Competition Issues Associated with B2B E-Commerce

A Report on Behalf of the Australian Competition and Consumer Commission

Joshua Gans and Stephen King

The analysis here represents the views of CoRE Research Pty Ltd (ACN 096 869 760) and should not be construed as those of the ACCC.

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Executive Summary

This report considers the potential competitive consequences associated with B2B e-commerce. Our focus is on B2B exchanges as these create special issues above normal competitive analysis.

The first task is to consider the potential for B2B exchanges to facilitate the exercise or the creation of market power. Our analysis illustrates that, while many potential concerns that have been expressed are unfounded, there is a possibility of abuse. Hence, we establish eight rules that could guide competitive analysis of a given B2B exchange. They are:

1. A B2B exchange is most likely to create competitive concerns in a wholesale market where one side of the wholesale market is relatively fragmented and the other side is relatively concentrated, and where market pricing is relatively unsophisticated. However, in these circumstances an electronic exchange may also create substantial savings in transactions costs.

2. A B2B exchange can create competitive concerns when it involves significant co-ordination in trading activities by one side of the market. Where a B2B exchange has this property and raises anti-competitive concerns, the operators of the exchange should be encouraged to seek authorisation. When considering an authorisation application the ACCC should take account of any public benefits created by reductions in transactions costs due to the operation of the exchange.

3. A B2B that allows a number of firms on one side of the market to co-ordinate transactions is only a concern if the relevant firms represent a significant part of the market and, as such, significantly limit the options and alternatives for firms on the other side of the market. The threshold test for a 'substantial lessening of competition' in a B2B exchange should be the same as for other market mechanisms.

4. A B2B exchange is more likely to raise competitive concerns if it both allows firms on one side of the market to co-ordinate transactions and prevents these firms from operating either within the exchange but in a non-coordinated fashion or outside the exchange.

5. If a B2B exchange has rules that lead to significant uniformity of transactions then, in the absence of a reasonable pro-competitive justification, these rules would create a concern for tacit collusion.

6. If a B2B exchange allows significant information exchange among participants on the same side of the market, as opposed to participants on opposite sides of the market, then this raises a concern for tacit collusion.

7. Access or entry rules relating to the viability or performance of a buyer or a seller are a legitimate part of a B2B exchange. These rules are less likely to create a competitive concern if they are symmetric for incumbent and new firms, are clearly written and presented, can be verified by an outside party and do not depend on the judgement of current members of the exchange.

8. All else being equal, a B2B exchange whose ownership is dominated by some (but not all) participants on one side of the market is more likely to raise competitive concerns than a B2B owned by an independent third party.

We should emphasise that these rules are intended to provide a focus for competitive analysis and not a prescription as to the competitive or anti-competitive nature of B2Bs in general.

The report then considers markets for B2Bs themselves. While the potential for network effects may provide a means by which incumbent market power can be enhanced or preserved, these issues are not special to B2Bs and given the potential benefits associated with them, cannot really form the basis of pre-emptive regulatory action. However, this does suggest that on-going monitoring of B2B development is warranted.

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1 Background

In July 2001, the Australian Competition and Consumer Commission (ACCC) asked CoRE Research Pty Ltd to consider the competitive concerns that have been raised in relation to B2B e-commerce. Specifically, CoRE was asked to consider arguments that B2B ventures could give rise to tacit collusion and in other ways enhance incumbent market power.

While much B2B e-commerce replicates B2C e-commerce in providing an alternative distribution channel for buyers and sellers, the main competition concern focuses on the development of B2B electronic exchanges designed to facilitate multi-lateral transactions within an industry. It is these exchanges and joint ventures that are the focus of this report.

B2B exchanges (hereafter termed 'B2Bs') raise potential competition issues because they often involve competitors in one market contracting, investing and trading with one another. That is, firms that compete in one or more retail markets might be cooperating with each other on some wholesale-market functions. For this reason, competition authorities take a sceptical view of B2B e-commerce arrangements; concerned that they might result in collusion or other means of restricting competition by raising barriers to entry.

The problem, of course, is that B2B commerce is a fact of economic life. At its simplest, business-to-business commerce simply represents a standard step in a vertical production chain. All vertical production chains require some business-to-business transactions. These transactions may be 'independent' in the sense that individual suppliers may contract independently with each downstream firm or they may involve a degree of co-operation between some otherwise competitive firms, for example through a purchasing joint venture. In this sense, B2B exchanges merely represent an electronic version of traditional trading institutions. Further, the addition of the 'e' is expected to improve the efficiency of existing arrangements. Electronic means of trading and interacting can improve opportunities for trade and, as such, generate improvements in productive efficiency in the economy. For this reason, competition authorities have to be cautious in their reaction to B2B e-commerce ventures so as to not stifle what are essentially new innovations across a range of industries.

The tension between preserving competition and allowing for firms to come to efficient arrangements is not new to trade practices matters. The issue arises in every merger proposal as well as in existing joint venture arrangements. It also arises with respect to vertical relationships and access/interconnection agreements – something competition authorities seek to encourage rather than discourage.

Our report is not intended to analyse standard competition issues that arise with mergers and joint ventures. Economic analysis and review of B2B exchanges prompts many of the same issues that arise in the analysis for mergers, price coordination and the creation and authorisation of joint ventures. We should be clear not to confuse as existing lack of competition with the competitive effects of a new B2B exchange. If there is lack of competition in a wholesale market because only one or two firms control an essential input for downstream production, then the creation of an electronic exchange is unlikely to exacerbate this; competitive analysis of the industry does not turn on the existence or non-existence of a B2B exchange.[1] This report focuses on those areas in which the particular nature of B2Bs generates what might be considered as a special competition concern.

The FTC issued a report on those special concerns in October 2000.[2] Their report found it useful to divide competition concerns regarding B2B arrangements on the basis of two functional markets: (1) markets that particular firms participating in a B2B arrangement operate in; and (2) markets for B2B marketplaces and intermediation functions themselves. In our opinion, this functional division is useful and it sets the structure of the report that follows.

1.1 What is a B2B Exchange?

Before proceeding to consider the specific competition concerns that relate to B2Bs, it is useful to define what a B2B exchange is. Sculley and Woods state that "the unique feature of a B2B exchange is that it brings many buyers and sellers together in one central virtual market space and enables them to buy and sell from each other at a dynamic

[1] In fact, the creation of a B2B exchange may increase competition if it lowers transactions costs and makes new wholesale entry viable.

[2] FTC, *Competition Policy in a World of B2B Marketplaces*, Washington DC, 2000.

price that is determined in accordance with the rules of the exchange."[3]

This statement provides the key distinguishing features of a B2B. First, a B2B exchange is distinguished from other B2B e-commerce intermediaries in that it involves more than one player on both sides of the wholesale market. An intermediary that, for example, conducted procurement activities for a single company would not be considered a B2B exchange. The automotive B2B exchange *Covisint*, established by five major car manufacturers for the purchase of automotive parts from multiple suppliers, is a good example of a true B2B exchange.[4]

Second, a B2B exchange is more than just a general electronic advertising site or directory. There are a large number of internet-based business directories. In general, these directories focus on wholesale suppliers and often do little more than create an electronic advertisement. These directories clearly facilitate trade but do not act as a trading exchange themselves.[5]

Third, a B2B exchange moderates interaction between buyers and sellers through a set of rules for the exchange. These rules might relate to registration as a buyer or a seller, or the way that buyers and sellers are able to interact through the exchange. For example, a firm using the *Covisint* exchange to conduct a buyer auction has certain powers under the rules of the exchange. The buyer seeks initial 'expressions of interest' from sellers and sellers must provide certain information in order to submit an expression of interest. The buyer

[3] Arthur B. Sculley and William A. Woods, "B2B Exchanges: The Killer Application in the Business-to-Business Internet Revolution," *Harper Business*, New York, 2001, at p.8.

[4] Sculley and Woods, *op. cit.*, p.9.

[5] There is clearly a 'grey area' between an internet-based directory and a B2B that provides a brokerage function by aggregating buyers and sellers. For example, ECeurope.com is a large B2B marketplace focusing on small and medium size firms in Europe. The site tends to be dominated by suppliers and the operators of the web site do not take any responsibility for the veracity of any offers made on their site. The site is non-specialised in that they will accept postings related to any industry, and any firm can register and post an offer with the provision of minimal information and no monetary cost. Postings are generally 'generic' rather than transaction specific. In other words, they relate to general products available rather than a particular item or set of items either required by a buyer or available from a seller. Any party accessing the web site makes direct contact with the other party and any interaction is not facilitated by the web site. In this sense, the web site is more like an electronic catalogue than an organised exchange. Such a 'portal' might be viewed as a B2B that provides a brokerage function, although alternatively it could be classified as simply a non-specific electronic sales directory.

has the right to limit the field of interested sellers when commencing the on-line 'auction' process and has some ability to 'design' the auction (e.g., whether single or multiple bids are allowed). At the same time, the auction process moderated by the exchange must satisfy certain design rules (e.g. initially specified time limit on auction).

1.2 Types of B2B Exchanges

Within the definition of B2B exchanges there are number of different types of exchange functionalities. Lucking-Reiley and Spulber identify three types of B2B exchanges:

1. *Brokers* aggregate buyer and sellers in a single place and single format;

2. *Auctions* set-up a mechanism for price negotiations between buyers and sellers;

3. *Exchanges* provide trading rules (including standardisation of products), price transparency and centralised clearing. [6]

A B2B intermediary could potentially offer more than one of these features, and operate across a range of industries and/or products and services, in what has been described as a 'trading hub'.[7]

Kaplan and Sawhney define the landscape for B2B marketplaces along two key characteristics: product use (manufacturing or operational input) and procurement method (systematic or spot procurement).[8] Manufacturing inputs are those that are used directly in the production of a good. Operating inputs are not part of finished products and tend not to be industry specific. Manufacturing inputs tend to be sold in vertical markets whereas exchanges for operating inputs operate across industries. Systematic sourcing involves negotiated contracts and close, long-term relationships between buyer

[6] David Lucking-Reiley and Daniel F. Spulber, "Business-to-Business Electronic Commerce," *Journal of Economic Perspectives*, Volume 15, Number 1, 2001, pp. 55-68, at p. 59. The authors identify dealers as another type of B2B intermediary, but this type of intermediary could not be considered a marketplace as such. Sculley and Woods, *op. cit.*, adopt a broadly similar classification system.

[7] Sculley and Woods, *op. cit*, p.39.

[8] Steve Kaplan and Mohanbir Sawhney, "E-Hubs: The New B2B Marketplaces," *Harvard Business Review*, May-June 2000.at p.98.

and seller. Spot sourcing involves a one-off purchase - 'the buyer's goal is to fulfil an immediate need at the lowest possible cost' - and is thus the appropriate procurement method for commodities.[9] Online intermediation of the systematic sourcing of products or services is purely a broking function, with the added value being aggregation only. The intermediation of spot sourcing, however, can occur through full-blown exchanges that not only aggregate buyers and suppliers but also improve efficiency by matching buyers and sellers and smoothing fluctuations in supply and demand.[10] Because liquidity is crucial to this second matching function, exchanges are subject to greater network effects than pure brokers.[11]

Kaplan and Sawhney distinguish between biased and neutral B2B hubs.[12] Neutral hubs are owned and operated by independent third parties and are 'the true market makers because they are equally attractive to both buyers and sellers'. Biased hubs are operated by players on one side of the market and generate additional value for these players by aggregating demand or supply.[13] Unlike with neutral exchanges, biased hubs provide value so long as one side of the market is fragmented, and are thus likely to be more prevalent.[14] It is worth distinguishing between biased exchanges and industry sponsored, although neutral, exchanges. In the set-up phase, both biased and industry-sponsored hubs have a competitive advantage in being able to generate scale more rapidly by guaranteeing the participation of one side of the market.[15] Lucking-Reiley and Spulber note that "the technology of Internet marketplaces is relatively easy to produce ... the most important asset of an intermediary is the business of its key buyers and sellers."[16]

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[9] *Ibid.*

[10] Kaplan and Sawhney, *op. cit.*, at p.102.

[11] *ibid.*

[12] *ibid.*

[13] *ibid.*, p.102.

[14] *ibid.*, p.103.

[15] However, industry-sponsored exchanges will only be at an advantage over neutral exchanges, where these are sponsored by players controlling the majority of the relevant market, see Frontier Economics, "Umpiring e-games: The competition policy implications of business-to-business e-markets," *Frontier Economics Competition Bulletin*, June 2000

[16] Lucking-Reiley and Spulber, *op. cit.*, at p.62.

Biased exchanges offer additional value to the fragmented side of the market. As such, we would expect to see firms in more fragmented markets establishing such ventures. Lucking-Reiley and Spulber however note that competitors on the more concentrated side of the market have established most industry-sponsored exchanges. Presumably this is because co-ordination to establish an industry-sponsored exchange is easier with few players.

1.3 The Jury is Still Out

The development and usefulness of B2B exchanges is still a matter of considerable uncertainty. While between 1997 and 2000, forecasts predicted the eventual dominance of electronic means of trading among firms over traditional forms of interaction, most exchanges have failed to generate the desired liquidity. Indeed, some analysts now predict that private, closed exchanges may be utilised by firms for their own procurement purposes and there may be a shift away from inter-firm ventures.[17] In this sense, the jury is still out as to whether B2Bs will develop in a serious way.

[17] Paul Milgrom, "Economics and E-Procurement: Net Markets and Private Exchanges," presentation to the Monash Conference on E-Commerce, July 2001.

2 Market Power and B2B Exchanges

As demonstrated above, B2B e-commerce ventures take a variety of forms. Of particular interest are differences in the type of ownership structure (proprietary or collective) and by the nature of access rules (open or closed). They also may have associated a series of conduct rules that may constrain the behaviour of B2B participants. Any analysis of the competitive implications of a B2B arrangement will depend on the different rules of ownership, access and conduct that operate in the exchange.

In this section, we concentrate on the impact of a B2B on the markets in which B2B players participate. There are two relevant markets for analysis. First, there is the wholesale market. The B2B represents part of this market and is a way of structuring and co-ordinating arrangements in that market. Second, there is the retail market. The buyers who interact in the wholesale market through a B2B will often compete against one another in a relevant retail market and the B2B might affect the nature of this competition.

A B2B may impact on competition in wholesale or retail markets in two ways:

1. *Exercise of market power*: does the B2B provide a way of facilitating the effective exercise of existing or potential market power among firms in a market?

2. *Creation of market power*: does the B2B provide a way of creating or enhancing market power by raising entry barriers in the market?

Our analysis here considers each of these issues in turn.

2.1 Exercise of Market Power

Market power is exercised when a firm or group of firms undertake actions designed to restrict trade in order to improve the flow of industry returns to themselves. This is perhaps most familiar for the case of a supplier who can, by restricting output, increase price. However, it may also apply for a buyer who, by restricting demand, lowers the price they have to pay for something. In either case, the

exercise of market power is considered to be socially undesirable because trade is restricted and there is a lower level of total gains from trade than would arise if the firm either did not have market power or found it difficult to exercise market power. The exercise of either buyer or seller market power depends on the ability of the relevant firm or group of firms to be able to move the terms of trade in their favour.

Here we outline the basic theoretical analysis of the conditions that facilitate the exercise of market power. We then turn to apply this to the special case of B2Bs.

2.1.1 Monopsony Power

Monopsony power arises when a buyer (or group of buyers) can, by threatening to withdraw or reduce demand, lower the price it pays for goods and services. The naïve 'textbook' model of monopsony power involves a single firm setting a price for a product below the price that would prevail in a competitive market. By reducing the price and limiting its purchases, the firm exercising monopsony power trades off the benefit that it can achieve from purchasing one more unit with the cost of bidding up the price on all units purchased.

Under the standard textbook model of both monopoly and monopsony there is a loss of allocative efficiency to both the buyer(s) and the seller(s) due to a restriction of trade. This 'deadweight loss' reflects a social cost – both the party with market power and the other market participants could *all* be better off if trading arrangements were altered so that this loss were able to be seized and shared among market participants. In this sense, the deadweight loss depends on the inability of market participants to write complex pricing contracts. If a firm with market power was able to set any pricing scheme that it desired, such as a two-part tariff, a rising or a falling block tariff, or some other non-linear pricing scheme, then the exercise of market power would only lead to a limited deadweight loss or no dead weight loss. The firm exercising the market power would maximise its profits by designing a pricing scheme that both maximised the social gains from trade and allowed it to seize most of these gains from trade.

If a firm or group of firms can exercise market power with significant flexibility over pricing schemes, then the exercise of market power might have distributive implications. The firm(s) with market power will seize most of the social gain created by the relevant transactions. However, these distributional issues are not usually the basis of competitive concerns. In such a situation, market power can simply be thought of as bargaining power – it can alter the way in which the

gains are divided between market participants but it will not tend to reduce the size of these gains. From an economic perspective, competitive concerns are relevant if they lead to a diminution of the social gains from trade, not simply a redistribution of gains from trade.

From this discussion, a pre-requisite for concern about any exercise of market power is the pricing tools available to market participants. Economics has traditionally focused on the exercise of market power in large retail markets. In such markets, where there are many dispersed individual buyers, sellers often only have crude pricing tools, such as uniform retail pricing, available to them. Similarly, the main application of monopsony theory in economics has been to labour markets. Many labour markets involve dispersed individual sellers and have relatively simple linear wages. Thus, the exercise of market power in large retail markets and labour markets is likely to involve efficiency concerns.

In contrast, in wholesale markets where interaction involves relatively small numbers of sophisticated participants on both sides of the market, competitive concerns are muted. From an economic perspective, any exercise of market of power in such markets is likely to involve redistribution (i.e. the exercise of bargaining power) rather than the creation of a deadweight loss.

2.1.2 Collusion

In some cases, a firm or a small group of firms may naturally possess market power and be able to exercise that power. However, in many industries, firms are able to exercise market power only by coordinating their trading activities with other firms. An explicit cartel, of course, is a good example, as is the merger of competing firms within an industry. In terms of buyer market or monopsony power, the ability to conduct group purchases may be a way of exercising market power.

The exercise of either buyer or seller market power depends on the ability of the relevant firm or group of firms to be able to move the terms of trade in their favour. There are two prerequisites for the exercise of market power by a group of firms:

1. The firms on the other side of the relevant transactions must have few if any alternatives to dealing with the members of the group; and

2. The group members must be tied into the group in the sense that they have either a highly limited or no practical ability to trade outside the group.

To see the first of these prerequisites, consider a simple example. Suppose that a naked cartel was formed by a group of domestic coal purchasers. This group attempts to lower the price that they pay for coal in the country by making take-it-or-leave-it offers to Australian coal producers. These offers are well below the prevailing prices for coal domestically. The attempt to exercise market power by the group of coal buyers is likely to have little if any effect on the market if coal producers have the alternative of exporting all of their product onto a competitive world market. This outside option means that the cartel of coal buyers cannot push the price of domestic coal below the export-equivalent price. More generally, a firm or group of firms on one side of a market will have little effective market power if the other side of the market can readily deal with other parties that are not part of the group.

Similarly, a group of firms can only exercise market power if they are able to co-ordinate their actions and prevent any group members from dealing outside the group. For example, suppose that all potential buyers in a market establish a single buying group and attempt to exploit market power by lowering the price that they pay for purchases. The group can threaten to withdraw their demand from any supplier who does not provide a lower price. But, this group threat will not be effective if, when the group withdraws demand, group members individually purchase from suppliers anyway.

A naked cartel is an attempt to form a group of firms that satisfy these two prerequisites for the exercise of market power. However, these prerequisites may also be satisfied without a naked exercise of market power. If there are a relatively small number of participants on one side of a market, and these participants have on-going and frequent interaction with the market, then under certain conditions, 'tacit collusion' may arise. In this situation, all the participants on one side of the market tend to limit their competitive conduct. For example, a group of sellers might limit the degree to which they offer lower prices to steal business from their rivals. The participants limit competitive reactions because they realise their strategic interdependence with other market participants and they believe that any individual pro-competitive action will give rise to a competitive response by other firms that will overall lead to lower profits. For example, a seller might be reluctant to under-price a rival and steal a traditional customer of that rival. The source of this reluctance might be the belief that such aggressive price-cutting will lead to a strong competitive response by the rival. When all firms have similar beliefs then competition in the market can be muted with each firm simply

serving their traditional customers and little attempt by rival firms to outbid each other in terms of price or product quality.

Tacit collusion depends on a number of features that are not present in many markets.

First, tacit collusion relies on their being a relatively small well-defined group of participants on one side of a market. As the number of firms increases on one side of a market, the potential for tacit collusion decreases. Further, there must be relatively high entry barriers in the market so that any supra-normal economic profits do not lead to rapid entry by new competitors.

Second, the firms must interact relatively frequently in the market. If firms only interact occasionally, for example tendering for very large contracts once every two or three years, then tacit collusion is unlikely. Each firm will find it profitable to bid aggressively for the current large project with any threat of a competitive response only being relevant in the distant future.

Third, tacit collusion is easier to maintain if firms can easily detect changes in the pricing strategies of their rivals. A threat of competitive retaliation for aggressive price discounting by a seller is only credible if other firms can quickly observe and respond to such discounting. In this sense, the availability to market participants of information concerning their rivals' activities is a key element of tacit collusion.

Fourth, tacit collusion is more likely where there is a relatively well-defined product. This again relates to the information requirements for tacit collusion. If rivals products differ significantly then it will be more difficult for any firm to detect competitive behaviour by its rivals. For example, if each buyer in a group of buyers tend to have made-to-order products then tacit collusion by this group is unlikely. Even if firms have access to the prices paid by the other buyers, these prices will be hard to interpret if they involve a high degree of variance that relates to the idiosyncratic requirements of each buyer. Buyers will be unable to determine if a rival is bidding up the price because there is no generic product price in the market.

Fifth, tacit collusion is more likely where in the absence of such collusion competition among existing firms would be severe. Tacit collusion is in part driven by each firm's fear about the consequences of opportunistic behaviour. If opportunistic behaviour, such as aggressively stealing another firm's customers, leads to a severe price war and very low profits in the future, then a firm is less likely to be tempted to act competitively today. This result is sometimes referred

to as the '1984 principle' – when it comes to tacit collusion, competition (or the fear of competition) aids collusion.

Finally, tacit collusion is more likely if firms share a long-term outlook on their own profitability. Tacit collusion involves firms limiting their own ability to act competitively and raise their own profit today because of concern regarding competitive consequences and profitability in the future. Thus, tacit collusion can only succeed when firms are sufficiently long-sighted so that the fears of future reductions in profits more than outweigh any short-term gain.

2.2 B2Bs and the Exercise of Market Power

Both explicit price co-ordination and tacit collusion are not limited to markets involving B2B commerce. The critical issue when examining any anti-competitive consequences of a B2B exchange is whether the establishment and nature of that venture is likely to make the exercise of market power easier. In other words, can a B2B exchange allow firms to exploit incipient market power that otherwise would not have been exploited by the firms in the absence of the B2B exchange?

Even if a B2B allows firms to exercise otherwise incipient market power, this does not mean that the B2B exchange is necessarily socially undesirable. The B2B exchange may produce benefits, such as savings in transactions costs that more than offset any anti-competitive influence. In the remainder of this subsection we consider the potential for a B2B to enable firms to exploit otherwise incipient market power. We first concentrate on the wholesale market. This market involves the B2B transactions between participants as well as any wholesale level transactions that occur outside the B2B exchange.

Our analysis is broken into two parts. First, we consider whether the B2B can be used explicitly by a group of market participants to exercise market power even though these participants would have a more limited ability to exercise this power in the absence of the B2B exchange.

We then consider whether the B2B exchange will help facilitate tacit collusion in the wholesale market. For convenience, we concentrate on a group of buyers in a B2B exchange and their ability to exert monopsony power. However, our arguments readily extend to the case of a group of sellers attempting to use a B2B exchange to exercise monopoly power. We then consider the effects on the retail market. In particular, if members of a B2B exchange participate in a

single retail market, can the wholesale level interaction through the exchange help to facilitate the use of market power in the retail market.

2.2.1 Can B2B ventures allow the exercise of monopsony power in a wholesale market?

As stated earlier, competitive concerns associated with monopsony power are most likely to arise where:

1. One-side of the market is relatively fragmented and the other relatively concentrated; and

2. The product is relatively uniform and involves little buyer-seller specific negotiation.

If pricing tools are limited and if the B2B exchange allows the non-fragmented side of the market to exercise its market power then this may lead to inefficiency.

As noted earlier, however, it is exactly these circumstances – where one side of the market is relatively fragmented – that are conducive to value creation through a B2B exchange. Electronic commerce that enables, say, a relatively small group of buyers to contact a fragmented group of suppliers can lead to reductions in transactions costs. Thus, the situation where a B2B exchange is most likely to lead to concerns about efficiency losses through the use of market power is also the situation where a B2B exchange is most likely to create value by reducing the costs of transacting. This leads to our first competition rule for B2B exchanges.

Rule 1. A B2B exchange is most likely to create competitive concerns in a wholesale market where one side of the wholesale market is relatively fragmented and the other side is relatively concentrated, and where market pricing is relatively unsophisticated. However, in these circumstances an electronic exchange may also create substantial savings in transactions costs.

For convenience, we will assume that the buying-side of the market is relatively concentrated and focus on monopsony power by these buyers. The focus in this section is on the pure exercise of market power rather than tacit collusion. A B2B exchange will only allow the exercise of incipient market power *that could not otherwise be exercised by the relevant firms* if it creates a mechanism by which firms on one-side

of the market can 'group together' or otherwise co-ordinate their transactions and such a mechanism would not otherwise be available.

For example, suppose that the rules of a B2B allow buyers to agglomerate their purchases and hence, engage in group, rather than individual, procurement tendering. This may raise anti-competitive concerns especially if sellers are fragmented. However, if the gains from buyer co-ordination under the B2B are large, it is necessary to ask why such co-ordination was not occurring in the absence of the B2B exchange. In other words, when analysing the use of market power under a B2B, it is not sufficient simply to note the existence of that market power but also to explain why the B2B allows for the exploitation of this power while other trading arrangements would not allow for the exploitation of this power.

If the B2B exchange allows firms to co-ordinate transactions in a way that would be possible but illegal outside the B2B, say due to a breach of s.45 of the *Trade Practices Act 1974*, then the B2B operators should seek authorisation from the ACCC under the Act. The standard approach to authorisations would need to be pursued in such a situation – does the B2B exchange lead to public benefits that more than outweigh the anti-competitive concerns? The authorisation approach allows the Commission to explicitly consider the transaction cost benefits that might be created by the exchange.

Rule 2. A B2B exchange can create competitive concerns when it involves significant co-ordination in trading activities by one side of the market. Where a B2B exchange has this property and raises anti-competitive concerns, the operators of the exchange should be encouraged to seek authorisation. When considering an authorisation application the ACCC should take account of any public benefits created by reductions in transactions costs due to the operation of the exchange.

What aspects of an exchange are most likely to lead to the anticompetitive concerns highlighted in rule 2?

First, if a B2B exchange allows for co-ordination between some buyers, then this only raises anti-competitive concerns if these buyers, as a group, have a substantial degree of market power. In other words, buyer co-ordination is only a concern if the sellers cannot 'go elsewhere'. This is a standard issue in any market power analysis.

It could be argued that the 'threshold' for market power analysis under a B2B should be lower than for standard market power analysis. Such an argument would rely on the efficiency of B2B in limiting the outside options of the sellers. In other words, if the B2B significantly reduces transactions costs then even if sellers could trade with other buyers outside the B2B, such transactions will have limited value, as they are not as efficient as the B2B transactions.

However, this argument is invalid and confuses the efficiency benefits created by the B2B with the ability to exercise market power under the B2B. If a B2B significantly reduces transactions costs but only involves buyers that, in total, do not have a significant degree of market power, then we would expect to see other competing exchanges being formed. Further, if these alternative exchanges do not have the same anti-competitive tendencies then sellers would favour them. The alternative exchanges would gain liquidity as other buyers joined and it is likely that the anti-competitive exchange would wither. In brief, a B2B exchange that (a) creates significant cost savings; (b) systematically favours one side of the wholesale market; but (c) does not 'lock in' a substantial number of the participants on the favoured side of the market, is likely to lack liquidity and will be vulnerable to entry by an alternative unbiased B2B exchange. In this sense, there does not seem to be a case for a 'lower threshold' market power test for a B2B exchange.

Rule 3. A B2B that allows a number of firms on one side of the market to co-ordinate transactions is only a concern if the relevant firms represent a significant part of the market and, as such, significantly limit the options and alternatives for firms on the other side of the market. The threshold test for a 'substantial lessening of competition' in a B2B exchange should be the same as for other market mechanisms.

Even if a B2B exchange involves most or all participants on one side of the wholesale market, and allows these participants to aggregate transactions, competitive concerns will be reduced if these participants are also able to transact outside the exchange. For example, if a B2B exchange facilitates group purchasing, but members can also readily transact either outside the exchange or within the exchange but outside the group purchasing arrangements, then competitive concerns will be reduced.[18] In such circumstances,

[18] Issues of tacit collusion are obviously relevant here. These will be discussed below.

sellers who are not happy with the group purchasing arrangements have an option of approaching buyers directly either within or outside the exchange. In contrast, if a B2B exchange has a rule that requires all buyers to make purchases through the exchange and limits the ability of purchasers to act independently within the exchange, this is more likely to raise competitive concerns.

Rule 4. A B2B exchange is more likely to raise competitive concerns if it both allows firms on one side of the market to co-ordinate transactions and prevents these firms from operating either within the exchange but in a non-coordinated fashion or outside the exchange.

In part, rule 4 addresses what are more generally called 'collateral restrictive agreements.' In joint ventures, these are agreements that are part of the joint venture, but tend to reduce competition with little or no relationship to the benefits created by the joint venture.[19] For a B2B, an agreement that members of the B2B will not transact outside the B2B can often be viewed as a collateral restrictive agreement. It is likely that such an agreement will provide limited efficiency gains to the B2B exchange but could create significant anti-competitive concerns. Competition authorities need to be alert to the potential for firms in a B2B to use such agreements in an anti-competitive way.

2.2.2 Can B2B exchanges facilitate tacit collusion in a wholesale market?

The preconditions for tacit collusion to exist in a market were outlined above. In summary, tacit collusion is most likely when (1) one side of the market has a relatively high level of concentration; (2) entry barriers allow incumbents to seize abnormal economic profits over a long timeframe; (3) firms interact frequently and trade a well-defined, relatively homogeneous product; (4) firms have significant information about each other's activities and can detect changes in strategy relatively quickly; (5) in the absence of tacit collusion firms would interact in strong competition ; and (6) firms share a long-term outlook on their own profitability.

In this subsection, we consider whether the structure of a B2B exchange can act to encourage tacit collusion between parties on one side of a wholesale market. Again, the relevant benchmark is not

[19] See Stephen P. King (1998) "Short of a merger: the competitive effects of horizontal joint ventures," *Competition and Consumer Law Journal*, 6, 227-245.

whether there is or is not anti-competitive behaviour, but rather whether a B2B exchange has the potential to worsen any potential for anti-competitive behaviour.

A B2B exchange could increase the potential for tacit collusion by affecting one or more of the preconditions for the existence of tacit collusion (outlined earlier). It is unlikely that a B2B venture would directly reduce the number of firms in an industry.[20] In this sense, if tacit collusion were to be facilitated by the B2B, the industry would have to be relatively concentrated in the first place. Similarly, for tacit collusion to be effective it is necessary to have barriers to entry in the industry and these are most likely separate from the B2B exchange. Thus, a B2B exchange could only help facilitate collusion in an industry where there are already competitive problems, in the sense of a lack of actual or potential competition.

To the extent that a B2B exchange increases the volume of transactions it may raise the number of interactions between market participants. If it facilitated change in the nature of transactions (for example, from long-term contract arrangements to spot transactions) then this might increase the frequency of firm interactions. However, to the extent that a B2B changed the nature of trading this is also likely to produce efficiency benefits. For example, if firms tend to engage in more spot transactions on a B2B exchange than under other transaction arrangements, this is most likely to reflect lower transactions costs. In such circumstances it would appear to be undesirable to restrict such changes, as the cost reduction is likely to outweigh any increased potential for tacit collusion.

It is not clear that B2B marketplaces will make goods more homogenous. Quality issues, reputation and other non-price characteristics remain important and this is one reason why the design and establishment of B2B ventures – in particular, exchanges – has been very difficult.[21] Multi-dimensional requirements increase the information needed to sustain tacit collusion and make it far harder for sellers to engage in tacit collusion. This is one reason why the design and establishment of B2B ventures – in particular, exchanges – has been very difficult. If B2B transactions tend to involve products that are highly differentiated then price or non-price tacit collusion, is likely to be very difficult to achieve. If B2B transactions involve multi-dimensional product characteristics then firms will find it very difficult to tacitly collude on price. However, to the extent that

[20] This said, we consider issues of access to a B2B and barriers to entry below.

[21] Paul Milgrom, "An Economist's Vision of the B2B Marketplace," *White Paper*, perfect.com, August 2000.

products traded through B2B exchanges become more standardised along certain characteristics, the B2B may enhance the probability of price coordination as compared with existing arrangements.

As an example, B2B exchanges like *Covisint* allow for auctions involving a variety of product dimensions. The buyer chooses the product that best suits their requirements from the bids. But multi-dimensional requirements increase the information needed to sustain tacit collusion and make it far harder for sellers to engage in tacit collusion.

Rule 5. If a B2B exchange has rules that lead to significant uniformity of transactions then, in the absence of a reasonable pro-competitive justification, these rules would create a concern for tacit collusion.

A B2B is, however, capable of generating pricing information in a more transparent manner than traditional forms of exchange.[22] Indeed, it is this greater transparency that is argued to be of appeal to participants in utilising the exchange as it allows them an easier means of comparing the offers made by participants on the other side of the market. In this sense, a B2B exchange has the potential to aid tacit collusion by enabling a freer flow of information between participants including participants on one side of the market.

Similarly, it could be argued that, in the absence of tacit collusion, trade through a B2B is likely to involve a greater intensity of competition between market participants; indeed, the increased scope for competition is one of the emphasised potential advantages of B2Bs. To the extent that transparent pricing allows for tougher price competition in the absence of some tacitly collusive equilibrium, then a B2B arrangement may assist in sustaining tacit collusion.

Finally, it is not obvious that the existence or absence of a B2B exchange will have any effect on the long-term or short-term focus of firms.

From the preceding discussion, we see that the only significant concern relates to the information generated by the exchange. If the exchange generates information that, while allowing parties on the other side of the wholesale market to compare offers, allows

[22] See, for example, David C. Giardina, "The antitrust implications of the 'B2B' Revolution," *Corporate Counsel*, Volume 7, Issue 7, 2000, p.A6; and Frontier Economics, "E-Commerce and its Implications for Competition Policy," *Discussion Paper* 1, Office of Fair Trading, August 2000.

competitors to compare offers then this there may be some cause for concern.

This said, only significant sharing between market participants of information of the correct type will aid tacit collusion. In particular, to sustain tacit collusion, firms need information about their competitors' strategies or need to be able to infer this information from other market variables like sales. If a B2B does not provide this information then it cannot aid tacit collusion. For example, in a buyer auction on *Covisint*, sellers know their own bid and the current high bid, but do not know the bids of all other participants. This is relatively coarse information. In contrast, if each seller knew the bids of all other sellers, and knew the winning bid and the identity of the winning seller, then this information would be more likely to aid tacit collusion.

Rule 6. If a B2B exchange allows significant information exchange among participants on the same side of the market, as opposed to participants on opposite sides of the market, then this raises a concern for tacit collusion.

The ability of a B2B to aid tacit collusion is limited by the *quality* of information that may be shared by competitors and information-sharing arrangements are only as good as the information going through exchanges. Hence, a firm that wants to keep a price change secret could still do so – so long as outside-exchange sales were possible. Unless *all* of the sales of firms in a market are required to go through the B2B exchange, then firms will still have an option of trading outside of the exchange. So long as firms can transact outside the exchange, the exchange's information is limited precisely to the incentives of participants to actually reveal price information. A firm that wanted to break a collusive outcome can go outside the exchange and not have their behaviour detected – or at least not have it detected any earlier than it would have in the past. So an exchange is unlikely to actually work as a collusive device unless it is 'inclusive'; compelling all trade to go through the exchange. Even in electricity, where this is the case, generators and distributors can implement forward price contracts that impact on their bidding behaviour but are not transparent to rivals.[23] In such circumstances, the ability of the exchange to make prices transparent is limited.

[23] See Joshua S. Gans, Danny Price and Kim Woods, "Contracts and Electricity Pool Prices," *Australian Journal of Management*, 23 (1), June 1998, pp.83-96.

This suggests that rule 4 is important for tacit collusion as well as a more transparent abuse of market power. If a B2B exchange allows firms to make transactions outside the exchange without disclosing these trades then this will significantly reduce the potential for a B2B exchange to create information that can be used to support tacit collusion.

It is important not to overstate the ability for a B2B exchange to lead to potential tacit collusion relative to existing trading arrangements. A B2B has to attract participants on both sides of the wholesale market. If, for example, sellers believed that the B2B exchange would result in them receiving lower prices for their products, then they would be reluctant to participate in the exchange. While all buyers would prefer to make transactions through the exchange, in the absence of seller support, these transactions would not be possible. Only if the transaction cost savings were so great that sellers would be better off despite any potential for tacit collusion, would the B2B exchange attract sellers and reach a critical mass for success. In this sense, relatively young B2B exchanges are unlikely to raise competitive concerns – if they did then one side of the market would simply refuse to participate. The only exception would be if all firms on the concentrated side of the market had agreed to participate and exchange rules required that all their transactions occurred through the exchange. The second requirement reflects the competitive concerns stated in rule 4.

2.2.3 Can a B2B exchange reduce retail market competition?

The analysis above concentrated on the effect of a B2B exchange on competition in the relevant wholesale market. However, buyers in a B2B exchange often competitively interact in a downstream retail market. Can the rules established by the B2B exchange lead to competitive concerns in this downstream market?

Competitive concerns can arise in two ways. First, interaction in the B2B may assist firms to tacitly collude in the retail market. Again, the ability of a B2B to aid tacit collusion will depend critically on the information created by the exchange and the distribution of this information.

For example, suppose that a number of downstream competitors all buy a critical input through a B2B exchange. Further, the exchange rules limit the ability of participants to transact outside the exchange and enable each buyer to determine the quantity of input purchased by the other buyers. In this situation, any firm that is planning aggressive retail activity will be forced to signal this intention in

advance through the B2B exchange. To prepare for aggressive retail activity, the firm will need to increase its purchases of the critical input and build up inventory. But the rules of the B2B mean that the firm's retail level competitors are informed of any increased wholesale purchases. There is likely to be little point in embarking on aggressive retail competition if this strategy is signalled to retail rivals in advance and these rivals can prepare for the aggressive conduct by building up their own inventories. Thus, the B2B rules can stifle the incentive for retail level competition.

This example highlights the key features needed for a B2B exchange to aid tacit collusion in a retail market – the B2B must create and distribute information and prevent firms from trading outside the B2B exchange. Thus, rules 4, 5 and 6, capture the competitive concerns for tacit collusion at the retail level as well as at the wholesale level.

Secondly, retail-level competitive concerns can arise by the B2B including membership requirements that extend any cooperation from the wholesale market into the retail market. An obvious example of such a requirement would be a condition of membership that limited the ability of members to compete with each other in the retail market, or required cooperation, such as joint marketing, in the retail market. Similarly, rules that tie retail level conduct such as pricing, quality or sales, to B2B membership should be viewed with suspicion. For example, any rule that required B2B members to sustain a certain level of quality in the retail market would create competitive concerns.

While the above examples represent 'blatant' attempts to control retail level interaction through the wholesale B2B, more subtle interactions are possible. For example, if a B2B requires that firms trade a uniform product, this may restrict product variation downstream. Again, B2B rules that limit the ability of an individual buyer to act unilaterally are a source of concern.

2.1.5 Summary

The above discussion indicates that it is theoretically possible that a B2B venture could be established in such a way that would facilitate the exercise of monopsony or monopoly power in industries that are already concentrated and where entrants face substantial barriers to entry. We have identified a number of rules relating to B2Bs that may flag a regulatory concern. Three specific aspects of B2B conduct are particularly relevant for tacit collusion and monopsony power.

1. *Group Purchasing*: will the B2B enable group trading and coordination beyond those currently available in the industry? This concern is reflected in rules 1-4. This said, group-purchasing arrangements are very much an initial trigger for concern but may not actually be anti-competitive or socially undesirable.

2. *Information Sharing*: what flow of information between competing sellers will be possible through the B2B? Are leading bidders identified? Auction mechanisms can be vulnerable to collusion if bids and bidders can be identified by competitors. This is often not necessary with anonymity being preserved and only current prices being made public. This concern is contained in rule 6. Of course, rules that may be vulnerable to such collusion would also make the B2B unattractive to potential buyers. Hence, there would have to be a substantial amount of market trade intended to be passed through the B2B from already concentrated players to give effect to potential concerns about information sharing arrangements.

3. *Inclusion Rules*: to be effective as a means of exercising market power, B2Bs would have to have mechanisms in place that required all trade to occur through the B2B in a transparent manner. If outside trades were possible through existing channels, there was a substantial level of vertical integration or if forward contracts and other financial instruments were available, this would be difficult to achieve. Therefore, a B2B that required inclusion in an industry with existing arrangements that involved multiple sales channels could be a potential trigger point for further investigation. This concerned is considered by rule 4.[24]

Each of these types of conduct rules may form the trigger for competition concerns from a B2B – specifically with respect to the exercise of market power.

[24] However, it should be emphasised that such inclusion rules could be a desirable feature of B2Bs. Early attempts to establish stock markets were hampered by 'free-riding' whereby once potential trades had been identified, participants undertook those trades outside the market so as to avoid transaction fees. It is only be imposing an inclusion clause on stock brokers that a viable stock market could develop. Thus, inclusion rules, while potentially giving rise to the possibility of tacit collusion, could also be necessary for market efficiencies to be realised.

2.2 Creation of Market Power

The discussion above focused on the ability of a B2B exchange to raise competitive concerns as a trading mechanism. In this subsection, we consider whether the efficiency properties of a B2B exchange can be used to artificially create market power.

Market power is created when there is an increase in entry barriers or when a set of circumstances is formed that leads a firm or group of firms to face relatively higher costs than other firms. In some situations, the forces that lead to market power are not strategic. For example, a firm might gain market power by improving product quality or production efficiency through innovation. In other circumstances, incumbent firms may take actions that have a substantive purpose of disadvantaging existing rivals or potential entrants. It is this latter class of circumstances that attracts competition concerns.

B2B arrangements can improve transaction efficiency of trades within a vertical chain of production. In this respect, a B2B exchange will benefit firms that are parties to the exchange and potentially will weaken the competitiveness of firms that do not utilise the B2B. If access to B2B arrangements is asymmetric – by exclusion or other means – then advantages are conferred on some firms at the expense of others. In this respect, there is concern that B2B arrangements that involve asymmetric access arrangements may not facilitate competition as much as would be socially desirable.

From this perspective, B2B arrangements that restrict participation on either the buyer or seller side of a transaction may raise competition concerns, as they would be a means of creating market power. For this reason, a B2B that was nominally open access in nature – allowing any potential sellers or purchasers – would prima facie be insulated from a claim that it raises market power.

However, open access may not be desirable for a B2B and requiring a B2B to have open access may undermine the value of the exchange. In many respects, the effective operation of a B2B limits desirability of open access. Suppliers need to be qualified and the non-price aspects of their bids need to be reliable. For this reason, many B2B's will require access rules that limit participation to qualified sellers and reliable buyers. Indeed, a main function of a B2B may well be to provide a pre-screening process on behalf of all participants. By pre-screening a B2B may play a critical informational role as an

intermediary in the vertical chain of production.[25] In brief, restricted access may legitimately be a feature of many B2Bs.

From a competition perspective, the key task is to separate the legitimate role of a B2B exchange in establishing entry standards and limiting access from any anti-competitive effects. Obviously case-by-case analysis will be required in most cases. However, the access rules of a B2B are less likely to raise competitive concerns if they are clear and require little 'judgement' from firms that are already members of the B2B. Similarly, if access rules are symmetric so that incumbent firms and new entrants face the same access rules, then there is likely to be less competitive concern.[26] This is summarised in the following rule.

> **Rule 7. Access or entry rules relating to the viability or performance of a buyer or a seller are a legitimate part of a B2B exchange. These rules are less likely to create a competitive concern if they are symmetric for incumbent and new firms, are clearly written and presented, can be verified by an outside party and do not depend on the judgement of current members of the exchange.**

Ownership of a B2B exchange can alter the likelihood of anti-competitive conduct. As a general matter, if buyers or sellers own B2B exchanges, there is greater potential for restrictions to be motivated by strategic rather than efficiency concerns. An independent exchange's incentive to restrict access is likely to be lower than the incentive of an incumbent owned exchange.

> **Rule 8. All else being equal, a B2B exchange whose ownership is dominated by some (but not all) participants on one side of the market is more likely to raise competitive concerns than a B2B owned by an independent third party.**

[25] For an analysis of the role of intermediaries in markets see Daniel F. Spulber, *Market Microstructure: Intermediaries and the Theory of the Firm*, Cambridge University Press: Cambridge, 1999.

[26] This said, care must be taken with access rules that are symmetric but biased in favour of incumbents. For example, if three large firms dominate an industry then having an access rule that requires a minimum of 20% market share is likely to effectively exclude all other firms from the B2B.

The potential for a B2B exchange to create market power will depend on the transactions cost savings created by the B2B. Market power and access are only a concern if the B2B exchange is so successful in lowering transactions costs that membership of this exchange becomes a pre-requisite for participation in the relevant wholesale market. In this respect, access issues for a B2B are similar to those that arise for essential facilities. As Robert Litan notes: "where it becomes clear that a particular exchange has become so important to the lifeblood of a particular industry ... then the doctrine of 'essential facilities' comes into play."[27]

Three key points follow from the comparison between access to a B2B and standard essential facility access. First, a B2B exchange can only create significant market power by limiting entry if it is truly essential. In many situations, it might be convenient to be a member of a B2B even though standard modes of transacting are a good alternative to the B2B. In such circumstances, competition authorities need to be wary of firm's claims that access rules are discriminatory. These claims can be motivated by strategic concerns rather than any real anti-competitive conduct by the exchange. Such strategic behaviour has been observed under the Part IIIA access rules.

Second, authorities need to recognise that establishing an exchange is often a costly, high-risk venture. Once an exchange is established and is successful, firms that did not bear the initial establishment risk are likely to seek access to the exchange. It needs to be recognised that the firms who made the initial investment and took the set-up risk should be rewarded for that risk and investment. Thus, competition authorities need to take care not to establish access rules that undermine this legitimate return and lower the incentive to establish B2B exchanges. Again, this is similar to standard infrastructure arrangements, where access rules need to adequately protect firms that undertake large risky investments.

Third, it must be recognised that a B2B exchange does not, in general, prevent non-members from using alternative existing modes of transacting. As a result, even a closed B2B will be capped in its ability to create new market power by the ability of non-members to transact outside the B2B. In this sense, any market power created by the B2B simply reflects the relative efficiency of the B2B. It may be felt that, even though a B2B could be 'more efficient', any anti-competitive effect is moderate compared to the gains to society from encouraging innovations like B2B exchanges. In this sense,

[27] Robert E. Litan (2001), 'Antitrust and the New Economy', *University of Pittsburgh Law Review*, 62, p. 429

establishing a B2B is like research and development activities. The dynamic gains from encouraging these activities need to be weighed against any static gains when attempting to widen access to B2Bs.

3 Markets for B2Bs

In the FTC report, concerns are raised that B2B exchanges can give rise to network effects. While the extent to which this is a concern is an unresolved empirical matter, it seems likely that there is some element upon which network effects will drive B2B exchange development. The key factor here is *liquidity*. Exchanges thrive on trade volume and the ability of that volume to attract buyers and sellers. Each group is attracted when there is likely to be high competition on the other side of the market. And high volume is achieved when there are many buyers and sellers. Hence, the B2B exchanges that survive are likely those that reach a critical mass of volume.

But network effects are a fact of life in exchanges. Their implication is that an exchange, once established, may be able to command market power in its exchange function. But prior to establishment, there is likely to be much competition for the market. And it is at this initial level, that competition authorities might play a role.

The reason for this initial competition role is that, as discussed earlier and implied by rule 8, incumbents in an industry may see B2B exchanges and their control of them as a means of extending and preserving their existing market power. B2B exchanges can allow competition to operate as well as providing transactional efficiencies. Incumbents may be interested in the latter but not the former. Moreover, they might be concerned that an independently owned and operated exchange would be structured in a manner that promoted competition as well as transactional efficiency. Incumbents will then move to impact the institutional terms upon which B2B exchanges are founded and use their existing dominant position to ensure that their own-sponsored or owned exchanges were to achieve the necessary network effects to drive independently owned exchanges out in any eventual shakeout.

The issue here is one of pre-emption. An incumbent may invest heavily in a B2B arrangement with the purpose of preserving existing market power. The same effect can occur in races to patent innovations. An incumbent, by winning a patent race, not only generates an innovation but may keep an entrant from the market. An entrant is only motivated by the profits from the innovation itself and not by preserving market power. This may give incumbents an

additional incentive to pre-empt others in developing the innovation.[28]

A similar concern may arise with respect to B2B exchanges. But the question is what to do about it. At one level, it may extend market power. At another, it achieves efficiencies sooner than would be the case if incumbents were someone precluded from investing in B2B arrangements. Ultimately, an incumbent's ability to profit from the arrangement as an extension of market power will depend upon its ability to set up the type of features discussed earlier. It is also unclear whether even an independent exchange would be free of such incentives.

In the case of innovation, economists have argued that the innovation process should be left alone while the role of competition authorities should be directed towards ensuring that competition in innovation markets is preserved. Similarly, for the case of the establishment of B2B exchanges, the role of competition authorities is to ensure all have an opportunity to develop such exchanges and that incumbents not use their market power to impact upon this process; save for devoting real resources to the establishment of an exchange. The idea is to use competition to facilitate the development of B2B exchanges but not to stifle that development by discouraging potential investors – whether they are incumbents or not.

[28] See Richard J. Gilbert and David Newbery, "Preemptive Patenting and the Persistence of Monopoly," *American Economic Review*, 72 (3), 1982, pp.514-526; Michael Katz and Carl Shapiro, "R&D Rivalry with Licensing and Imitation," *American Economic Review*, 77 (3), pp.402-420; and Joshua S. Gans and Scott Stern, "Incumbency and R&D Incentives: Licensing the Gale of Creative Destruction," *Journal of Economics and Management Strategy*, 9 (4), 2001, pp.485-511.

4 Conclusion

The above analysis suggests that in many respects, competition analysis of B2Bs mirrors that of other industry collaborations. Thus, the focus of competition authorities should be on identifying 'trigger' factors that would guide initial assessments of B2Bs. The goal is not to view B2Bs as a threat but there is reason for some scepticism in overseeing B2B arrangements.

Our eight rules provide mechanisms that can guide this competitive analysis. The rules focus on the potential of B2Bs to facilitate the exercise of market power or to otherwise create it. In each case, they indicate broad triggers for further analysis and do not represent an unambiguous judgment as to the present or absence of anti-competitive consequences. Nonetheless, these could form the basis of guidelines that shape the conduct rules of B2Bs.

Finally, we addressed issues that arise in markets for B2Bs themselves. In this respect, we identified a similarity between those markets and markets for innovations. Given the changing environment this makes the statement of broad reaching guidelines difficult and suggests that on-going monitoring rather than pre-emptive action would be the appropriate role for competition authorities in this regard.