harm competition.
- 7.26 However, this view is rather speculative. First, if adverse counter strategies are expected, the buyer group should limit its buyer power. Second, higher concentration and reduced competition are not synonymous – even if the merger occurs, there are several reasons why that would not imply that supplier competition is reduced. Third, if the supplier merger was truly harmful, the authorities could block it.¹²¹
- 7.27 Finally, if the merger was profitable, harmful and likely to be cleared, why would it not have taken place anyway? Why would the supplier

¹²¹ For example, even if the buyer group could protect itself from higher prices after a supplier merger, the authorities may be concerned that weaker buyers would suffer, particularly where weaker buyers are important competitive constraints on the stronger buyers in a downstream market.

merger be triggered only due to an increase in buyer power arising from the formation of the buyer group?¹²²

7.28 There is no basis for a presumption that harmful counter strategies will arise. In particular, rational buyers should anticipate supplier counter strategies. Nevertheless, counter strategies can be harmful (as we discuss in the next section). Overall, therefore, a case-by-case assessment is required.

Adverse resource allocation

7.29 In theory, a buyer group could induce counter strategies or mask private valuations of a scarce product, leading to adverse resource allocations.

7.30 For example, in certain single unit auctions, a seller who faces a buyer group may set a higher reserve price than he otherwise would have done, in an attempt to counter the effect of the group in lowering prices. Thereby, the seller trades the higher probability of not selling the item against a higher expected price.¹²³ Then, the buyer group will be formed if the expected price remains lower as a result. In this case, the buyer group is better off.

7.31 However, ex post, buyers may suffer from the higher reserve price. In particular, if the highest valuation of the bidders is lower than this higher reserve price, the item will not be sold. If trade does not take place, the

¹²² In theory, it is possible that there is (say) some cost to merging that is not worth incurring in the absence of downstream buyer power but is worth incurring where the presence of buyer power substantially lowers the unmerged suppliers' profits. In addition, if it were the case that because of the existence of downstream buyer power, the authorities were more likely to mistakenly clear an anti-competitive merger, then perhaps the downstream buyer group would induce an anti-competitive merger. However, the possibility of both factors occurring together seems rather distant.

¹²³ This was shown by Graham, Marshall (1987) for second-price auctions and by McAfee, McMillan (1992) for first-price auctions.

consumer surplus might be reduced since a bidder might have gained the item at a price below his valuation in absence of the buyer group (because the reservation price would be lower). In that case, the seller's surplus would also be lower since his true valuation of the item is below the willingness to pay of one or more of the buyers.¹²⁴ Whether this adverse effect actually arises must be assessed in each individual case – this would be hard to do in practice due to the information requirements.

7.32 There is no scope to review the auction literature in this report. We note that this literature is complex and many effects rely heavily on the specific assumptions (e.g. the type of auction). We note the theoretical possibility that a buyer group could impact on the allocation of a scarce resource by auction.¹²⁵

7.33 Resource allocation issues need not be confined to auctions.¹²⁶ An example in a different setting is provided at the second endnote to this chapter. Further, buyer groups may improve resource allocation (through

¹²⁴ Absent the buying group, the reserve price would be lower and the average selling price paid by the group members higher. However, since more trades would take place, this is better for total welfare. The higher average selling price would be a transfer between the buyer and the seller and so have no impact on total welfare. The basic problem of some trades not taking place arises from any reserve price since the revenue maximising resale price is typically higher than the seller's valuation for the object (cf., e.g. Krishna (2002), p27). The buyer group is detrimental only to the extent that the reserve price is increased and the number of trades is lowered further.

¹²⁵ For another example of how joint bidding can affect welfare in auctions see, Waehrer (1999).

¹²⁶ If discounts are awarded on the basis of size (see Chapter 3), then, in theory, a buyer group of 'inefficient' firms could lead to an adverse allocation of resources in that output will be shifted towards 'inefficient' producers (see Inderst, 2006). However, if the discount for the buyer group's members allows them to place more competitive pressure on 'efficient' firms in the downstream market, this could nevertheless benefit consumers overall.

generating efficiencies as described in chapter 3 or through reducing rent seeking behaviour¹²⁷).

‘Spiral effects’

- 7.34 It has been suggested that buyer power could create a spiral in which powerful buyers obtain lower prices, this in turn makes them larger in their downstream markets which in turn allows them to secure even better terms.¹²⁸ To our knowledge, such a spiral effect has not been modelled formally in theory.
- 7.35 Moreover, it is not clear that such an effect would be necessarily harmful. The spiral effect could simply be a process in which lower prices are passed on to end customers allowing a buyer group’s members to grow. If such growth allows the buyer group to obtain even lower prices, which are then passed on to end customers once again, this would be a virtuous circle that benefits end customers.
- 7.36 If the fear is that more efficient firms drive out weaker retailers, this would simply reflect the process of competition. If the issue is predatory pricing, where (say) there is a real risk that an equally efficient firm is driven out of the market with a longer term harmful effect on consumers, this is not a concern with buyer power per se (unless the buyer group adopts exclusionary behaviour by raising rival’s costs or

¹²⁷ See Ellingsen (1991)

¹²⁸ This ‘spiral effect’ of increasing concentration was put forward by the EC Commission as an expected consequence of the proposed *Kesko/Tuko* and *Rewe/Meinl* mergers. In *Kesko/Tuko*, the EC Commission stated that the high post-merger market share of Kesko-Tuko and strong position of Kesko in cash-and-carry wholesaling ‘create a gate-keeper effect’ which would be increased by the combination of the merging parties’ strong private label products and knowledge on customer behaviour gained from loyalty schemes (which were used as a bargaining tool in negotiation with other suppliers). The EC Commission argued that this would allow the merged Kesko-Tuko to achieve lower purchase prices and would discourage its rivals to compete on price (at paragraph 133).

reducing rivals' benefits as discussed in Chapter 6). Moreover, intervention to 'nip in the bud' growth of the buyer group would greatly risk penalising firms that pursue efficiencies, which is an integral part of the competitive process.

Endnote 1 to Chapter 7: An example of how a buyer group may reduce diversity, in response to changing consumer preferences

- 7.37 This endnote provides an example of how a buyer group could be induced to reduce diversity through being reactive to changing consumer preferences.
- 7.38 Suppose that a buying group brings together a group of purchasers who, if acting alone, would purchase different specifications of an input. Suppose that in order to obtain a better price, the buying group purchases a reduced number of specifications to allow suppliers to benefit from economies of scale.
- 7.39 It might then be argued that the buying group has lessened diversity because purchasers acting independently would have chosen to purchase a wider range of inputs. But does that reduction in diversity matter? The following example explains how a reduction in diversity can be driven by consumer choice.
- 7.40 Suppose that inputs X and Y are used to produce two substitute products, x and y (respectively), which are sold in a local downstream market. There are no substantial entry barriers to the production of inputs X and Y.
- 7.41 A buyer group forms (with open membership). The buyer group encourages a supplier that had previously produced equal amounts of X and Y, to produce only X. As a result of specialisation, the supplier benefits from returns to scale and so the buyer group benefits from a lower price. Members of the buyer group compete effectively in the downstream market.

- 7.42 A buyer outside the group (the 'outsider') that used to purchase input Y from the supplier complains to the Competition Authority that it can no longer obtain the product that it wants from its preferred supplier.
- 7.43 The outsider complains that Y is more expensive to purchase because it must be sourced from a supplier further away and that, as a result, it is not profitable to sell the downstream product y. In the end, the outsider joins the buying group and produces only product x.
- 7.44 As a result of the buying group's decision to focus on purchasing the input X, the local market is served only with the final product x. However, this is not driven by competition concerns: there are no entry barriers to producing X and Y. Further, downstream competition is effective.
- 7.45 The reason that the outsider could not profitably sell y is due to insufficient demand. The buyer group secured a lower price for X and so the price of the final product, x, fell. This reduced demand for y, meaning that there was insufficient demand in the local market even for a niche retailer of y.
- 7.46 Some consumers who valued y a lot more than x are made worse off. Even the lower price for x does not compensate them for the loss of y. Several of them (some encouraged to write in by the outsider) write to the Competition Authority raising their concern at this 'loss of diversity'. They argue that the absence of product y was a 'measurable and demonstrable loss' that could not be offset by the uncertain benefits for other consumers.
- 7.47 The Competition Authority raises this issue with the buying group. The latter states that members of the buying group realised that demand for y had been flagging for a long time and simply responded to the change in aggregate consumer preferences.

- 7.48 The Competition Authority dismisses the complaint that there is a loss of diversity. It decides that its role is to protect competition and that there is no evidence of harm to competition.
- 7.49 It states that if the buyer group did not pass on the cost reduction, then it is likely that product y could profitably be re-introduced. (Prior to the cost reduction, i.e. at higher prices of product x, the local market had supported demand for product y.) Ultimately, the less diversified structure is a reflection of effective competition responding to changing consumer preferences.

Endnote 2 to Chapter 7: An example of how a buyer group can affect resource allocation

- 7.50 This endnote provides an example of how a buyer group can affect resource allocation.
- 7.51 A case in question is the National Sulphuric Acid Association, members of which, until 1997, sourced at least 25% of their requirements of sulphur through the organisation.¹²⁹ The joint sourcing guaranteed to the suppliers a sales volume that made investments in port facilities viable. Thereby, it enlarged the number of UK ports from which members could be supplied which increased supply security and reduced transport costs. Furthermore, it assured supply to – especially small – members at a time when demand surpassed supply and thus avoided temporary stops in the production of members. Due to large fixed costs of supply, small producers may not have been likely to obtain supplies in the absence of the buyer group.
- 7.52 Since 80% of the production cost of sulphuric acid was accounted for by the cost of sulphur and up to 75% of requirements could be obtained

¹²⁹ This requirement was removed in 1997 (cf. case No IV/36.759).

from other sources the Commission found that the efficiency gains outweighed the reduced competition for better terms of sulphur supply and exempted the Association based on Article 85(3) in 1980 (case IV/27.958).

- 7.53 Put differently, rather than allocating scarce supplies to the highest bidder (as might have occurred absent the buyer group), the group managed supplies to ensure that all its members obtained a certain amount. In the short term, this 'managed process' may have been inefficient. However, in the long term – through generating increased investment and developing its members' sources of supply, the buyer group may have protected downstream competition.

A WHAT IS REQUIRED FOR COLLUSION? A BRIEF REVIEW.

- A.1 In this section we discuss the factors that make collusion among competitors more likely and sustainable.¹³⁰
- A.2 The essence of collusion is that each firm forgoes the higher short term profits from deviating from the collusive strategy due to the allure of higher longer term profits from collusion (which would be unattainable if that firm deviated or “cheated”).
- A.3 The economic underpinnings of explicit and tacit collusion are the same. We can think of there being a continuum of types of collusion, with explicit collusion being an extreme form of tacit collusion which allows for explicit and direct communication between the members of the colluding group.
- A.4 Collusion requires three aspects:
- alignment, i.e. reaching a collusive agreement;
 - internal stability, i.e. a mechanism that detects and punishes deviant firms; and
 - external stability, i.e. the absence of strong competitive constraints acting upon the collusive group.

Alignment

- A.5 Alignment refers to the colluding group having a common understanding with the other firms as regards the collusive strategy. There are several possible collusive strategies, which include agreements: not to undercut

¹³⁰ The factors which facilitate collusion are reviewed in standard industrial organisation textbooks and so are not discussed in great detail here. For a more detailed but accessible discussion see Church and Ware (2000), upon which the following discussion draws.

an agreed price; to stick to production quotas; to allocate territories or segments of the market; or to rig bids in an auction.

A.6 For collusion to be sustainable it is crucial that each member of the collusive group (a) comes to an agreement and (b) understands exactly the conditions of the collusive agreement.¹³¹ This is easier to achieve when firms can explicitly communicate with each other.

A.7 However, even in explicit cartels, several factors can make coming to an agreement problematic:

- different cost structures, e.g. a higher cost firm would tend to prefer a higher collusive price than a lower cost firm (in the same way that a higher cost monopolist charges a higher monopoly price than would a lower cost monopolist);¹³²
- stable demand and cost structures, e.g. if demand and cost is volatile, then the optimal collusive price is not stable (in particular, where demand and cost shocks are not predictable and do not affect each member of the collusive group in the same way);¹³³

¹³¹ Textbook models of collusion draw on the prisoner's dilemma game. They show that when the game is played only once, collusion is not sustainable because each firm finds it more profitable to cheat. However, if the game is repeated infinitely and firms have a high enough valuation of profits in the future, there are countless strategies that can support collusive outcomes. Paradoxically, a problem for colluding firms is not whether a collusive strategy exists, but how to agree on which one of the possible strategies that they could adopt.

¹³² In the extreme, a low cost firm could pay a high cost firm not to produce (or compensate it for lower production using 'side payments'). However, side payments may be undesirable where they substantially increase the risk of detection.

¹³³ Sometimes it is argued that collusion is more likely to be found in "mature industries". This is because in such industries demand is more likely to be stable and cost structures known.

- common information, e.g. if one member of the collusive group is better informed than the rest (e.g. about future demand), that member has an incentive to present the information that best suits its own objectives but not necessarily the collusive group as a whole;
- common (high) valuation of profits, e.g. if the longer term profit incentive is not valued highly by some members, the incentive to cheat is stronger;
- few dimensions of competition, e.g. agreement may be easier to achieve where price is the only dimension of competition and harder to achieve if the collusive group must also determine quality and service standards as well;¹³⁴
- supportive industry social structure, e.g. trade bodies or other social forums in which the colluding parties meet, may facilitate information exchange;
- absence of 'mavericks', e.g. the absence of firms with a very different outlook (e.g. who are very unwilling to collude as, if caught, the adverse impact would spill over to other markets where they have sought to develop an 'honest' reputation);
- previous successful collusion, e.g. firms understand the collusive mechanism because the industry has supported collusion before;
- relatively few firms, e.g. with more firms the collusive profits are split more ways.

¹³⁴ Reduced differentiation can mean that the punishment strategy is more effective as the non-collusive equilibrium is more competitive. See, for example, Häckner (1996) for spatial differentiation and Albaek, Lambertini (2002) for the standard model of horizontal differentiation (as introduced by Bowley).

- A.8 These issues create tensions which can prevent explicit collusion – i.e. even when firms talk through these issues in ‘smoke filled rooms’ they may not be able to resolve them. Thus, for alignment to be successful without explicit collusion, this requires that there is a signalling mechanism (to allow the collusive strategy to be communicated and agreed upon) and that there is substantial symmetry between members of the group.
- A.9 Intuitively, differences in firms (i.e. asymmetries) lead to differences in opinions on what the collusive price should be. Since the communication mechanisms are imperfect with tacit collusion, it is harder to resolve such differences of opinion (cf., e.g. Compte, Jenny and Rey, 2002, on asymmetric capacities and Rothschild, 1999 or Vasconcelos, 2005 on asymmetric costs).

Internal stability

- A.10 After finding an agreement, the next hurdle to successful collusion is so-called internal stability. Each firm is only willing to be part of the collusive group if it is better off colluding compared to competing. Many of the factors described above which make alignment difficult, also make internal stability harder (because if firms would prefer a different collusive strategy, they may have an incentive to cheat).
- A.11 Intuitively, the more severe the consequences for not following the collusive agreement the *easier* it is to sustain a collusive agreement. It is thus important that firms are able to monitor each other and – in case they detect a deviant firm – be able to punish that firm.
- A.12 Monitoring is easier where prices are transparent (e.g. list prices are published and there are no secret discounts to the list price). Similarly, where output by each firm is easy to observe, cheating is less likely to go unnoticed.
- A.13 Monitoring is more difficult when market conditions change unpredictably (e.g. an increase in output could be a response to

unforeseen higher demand or an attempt to cheat). Also, if information on competitor's prices and outputs is revealed only after a time delay, this delays the implementation of the punishment strategy – deterring cheating requires rapid and effective monitoring.

- A.14 Having detected cheating, the collusive group must punish the deviant. One mechanism could be to engage in a price war. Punishment may be more effective if firms meet in a number of different markets.¹³⁵
- A.15 However, for punishment to be an effective deterrent, it must be credible. For example, if all but the cheating firms operate at their capacity limits, punishing a deviant by flooding the market with output (so as to lower price) would be very costly and less likely to be credible.
- A.16 Factors which facilitate punishment may also encourage cheating. A firm has a greater incentive to cheat, the larger the share of market demand it would win. This requires that the firm has capacity to supply the increase in demand. But the same excess capacity could make punishment more credible.
- A.17 Where punishment relies on the coordinated action of other firms, colluding firms must both understand the punishment mechanism and have the incentive to apply it.
- A.18 Finally, punishment also has to be sufficiently severe. For example, suppose that punishment involves returning to the non-collusive scenario. If the latter involves relatively high profits, collusion is harder

¹³⁵ Bernheim and Whinston (1990) show how 'multi market contact' could facilitate collusion, where each market is not identical. The intuition is that asymmetries could 'net out' or that there may be economies of scope in collusion. Monitoring could be targeted on those markets most susceptible to cheating. Punishment strategies can be richer when punishment is applied across several (non identical) markets. Collusive strategies may become simpler too if, for example, market sharing is easier when there are more markets (e.g. spheres of influence can be awarded).

to sustain because the incremental benefits of collusion are relatively low.

External stability

A.19 If firms collude perfectly, they would behave as if they were a single firm. A collusive group attempts to behave like a firm with substantial market power.

A.20 It follows that where competitive constraints exist which would prevent the collusive group as a whole from profitably sustaining higher prices, collusion is not feasible. Such competitive constraints are:

- existing competition (from firms already in the relevant market that are not part of the collusive group);
- potential competition (from firms that would enter the market to defeat an attempted price rise by the collusive group); and
- buyer power (resulting from strategic responses by buyers to defeat attempts by the collusive group to increase prices – this includes strategies to encourage cheating among cartel members).

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