The attached document is an annex to the Summary Record of the meeting held on 24-25 October 2000. It is circulated to Delegates FOR INFORMATION. Delegates are requested to respond with written comments, if any, by 29 December, after which, the proceedings including the document will be published.
1. Electronic commerce ("e-commerce") can be defined as business occurring over networks using non-proprietary protocols established through an open standard setting process. Internet mediated e-commerce is the fastest growing part of the phenomenon and was the focus of the Competition Law and Policy’s roundtable discussion on the topic.

2. Considering the discussion at the roundtable, the delegate submissions, and the background paper, a number of key points emerge.

Infrastructure Issues

• Many of the higher profile competition cases in "e-commerce" to date have focused on protecting competitive access to the Internet. Such access remains vital to ensure that e-commerce delivers its full efficiency enhancing potential.

3. The Internet has sometimes been described as a network of networks connected by the high speed "pipes" of the Internet "backbone" providers. The largest such providers have practised free interconnection among themselves (i.e. "peering") while charging fees to smaller operators. As evidenced in the WorldCom/MCI and WorldCom/MCI/Sprint mergers, some competition authorities have been concerned that differential interconnection arrangements could threaten competition. There also appears to be some risk of "Balkanisation" of the Internet as broadband access grows in importance. This would materialise if the largest backbone providers decide to sacrifice universal access in order to obtain strategic advantage in providing services such as Internet telephony and video conferencing.

4. There have also been competition concerns in relation to vertical integration undertaken by "last mile" connection providers, i.e. cable TV, satellite, and fixed and mobile telephone service providers. When these act as ISPs, offer set-top access to the Internet, or operate their own "portals" (i.e. gateway web sites), they have an incentive to favour themselves over rivals and businesses allied with them. The same concern also arises when last mile providers integrate into content provision, and in that case there may be the added risk of reduced competition in the content market. Competition offices may increasingly be required to make difficult tradeoffs between economies of scope and the benefits of greater competition in Internet access. They may also be called upon to develop expertise in understanding how software or code can be used to discriminate among various competing product suppliers.

Transactions Issues

• There are many different frameworks for e-commerce and each could have different, not yet clearly identified, pro- and anti-competitive impacts.

5. The most basic distinction is between "B2C" (businesses interacting with consumers) and "B2B" (businesses interacting with other businesses). There is also a significant volume of transactions conducted over the Internet among consumers themselves. Within the B2B domain, which is larger and growing considerably faster than B2C, there are also a variety of ways in which prices are set including through catalogues, auctions and methods analogous to those found on stock and commodity exchanges.

• Because of its standardised protocols, the Internet has greatly reduced the cost of exchanging information among computers hence potentially lowered both search and transactions costs. It follows that e-commerce could widen product and geographic markets and render them more transparent and competitive.
6. In e-commerce cases, competition authorities will frequently be faced with the difficult problem of determining whether on-line and traditional commerce are in the same or different product markets. The answer to this question will differ from market to market and will partly depend on whether and how firms in traditional channels became involved in the development of B2Cs and B2Bs (i.e. "e-marketplaces"), and also on the on-line deliverability of a product. Deliverability though will certainly not be determinative, judging from some early cases involving automobile distribution. In those cases, traditional distributors felt threatened enough by B2Cs to take anti-competitive measures against them.

7. Quite apart from anti-competitive restrictions, there are a number of obstacles to the development of e-commerce that tend to separate it from traditional ways of doing business. Prominent among them are lack of familiarity with the medium and of confidence in payment and delivery systems, plus difficulties in identifying participants and in securing proper redress in the event of disputes. Technical solutions may well be found for some of these difficulties and others may become less important as experience with e-commerce grows. It is also well to bear in mind that these obstacles are less of a problem for B2B than for B2C development.

8. E-commerce should tend to widen geographic markets, but the mere fact that the Internet is a global medium does not mean that e-commerce takes place in a global market. Language barriers, taxation quandaries, regulatory barriers, physical delivery problems, absence of secure payment systems, and difficulties identifying actors and enforcing contractual rights all mitigate against there being a truly global market in many products. The regulatory barriers include differences in national laws concerning things like discounts, comparative advertising, resale price maintenance and exclusive territories. All these various obstacles are, once again, less likely to be problematic for B2B than for B2C e-commerce.

9. Although e-commerce is not bound in time and place the way traditional markets are, it is more subtly circumscribed by computer code. For example, there are a wide variety of computerised search engines promising consumers and businesses low cost access to information stored on computers and servers across the globe. But those search engines can be restricted in various ways by code limiting or distorting access to web sites. In e-commerce, anti-competitive restraints can take many subtle, sometimes hidden forms. The simplest example of that is the screen bias featured in the early 1990s airline computer reservation cases.

- **There is considerable evidence of price dispersion across B2Cs for similar goods, but this does not necessarily mean that e-commerce does little or nothing to reduce clearly harmful price discrimination.**

10. Price dispersion across B2Cs casts doubt on the utility of Internet search engines, and on the current ability of entrepreneurs and governments to remove some of the previously mentioned obstacles to the development of e-commerce. It also leads to questions about the effects of e-commerce on widening markets and reducing market power. These questions take on greater significance in the light of e-commerce making it considerably easier to quote different prices to different buyers. It may also increase incentives to do so by facilitating the use of information about consumer buying habits to identify those willing to pay higher prices. Moreover, e-commerce opens up new ways to take advantage of the fact that higher income consumers, i.e. those with a greater ability to pay higher prices, place a higher value on time. There are already examples of the same seller operating two different web sites, with lower prices being quoted on the one that is more time consuming to use.

11. Before one concludes that e-commerce may indeed increase the incidence of price discrimination, it is well to remember that e-commerce should tend to widen markets and render them more transparent; despite its imperfections, the Internet does make additional price information available to consumers. Furthermore, familiarity with and confidence in e-commerce is bound to grow over time and
should be strengthened by technical improvements in assuring secure payment for on-line purchases. Legislative changes might also reduce obstacles to the development of e-commerce by facilitating the exercise of consumer rights to information and redress. All these will tend to reduce market power and with it both price dispersion and price discrimination in B2C markets, and through price benchmarking, in traditional markets as well. This should be especially so regarding price discrimination carried on as part of a strategy of eliminating or disadvantaging commercial rivals.

- **E-commerce has the potential to reduce considerably business procurement costs and to increase market liquidity. It may also provide other important pro-competitive efficiencies.**

12. There is little doubt that e-commerce will lower procurement costs by, *inter alia*, reducing: errors in filling out and transmitting orders; costs of internally aggregating and approving purchase orders; costs of calling for multiple tenders and organising auctions; and the incidence of rogue purchasing (i.e. sourcing from friends rather than suppliers offering lower prices). Another source of gain, closely related but not identical to market widening effects, is the greater liquidity resulting from having a larger number of participants in the market. E-commerce should allow consumers and businesses to transact closer to true market prices and to do so quicker and easier than before.

13. In addition to transaction related savings, further efficiencies may be realised through extending the reach of e-commerce within businesses. For instance, B2Bs can be used to expedite: tracking orders; cutting inventories; lowering the costs of monitoring receivables and accounts payable; making better forecasts; and engaging in speedier, more consumer responsive product design.

14. Many of the efficiencies expected from e-commerce could be particularly beneficial to businesses too small to afford the high fixed costs of creating direct computer links with other businesses. In this way, as well as by eliminating the need for physical outlets, e-commerce could effectively lower the barriers of entry into many markets, hence render them more competitive. Lower transactions and associated co-ordination costs might also permit firms to specialise more in what they do best by outsourcing some of the inputs they now provide internally.

- **While e-commerce may yield significant efficiencies in many markets, it might also produce difficult competition problems such as insufficient competition among e-marketplaces.**

15. The greater liquidity made possible by e-marketplaces could be associated with powerful network effects (i.e. the value of the marketplace grows with the number of participants) in some markets. These effects are probably significantly stronger for B2Bs than for B2Cs because the former inherently entail considerably greater interaction among participants. While network effects can benefit consumers, they can also lead to competition problems if they are sufficiently strong to reduce the field to one or a small number of networks.

16. In theory, network effects do not necessarily mean there will be just one or a small number of e-marketplaces. Instead, the network effects could be reaped through interconnection arrangements. For that to be a viable alternative, however, there would have to be a considerable degree of standardisation in the software employed by the various e-marketplaces. In addition, larger networks might prove reluctant to provide inter-connection to smaller ones even though both might stand to gain roughly the same amount in the short run through those arrangements. This is because in the longer run, larger networks stand to gain more if the smaller networks either fold or are folded into the larger ones.

17. Using powers to prohibit abuse of dominance and/or monopolisation, competition authorities may be able to exert pressure in favour of the interconnection alternative. Whether that would make sense or not will depend on the expected benefits of greater competition among e-marketplaces versus any
efficiency losses occasioned by things like greater co-ordination costs and reduced innovation in software design.

- **E-marketplaces could employ exclusivity inducements having both pro- and anti-competitive effects.**

18. Since an e-marketplace cannot be created without considerable sunk costs (i.e. customised software expense), its owners will probably do what they can to attain a critical mass as quickly as possible. They will also wish to prevent free riding. Exclusivity inducements are a good way to do both.

19. Exclusivity inducements can take the form of both "carrots" and "sticks". Two examples of carrots are loyalty rebates and arranging for at least major participants to hold equity in an e-marketplace (especially B2Bs). The most obvious sticks are contractual obligations to deal exclusively with the e-marketplace or to commit a high minimum volume of business to it. Exclusivity could also be encouraged by raising the costs of switching from one e-marketplace to another. This could be accomplished, for example, by employing proprietary standards, or by reinforcing network effects by encouraging greater interaction or interdependence among participants (e.g. providing "chat rooms" or forecasting services).

20. Competition officials could find it difficult to assess the net competitive effects of exclusivity inducements. About the only general rule applicable across markets is that exclusivity inducements are more harmful the greater the market power enjoyed by the e-marketplace employing them. This also means that exclusivity is more likely to be harmful during the mature as compared with start up phase of an e-marketplace.

- **Another possible competition problem associated with e-commerce could be an enhanced ability to co-ordinate competitive behaviour.**

21. Since e-commerce makes prices more transparent and reduces the costs of changing price lists, prices could tend to rise in markets where sellers are acutely aware of their interdependence (i.e. in oligopolies). This could happen because price decreases will be more quickly known to competitors and possibly more rapidly matched, while price increases can be more easily and quickly rescinded if rivals fail to follow.

22. E-commerce could also facilitate outright collusion by providing new ways to exchange information, some of which might be nearly impossible for competition authorities to trace and use as evidence. The most obvious means is through on-line chat rooms. In addition, there are more sophisticated methods such as those illustrated in the United States Airline Tariff Publishing case where possible price changes were revealed to rivals but not to consumers and the price notices were accompanied with "tags" hinting at the conditions under which the changes might be rescinded. Moreover, e-commerce could make it easier to detect cheating on anti-competitive agreements and to target retaliatory price changes thus lowering the costs of punishing cheaters.

23. While collusion on the part of sellers might be more common, there is also the possibility that buyers will use B2Bs to acquire and exercise monopsony power. Where a market is conducive to the exercise of such power, e-commerce could again facilitate it by making it easier to reach agreement and subsequently to detect and punish cheating.

- **In addition to various "co-ordinated effects", e-marketplaces could be associated with harm to competition when they are used to exclude or discriminate against rivals.**
24. The risk of anti-competitive exclusion or discrimination against some participants in an e-marketplace rises with the degree of market power enjoyed by a site and the degree to which its control is concentrated in the hands of one or a small number of participants. Although anti-competitive exclusion may be easy to detect and eradicate, the same may not apply to a host of more or less hidden ways that computer code can be used to disadvantage one or more participants.

- **Competition authorities should carefully consider the implications of allowing significant participants to own or control B2Bs, especially if that is expected to outlast the establishment phase.**

25. It may be possible to install "fire walls" to eliminate or at least reduce the risk that B2Bs will be used to effect anti-competitive co-ordination and exclusionary/discriminatory behaviour. That remains, however, an incomplete solution since the party installing fire walls can also selectively and perhaps secretly de-activate them. It would be best if that party did not stand to gain directly from such activity and instead had an interest in ensuring that as many buyers and sellers as possible transact over the B2B. Strict transparency and neutrality as regards buyers and sellers and among both groups would seem to be the best recipe for building successful B2Bs, and that presumably would be the sole objective of third party owners. Another advantage of third party ownership is that it does away with a continuing bias on the part of owning participants to deal exclusively with their own exchange. Third party ownership would also deprive owning participants of a good opportunity to share sensitive information on the pretext that this is necessary for the effective management of the exchange.

26. There could be cases where the establishment of a B2B is next to impossible unless major participants take equity stakes. That does not necessarily mean though that the owners should be involved in the day to day management of the exchange, or that they should retain their stakes once the B2B is well established. In addition, if the founding owning participants were aware from the beginning that they would lose their equity holdings within a fairly short period of time, they might be more reluctant to artificially raise switching costs or enhance network effects to favour their newly established B2B.

- **Although e-commerce does not seem to raise any truly new or unique competition issues, it may well have already created a need for greater co-operation among national competition authorities and for new investigatory powers and enforcement skills. Guidelines intended to enhance compliance may also need to be supplemented so that executives are better aware of new competition risks posed by e-commerce and how to avoid those while at the same time engaging in vigorous competition.**

27. Since e-commerce should tend to widen geographic markets, it will also tend to increase the incidence of competition cases crossing national boundaries. That in turn means that national competition authorities will more frequently require each other's help in obtaining information and in co-ordinating the adoption of appropriate remedies. Existing co-operation instruments, such as the Mutual Legal Assistance Treaty between Canada and the United States, might need to be up-dated to remove asymmetric treatment of electronic compared with paper evidence.

28. It was pointed out during the roundtable discussion that computer code can be used to make it difficult, perhaps impossible, to gain lawful access to certain evidence. This may be less of a problem as regards evidence generated and stored in intranets such as B2Bs as contrasted with communication unmediated by such intranets. In any case, even if evidence can be traced, recovered and properly produced in court, competition authorities will have to invest in training staff to master such techniques. They will also have to become more familiar with how software can be used to effectively exclude or discriminate against certain e-commerce participants.