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The Welfare Consequences of the Exercise of Buyer Power

Prepared for the Office of Fair Trading
by Paul Dobson, Michael Waterson, and Alex Chu

September 1998

Research paper

16

THE WELFARE CONSEQUENCES OF THE EXERCISE OF BUYER POWER

PREFACE

This paper is the 16th of a series of research papers (listed overleaf) to be published by the Office of Fair Trading. These papers report the findings of projects commissioned by the OFT as part of its ongoing programme of research into aspects of UK Competition and Consumer Policy. The intention is that research findings should be made available to a wider audience of practitioners, both for information and as a basis for discussion.

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ALEX YEONG MING CHU

We are very sad to announce that our co-author Alex Chu died during the final stages of work on this report. We would like to acknowledge our debt of gratitude for his unstinting efforts. He will be greatly missed by all.

Paul Dobson
Michael Waterson

1 SUMMARY

- 1.1 This study was commissioned by the Office of Fair Trading (OFT) as one in a series of research reports on competition policy. This report considers the social welfare effects resulting from the exercise of buyer power - whereby a firm or group of firms obtain from suppliers more favourable terms than those available to other buyers or would otherwise be expected under normal competitive conditions. It seeks to synthesise and extend existing theory on monopsony and buyer power, so as to identify the conditions where detrimental effects are likely to dominate benign social welfare effects, and vice versa, with the aim of providing practical guidance to competition authorities seeking to develop appropriate responses to the presence of buyer power.

Policy background

- 1.2 The policy treatment of buyer power remains a contentious area of competition policy. In the USA, the growth in retail mass merchandising in the 1930s prompted the Robinson-Patman Act, which sought to prohibit suppliers from offering preferential terms to selected buyers. Buyer power was then viewed as threatening the competitive structure of retail markets. Yet this legislation has received considerable criticism for serving to impede the competitive process and development of efficient forms of distribution. Such *per se* rules have not been adopted in the United Kingdom, which has continued to follow a rule of reason approach. Whether there should be a general presumption in favour or against buyer power is, however, far from clear. The treatment thus far afforded to the development of retailing in this country has broadly been one of *laissez faire*. Nevertheless, the continued consolidation in this sector is now giving renewed cause for concern that increased buying power may go hand in hand with increased selling power. It is with this background, and continued concern over buying power in intermediate markets, that the present report seeks to address the issue of the consequences of the exercise of buyer power on social welfare.

Economic analysis of monopsony and buyer power

- 1.3 It is apparent from the economics literature that a clear distinction should be made between situations where buying power operates against an industry without selling power as opposed to situations where the number of agents on each side of the market are limited. In the former case, the analysis of welfare loss is akin to the analysis of monopoly and oligopoly welfare loss. In the latter case, the welfare implications are not so clear cut, rather they may depend crucially on whether selling power and buying power are linked on each side of the market. If buying power can be exerted against imperfectly competitive suppliers without increasing the buyers' own selling power, then the exercise of buying power *may* be socially beneficial.

- 1.4 Beyond pricing matters, buyer power may be exerted through conditions in contracts and other business practices. In particular, buyers may seek to impose a variety of vertical restraints which may have anti-competitive effects as well as, or alternatively, offering them possible efficiency benefits. Here much of the analysis is directly analogous to that of strategic seller power, where practices might be designed to raise rivals' costs in seeking to exclude them as well as practices which dampen competition. Nevertheless, there are cases where different treatment seems merited. For example, is it clear that selective purchasing is not a similar restraint to selective distribution in terms of its effects, even though these restraints share the common element of refusal to trade with certain parties.

Policy approaches

- 1.5 At present, the policy treatment of buyer power in the United Kingdom is based on a rule of reason approach. Given that buyer power may offer efficiency benefits as well as being potentially anti-competitive, this approach appears sensible. We do not advocate that a general presumption should be made in favour of buyer power. The effects of buyer power will very likely depend on whether buyers are constrained to pass on the benefits from its exercise to consumers in the form of lower prices and/or higher quality products and services. If they are not, and increased prices result as a consequence of the emergence of successive seller power, then, in the absence of any productive efficiency benefits, welfare is likely to be detrimentally affected. In addition, buyer power is likely to be unequal among buyers (eg: due to firm-size differences), in which case its exercise may exacerbate differences in downstream competitive positions, consequently distorting competition (eg: leading to the withdrawal of smaller firms). Moreover, it is not just consumer welfare and downstream competition which should be taken into consideration. The long-term viability of firms within the supplying industry may also be undermined by the exercise of buying power, as may producer investments when opportunistic behaviour by buyers is anticipated.
- 1.6 In drawing upon this analysis, we propose a checklist procedure as a first-stage filter for consideration of buyer power in the context of mergers and anti-competitive practices to determine whether to proceed to a more detailed analysis. The approach is framed around five key questions dealing, first, with signs of market power at the buyer level, the supplier level, and the downstream level where the buyers sell on the goods/services, followed by consideration of market behaviour with regard to the nature of trading relationships, and last, consideration of the underlying economic conditions in production/distribution, specifically the nature of costs in the buying process. The framework, described in Part 7 of this report, is discussed in relation to some recent developments in retail organisation.

2 BACKGROUND AND AIMS OF THIS REPORT

- 2.1 'Our gigantic buying power enables you, the consumer, to benefit' runs a typical advertisement for a large retail chain. The message, to consumers and implicitly to Competition Authorities, is clear - buyer power is a 'good thing'. So what is the justification for this argument, and what might be wrong with it? The underlying assumption is that selling is a competitive activity, and therefore that buying ability translates into benefits to consumers. If this assumption is unwarranted however, then the argument begins to look a good deal more dubious. Essentially, the purpose of this report is to examine these issues in some detail.
- 2.2 A large part of the report is concerned to examine the analytics of buyer power. Traditionally this area has been the subject of far less analysis than has seller power, so we feel it important to establish the theoretical basis for our later conclusions. Speculating why this is so, we see two lines of argument. First, there is the analytical point that buyer power can to a reasonable extent be analysed as the mirror image of seller power. Thus it does not offer significant analytic challenges.
- 2.3 The second point is potentially further reaching: we may note that the theory of monopoly and later the theory of oligopoly was developed in periods when manufacturing was consolidating under the pressures of scale-enhancing technological change. Retailing and distribution more generally were relatively unconcentrated and localised until well into the post-war period (often abetted by manufacturer actions, as for example in motor retailing), or were otherwise deliberately consumer oriented, as with the cooperatives and the mutual societies. It is only relatively recently, with the revolution in distribution afforded by the motorway network and computer communications, that in area after area of activity, localised retail and other activities have been taken over by national chains. One may instance grocery, DIY, books, pharmaceuticals, clothes, financial products, fast food and many others. Such developments have been charted in part in the earlier OFT reports by Dobson and Waterson (1996a) and by London Economics (1997).
- 2.4 Given these developments, the time seems ripe for an evaluation of the potential role of buyer power. How in theory might buyer power be an important factor? What effects might it have? Are there strategic actions firms may take which enable them to benefit from their strengths in buying? These are the type of question we seek to answer in the body of the paper which follows. Thus, the report analyses the social effects of buyer power across a broad range of market forms and considers the policy implications which emerge from this analysis in order to provide some guidance to competition authorities seeking to develop appropriate responses to its presence.

3 OUTLINE

3.1 A useful starting point for consideration of market power is a conceptual framework for classification for market forms, recognising that each market is bilateral, having both a demand and supply side. Heinrich von Stackelberg (1934) proposed the simple structure set out in Table 1.

Table 1 - The Structure of Markets

		<i>SUPPLY SIDE FORM</i>		
		<i>MANY</i>	<i>FEW</i>	<i>ONE</i>
<i>DEMAND SIDE FORM</i>	<i>MANY</i>	Perfect competition	Oligopoly	Monopoly
	<i>FEW</i>	Oligopsony	Bilateral oligopoly	Monopoly-oligopsony
	<i>ONE</i>	Monopsony	Oligopoly-monopsony	Bilateral monopoly

3.2 It is primarily the market structures on the top line - ie: perfect competition, oligopoly and monopoly - which have received the greatest attention by economists. Analysis of the other forms, which all involve issues of buyer power, have received considerably less attention, though formal analysis has now been undertaken on each of these market forms (eg: Dobson (1990)). In particular, analysis of monopoly and oligopoly can be readily adapted to address monopsony and oligopsony. But the analysis of the four market forms where the number of agents on both sides of the market is limited is less straightforward as this will typically entail bargaining to determine market outcomes. Recent advances in bargaining theory provides a means of overcoming the supposed ‘indeterminacy’ problem for these market structures. Not surprisingly, the most straightforward of these structures, ie: bilateral monopoly where a single seller faces a single buyer, has received the greatest attention, but it is also the case that bargaining theory can be applied to provide determinate solutions for the other three structures for given trading relationships.

3.3 Beyond this simple classification, which only considers face-to-face market power, one can begin to consider more complex market structures. For example, as Table 1 stands, the implication is that the supply side has no buying power, and the demand side has no selling power. One obvious direction is then to consider the consequences of firms having both buying and selling power.¹ This opens up possibilities for considering a number of issues, not least of which is the relationship between a firm’s buying and selling power and how the combination interacts to yield market power.

Indeed, the fact that both forms of power may go hand-in-hand in practice presents a major problem for competition authorities for while additional selling power may reduce welfare it is conceivable that greater buying power may have a beneficial effect if it serves to counteract or weaken the selling power of suppliers, and consequently the overall effect may well be ambiguous a priori. On the one hand, following Galbraith (1952), market consolidation on the buyers' side may offer socially beneficial *countervailing* power (against the *original* power of suppliers). On the other hand, as for example Adams (1987) argues, increased buyer concentration may simply lead to increased *successive* power further reducing social welfare.

- 3.4 What is apparent from the literature is that a clear distinction should be made between situations where buying power operates against an industry without selling power, ie: where buyers exploit an upward sloping supply curve of a (perfectly) competitive supplying industry, as opposed to situations where the number of agents of both sides of the market are limited. In the former case, the analysis of deadweight welfare loss is akin to the analysis of monopoly or oligopoly welfare loss, ie: output is reduced which is detrimental for consumers' interest. In the latter case, the welfare implications are not so clear cut, rather they may depend crucially on whether selling power and buying power are linked on each side of the market. If buying power can be exerted against imperfectly competitive suppliers without increasing the buyers' own selling power, then the exercise of buying power *may* be socially beneficial (eg: Dobson and Waterson (1997)).
- 3.5 Given these arguments, it appears sensible to tackle the issues by first considering market power as only applying to one side of the market such that buyers dictate trading arrangements and then address structures where market power is present on both sides and bargaining is relevant in determining the nature of contracts and terms of trade. Accordingly, Part 4 of this report covers the analysis of monopsony power, with consideration of monopsony and oligopsony market structures, as well as the effects of buyer cartels to exploit competitive suppliers. Here we will also draw on the empirical analysis which has been undertaken, which primarily relates to agricultural markets and labour markets.
- 3.6 The second, and more complex case, involving consideration of market structures where market power is present on both sides of the market, is addressed in Part 5. Here we draw on the analysis of bilateral monopoly, and its extensions to cases where strategic interaction, as a result of limited competition, takes place on one or both sides of the market, as well the analysis of successive market power. Again, empirical findings are also discussed in relation to the theory.
- 3.7 Beyond pricing matters (ie: simple arm's-length pricing in monopsony or oligopsony or bargaining restricted to transfer prices when buyers face powerful sellers), buyer power may be exerted through other conditions in contracts. In particular, buyers may seek to impose a variety of vertical restraints which may serve anti-competitive effects (possibly foreclosing markets or dampening competition between existing rivals) as

well as, or alternatively, offering them possible efficiency benefits. These include exclusive supply arrangements, which for example retailers may seek to place on suppliers of own-label products, and ‘slotting allowances’, whereby producers pay retailers an upfront fee to obtain store shelf space for their products. Such restraints have received increasing attention in the economics literature, and in Part 6 we develop these ideas to consider these and other aspects of strategic buying behaviour which may serve anti-competitive purposes.

- 3.8 In Part 7 we draw together the various themes addressed in the report to provide some general proposals for the analysis of buyer power, and more specific ones contained in a proposed checklist procedure intended to be used by competition authorities as a first stage filter in consideration of cases concerning buyer power. The suggested approach builds on the policy analysis developed in recent work on vertical restraints, countervailing power, and the welfare consequences of increased retailer power. This part of the report begins by considering the merits or otherwise of *per se* rules in the area of buyer power (eg: following the Robinson-Patman Act in the USA), and the appropriateness of a rule-of-reason approach and what guidance this might offer (eg: whether there should or should not be a presumption in favour of buyer power, and the market circumstances under which buyer power is likely to be benign and those under which it is likely to have detrimental effects). Our analysis supports a rule-of-reason approach as being the most appropriate means for addressing buyer power, reflecting the view that buyer power can have anti-competitive effects but may also yield efficiency advantages such that the overall effect on social welfare will depend on the market context. In seeking to provide some guidance on case investigations, a checklist procedure is proposed with the intention of providing a filter in the evaluation process to be used in considering whether to proceed to a more detailed examination (ie: for situations where anti-competitive effects appear to be significant). For illustration, this procedure is then discussed in relation to two emerging phenomena in British retailing: ‘one-stop shops’ and ‘category killers’. Specific consideration is given here in relation to, respectively, possible anti-competitive practices resulting from buyer behaviour and the consequences of retailer mergers and increased retail consolidation.
- 3.9 In conclusion, Part 8 provides a summary and further discussion of the key issues and outstanding policy questions.

4 MONOPSONY POWER

- 4.1 The traditional microeconomic analysis of pure monopsony, as a single buyer facing (perfectly) competitive sellers, is treated analogously to that of monopoly, where a single seller faces competitive buyers. As such, the welfare implications arising from their exercise of market power are illustrated in a similar fashion. For purposes of exposition, we begin with what amounts to a standard textbook treatment of monopsony power, before developing the discussion to cover oligopsony and related market structures.

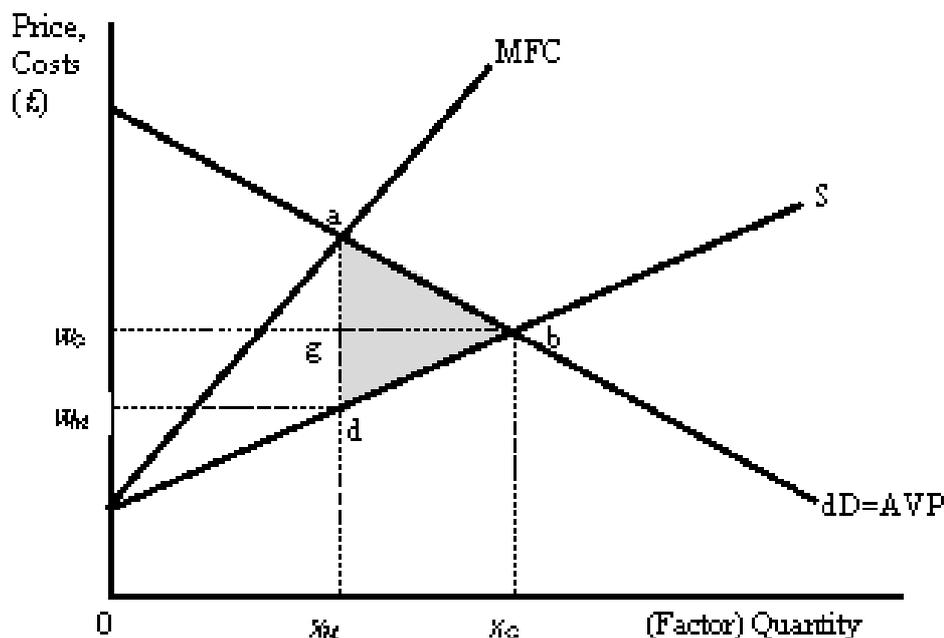


Figure 1 - Monopsony Welfare Losses

- 4.2 Consider first the situation of a competitive industry which faces familiar demand and supply curves, D and S as represented in figure 1. The competitive equilibrium is where D and S intersect, resulting in quantity x_C and factor price w_C . Assume that we are dealing in an input market where the product is used by buyers in later stages of production, so that demand curve D represents the average revenue obtained from the input which is later used to produce the finished product, referred to as the 'derived demand' for the input and denoted dD which is equal to average (net) value (revenue) product of the factor (AVP). Now consider the impact of a monopsonist's buying behaviour on market prices. Referring to the upward sloping supply curve S in figure 1, as the (single) firm buys more units of the input, there needs to be a higher level of production to accommodate the increased demand, resulting in an increase in the unit cost of production. However, the increase in unit price needs to be paid not only for new production but also for existing levels of production.² Accordingly, each marginal unit costs more than the average cost, thus we are left with the marginal

factor cost curve, denoted by MFC, which lies above the supply curve S. Suppose further that the (single) buyer is a price-taker in the downstream market - for example it is the archetypal monopsony employer in a 'one-mill town' which sells in a competitive product market. Its profit maximising output would then be determined by the intersection of its derived demand curve dD and its marginal factor cost curve MFC yielding equilibrium price w_M and quantity x_M . The associated welfare loss from this scenario is represented by the shaded triangular region *abd*.

- 4.3 As figure 1 illustrates, the monopsonist restricts purchases below the competitive level, so that from a social welfare perspective too few resources are employed (ie: there are unrealised gains from further trade). The result is that the input price paid falls (below the competitive level), but as the monopsonist competes in a competitive output market, the going price (say, p^*) is unaffected by its purchasing behaviour. As a consequence, producer surplus declines by the area $w_C b d w_M$, while purchaser (consumer) surplus rises by the difference between the rectangle $w_C g d w_M$ and triangle *abg*, leaving deadweight social welfare loss as the area *abd*.

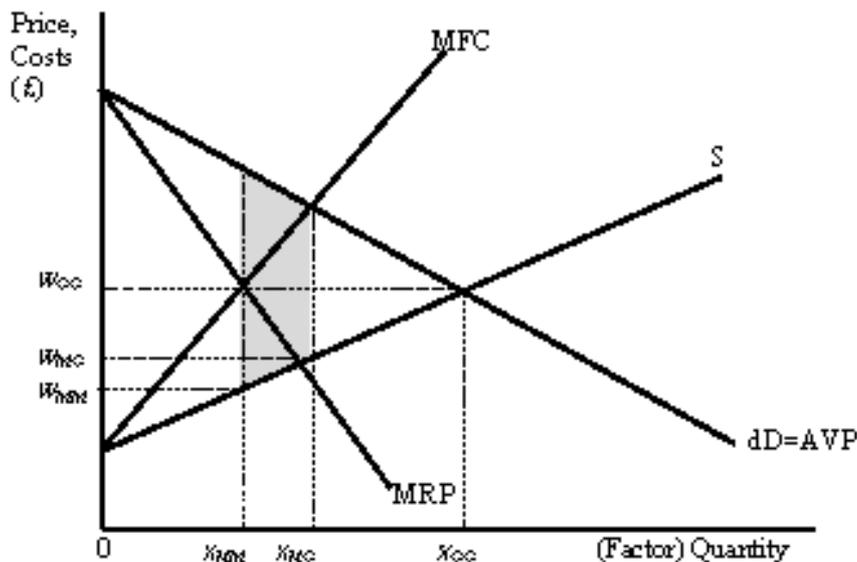


Figure 2
Additional Welfare Losses From Monopsonist Possessing Monopoly Power

- 4.4 In the situation where the monopsonist is also a monopolist in the downstream market, which we refer to as a 'monemporist', following Nichol (1943), then there would be a downward-sloping derived demand for the input, along with a second curve, marginal to this derived demand curve, that reflects the marginal revenue product of the input, shown in figure 2 as MRP.³ The intersection of the MRP curve

with that of MFC indicates the profit-maximising input quantity for the monopsonist. Again, equilibrium levels of both purchase price (w_{MM}) and quantity (x_{MM}) in the input market are below the competitive equilibrium. In this case, welfare loss from exercising buyer power is made worse by the presence of seller power, with the additional welfare loss (due to seller power) represented by the shaded region in figure 2.⁴

- 4.5 Although this discussion is presented primarily in terms of a monopsonist, as the only buyer in the market, the principles are readily applicable to situations where some buyers (either singly or jointly) recognise their ability to influence market prices. In such instances, three conditions appear necessary for the exercise of buyer power: first, that the buyers contribute to a substantial portion of purchases in the market; secondly, that there are barriers to entry into the buyer's market; and thirdly, that the supply curve is upward sloping. Under these circumstances it is straightforward to apply the principles of oligopoly theory to model situations of oligopsony where strategic interaction occurs between a few buyers competing in a market - see for example the seminal analysis of Stackelberg (1934) and Fellner (1949). Similarly, the dominant firm model (Forchheimer, 1908) can be readily applied for consideration of dominant buyer behaviour, where the leading firm faces a competitive fringe of other buyers, eg: Blair and Harrison (1993, pp 49-51) and Veendorp (1987).⁵ For both extensions, the welfare results translate directly. In the case of oligopsony, generally the greater the concentration of buyers then the greater is the distortion in factor price and quantity below the competitive level, other things being equal⁶. Similarly, in a dominant buyer framework, the greater the market control by the key buyer, in terms of its market share with respect to that of the competitive fringe, the greater is its ability to exert power to reduce price below the competitive level. Moreover, as general result, applying to monopsony, oligopsony or a dominant buyer situation, it should be observed that, for a given (derived) demand curve, the lower the elasticity of supply (essentially, the steeper the supply curve), the greater is the welfare loss resulting from buyer power.⁷
- 4.6 In the case of joint action by buyers, where they seek to maximise joint profits, the analysis corresponds directly to that of a cartel controlling sales. Provided other things remain equal, buyer coordination to reduce factor prices by restricting collective purchases serves to reduce social welfare and the deadweight welfare loss is equivalent to that generated by a monopsonist, ie: as shown in figure 1.⁸ The detrimental effect on welfare is compounded if collusion also spills over into the buyers' output market, with the result equivalent to the monopsonist outcome illustrated in figure 2.
- 4.7 Thus for a range of circumstances, we may conclude that buyer power exerted against competitive sellers is likely to have a detrimental welfare effect where it involves buyers acting singly or jointly to restrict purchases.⁹ The question which naturally follows is how likely strong buyers are to find themselves in the position of being able to exploit an upward sloping supply function. For instance, it may be considered that

many industries are characterised by constant or even increasing returns, and accordingly buyers may not face an upward sloping supply. However, an important empirical study which has some bearing in this regard is that provided by Shea (1993) which found that, for 26 US manufacturing industries studied, only three exhibited downward sloping supply functions; relating to prepared feeds, construction equipment, and aircraft. Of the rest, more than twice as many were upward sloping as were flat. Sixteen industries (such as lumber, drugs, paints, tires, stone, clay and glass, cement, and electronic components) were found to have upward sloping supply functions, while seven other industries had flat supply functions (such as plumbing and heating products, floor coverings, and animal and marine fats and oils). Accordingly, the assumption of an upward sloping supply may actually have some broad empirical relevance, even to manufacturing industries where increasing returns might have been more commonly expected.¹⁰

- 4.8 Nevertheless, most of the empirical analysis relating to monopsony power has been concerned with agricultural and labour markets where diminishing returns and competitive supply seem generally more plausible, and thus upward sloping supply curves are likely to apply. In the case of agricultural markets, a number of studies have considered the effects of buying power exploiting competitive suppliers. For example, Schroeter and Azzam (1990) examine the US beef packing market and consider a situation where firms may be in a position to exercise both buying and selling power. As shown in figure 2, the profit-maximising behaviour of a single buyer in the upstream market who faces a downstream market with many buyers is affected by what happens in the latter market. Their model compares the price distortions between the slaughter cattle and wholesale beef markets and reveals them to be significant, indicating the exercise of market power arising from the oligopsony-oligopoly market structure of beef-packing.¹¹
- 4.9 Nevertheless, even when buyers would seem to be dominant in dealing with a competitive supplier industry, it is not evident that this will necessarily lead to significant departures from prices anticipated in a competitive market. This is highlighted in the study by Lopez and You (1993) on the Haitian coffee market which examines the determinants of monopsony power by modelling in two separate equations the impact of buyer concentration (in terms of a modified Lerner index) and the slope of the residual supply function on market prices. The results show that in spite of significant buyer concentration, there is no evidence of any significant effect on market prices, due to the presence of a relatively flat supply function.¹²
- 4.10 The importance of the slope of the supply function also features in the study by Just and Chern on the US tomato market. In this study, however, it is the change in the slope of the supply function due to a change in technology which is used to infer whether monopsony power is exercised. Here, Just and Chern (1980) examine the shift to machine harvested tomatoes which occurred in the mid-1960s, with the effect of increased mechanisation serving to reduce the elasticity of (short-run) market supply (due to variable costs of harvesting falling and fixed costs rising). This change

was found to increase the ability of buyers to restrict purchases and (further) reduce equilibrium tomato prices below competitive levels.

- 4.11 Monopsony power has also been studied in relation to a number of labour markets. For example, studies concerning professional athletes in the presence of dominant buyers have considered the determination of athletes' wages in the US football league (McKenzie and Sullivan, 1987), the US baseball league (Lehn, 1982), and the Canadian National Hockey League (Jones and Walsh, 1988). In each case institutional barriers were found to be present, facilitating the exploitation of buyer power, thus suppressing wage levels. In addition, a number of studies have considered the determination of wages for nurses. For example, Robinson (1988) examines some determinants of monopsony power and reports both the market structure and the occupational mix within hospitals.¹³ The general finding from these studies (both in the case of athletes and nurses) is the importance of skill among employees in determining wage levels, although a concentrated downstream market allows the members therein to exercise their buyer power to depress industry wages.
- 4.12 In addition to these empirical studies, there are well-documented cases concerning collusive buyer behaviour, though mostly from the USA where case law is particularly well developed in this regard.¹⁴ The US treatment regarding groups of buyers coordinating their buying activities to depress market prices is based on the principle expounded in *Mandeville Island Farms v American Crystal Sugar Co* which concerned allegations of price-fixing among buyers in the Californian sugar-beet industry in the late 1940s.¹⁵ In this case, the growers of sugar beets challenged a pricing formula that was fixed by three buyers, with the courts adopting a hard stance against price-fixing buyers similar to that of the traditional exercise of seller power.¹⁶
- 4.13 In summary, welfare is likely to be adversely affected by the exercise of monopsony power in conditions where buyers have the ability to exploit a competitive supplying industry to depress market prices below competitive levels. The associated welfare losses are due to reduced producer surplus, and unless the buyers have market power when selling their output, there is no direct effect on final consumers. Where buyer and seller power are jointly held (eg: by a monopsonist) however, then the outcome is likely to be allocatively inefficient and in particular the welfare of both factor producers and final consumers is likely to be adversely affected.
- 4.14 However, the conclusion that the exercise monopsony power is socially detrimental needs to be qualified in terms of two important caveats. First, there may be off-setting efficiency benefits. The market may, for example, be a 'natural' monopsony where productive efficiency requires that there be a single buyer of an input and thus a welfare trade-off results, analogous to that of monopoly (eg: Williamson, 1968), involving productive gains but allocative deadweight welfare loss. For example, network economies may be present in purchasing and collecting, eg: in agricultural markets such as for milk, implying that the activity is most efficiently undertaken by a single firm but such a firm may then have monopsony power. Similarly, with a buyer

cartel there may be cost-savings from joint purchasing behaviour, eg: regarding reduced transaction costs or achieving economies of scale in production and warehousing, and other efficiency benefits (eg: Mathewson and Winter, 1996).¹⁷ Secondly, it should be apparent from examination of figure 1, for example, that if the monopsonist could practice (first degree) price discrimination in making its purchases, ie: pay each unit its exact cost of production rather than setting just a single market price, then the purchaser can obtain the entire economic surplus which would be generated under competitive market conditions (ie: thus eradicating any deadweight welfare loss in the factor market).

- 4.15 As a final point, it should be apparent that the above discussion relates principally to static welfare considerations. In addition, attention needs to be given to possible dynamic effects and here concern is often expressed about possible detrimental welfare effects arising from the damage to the long-term viability of producers resulting from the exercise of monopsony power. This can have an economic impact when, for example, buyer power reduces prices for suppliers, and thus their income, making it difficult for them to finance required investments, which might then be postponed or even foregone completely. Similarly, suppliers may be reluctant to undertake investments when they anticipate (post-contractual) opportunistic behaviour by powerful buyers seeking to exploit supplier commitments. In both cases, supplier efficiency may suffer which might ultimately feed through to higher prices for consumers than would otherwise be the case in the absence of such problems.

5 BILATERAL MARKET POWER

- 5.1 Thus far, we have considered the exercise of monopsony power against competitive suppliers. Matters become more complicated in markets where seller power is also present on the other side of the market. Analysis of this situation has focused primarily on the case of 'bilateral monopoly', where an upstream monopolist is the sole producer of a factor required uniquely by a downstream monopolist in undertaking its production. We begin by examining this market structure, building on our model of monopsony considered in Part 4, before developing the discussion to consider markets where (oligopolistic) rivalry occurs at each level.

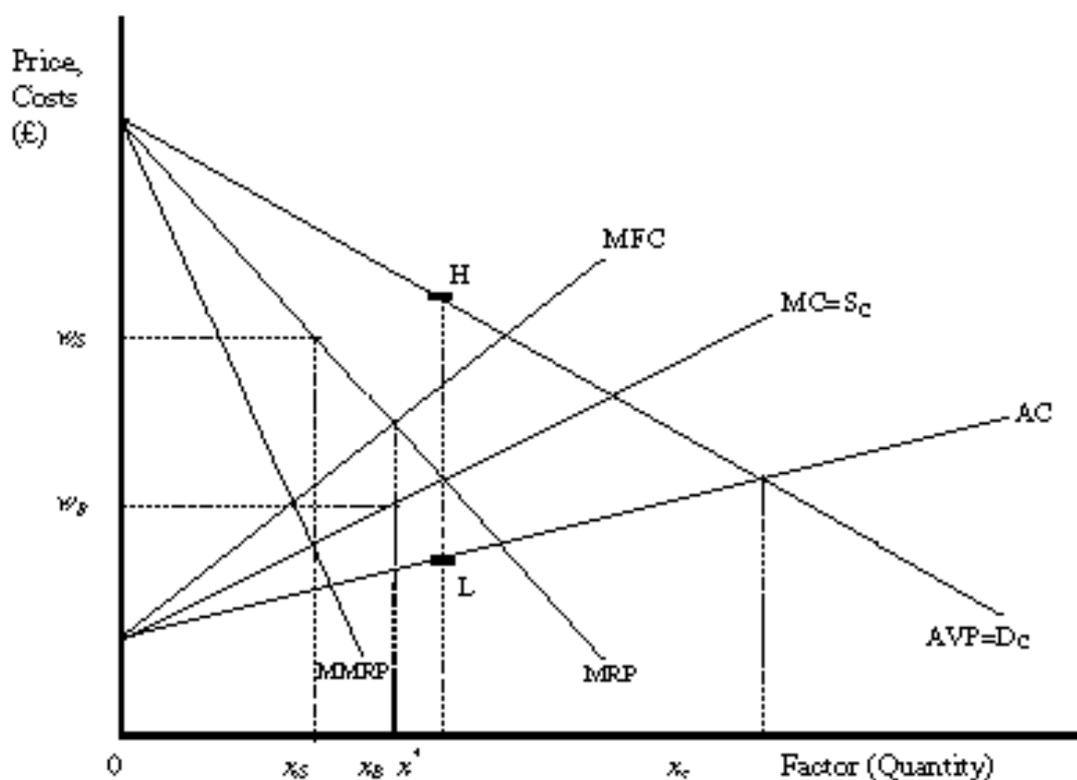


Figure 3 - Bilateral Monopoly

- 5.2 Figure 3 presents the standard diagrammatic treatment of bilateral monopoly where a monopoly producer of a factor trades with a monopsony purchaser (eg: Bowley (1928) and Morgan (1949)).¹⁸ If the buyer acted in a perfectly competitive manner in its output market, the derived demand for the input would equal average (net) value product of the factor, represented by the curve $AVP = D_c$.¹⁹ However, if the monopsonist buyer acts as a monopolist in its output market then the derived demand for the factor will be MRP , the curve marginal to AVP . As in Part 4, MRP is the marginal revenue product of the factor, that is the additional revenue obtained from employing an additional unit of the factor. The curve labelled $MMRP$ is marginal to

MRP, and represents the marginal revenue associated with selling the factor to a buyer which has monopoly power but no monopsony power. The curve AC denotes the seller's average cost for producing the good, and MC its marginal cost. If the seller behaved as a perfect competitor, then MC represents its supply curve, S_C . Finally, the curve MFC is marginal to MC, and as before, indicates the marginal factor cost of the input to a monopsonist buyer, treating the seller as having no market power.

- 5.3 Let us first note the non-cooperative solutions which would arise if only one party held market power and sets price to which the other party simply responds by determining the quantity. In the *monopoly outcome*, the seller dominates and sets price and the buyer responds by purchasing in a competitive manner. In this case, the seller equates MC with MMRP, with the result that quantity would be x_S and price w_S . On the other hand, in the *monopsony outcome*, the buyer dominates and sets price leaving the seller to determine the output level. If the buyer also acts as monopolist in its output market then it equates MRP with MFC, resulting in quantity x_B and price w_B .
- 5.4 However, with both firms recognising their mutual interdependence and with neither side being in a position to impose a price and let the other respond by determining quantity, we may expect both parties to agree on setting quantity at a level which maximises their joint profits and then divide the spoils through bargaining over the trading price. In this case, the quantity would be x^* , where MC is equal to MRP. In terms of the price at which the two parties would trade, we can note that this could be so high as to leave the buyer with zero profit from the transaction, ie: when the price equals the buyer's average value product at point H in figure 3. Alternatively, it could be as low to equal the seller's average cost of producing its output, at point L, in which case the seller derives no profit from the transaction. Which point on the contract curve (ie: the line between H and L) would be chosen depends upon the outcome of a bargain between the two agents. A now standard approach to resolving this problem, is, following Rubinstein (1982), to assume that the bargaining process is one in which parties make alternating offers/counter-offers and both are impatient to settle (that is, pie received at a later date is less valuable than the same amount of pie received earlier). Then with complete information regarding each other's preferences, etc, and constant discount rates, the parties will (immediately) agree on a division of joint profits which yields them a share of the surplus generated according to their relative eagerness to settle.²⁰
- 5.5 As shown in figure 3, the joint-profit-maximising level, x^* , is higher than both x_S and x_B .²¹ In some sense, then, with agreement on this level, there is a social welfare gain from having opposing selling and buying power compared to power existing on only one side of the market. It should, however, be pointed out that, while x^* is Pareto optimal from the firms' perspective in maximising joint profits, it does not imply that social efficiency is accordingly maximised. For example, when the buyer is a monopolist in its output market, joint profits are maximised when the buyer uses its monopoly power and quantity is restricted below the competitive level. Indeed, it can be observed that the firms are able to earn profits up to the point which corresponds

with the intersection of AVP and AC, ie: x_C . Nevertheless, the analysis does indicate that the welfare consequences of bilateral market power may be less severe than the cases where market power is unopposed. For example, the level x_S corresponds, *mutatis mutandis*, to ‘successive monopoly’ where an upstream monopolist sets price to a downstream monopolist, which in turn takes this price as parametric and treats it as a cost level when determining its own output price. Alternatively, the level x_B corresponds to the ‘monempory’ solution whereby the firm exercises both (unopposed) monopsony and monopoly power.

- 5.6 This analysis becomes particularly relevant in the context of Galbraith’s (1952) claims that market power on one side of the market leads to the development of market power on the other side and this acts as a *countervailing* force against the *original* market power to benefit society.²² If this is the case, then it might be expected that situations of bilateral monopoly and bilateral oligopoly are likely to become increasingly common features and thus the welfare implications of bilateral market power take on some importance.
- 5.7 Whether opposed market power is in fact the norm is highly debatable. Galbraith offers a range of examples which he claims support his hypothesis such as in labour markets where unions have developed as a response to powerful management and in final goods markets where powerful retailers have developed enabling them to extract concessions from manufacturers of consumer goods. Nevertheless, as Stigler (1954) and Hunter (1958), among others, observe, there appear to be many exceptions and those cases which fit Galbraith’s view are not necessarily spontaneous developments. For instance, on whether oligopoly in manufacturing elicits oligopsony in retailing, Stigler notes that the US chain-stores originally dealt mainly in products associated with unconcentrated industries (ie: food, clothing, and furniture). In these circumstances it would therefore seem that retailers developed original power rather than countervailing power. In addition to this anecdotal evidence, more general statistical tests have been developed, eg: Lustgarten (1975) and Guth *et al* (1977), which do provide some support in terms of seller concentration being positively correlated with buyer concentration in intermediate markets, but these cross-section studies do not address the dynamic issue of whether consolidation occurred in response to consolidation in the opposing industry or is simply due to technological explanations where industries that trade with each other have similar economies of scale and scope.²³
- 5.8 Nevertheless, even supposing that, say, buyer power does develop in response to seller power, it is not immediately apparent what the overall welfare effect is likely to be, given that the firms gaining buyer power may themselves develop seller power in their output market. The bilateral monopoly model outlined above indicates that socially beneficial countervailing power is most likely to occur when one side of the market develops power in response to another, but does not itself develop original power.²⁴ However, when both forms of power simultaneously emerge, for consumers to gain, the selling power of buyers (which raises prices above cost levels) needs to be more

than off-set by lower purchasing prices (as a result of the exercise of buyer power), so as to leave overall final prices lower.

- 5.9 Galbraith claimed that such socially beneficial countervailing power was evident, and in particular applied to the development of chain-stores which were forced by the intensity of competition in retail markets to pass on to consumers any negotiated discounts from manufacturers. Clearly, though, this view is highly contentious since, with the prospect of seller power being created simultaneously with buyer power, the welfare losses from the exercise of original seller power may be exacerbated. Thus it is conceivable that the development of opposing power would lead to increased prices resulting in a (further) loss of consumer welfare instead of lowering final prices. This view has been articulated by Adams (1987), among others, and is referred to as ‘coalescing power’ or more generally as ‘successive power’. Accordingly, if firms develop both types of power, it is not clear a priori what the welfare consequences will be. Countervailing power in bargaining may offer social welfare benefits but successive market power may be expected to have an adverse effect.²⁵
- 5.10 Dobson and Waterson (1997) consider this specific issue within a market setting where a (single) supplier bargains with (differentiated) oligopolistic retailers and examine the effects of increased concentration in the retail sector on consumer prices.²⁶ In this setting, as the number of retailers declines, the producer has fewer alternatives available which in principle reduces its relative bargaining power. However, the overall effect for the producer of a decrease in their number hinges additionally on the countering effect of higher *prima facie* profit for the retailers as a result of the increased market concentration. Thus it is conceivable that the producer may be able to increase its profits as a result of obtaining a reduced share of a larger cake. Clearly, if this is the case, final prices will rise as retailer concentration increases as the retailers set higher price-cost margins on higher cost values.
- 5.11 Conversely, if increased retailer concentration does not lead to an appreciable increase in selling power (ie: when retailer differentiation is small), then the fall in the supplier’s relative bargaining power may be sufficient to lead to a decrease in transfer prices and the consumer may benefit through lower retail prices. Thus, for example, when the number of retailers declines, even down to just two retailers, but these compete in a near perfectly competitive manner, the effect may be to reduce the disagreement payoff to the supplier, and so reduce its bargaining power, resulting in lower transfer prices, with subsequent intense competition between the retailer allowing the benefits to be passed on in the form of lower retail prices. It turns out the conditions for this to happen are very stringent, however. Broadly, the services of competing retailers must be very close substitutes for each other, and the number of competing retailers very limited (ideally, just two symmetric retailers). Furthermore, if the retailers have an alternative, even if this is less desirable, supply source, this results in a tradeoff even more unfavourable to the countervailing power view.

- 5.12 However, in situations where retail consolidation may be expected to yield countervailing power benefits, the intense downstream competition in a highly concentrated market not only impacts on retailers' profits but can also have a destructive effect on the supplier's profit. The analysis shows that in such circumstances it may be profitable for the supplier to avoid these problems by trading with only one of the retailers, and refusing to supply the rest, even if this should allow the retailer to derive monopoly profits. This further damages consumer welfare through higher prices and lost retail service variety.
- 5.13 The analysis thus indicates that there is strictly limited scope for countervailing power acting as a dependable self-regulatory mechanism benefiting consumers.²⁷ Consolidation at the retailing level is desirable only if the services of competing retailers are very close substitutes and refusal to supply is absent. Yet, an important feature of the retail market is the major firms' attempts to distinguish themselves from each other in terms of their image and retail offer (Dobson and Waterson, 1996b). In such circumstances, we cannot be confident, in contrast to Galbraith's claims, that the effects of retail concentration are benign.²⁸

6 STRATEGIC BUYER BEHAVIOUR

- 6.1 Thus far we have been concerned only with the pricing behaviour in markets where buyer power may be present. Clearly, though there are other aspects of contracts beyond simple pricing matters which powerful buyers may seek to exploit to their advantage. Strategic behaviour in this regard may take a number of forms and appear to serve a number of different purposes, some efficiency enhancing (eg: removing pricing distortions, optimising investment decisions and eliminating avoidable transaction costs), some anti-competitive (eg: excluding rivals or facilitating collusion), and yet others simply concerned with rent shifting (ie: enabling buyers to extract a greater share of available profits).
- 6.2 In this part of the report, we provide some illustrations of the practices which powerful buyers may employ. The examples given draw largely on retailer practices, but it should be clear that in many instances they could relate to buyer behaviour in intermediate markets as well. For convenience, we here divide the practices into 10 categories, which should be taken as being as representative rather than exhaustive.
- 6.3 **Category 1: Slotting allowances** - These are payments, for example, to a supermarket for the right to have one's goods on display in a particular place on the shelves, or even to have them on display at all. It relies on the fact that shelf space, however large the supermarket, is in some sense in scarce supply and therefore that goods compete for space. Clearly, those goods that the supermarket can ill afford to be without are unlikely to be charged a great deal, but second brands are vulnerable to such pressure. The phenomenon has been discussed in the literature by Shaffer (1991).²⁹
- 6.4 **Category 2: Exclusive distribution** - Exclusive or sole distribution agreements can be used by important buyers to extract concessions from their suppliers. This practice came to attention in the mid-1990s in connection with the accounting practices of a major builders merchant, which negotiated discounts from suppliers (but accounted for them upfront). However it was also widespread in the cinema distribution industry where, for example, the Odeon chain negotiated exclusivity of distribution of films, with guaranteed periods before independent cinemas were allowed to show them. The practice is related to conditional purchase, discussed in the following paragraphs.
- 6.5 **Category 3: Conditional purchase behaviour** - This is the purchase of goods only on condition that significant concessions are made by the supplier of such goods. Two sub-cases spring to mind. The first is where a purchaser gets into a dominant position with a supplier such that the purchaser's business becomes of vital importance to the supplier, at least in the short to medium term. This can then be used to extract lower prices from the supplier, in part because of assured orders, but in part because the supplier sees little alternative. This practice has been alleged to take place in the clothing retailing sector. Another example was provided by the negotiations

between a large supermarket and a trading stamp company, which eventually ended in the demise of the latter when the concessions it made to the former reportedly became too much to bear.

- 6.6 The second sub-case is where a purchaser will only buy on condition that other outlets are not supplied with the product, or not supplied with a precise version of the product. Manufacturers of grocery items have claimed that major supermarkets threaten not to stock their product if discounters are also supplied, hence putting the discounters in a poorer position if they find they cannot supply their customers with popular items. Again supermarkets tend to deny such actions take place. Another illustration is the behaviour alleged by the Federal Trade Commission to have been engaged in by Toys'R'Us, which it is said wanted major toy manufacturers to agree not to supply identical doll sets to discount outlets and itself, but rather to supply discount outlets only with different sets which made price comparison impossible.
- 6.7 **Category 4: Exclusivity contracts** - There is a question about why a seller might agree to an exclusionary purchase contract, as indicated in Categories 2 and 3, which after all restricts the seller. The reason proceeds analogously from the literature (Aghion and Bolton, 1987; Mathewson and Winter, 1987) on manufacturers contracting exclusionary sales terms with retailers which may concern the desire to foreclose the market (and thereby allow for higher downstream prices to the potential benefit of both parties). Alternatively, the explanation may be in terms of dealing with vertical externalities which result from successive independent behaviour. For instance, if a seller has an arm's-length relationship with a purchasing retailer, there is a double marginalisation problem, namely that the retailer does not gain all the benefits of its efforts to improve sales. Similarly (to pursue the analogy), the seller does not gain all of the benefits of improving its product or shaving its costs. By concluding an exclusivity agreement with the seller, however, a powerful buyer can internalise these problems, for this permits nonlinear transfer pricing arrangements between the parties, among other things. Therefore, there are mutual benefits which can make restrictions acceptable.
- 6.8 Of course, it may be that a buyer at first offers a very good deal to a supplier in exchange for exclusivity, in order to capture the supplier, then later forces significantly worse conditions of business on the supplier. A variant would be where the buyer matches or improves upon offers from other buyers whenever they are threatened so as to cause them to lose heart in attempting to purchase the goods, with the buyer in question perhaps making offers which cause it to lose money in the short run, but prevent buyer competition in the long run.³⁰
- 6.9 **Category 5: Cloning behaviour** - Trade marks and similar devices are of course protected intellectual property (if registered), but the extent of protection varies from regime to regime. In the United Kingdom the prevailing view is that protection is rather narrowly circumscribed, so that once a manufacturer has invested in a successful design, it is relatively easy for a retailer to produce a close copy of that

design to supply on its shelves alongside the manufacturer's product in order to capture sales from the successful product. An exact copy would of course be guilty of passing off, but a close copy, or a so-called 'look-alike' may well not be. This limits the incentives for manufacturers to engage in such costly investment, and reduces their bargaining position against retailers, thus conceivably distorting manufacturer competition and retail competition as well when smaller retailers are not in a similar position to develop look-alikes, eg: in the absence of own-label product programmes of a similar standing to those of large retail chains.³¹

- 6.10 **Category 6: Joint marketing** - A powerful retail chain may encourage a manufacturer to engage in a joint promotion exercise whereby the manufacturer offers concessions only to purchasers at a particular store chain. This may involve a special discount price which only applies to the retailer's customers, a form of commodity bundling which offers a unique package to customers, or a joint advertising campaign. This practice can benefit both parties by stimulating sales, but may of course not be beneficial in general. For example, it may involve expenditure which serves to differentiate retailers (eg: where stores no longer compete head-to-head in offering identical products).
- 6.11 **Category 7: Predatory buying of inputs** - Just as an incumbent seller may seek to drive a (potential) rival out of a market by pricing so low as to make its continued presence unprofitable, it is conceivable that a dominant buyer may seek to expand its purchases driving up factor prices to the point where a rival is unable to continue suffering losses, due to high costs, and so leaves the market. The focus for such cost-raising strategies is likely to be directed at key scarce resources, eg: specialised labour and high quality raw materials, where the rival has little opportunity to use alternative sources. Clearly, whether this is a profitable strategy in the long run will depend on the signal it sends to other potential entrants about its willingness to act in this manner, ie: predation not only to induce exit but also deter entry (eg: Milgrom and Roberts (1990)).
- 6.12 **Category 8: Strategic purchasing of facilities** - Control of an essential facility for distribution is a general feature of privatised utilities. In this regard, issues concerning access (eg: pricing) are usually regulated to prevent an abuse of market power. However, key facilities for distribution arise in other unregulated industries which may allow for buyers to exercise power by controlling market access. For example, in the case of retailing, large store formats such as hypermarkets are now the dominant form of access for manufacturers to reach final consumers. These outlets are, however, controlled by nationally or even internationally operating retailers which operate in increasingly concentrated markets, and accordingly manufacturers may face a very limited number of viable options for distributing its products. This control of access, and thus limited provision of available shelf space, provides retailers with bargaining power over suppliers. This power is aided by tight planning controls which feature in the United Kingdom. These may be necessary to protect the environment, but impede new entry and thereby provide a powerful first-mover

advantage in favour of established outlets and thus provide an incentive for retailers to control key sites and possibly deter entry by preventing another retailer establishing a viable operation in the same vicinity as its own. This happens in a fairly overt manner in the case of alcohol on-licences, but is equally true, for example of supermarket chains. Those firms who first tie up likely sites for supermarket development can earn a significant economic rent through their foresight or luck, since later developments may be refused or allowed only after costly changes. Hence by tying up sites, retailers retain their power as buyers and may drive up rivals' costs.

- 6.13 **Category 9: Reciprocal dealing** - Reciprocal dealing involves a monopsonistic buyer of some product agreeing to purchase from a specific seller on condition that the seller also buys a product from the buyer. The practice may, for example, allow the buyer to exploit economies of scope to move into a market which is an input for its own suppliers, eg: a conglomerate firm operating in the food industry whose food wholesale division purchases from processed food suppliers on condition that they in turn purchase its basic food products.³²
- 6.14 **Category 10: Terms of business** - Most of the preceding considerations have been to do with excluding or reducing the role of rival buyers. However we can also think of potential strategic practices which accommodate rivals whereby buyers act together to improve their mutual position against their suppliers. Of course, some such arrangements would fall foul of the Restrictive Trade Practices Act if they incorporate specific agreements between buyers on trading practices. Perhaps therefore, a more likely candidate for such behaviour would be 'standard terms of business' which, while not being mutually agreed in any specific way, nevertheless become broadly adopted as industry practice and therefore tacitly agreed between buyers. Examples might include payment terms commonly employed, rules regarding sharing of promotional expenditure between buyers and sellers and so on.
- 6.15 The net effects on consumers of these various manifestations of strategic behaviour by buyers are unclear. If the buyers are in a truly fiercely competitive selling position themselves, then they are unlikely to be able to earn more than a normal return, and therefore may be forced to pass on the bulk of the benefits they receive from their suppliers to their customers. In such circumstances, consumers are arguably unlikely to lose by such actions. On the other hand the assumption that retailers are always in a competitive marketing environment is a somewhat questionable one, particularly given the increased concentration which has been the recent experience in UK retailing. Consequently, such practices may not only be manifestations of buyer power, but may translate into increased seller power in the downstream (retail) market. Here, anti-competitive effects in the downstream market may arise through: increasing the extent of barriers to new entry; reducing competitive pressures among existing rivals (eg: by eliminating direct head-to-head competition by rivals not selling the same products); and facilitating collusion (eg: where collective or common buyer practices translate into cooperative selling behaviour). But consideration also needs to be given to possible off-setting efficiency advantages where the practices may lead to

reduced costs (eg: in undertaking transactions) and improved product or service quality. Accordingly, the policy treatment of such cases, as with vertical restraints more generally (see Dobson and Waterson, 1996a), involves weighing possible anti-competitive effects against efficiency benefits. In most instances, where (downstream) selling power is not an issue, anti-competitive effects are not likely to be of particular concern, but for some cases, and perhaps a growing number, the anti-competitive effects may have an important impact on the nature and form of competition and adversely affect consumer and societal welfare. Clearly, identification of such cases is important, and it is this issue, and the more general policy treatment for buyer power, which we turn to in Part 7.

7 DEVELOPING POLICY PROPOSALS

Approaches to policy

- 7.1 Buyer power, in a general sense, enables a firm or group of firms to obtain from a supplier more favourable terms than those available to other buyers (eg: OECD, 1981). This may result either from sheer size relative to other buyers or through exercising market power when there is a relative absence of other competing buyers. Purely cost related discounts, relative to the size of purchases, present little cause for policy concern even where they give rise to differential prices being paid, in the sense that this just reflects normal business practice where large purchasers may expect to pay a lower per unit price than smaller purchasers due to the exploitation of economies of scale and scope in buying and offering sellers the security of having a large order. However, abuse of market power to obtain non-cost related advantages over other buyers is a matter for concern given that societal welfare may be adversely affected by such actions (OFT, 1995).
- 7.2 In many regards, the analysis of seller power carries over to consideration of buyer power, particularly regarding collusive buying behaviour and practices which amount to strategic buying behaviour to disadvantage actual or potential rivals by controlling (distribution) access and foreclosing markets. Furthermore, as suggested by the Monopolies and Mergers Commission (MMC) in 1981, existing laws in the United Kingdom to control monopolies and anti-competitive practices appear to be equally applicable in addressing issues arising from buyer power as they do in relation to seller power.
- 7.3 However, the importance of tackling buyer power is still in some dispute. Unlike seller power, which may clearly have an adverse effect on consumer welfare, buyer power is primarily concerned with the extraction of producer surplus and unless buyers also have seller power they have no means of affecting downstream prices, and thus no direct effect on consumer welfare. Moreover, the (disputed but prevalent) notion that buyer power may develop to neutralise seller power, as expressed through Galbraith's theory of countervailing power, provides a further argument for adopting a laissez faire stance.
- 7.4 Nevertheless, the exercise of (unopposed) monopsony power does have a detrimental effect on social welfare through the reduction in efficient use of production facilities, which may in turn affect the competitive viability of sellers and discourage new firms from entering the market. The overall effect in terms of the amount of deadweight welfare loss will depend on long run supply in the upstream market, though. If supply is highly elastic, then there would appear to be less cause for concern. Nevertheless, there remains concerns about long-run effects where producers are reluctant to undertake investments because of expected opportunistic behaviour by powerful buyers exploiting supplier investment commitments.

- 7.5 Equally, it is not evident that the development of buyer power in response to seller power will necessarily be socially beneficial. When the buyers also acquire selling power, the result may be to raise final prices as a consequence of successive power effects (ie: where an element of double marginalisation is created). For countervailing power to offer welfare benefits, buyers will need to bring substantial power to bear on the pricing of (monopolistic) sellers, and yet face substantial price competition in their end product market.
- 7.6 Similarly, when power is asymmetrically distributed between buyers, say due to firm size or order size differences, then there are concerns that those with greater bargaining power will be able to negotiate substantial discounts from suppliers compared to other less significant buyers. This may in turn distort the nature of downstream (retail) competition, where the lower costs for key buyers translates into competitive advantage over other firms when they act as sellers. In the context of retailing, for example, a dominant firm may be able to negotiate substantial discounts on wholesale prices and then use these lower prices as a basis for exercising selling power in the retail market, where it might seek to reduce competition by acting in a predatory manner, forcing smaller retailers to withdraw from the market, allowing it to gain market share, which serves to reinforce its bargaining power and competitive advantage over other retailers. For the dominant retailer, this can represent a virtuous circle where a cost advantage can be used to increase its market share advantage which can in turn be used to gain an even larger cost advantage over rivals, etc. But for suppliers and other retailers they are equivalently caught in a vicious circle. For suppliers, once they give discounts to a dominant buyer then this is only likely to yield the buyer a greater competitive advantage in its downstream market which in turn will increase its bargaining power forcing suppliers to give even greater discounts. For the other retailers, they face the problem of a declining competitive position, being unable to negotiate the same discounts as the dominant firm, with their profitability consequently suffering and their long-term viability undermined. The overall effect of this process on consumers is not certain, but they may ultimately lose out through reduced choice of retailers as well as increased prices if the dominant retailer is able eventually to set higher prices without the prospect of weakening its stranglehold on the market.
- 7.7 In terms of public policy responses to tackling (abuses of) buyer power, one possible approach would be to adopt a blanket approach as represented by a law such as the Robinson-Patman Act in the United States which prohibits discriminatory pricing and prevents buyers from exercising power to negotiate lower prices through advantages in bulk buying. Such an approach may serve to benefit smaller buyers (by levelling the playing field in competition for purchases) as well as benefit suppliers (as large buyers are effectively prevented from playing off one supplier against another). Indeed, protection of small retail business interests lay behind the Robinson-Patman Act of 1936, which was introduced in the USA under pressure from independent grocers and drug store lobbies amidst concerns over the buying power wielded by large retailers. In effect the Act prevented large retailers from obtaining

(discriminatory) discounts from suppliers, arising from their size and bargaining power, and also prevented them practising discriminatory pricing to consumers. While clearly beneficial to small retailers, producers also stand to benefit as they then face retailers which are unable to command discounts and impose contractual conditions to their exclusive benefit.

- 7.8 However, as Martin (1994) observes, the Robinson-Patman Act is almost universally condemned by economists as protecting inefficient modes of distribution and imposing substantial costs on society. The American Bar Association (1980, pp 27-37) cites five major concerns with the Act - namely: it contributes to price rigidity (particularly across different geographic sub-markets); it contributes to oligopolistic price discipline (by discouraging selective price cuts); it discourages entry by firms established in other markets (by preventing the use of differential 'penetration' pricing in this form of new entry); it induces inefficient product differentiation (by encouraging the production of different varieties to allow for different prices); and, finally, it imposes an undue regulatory burden (as businesses incur expenses in seeking to justify price differences to the government and the high distribution costs that result when business opts for inefficient methods of distribution because of the cost of justifying the offering of different prices to different types of distributors). Specifically, in the context of restricting buyer behaviour, the greatest general concern with the Robinson-Patman Act is that it serves to inhibit the competitive process. It protects inefficient forms of distribution and dampens competition upstream. This is the challenge any policy framework has to meet.
- 7.9 A rule-of-reason approach seems to be fundamentally sounder as a basis on which to develop policy, allowing a competition authority to weigh up efficiency benefits against anti-competitive effects for a particular case, in much the same manner as seller power is treated, for example in the context of mergers or vertical restraints. However, it should also be recognised that the analysis of buyer behaviour is not always directly relevant to seller behaviour, not just in terms of the welfare considerations outlined above, but in business practices which might be misconstrued as being anti-competitive. To take an example, it is clear that selective purchasing is not equivalent in its effects to selective distribution, even though both share the common restraint element of refusal to trade. In the former case, this can be justified through the desire for productive efficiency, such as seeking to minimise transaction costs, obtain cost-related discounts and ensure continuity and quality of supply. In the latter case, one needs to question why a seller should forego sales. It might be to ensure that only those dealers which provide adequate services to enhance sales and maintain the supplier's reputation for product quality are supplied. On the other hand, it could, for example, be used as a means of restricting intrabrand competition to support covert resale price maintenance.
- 7.10 In taking this rule-of-reason line, the problem facing a competition authority in investigating cases of potential abuse of buyer power is to identify the strength of any anti-competitive effects against efficiency benefits that may result from the exercise of

buyer power. In this regard, the economic analysis set out above provides a number of key insights which appear useful in developing a framework in which to consider cases. In a similar vein to the checklist procedure advocated for the analysis of vertical restraints in Dobson and Waterson (1996a), we set out below a suggested approach for consideration of buyer power in the context of both mergers and anti-competitive practices. In particular, the proposed investigation procedure is intended as a checklist providing a first stage filter in the evaluation process to be used in considering whether to proceed to a more detailed examination.

A proposed framework for case analysis of buyer power

- 7.11 Our suggested approach to evaluating whether cases are likely to have some public policy relevance draws upon the above analysis on the social welfare implications of monopsony power and bilateral market power as well as that of strategic buyer behaviour. This approach is framed around five key questions dealing firstly with signs of market power at the buyer level, the supplier level, and the downstream level where the buyers sell on the goods/services, followed by consideration of market behaviour with regard to the nature of trading relationships, and lastly consideration of the underlying economic conditions in production/distribution, specifically the nature of costs in the buying process. The approach is summarised in Table 2.
- 7.12 The first question relates to the existence of buyer power. Unless one or more buyers have the ability materially to influence prices set or negotiated, or quantities exchanged, or impact on the viability of suppliers or competing buyers (so that it may be the case that the buyer acts against the public interest) no further analysis is warranted.³³
- 7.13 Clearly a crucial issue in the assessment of question one will be the definition of the market and, specifically, how narrowly or broadly this is defined. As emphasised by NERA (1993), there are two key dimensions which need consideration: the geographic extent of the market and the substitutability between products offering similar services. Here there might be considerable differences between the selling side and the buying side of the market, giving rise to the need to consider each separately. To give an example, consider the market for retail grocers. On the selling side, competition may be localised with consumers facing a limited number of stores (within an easy travelling distance) in a given geographic area, as well as segmented by retail service (eg: superstore as opposed to small convenience store) but with a wide product choice with many near substitutes for a particular food brand or item. In contrast, on the buying side, except perhaps for locally grown fresh produce, the market for purchasing grocery items will be national or international, but because of the specific nature of supply for particular brands/items the product dimension might be defined quite narrowly, and moreover individual suppliers may be economically dependent on particular distributors (especially when long supply contracts are a market feature).

Table 2 - Key Issues for Consideration in a Buyer Power Investigation

<i>Question</i>	<i>Relevant evidence</i>
<p>1: Is there significant buyer power? If not, the considerations of this report are not relevant. (By 'significant power' is meant the ability to have a material effect on prices set or negotiated, on quantities exchanged, or on the viability of traders at one or more stages of the production/distribution cycle).</p>	<p>Significant proportion of the product as a whole purchased by this firm.</p> <p>Significant arrangement of terms of purchase by this firm (eg: upfront fees for distributing a product, such as slotting allowances).</p>
<p>2: Is the buyer power against relatively powerless suppliers? If so, it is more likely that buyer power has policy implications. (In contrast, if buyer power is linked with significant seller power at the upstream stage then it is more likely that the existence or enhancement of buyer power is beneficial).</p>	<p>Absence of evidence that suppliers dictate terms of sale.</p> <p>Low seller concentration in the upstream market.</p>
<p>3: Does the buyer itself have significant selling power? If so, then buyer power may serve as a means of strategically enhancing seller power in the downstream market raising potentially adverse effects.</p>	<p>Normal means of assessing seller power (in the downstream market)</p>
<p>4: Does the buyer attempt to constrain its suppliers' other actions? If so, such an arrangement should be treated with suspicion.</p>	<p>Evidence of exclusive supply requirements, specific custom designs or arrangements, idiosyncratic specification, etc.</p>
<p>5: Are there significant productive efficiency gains associated with buyer power? If so, then there may be an efficiency justification for the presence of buyer power.</p>	<p>Pecuniary or other economies of scale indicating 'natural' monopsony tendency (ie: average costs lowered by buying being undertaken by a single party).</p>

7.14 Given the presence of significant buyer power, the second and third questions respectively involve determining the extent of seller power at the supplier level (ie: facing the buyers) and the extent of the selling power of the buyers (ie: at the downstream level). In regard to the first aspect, if the buyer power is against relatively powerless suppliers then there are concerns about abuse of monopsony power, which might include a detrimental effect on producer (suppliers') surplus and the long-term viability of suppliers. On the other hand, if buyer power is linked with significant seller power at the upstream level then it is more likely that the existence

or enhancement of buyer power is beneficial, that is buyer power may have a socially beneficial countervailing effect by negating the detrimental effects of upstream seller power. However, the overall effect on welfare in these circumstances will turn on whether or not the buyers themselves have significant selling power.

- 7.15 If it is the case, as discussed in Part 4, that the buyers operate in a competitive output market as sellers, then buyer power is likely to have a benign countervailing impact on upstream selling power. In contrast, if buyer power is linked to (downstream) selling power then there are concerns that while buyer power may allow for a more (allocatively) efficient transfer of goods at the upstream stage there will be a detrimental welfare at the downstream level as the firms exploit their selling power. Judgment on the overall effect rests on which of the two effects is the stronger, ie: the successive power arising from selling power at successive stages or the countervailing power effect arising from the presence of opposing (bilateral) market power. If final prices rise as buyers increase their bargaining power then the presumption is - other things being equal - that the former effect dominates.³⁴
- 7.16 Given the structure of power relations in the market addressed by the first three questions in Table 2, the fourth question is specifically related to consideration of (potential) anti-competitive practices as a result of the buyer attempting to constrain its suppliers' other actions (ie: beyond simple quantity exchange at a fixed or negotiated price per unit). These actions are effectively vertical restraints induced by the buyer. Here the anti-competitive effects, which may serve to raise barriers to entry or mobility or serve to relax competition between existing rivals, need to be weighed against potential efficiency benefits to determine the overall welfare effect - with similar considerations as raised by seller-induced vertical restraints (see Dobson and Waterson (1996a)).
- 7.17 The final question is of particular relevance in assessing the impact of a merger between key buyers or cooperative buyer behaviour (ie: the formation of a buyer group). Specifically, pooling resources to make purchases may yield efficiency benefits from reduced costs and consideration needs to be given to how great such benefits are when set against any anti-competitive effects. For example, there may be circumstances where the most productively efficient (ie: least-cost) market structure on the buying side is a monopsony. To give an example, it makes economic sense for a single company to collect milk from farmers in a given geographic area rather than having competing firms where the pick up frequency is lower and therefore costs are higher, ie: there may be a natural monopsony tendency associated with collection.³⁵ In addition, pooling resources to make purchases such as through the formation of a buyer group may allow for reduced administrative and distribution/warehousing costs. However, for there to be a clear welfare benefit it should be the case that this collective purchaser power does not transfer through to increased selling power downstream, so that the benefits of any reduced costs are passed on to consumers. This may well be the case, for example, regarding international (cross-border) retailer buying alliances in the European Union where these are characterised by one alliance member in each member state (ie: generally not direct competitors in selling output).

Potential applications of the checklist procedure

- 7.18 The intended generic nature of the checklist procedure means that consideration can be given to buyer power at any particular level and for any type of good or services, eg: for raw materials, intermediate goods, final goods, professional services, distribution, etc. Though, most recent attention in regard to buyer power has focused on that in the context of retailing, not least since it is this sector which has seen such rapid consolidation (especially relative to corresponding consolidation at the supplier level) and where evidence has emerged of a shift from supplier domination to buyer domination in the supply chain. It is also the case that in this sector there is wide scope for a variety of buyer-induced practices, which may be potentially anti-competitive, and more general concern that the exercise of buyer power may not only distort competition at the supplier level, but also at the downstream level where retail competition itself may be restricted and distorted.
- 7.19 With these comments in mind this sub-section considers two particular developments in retailing, simply as illustrations of the type of applications to which the checklist procedure may be applied. Specifically, these developments concern two quite disparate retail chain formats, known as ‘one-stop shops’ and ‘category killers’. These have grown considerably in importance in recent years. Both formats rely on buyer power as a key element of building competitive advantage and both appear likely to undermine small specialist retailers and advance retail concentration. These two formats tend to operate in different parts of the market, but can co-exist by focusing on different consumer needs, and both share an emphasis on scale and store size as well as retail branding. The dominance of these formats in certain sectors gives cause for concern that some practices imposed on suppliers may be anti-competitive, and that more generally their increasing market control may be detrimental to societal welfare where retail competition is adversely affected.

One-stop shops

- 7.20 One-stop shops have arisen where dominant retail chains have focused on developing their retail brand and used its reputation to extend product range and move into new product category areas to capture an increasing proportion of consumers’ expenditure and thereby tighten their overall grip on the market. The leading UK grocery retailers, in particular have pursued this approach, having expanded their product offerings from food and general household items (eg: cleaning products and kitchenware) to move into selling items such as health and beauty products, clothes, books, toys, electrical appliances and other household and garden products, as well as offering a number of services (eg: creche facilities, ironing and dry cleaning, and property selling) and other facilities (eg: cafeterias, pharmacies, and petrol stations). They have even managed to use their strong image with consumers to move into offering financial services, such as banking and insurance. These goods and services are all available within the same store, offering the shopper the convenience of the ‘one-stop shop’. The format is also different from the traditional department store which relies heavily on clothing and general household items to attract customers. These new format one-stop shops attract consumers primarily through their need for regular (eg: weekly) shopping for groceries, and then rely on them as ‘captive’ consumers buying other complementary products.

- 7.21 While this approach provides immediate benefits for the shopper, it does of course discourage consumers from undertaking search activity, the more so since customer retention schemes, such as loyalty cards, are often employed (*The Sunday Times*, 9 June 1996). There is general concern that such schemes raise consumers' switching costs and in the process serve to dampen competition between competing one-stop shops, which may ultimately be to the consumers' detriment if higher prices result. However, there is more specific concern in the context of buyer power that the domination of these retailers in the grocery market means that they are in a strong position to place terms and conditions on suppliers which favour them compared to other smaller grocery retailers and then this buyer power may spread to other markets which in turn may distort retail competition as specialist retailers find themselves unable to compete on effective terms, undermining their long-term viability and ultimately reducing consumer choice. This may be particularly so if one-stop-shop chains are in a position to cross-subsidise within their wide product range and act in a predatory way against specialist stores by heavily discounting certain key products.
- 7.22 Clearly, any move towards consolidation through merger of such chains is likely to exacerbate such tendencies to distort competition and should therefore be of concern to competition authorities, for which the above checklist procedure may prove useful. For example, in regard to the questions in Table 2 it can be observed that the merged enterprise is likely to possess significant buyer power (Q.1) and possess significant selling power (Q.3); with both rising upon merger. Whether the suppliers themselves have any power (Q.2) depends on a number of factors, not least the type of product, where the fewer the number of suppliers and the more the products are differentiated and manufacturer brands dominant, the greater is the likelihood that suppliers have selling power. Though, the suppliers' position will be weak when retailers can readily switch between different suppliers with little or no adverse impact on their business, especially when the suppliers themselves are constrained in to whom they can supply (Q.4). Clearly, a merger, which reduces the number of available competing retailers, reduces the number of options for suppliers and thus weakens their bargaining position and perhaps even harms their long-term viability to the public's detriment. However, on the plus side, efficiencies may arise from the merger in terms of buying economies from integrating the buying functions of each retailer, along with other cost savings where unnecessary duplication can be avoided and economies of scale can be exploited (Q.5). But, unless these efficiency benefits are very considerable, it is quite likely that the overall welfare impact of a merger which significantly raises both retail concentration (on the buying and selling side), in an already concentrated market, will be detrimental to the public interest.
- 7.23 In addition to consideration of the welfare implications of mergers between the leading firms, their individual buying practices may also give cause for concern. For example, major retailers controlling a significant proportion of consumer expenditure on retail goods may be in a position to enforce slotting allowances and impose exclusive supply obligations on suppliers. Both practices have potentially anti-competitive effects. In the former case, raised product introduction costs for the supplier may result in higher wholesale prices across the market, feeding through to higher retail prices. Exclusive supply obligations are a way of reducing (or even eliminating) direct head-to-head competition, principally when there is a limited supply base, and may serve to enhance barriers to entry and so restrict opportunities

for new entrants to enter markets and stimulate competition. Here, the checklist procedure may be used as a structured means of assessing the impact of these anti-competitive effects against any off-setting efficiency benefits to determine the likely overall effect.

Category killers

- 7.24 The other retail format which has gained increasing prominence is the retail outlet chain type known as the 'category killer'. This, to quote a recent (and frank) advertisement for a furniture chain, might be defined as follows: 'A category killer has the biggest choice, the most in stock and sells cheaper than anyone else'. Put this way, of course, it appears as a phenomenon entirely in consumers' interests, but the issue must be considered more broadly - such retailers may have the ultimate aim of driving rivals out of the market in order to make gains once the clear-out has occurred.
- 7.25 Category killers exist mainly in areas (toys, books, furniture) where manufacturer concentration is relatively low. Thus there is scope for the exercise of buying power on the part of the chain. There would appear to be clear potential benefits for consumers in this action, not only static (lower prices and broader range), but also dynamic (new approaches to an old business), which may impact positively on the efficiency of existing chains. There are many examples of new retailing formulae in the past which have led to changes in business practices, or the aspirations of competitors, for example, in the United Kingdom, Woolworth and Marks and Spencer which illustrate potential benefits.
- 7.26 First, consider the static argument. A powerful buyer (for ease of analysis, a monopsonist) obtains lower input prices but achieves these by cutting back on demand for the product. Hence there is a loss of producer surplus in the upstream industry though no influence on consumer surplus. By itself, this is not a benefit. However, if the final market is fiercely competitive it may be argued that the producer surplus loss is small since low prices in the final market curtail the extent to which demand for the input can be cut back. A more certain benefit would exist if the supply curve of the upstream producer was not upward sloping, so that retailer bargaining power manifested itself not in restricting purchases but instead in gaining the benefits of scale economies or forcing increased efficiencies at the upstream level. Then, consumer prices might be reduced. Thus on the basis of the static argument, assuming a world where there is significant retailing competition downstream, there is no specific need for concern over the activities of category killers.
- 7.27 But this conclusion does not necessarily follow when dynamic considerations are taken into account. The main purpose of a category killer is presumably to give the customer such a good deal that they cease to patronise alternative outlets. Thus the point about large choice and stocking policy, as well as price, becomes relevant; the idea is to persuade the consumer of the futility of shopping around. Ordinarily, we would expect that carrying wide range and carrying stock in depth would be costly activities, and that customers might (indirectly) be charged for these facilities, as in a department store. Indeed, it could be said that people patronising Sainsbury in the United Kingdom rather than a discounter like Kwik Save are choosing a greater range rather than lower prices. Therefore, the question comes how or whether the implicit

bargain of the claim to be superior in every respect, so that consumers need not visit rivals, can be kept.³⁶

- 7.28 In fact, the general question here is reminiscent of the issue of how to assess whether a firm is predatorily pricing or not and a similar framework might be appropriate. In that case, the firm offers low prices with the aim of driving competitors from the market. It often claims to do this without pricing 'below cost', and so its case is that it offers consumers a good deal which they freely choose, whereas the point competitors make is that it is playing a longer game, losing money in the short run in order to drive them from the market, after which it will raise prices. As is well known theoretically (eg: Milgrom and Roberts (1990)), this argument relies on less than perfect information, so that a reputation is valuable. The challenges of determining whether this is a firm's intention, or whether the complainants are simply not competitive, are well known to competition authorities.
- 7.29 To adapt the arguments to the category killer case requires some modifications. First, it is normally a new entrant, not an incumbent, so it is a question of driving established players from the market. Other things being equal, this is a disadvantage for this firm, since established players have sunk their costs in the industry already and the new player would have to show clear advantages. Secondly, however, if the firm has extensive buying power, it can obtain inputs more cheaply than established players, so its marginal costs can be below theirs. This is an advantage (which it has gained through its own business acumen). If it is to succeed, it must drive other players from the market by offering a better deal for at least a period of time, so that customers cease to patronise them, and their variable costs exceed their revenues, both currently and in expected future terms. Once having done this, the category killer can moderate its offer, charging higher prices, so long as expected returns for subsequent new entrants do not exceed their fixed (and sunk) costs of (re-)entry - see eg: Dixit and Pindyck (1994).
- 7.30 The prospects of successful predatory behaviour are enhanced if other competitors (both actual and potential) face a competitive disadvantage as a result of the category killer's stronger bargaining position with suppliers. The anti-competitive effects of exclusive supply obligations favouring the category killer can be of particular concern in this context, dampening competition and ultimately leading to higher prices. As an example, in the USA, Toys'R'Us, the largest toy retailer and only national full-line toy chain, accounting for around a quarter of the US market, was found to have induced toy makers in the US to cut off supplies to general discounters (notably warehouse clubs), thus keeping prices higher and reducing choice for consumers (FTC, 1997).

8 CONCLUSION

- 8.1 The issue of buyer power in the context of competition policy has traditionally been held to be of less importance relative to concerns about abuse of seller power from a societal welfare perspective. This view is borne out in practice by the general absence of competition authorities' case analysis on abuses of buyer power. Nevertheless, the issue has become more prominent in recent times, not least because buyer power and seller power often appear to go hand-in-hand, such that a dominant market position may serve to provide a firm with buyer power, allowing it to obtain more favourable terms than its competitors which in turn provides it with a competitive advantage in the downstream market and the opportunity to exploit seller power. In this sense, scale, over and above that of rivals, allows the firm to enter a virtuous circle whereby it operates with (unit) costs below those of competitors, allowing it to increase its profits from which it can invest in R&D and product quality/branding, which in turn increases sales, allowing it to obtain even greater discounts from suppliers, further reinforcing its cost advantage over rivals, and so on.
- 8.2 Yet, notwithstanding the point that buyer power may be a key factor in a firm's ability to exploit seller power (eg: by denying rivals access to the same quality supplies or inputs), on its own, buyer power may be socially detrimental where it undermines the long-term viability of suppliers and their willingness to commit to new product and process investments.
- 8.3 Thus buyer power can potentially undermine both upstream competition between suppliers and distort downstream competition when it serves to exaggerate differences in competitive positions. The problem for the policy maker is that there may, in contrast, be significant economic gains associated with buyer power. For instance, buyer power may allow firms to obtain better supply terms and lower input prices which in turn, as long as downstream competition remains sufficiently intense, may mean that these benefits are ultimately passed on to final consumers, through lower prices and/or improved product quality. Thus case analysis requires careful consideration of the economic welfare trade-offs concerned. The proposed checklist framework, set out in Part 7, is intended to provide some guidance on this matter, at least in screening cases before any full-scale investigation.
- 8.4 The exploitation of buyer power may occur anywhere within the supply chain, but recent attention has focused on buyer power at the retail level, where changes in buyer-supplier relationships have been particularly apparent and where the prospect of buyer power and seller power being jointly held has increased in likelihood, given the extent of consolidation which has taken place in the sector. The tight gatekeeper role that the major chain-stores now enjoy, by controlling access to consumers, means that they are increasingly in a position to exercise buyer power - given that, for manufacturers, distribution through these outlets is critical to their business and the problem is one of access to an essential facility (where the manufacturer has no other viable means of setting up distribution which offers the same scale and economic benefits).

- 8.5 In such instances, buyer power can take several forms, not just through improved supply terms but through vertical restraints such as listing fees and exclusive supply obligations which impact upon retail competition (see Dobson and Waterson, 1996b). Indeed one key manifestation of buyer power in this regard, with major impacts on upstream suppliers, has been the development of own-label products, principally in grocery retailing but also applying to other areas of retailing (see Dobson 1998a).
- 8.6 In the context of developments in retailing, it is clear that consumers have generally gained from increased convenience and product choice as a result of the emergence of large store formats. More generally, efficiency has increased due to economies of scale and scope being realised. Nevertheless, as we discuss in the attached Appendix on recent trends in UK retailing, concentration, average gross and net margins have all been increasing over time in the sector, suggesting that retailers are increasingly able to retain the benefits from their increased bargaining power rather than passing them to consumers. This analysis then casts doubt on whether the findings of the investigations into discounts to retailers, made over a decade ago, by the MMC (1981) and OFT (1985), which broadly supported the countervailing power hypothesis, still hold. At that time, the conclusion reached was that buyer power generally operated in consumers' interests, where negotiated discounts where to a large extent passed on to consumers in the form of lower prices. However, the increased profitability which the sector now exhibits suggests that this benign view may no longer be appropriate.

APPENDICES

A RECENT TRENDS IN UK RETAILING

A.1 The structure of the retailing sector in the United Kingdom has been detailed recently by London Economics (1997). Here, we simply summarise some of the recent developments to give a perspective on the extent of consolidation which has taken place in recent years.

Table 3 - Changes in British Retailing, 1980-1994

Year →	1980	1982	1984	1986	1988	1989	1990	1991	1992	1993	1994
Number of businesses (thousands)	256	249	247	244	238	242	242	232	219	203	197
Number of outlets (thousands)	368	357	350	343	338	350	349	342	319	310	294
Number of persons Engaged (millions)	2.41	2.26	2.32	2.33	2.35	2.46	2.47	2.37	2.32	2.37	2.41
Turnover (excl VAT) at 1990 prices (£bn)	102	102	107	115	124	123	121	120	119	122	125
Gross-margin (excl VAT) (%)	26.5	26.6	27.4	28.3	29.4	29.0	29.7	30.9	30.4	30.8	30.7
Net capital expenditure to turnover ratio (%)	2.90	2.98	2.95	3.28	4.41	4.04	3.75	3.63	3.37	3.42	3.12
Market share of the top five retailers (%)	n/a	14.4	15.6	18.1	19.3	19.3	20.3	20.8	22.0	23.3	23.4

Source: Adapted from *Business Monitor* SDO25 and SDA25 (HMSO), various years

A.2 For convenience we have tabled some of the changes which have occurred for the period 1980 to 1994. From Table 3, the significant decline in the numbers of businesses (down 23%) and outlets (down 20%) can be observed, much of this decline occurring during the economic recession of the early 1990s (reflected by the dip in turnover) which followed a period in the late 1980s of considerable expansion of retailing capacity as the major retailers pursued aggressive store opening programmes (reflected by the high net capital expenditure levels). The result, along with greatly increased persons employed per business (up 30%) and per outlet (up 25%) and sales per outlet (up 53%) and per employee (up 23%), has been a considerable increase in the market share of the leading retailers, where, for example, the combined share for

the top five retailers increased by 63% over this period to the point where they control nearly a quarter of all retail goods sales.³⁷

Table 4 - Trends in UK Retailing Acquisitions and Mergers, 1982-1996

Year	UK purchases		Overseas purchases	
	Number	Value ^a (£m)	Number	Value ^a (£m)
1982	19	488.0	2	33.6
1983	48	712.6	0	0.0
1984	45	1,063.2	5	28.7
1985	71	3,859.7	8	395.6
1986	67	2,158.6	10	548.5
1987	123	3,715.6	14	1,251.3
1988	101	2,655.9	9	641.8
1989	81	5,235.0	6	65.0
1990	51	376.4	2	245.4
1991	59	701.7	3	4.7
1992	41	437.3	3	210.3
1993	45	226.1	3	572.3
1994	51	926.6	3	227.4
1995	63	1,204.3	3	114.7
1996	74	1,188.6	7	232.1

Note: ^a Value of transactions where known

Source: *The Retail Rankings* (Corporate Intelligence Group), various years

A.3 While much of the increase in concentration has been driven by the organic growth of the larger retailers as they considerably expanded retail floor space through opening new superstores and/or expanding their smaller stores, this has coincided with a wave of mergers and acquisitions which has also served to raise concentration levels. Table 4 shows how the number and value of acquisitions and mergers involving retailers rose considerably in the late 1980s, and, in line with all mergers and acquisitions activity in the United Kingdom, fell back considerably during in the early 1990s, but has more recently picked up again. Over the period shown in the table there were some 51 recorded transactions valued in excess of £100 million, and the recorded total for the sector over this period was £24,950 million from some 939 UK

purchases. The table also reveals that UK retailers have been quite active in making overseas acquisitions as they seek to expand abroad, with 13 acquisitions having a value in excess of £100 million. Clearly they are keen to expand formulae which prove successful.

- A.4 Returning to the summary evidence presented in Table 3, we see that along with the increase in retail concentration, the gross margin earned by British retailers has also increased over recent years. In 1980, the average gross margin on goods (measured as the difference between the total sales and purchases of goods as a percentage of sales) was 26.5%, but this had risen to 30.7% by 1994 (ie: a rise of some 16% over the period). A number of factors may account for this increase, including the increased span of firms as they move from using wholesalers to buying directly from manufacturers, and the greater level of selling service that retailers provide customers as a result of substantial investment in improving store amenities. However, this increase in gross margins may of course simply reflect the exercise of increased market power, where, for example, costs of purchase may be lowered due to increased bargaining power of retailers over suppliers, but as a result of increased market concentration, retailers face reduced competition allowing them to set high selling prices.
- A.5 Support for the market power view is offered by the rise in net margins, particularly for large retailers, which coincided with the increase in market concentration. For instance, Azoulay (1995) reports that the average net margin for the leading fifty retailers in the United Kingdom rose from 4.61% in 1984 to 5.09% in 1992. The rise is even more striking for the very largest retailers. Table 5 shows the combined market share for the five leading retailers and the average net profit margin (weighted by turnover) for the years covering 1984 to 1994. Over this period, their average net margin increased by 35% while their market share increased by 50%.
- A.6 Table 5 also shows the combined market share and average net margin for the five leading food retailers - which represents the largest sector in terms of share of sales and has witnessed considerable changes in its mode of operation. Evidence drawn from official statistics (*Business Monitor*, SDO25 and SDA25) shows that from 1984 to 1992 the number of food retailing businesses and outlets in Britain respectively declined by 22% and 26%. Over this period, significant investment was undertaken by the large multiple food retailers. The number of food retailers with 100 or more outlets declined from 31 to 16, but by 1992 these 16 businesses accounted for half of net capital expenditure across all retailing sectors. The result has been a substantial rise in the level of concentration in the sector. At the same time, gross margins in food retailing increased by a fifth over this eight year period, while for the very large multiples with 100 or outlets the average gross margin increased by a third. Table 5 shows that for the five largest food retailers net margins also increased sharply rising from around 4% to 6-7%.

Table 5 - Combined Market Share and Average Net Profit Margin for the Five Leading Retailers in Britain, 1984-1994

Year	All retailers		Food retailers	
	Market share of top 5 (%)	Average net profit margin of top 5 (%)	Market share of top 5 (%)	Average net profit margin of top 5 (%)
1984	15.6	5.77	28.2	4.07
1985	n/a	6.23	n/a	4.58
1986	18.1	6.77	34.6	4.22
1987	19.1	7.28	38.8	5.87
1988	19.3	7.77	40.7	6.27
1989	19.3	7.76	41.3	6.49
1990	20.3	8.01	41.5	6.97
1991	20.8	8.01	42.4	7.08
1992	22.0	8.17	43.5	6.94
1993	23.3	7.76	n/a	6.14
1994	23.4	7.79	n/a	6.22

Sources: Adapted from *Business Monitor SDO25 and SDA25* (HMSO) and *The Retail Rankings* (Corporate Intelligence Group), various years

A.7 In international terms, these levels of net margins, and associated profitability levels, are extremely high. For instance, Tordjman (1994) finds that although French and German companies, as a result of even more rapid consolidation, dominate in terms of size and turnover, British retailers are generally the most profitable in Europe, with the top six profit earners in Europe all UK-based firms. Similarly, profit margins are seen to be considerably higher in the United Kingdom than in other European countries.³⁸ For example, in the grocery trade, average net margins among large retailers in the United Kingdom were found to be roughly three times higher than in France, Germany, Italy and Spain (where, particularly in the former two countries, hypermarket discount stores are much more common).

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C ENDNOTES

1. For the purpose of identification, Nichol (1943) uses the terms ‘monemporist’ and ‘oligemporist’, instead of the cumbersome terms ‘monopsonist-monopolist’ and ‘oligopsonist-oligopolist’, to refer to firms which have both buying and selling power.
2. The assumption is that compensation for higher unit costs of production can be obtained for all levels of sales. Specifically, price discrimination is ruled out, for example, because of arbitrage activities.
3. MRP is defined as the revenue obtained from the sale of an additional unit. The MRP curve necessarily lies below the downward-sloping derived demand curve dD because of the additional revenue generated by each marginal unit, over and above average revenue product, when all units are sold at the same price (ie: price discrimination is infeasible, say, due to arbitrage activities).
4. Note that x_{MC} indicates the quantity purchased by a monopsonist which acts competitively in the output market, while x_{CC} refers to the quantity when the firm acts competitively in its input and output market.
5. Equally, one could also readily adapt the dominant cartel model, developed by Saving (1970), to analyse the situation where a colluding group of buyers compete with a competitive fringe of other buyers.
6. The notable exception is where (symmetric) oligopsonists compete on price setting for a homogeneous input. In this case the result is analogous to Bertrand oligopoly such that the firms - even when there are only two - compete to the extent of driving price down to the competitive level.
7. This corresponds directly to the notion of the Lerner index measuring monopoly power as the reciprocal of the (modulus of) elasticity of demand, η , such that the price-cost margin is $(p - MC)/p = 1/\eta$, which obviously increases as demand becomes more inelastic (essentially, the demand curve becomes steeper). In the case of Cournot oligopoly, with constant returns to scale production, then this index is modified such that the weighted average price-cost margin is $(p - \sum_i MC_i s_i)/p = H_Q/\eta$, where s_i represents the share held by firm i (ie: $s_i = q_i/Q$) and H_Q is the Herfindahl concentration measure (ie: the squared sum of market shares), and thus as concentration rises the weighted average price-cost margin rises (Clarke and Davies, 1982). With monopsony we find an equivalent expression, which Blair and Harrison (1993, p 48) refer to as the Buyer Power Index (BPI), which measures the percentage deviation from the competitive result. Here, $BPI = (VMP_x - w)/w = 1/\epsilon$, where ϵ is the elasticity of supply measuring the responsiveness of the quantity supplied to changes in its price. The greater the value of ϵ , the greater is the deviation from the competitive price. In the case of Cournot oligopsony, again with constant returns to scale, then an equivalent expression can be derived from the weighted average VMP to input price margin, such that $(\sum_i VMP_i \delta_i - w)/w = H_X/\epsilon$, where $\delta_i = x_i/X$ is the share of total purchases made by firm i , implying that higher buyer concentration (H_X) is positively related with greater departures from the competitive outcome - see Dobson (1990, pp 50-53). In the case of a dominant buyer framework, Blair and Harrison (1993, p 51) derive the buyer power index $BPI = S/[\epsilon + \eta_f(1-S)]$, where η_f is the elasticity of demand facing the fringe (assumed to be greater than that facing the dominant buyer) and S is the

market share, such that the index is increasing in S and decreasing in ϵ and η_f .

8. As with collusion among sellers, there may be structural conditions which facilitate or, alternatively, impede collusion among buyers. For example, Blair and Harrington (1993) identify four factors which may facilitate collusion: i) *fewness of buyers* - which keeps down the decision-making costs for the group and enhances the ability to police agreements; ii) *product homogeneity* - which simplifies the agreement to control of one price rather than a complex price schedule; iii) *sealed bid auctions* - which prevents cheating on an agreement going undetected; and iv) *inelasticity of supply* - since purchases have to be reduced only by a small amount to achieve a significant price reduction and the rewards from collusion are greater.

9. Here, some qualification needs to be made - particularly regarding joint purchasing behaviour - since there may be obvious transaction cost savings associated with pooling resources to search and then negotiate contracts giving rise to efficiency benefits from coordinated buying behaviour. Moreover, as Matthewson and Winter (1996) show, in the context of a monopolistically competitive selling market, a buyer group can gain by offering exclusivity contracts to a sub-let of potential sellers in exchange for a lower price with the result that welfare *may* increase. Here, the parties to the agreement are better off but those consumers and firms outside the agreement may be worse off. However, total welfare may increase as the buyer group may be a means of (partially) off-setting the tendency for a monopolistically competitive market to yield an inefficient trade-off between product variety or availability and lower prices. Specifically, where a market may yield too many suppliers (from a social-welfare perspective), buyer groups can be a means of reducing the number of viable suppliers. For an alternative analysis and similar application to managed competition in health-care markets, see Che and Gale (1997).

10. With flat supply curves, the buyers have nothing to exploit as price is the same for whatever level of purchases they decide upon. When the supplying industry is characterised by increasing returns it obviously has natural tendencies towards being a monopoly, or at least an oligopoly structure, in which case it is less likely that buyers will be in a position of (unilaterally) setting prices, and it is rather more likely that prices will be determined through negotiation. Consideration of this case, with market power on both sides of the market, is given in Part 4.

11. In another study, Schroeter and Azzam (1991) find evidence of oligopsony exploitation by the packing industry in maintaining prices of hogs below competitive levels in the 1970s, but not since then.

12. The study reports an average elasticity of supply of 0.144 and a range of [0.040, 0.276].

13. A related study by Sullivan (1989) provides corroborative evidence of nursing supply in this market as being represented by an upward-sloping supply function, with insignificant levels of seller power among nurses. This study draws on evidence relating to the mobility in the market, represented by both the length of employment and location of hospital, using data from the American Hospital Association's annual surveys between 1979 and 1985.

14. The more extensive development of a legal position on buyer power in the USA - compared, say, to that in European countries - is probably due to the greater use of private litigation where producers may seek to pursue antitrust legal proceedings against buyers where they feel that prices have been wilfully suppressed below competitive levels affecting their livelihood.

15. *Mandeville Island Farms v American Crystal Sugar Co* (1947), 334 US 835.
16. This principle was reinforced in *National Macaroni Manufacturers Association v Federal Trade Commission*, 345 F.2d 421 (7th Cir 1965), where 84 of 125 US domestic manufacturers of macaroni were concerned about possible increases in wheat prices resulting from crop failures. The buyers made a two-pronged attempt to depress market prices: they exerted pressure on the Secretary for Agriculture to impose a limit on exports of the special wheat used in production; and they created an agreement for the use of a common recipe by members in the buyer cartel (using an inferior substitute wheat). For further details of cases involving collusive buying behaviour and the various forms this can take, see Blair and Harrison (1993).
17. This latter point was made, for example, by the US Supreme Court in its ruling on *Northwest Wholesale Stationers Inc v Pacific Stationery and Printing Co*, 472 US 84 (1985). Here, Northwest Wholesalers was a purchasing cooperative comprised of about 100 office-supply retailers and was seen as allowing its members to enjoy the economies of large-scale purchases.
18. For a discussion of the manner in which the theory of bilateral monopoly has evolved, see Blair *et al* (1989) and Friedman (1987).
19. Here, we are assuming that, in its output market, the monopsonist prices at a level equal to average cost ($p = AC_D$), implying that it earns zero profits from the selling side of its operation.
20. With a process that involves a very rapid exchange of offers and counter-offers (and so eliminates any first mover advantage), the outcome from the Rubinstein bargaining framework approximates that of Nash's (1950) axiomatic solution (eg: Binmore *et al*, 1986). For example, if we assume that both parties have the same discount factor, δ , and receive nothing while they are in a state of disagreement, then the negotiated price, w^* , will be at the level which maximises the product of the buyer's profit (π_B) and the seller's profit (π_S), ie: $w^* = \arg \max (\pi_B(w))(\pi_S(w))$.
21. Whether x_S is less than or greater than x_B clearly depends on the slopes and positions of the two sets of curves.
22. For example, consider the following quotation from Galbraith (1952, p 118):
- To begin with a broad and somewhat dogmatically stated position, private economic power is held in check by the countervailing power of those who are subject to it. The first begets the second. The long-term trend towards concentration of industrial enterprise in the hands of a relatively few firms has brought into existence not only strong sellers as economists have supposed, but also strong buyers, a fact they have failed to see. The two develop together, not in precise step, but in such a manner that there can be no doubt that the one is in response to the other.
23. Many of the instances of bilateral power involve situations where substantial transaction specific investments are required and these serve to maintain high concentration levels. For example, Kerkvliet (1991), Atkinson and Kerkvliet (1989) and Hubbard and Weiner (1991) consider contracting between fuel suppliers and public utilities, where investments incurred are necessarily sunk in nature, thus introducing the possibility of market opportunism when there is a significant change in the environment (eg: through unforeseen supply shocks). In these situations, long-term contracting may be one means by which firms can overcome opportunistic bargaining behaviour and enhance productive efficiency.

24. For example, in the context of labour markets, trade unions may develop seller power in response to the monopsony power of employers but they themselves do not have buyer power (except possibly in purchasing products like insurance on behalf of their members).

25. For the implications regarding US antitrust policy, see the contrasting views of Blair and Harrison (1992) and Jacobson and Dorman (1991; 1992), where the former broadly adopts the coalescing power view while the latter advances arguments emphasising beneficial countervailing power effects. Countervailing power arguments have also appeared in EC cases, for example with regard to merger control regulation, where merging firms may sought to argue that the merger may offer beneficial effects as a means of countervailing the power of buyers, or at least will have little impact due to the sophistication of buyers - see Nordemann (1995).

26. In the model, the supplier individually negotiates intermediate prices with each retailer, and then the retailers individually set retail prices. The game-theoretic analysis is similar to that of other monopoly-oligopoly bargaining models, notably Horn and Wolinsky (1988) and Dobson (1994), but with application to retail markets and allowing for specific consideration of the effect on retail prices of gradually increased retail concentration, captured by considering the effect of incrementally reducing the number of retailers.

27. A related model, which arrives at broadly similar conclusions, is provided by von Ungern-Sternberg (1996). In contrast, Snyder (1996) offers a quite different theoretical perspective based on auction theory. In addition, other work has focused simply on the bargaining power effects of countervailing power. For example, Chipty (1995) provides an interesting empirical investigation of cable television service providers' increased buyer power - resulting from mergers - in negotiating with television programme providers. In addition to such industry-specific studies, the effects of buyer power on industry performance have been extensively addressed in terms of cross-section inter-industry analysis, primarily concerning the profitability of manufacturing industries. Lustgarten (1975), for example, finds that a number of measures proxying buyer power have a detrimental effect on seller industry profitability. The three key variables used are: i) *the buyer concentration ratio* - as the weighted average of seller concentration ratios of the leading industries from which an industry buys; ii) *weighted annual average purchases per firm* - to capture the impact of large buyers having strong bargaining power; and iii) *a measure reflecting the dispersion of sales across industries* - in view of the fact that, other things being equal, the less dependent an industry is on a particular group of buyers, the stronger is its bargaining position. Further studies have sought to refine these proxies and test alternative hypotheses - see Bradburd (1982), Guth *et al* (1977), Martin (1983, 1986), McGucken and Chen (1976), Newmark (1989), and Waterson (1980). Conner *et al* (1996) focus more directly on the countervailing hypothesis in context of grocery markets. They are uncompromising in the general tenor of their argument: 'Nothing in our empirical work can be construed as support for the idea that retailer competition kept US food manufacturing from becoming more concentrated in the 1980s' (1996, p 490). Moreover, in studies which have obtained results consistent with the buyer power having some countervailing effect, eg: Schumacher(1991), a common problem which arises is that the buyer concentration measures are, of necessity, rather indirect. In addition to an apparent absence of buyer power checking supplier concentration, it appears that - for the USA at least - retailer bargaining power is still weak relative to that of the selling power of (leading) consumer goods manufacturers (eg: see Farris and Ailawadi, 1992) although, as increasing retailer concentration outstrips increasing manufacturer concentration, this situation may change over time. And the position may not hold true for other countries - for example, anecdotal evidence for the United Kingdom suggests that retailers hold considerable bargaining power over suppliers across a range of sectors (see Dobson

and Waterson (1996b).

28. Apart from retailing consumer goods, another area which has received attention concerning whether socially beneficial countervailing power is exercised relates to the relationship in the USA between hospitals (which have local monopoly power) and private insurers which were (presumably) created with the intention of providing monopsony power on behalf of private patients. However, the high concentration of insurers in itself creates substantial seller power against private patients. The question of whether this ultimately results in lower or higher prices for consumers has been addressed in a series of empirical papers by Staten et al (1987; 1988) and Pauly (1987; 1988), finding that some benefits may accrue to consumers.

29. Shaffer's analysis shows that slotting allowances not only offer retailers a direct up-front payment but also provide an indirect strategic benefit by committing retailers to taking a wholesale price above a manufacturer's production marginal cost which induces them to raise their retail prices. Of course, retailers may argue that in charging a fee for shelf space they are simply seeking to ration scarce shelf space among many competing goods in which producers are confident enough to offer 'insurance' against poor performance in the form of the lump-sum payment. Shaffer's point is that this practice can represent a market coordinating device when contracts are relatively transparent, serving to dampen competition at the retail level.

30. A further possibility, adapting the logic of Rasmussen *et al* (1991), is that suppliers may be caught in a prisoners' dilemma situation where they agree to exclusivity contracts with an incumbent monopsony buyer for fear of not having any other distribution outlet when there are significant entry costs in distribution. In these circumstances, a potential entrant would require a critical mass of suppliers to make entry viable. However, if each individual supplier believes that the entrant would not be able to trade with a sufficient number of suppliers, due to the other suppliers signing up to exclusivity contracts with the incumbent buyer, then it may be individually rational for it also to sign up to the incumbent. For further analysis see Segal and Whinston (1996).

31. This look-alike issue is currently a highly contentious area, especially in relation to own-label food items. The High Court ruling of 18 March 1997 in favour of United Biscuits, the makers of 'Penguin' chocolate biscuits, against Asda, selling very similar looking own-label chocolate biscuits called 'Puffin', is likely to prove critical in the UK context, and may lead to retailers withdrawing own-label products which may be construed as passing-off leading brands - see Dobson (1998a, 1998b). The situation in the USA is similarly contentious - for a detailed consideration of recent US cases, see Coleman (1997).

32. For consideration of the possible efficiency benefits in such a case, see Walters (1986).

33. For a critique of the manner in which competition authorities in Europe have traditionally assessed the existence of buying power, especially in regard to that of retailers, see Vogel (1997).

34. Of course, the more straightforward case, in welfare terms, is where the buyers face relatively powerless suppliers, but themselves have selling power (ie: the buyers have both monopsony and monopoly power). In these circumstances, social welfare at both the upstream and downstream level can be detrimentally affected.

35. However, this point assumes that collection and purchasing are combined practices. Of course, it could be feasible to have competing purchasers and then have a common agent to

collect the goods, so yielding the same economic benefits.

36. In a related vein, Steiner (1997) gives detailed consideration to how price-cutting retailers affect market outcomes, and in particular the effects of vertical restraints to curb a discounter's behaviour.

37. Taking an even longer time horizon, in 1961 the top five firms controlled only 8.9% of total retail goods sales. Moreover, at the disaggregated level, there has been a steady increase in most areas, and whereas the five-firm concentration level did not exceed 50% for any of the detailed commodity groups in 1982, by 1992, nine of the 48 categorised product groupings reported by *Business Monitor* had concentration levels exceeding 50%. Moreover, this increase in retailing concentration is in marked contrast to the experience of manufacturing, where, concentration over the 1980s remained relatively stable, and in many cases declined marginally - see Clarke (1993).

38. Further evidence, reported in *The Economist* (4 March 1995), showed that eight of Europe's most profitable retailers in 1992 were British. The same report also showed that French retailers generally operated with considerably lower gross and net margins while having the highest sales per employee.