This note is submitted by the United Kingdom Office of Fair Trading to the Committee on Competition Law and Policy FOR DISCUSSION at its forthcoming meeting on 24-25 October 2000.
Aim

1. The aim of this paper is to give a general overview of OFT [Office of Fair Trading] thinking on competition issues arising both on the transaction side of e-commerce, to include both business to business and business to consumer transactions, and in relation to the infrastructure and access devices necessary for e-commerce.

Introduction

2. The commissioning paper suggests a focus for discussion not on all the actual or potential competition problems that may arise from e-commerce, but on the competition issues unique to this form of business. In fact, while OFT recognises that e-commerce may require us to apply the tools of competition law in ways which are appropriate to the particular idiosyncrasies of this dynamic channel to market, the competition problems which arise are familiar ones. They are likely however, to manifest themselves in different ways, which may require us to adapt the current tools of analysis to the new environment.

3. OFT’s main consideration is to ensure consumers have choice and value for money in e-commerce markets. This is mainly achieved through policing anti-competitive behaviour. There is a delicate balance to be maintained between the risk of inappropriate intervention (or intervention with only short term goals in sight) and the abuse of powerful market positions distorting developing markets. While we are ready to intervene where necessary to protect and encourage the development of competition, we are also well aware that pre-emptive and ill-judged intervention in dynamic markets of this type can damage competition in the long run and undermine incentives for innovation and investment.

Background

4. While OFT so far has investigated a limited number of cases related to e-commerce, we have carried out a considerable amount of preparatory work in this area, in an attempt to identify those issues which e-commerce is likely to raise, and to consider, looking forward, whether the tools at our disposal are capable of capturing competition concerns which may arise in these markets. This work is being put into practice now, further to requests for individual guidance on various business to business proposals and in relation to complaints about refusal to supply on-line traders. In addition we are closely following and contributing where appropriate to the European Commission’s work on pan European business to business and business to consumer ventures.

5. The Office has engaged in research and consultation on: barriers to competition in the e-commerce infrastructure; e-commerce and its implications for competition policy (at the retail and business to business end) and we plan a further study to examine how to apply the tools of analysis, such as market definition, to these dynamic areas in the most appropriate and effective way.

Infrastructure

6. Our study1 aimed to identify potential barriers to competition in e-commerce. The terms of reference for the study were focused on ‘process e-commerce’ – that is developments in the infrastructure and access mechanisms necessary for online merchants to deliver e-commerce services to consumers. The aim of the study was to:
• examine the emergence of new access technologies and devices;
• assess how companies are adapting to take full advantage of these new developments and how markets are likely to develop as a result;
• set the context in which regulatory authorities currently assess competition issues in fast-moving markets;
• consider how any issues identified might be addressed if they arise, and whether the regulatory regime is capable of dealing with barriers to competition in this market;

Connectivity and Internet Access

7. The ongoing introduction of new tariff packages suggests the UK ISP market remains competitive. However, the competitiveness of this market depends heavily on the conditions in the “backbone” market, because connectivity is an essential input for offering Internet access services. Concern about the emergence of a big player capable of dominating the provision of transit and forcing prices up, led the EU, in tandem with the US competition authorities, to block the proposed merger between MCI WorldCom and Sprint. On 28 June the EU Commission ruled against the deal, because it "would have led to the creation of such a powerful force that both competitors and customers would have been dependent on the new company to obtain universal Internet connectivity.” This would have allowed the merged company to behave independently of both its competitors and customers “and therefore to dictate conditions and prices in the market to the detriment of consumers around the world and particularly in the 15 European Union states.” A similar decision was taken in the US, proving how national barriers are becoming less relevant and co-operation between antitrust authorities more necessary and effective.

Mobile Access to the Internet

8. A number of mobile portals are being launched in the UK. Some come from independent service providers such as iTouch, a subsidiary of Independent Media and News, but most are owned by operators and retailers. BTCellnet already has Genie in place, Vodafone and Vivendi will present their joint portal Vizzavi in August and Carphone-Warehouse, together with NTT Docomo, has recently started Mviva. The rush to launch services is likely to reflect the importance of first-mover advantage and become the gateway through which potentially millions of British mobile users will access the Internet. This is already causing competition concerns because mobile operators can exploit their position in the market to favour their portals, by offering handsets pre-programmed to use their content. These concerns led OFTEL, the NRA, to compel BTCellnet to reveal the code for changing the default portal on its new WAP phone, after receiving a complaint that it was locking-in its customers by setting the handsets so that users would access the Internet only through its Genie portal.

9. Mobile network operators are extremely interested in the development of m-commerce as this could provide them with alternative revenue sources. Revenues from carrying traffic are expected to decline, as competition keeps pushing prices down, and operators are looking for different ways of boosting their profits. Earning commissions from sales transacted via the Internet or directly by offering a wide range of services that can be accessed anywhere and at any time - charged to the monthly bill, are perceived to be the main opportunities. Moreover network operators can exploit their knowledge of their customer base, and in particular their ability to locate precisely their users, to make personally tailored offers and supply localised services. For example, they can provide users with information on restaurants
or cash points situated in the area that they are in. This capacity for personalisation is likely to raise issues related to the extent to which operators should be allowed to use information on their customers, under data protection laws, and to provide it to other companies. It also raises potential competition issues, since access to such customer databases offers a competitive advantage.

10. While it shows great promise for the future, mobile-Internet is still far from being a success in the UK. Mobile access to Internet has become a reality only very recently through the launch of WAP enabled handsets by BT, Vodafone and Orange and the take-up of around 300,000 has been rather disappointing so far. The slow take-off of m-commerce appears to be the result of a combination of limited availability of services, low awareness among consumers of the services accessible through handsets and the low access speed of current technology. The biggest test for m-commerce will be the launch of new, faster technologies within the next 12-18 months.

Market Structure

11. New technological developments have precipitated a change in the way companies are structured. The drive towards bringing access closer to the customers will encourage operators to expand their networks. Some technologies may become interchangeable, so that companies in previously separate markets will be competing directly against each other. Companies may increasingly provide vertically integrated offerings.

12. Joint ventures, mergers, take-overs and alliances are announced daily. Some are the result of the pressure felt by “old-economy” companies to transform into “new-economy” ones; whereas others are signals of the consolidation which is taking place in the more mature sectors of the market. Examples of this trend towards consolidation are:

- NTL’s take over of Virgin Net’s, Virgin ISP, in July. The deal will see NTL’s customer base grow up to one million, transforming it into the third biggest ISP in the UK;

- Vivendi’s $29.4 billion purchase of Seagram, the Canadian drinks and entertainment group. The deal is aimed at combining Seagram’s entertainment holdings with Vivendi’s Internet and telecommunications network;

- Vodafone’s agreement with Vivendi for the launch of a joint mobile Internet portal.

13. These developments may well be beneficial to the development of competition – convergence may lead to increased competition. Competition between middleware and application developers may spur innovation. Expansion and consolidation may enable companies to compete more vigorously than otherwise possible.

14. However, such concentration is not proceeding unchecked. In July the US Federal Communications Commission pressed AOL and Time Warner to offer a more concrete timetable for opening access to their cable systems as part of the necessary preconditions for the approval of their merger. In Europe the EU Commission blocked the planned acquisition of Sprint by WorldCom, as it determined that the merger would have created a dominant position in the market for Internet back-bone.
Competition Issues

16. Competition issues may continue to arise where there are players with significant market power and the capability to affect the competitive landscape. These might include:

- Vertical integration and bundling of content with services and access;
- Refusal to license Intellectual Property Rights;
- Potential for emergence of new dominant players in electronic markets where barriers to entry are high;
- Leverage of market power position from one market into another.

17. Abuse of market power in this fast-developing market could, if left unchecked, have a wide-ranging impact in a relatively short space of time. Thus where there is a need for action to correct any anti-competitive behaviour the timescale for assessing the case should reflect the pace of the market. Equally, market power in fast-developing markets might be short-lived, so care is needed when considering regulatory action.

Transaction e-commerce

18. We have also undertaken research into the implications of e-commerce for competition at the business to business and business to consumer end and issued a discussion document on the subject in August.

19. Our work so far has shown that the dramatic growth in transactions over the Internet may change the nature of e-commerce in a variety of ways. For example in some cases it may simply represent an additional distribution or marketing channel, while in others it may create new marketplaces, such as online auctions and exchanges. Many characteristics of e-commerce might be expected to have pro-competitive effects. For example, competition between sellers will tend to be more vigorous when search costs, menu costs and transactions costs are low. However, other characteristics may facilitate certain types of anti-competitive behaviour.

20. While we are not persuaded at this stage that e-commerce will give rise to entirely new forms of anti-competitive behaviour, or raise issues that cannot be captured by the existing legislative framework, there may be areas that require close monitoring. In particular e-commerce may have implications for the nature, prevalence and monitoring of a variety of forms of anti-competitive agreements and conduct such as excessive pricing, collusion, price discrimination, and refusal to supply.

21. The very nature of e-commerce may mean that monitoring itself will be inherently difficult and as a result in some cases it may be more difficult to objectively assess alleged breaches. In investigating any such behaviour we should, as always, need to consider the facts of each case on its own merits in relation to the provisions of the legislation and with regard to EC jurisprudence.

Market definition

22. B2B or B2C e-commerce is likely to raise the following market definition issues:
• In some cases e-commerce may create new markets for the purposes of competition policy, but on other occasions it may simply constitute a new sales channel, which competes with traditional sales channels, lying within the same market.

• It is unclear whether product markets will narrow as a result of increased scope for price discrimination, or widen as a result of various changes in search costs, switching costs and economies of scale that are expected under e-commerce.

• It is probable that geographical markets will become wider as a result of the reduced importance of geographical location for transactions between buyers and sellers.

23. The current speed of change in e-commerce markets may have implications for market definition. Such rapid changes may affect the degree to which e-commerce services and traditional services compete, thus affecting the appropriate delineation of the product market, as buyers and sellers alter their behaviour. This may limit the relevance of using past data when analysing current (or future) market definitions. It may also limit the degree to which market participants and competition authorities can rely on precedent when assessing relevant markets. OFT has commissioned further research into the methodological approach to market definition in cases of suspected dominance.

24. Over the longer term, data may be more readily available to competition authorities, given that transactions are carried out electronically. However, because these data may not be preserved as a matter of course consideration may need to be given to prescribing practices for keeping electronic business records for particular types of e-commerce operation (for example, online marketplaces).

25. Within the current regulatory framework, it is not just competition authorities that need to be able to define relevant markets. Interested parties also need to do so in order to assess in advance whether their conduct will contravene competition law. In such a fast moving market, companies may need to adopt compliance procedures as a matter of course before bringing product to market to minimise the risk of infringement and to provide for due diligence.

26. E-commerce could potentially widen geographical markets, as location becomes less of an obstacle to trade between parties. This will raise important jurisdictional issues, and increase the need for co-operation between competition authorities in different countries. For example, given the global nature of e-commerce infrastructure, communications and transactions difficulties may arise from the difference between countries’ privacy legislation and general regulatory regimes. Such local characteristics, in addition to language, currency, delivery and taxation differences may limit the definition of global markets for B2C transactions, while the more sophisticated B2B traders will more easily overcome these market boundaries.

**Price discrimination**

27. E-commerce has a number of characteristics that might be expected to facilitate price discrimination, both in the B2C and the B2B arena. The direct one to one nature of many transactions may enable the seller to more easily price to each individual customer at that customer’s maximum willingness to pay. The growing use of auctions and exchanges within online marketplaces allows the seller to extract the maximum price offered for a good, without setting a firm price. Third-degree price discrimination may be facilitated by the use of ‘cookies’ alongside detailed customer databases, which enable companies to tailor their offerings to different categories of customers. The possibility of price discrimination offered by e-commerce might result in smaller or more segmented relevant markets.
28. Although price discrimination can be efficient and beneficial for welfare, it may also both distort competition and facilitate excessive pricing. On-line companies are more easily able to gather and even share sensitive information about customers and their shopping habits. Nevertheless, this should only concern competition authorities when there is market power. Market solutions, such as the ability for individuals to conduct searches, will constrain this behaviour.

29. There is a strong probability that it will be harder to apply competition law on price discrimination to e-commerce. Market segmentation may make the analysis harder, but the main problem is likely to be effective monitoring and market intelligence, and where it facilitates (e.g.) excessive pricing, allocating costs objectively.

Predation

30. It can be difficult to distinguish predatory behaviour from vigorous competition, and this problem may well be exacerbated in e-commerce markets. The core tests for predation are: prices in relation to costs\(^3\), intention and feasibility; and given that many e-commerce players might price below average total costs (alongside the frequent exit of other players) their behaviour might be inappropriately construed as predatory in some cases.

31. The dangers of inappropriately assessing predation stem from two main problems in e-commerce markets. The first is determining whether short-term losses are consistent with long term profitability within the new business models that e-commerce demands. An inherent characteristic is the need to invest sunk costs (and short term losses to the extent that prices might even fall below average variable costs) in creating an established brand and consumer loyalty in the face of high uncertainty. In terms of assessing the feasibility of alleged predators to alter the market structure, there is considerable doubt about the applicability of traditional NPV analysis.

32. The second problem is establishing what the optimal price structure (and the life cycle) should be for companies in new e-commerce markets. This stems from the problem the industry is usually characterised by high fixed costs (and very likely economies of scale) and low marginal costs. In such markets it is difficult identifying costs in the first place and often more difficult allocating costs across different products and markets in a meaningful way.

Vertical restraints

33. The use of vertical restraints is likely to manifest itself in e-commerce as a result of more integration by suppliers into retailing their own products, the development of new intermediaries, increased buyer power for downstream firms, wider geographic markets, and increased ability for suppliers to monitor directly the behaviour of their retailers. The competition analysis issues raised by vertical restraints within e-commerce are familiar and are likely to take the following form:

- **Implications of ‘first mover’ advantages.** Short-term foreclosure, achieved through exclusive vertical agreements, can potentially have significant long-term effects where ‘first mover’ advantages are important, for example where there is an installed customer base.

- **Evaluation of selective distribution systems.** The most common competition complaint in the e-commerce area currently relates to e-commerce operators being refused supply of products, when they are readily available to distributors in traditional sales channels. Under EC competition law, selective distribution would usually be exempted from Article 81\(^4\) so long
as the criteria adopted for choosing distributors are objective and qualitative, and there is no
restriction placed upon passive sales by distributors within the system to other distributors’
customers. By contrast, restrictions on active sales are considered acceptable.\(^3\)

34. Differences between e-commerce and traditional commerce raise difficulties for applying the
same qualitative criteria to both traditional and e-commerce retailers. In addition, it is far from clear how
one would distinguish an ‘active’ from a ‘passive’ sale in the context of e-commerce. The conditions
employed for assessing selective distribution may therefore require refinement as e-commerce develops as
a sales channel.

**Refusal to Supply Access**

35. Nevertheless, refusal to supply access is likely to have implications for competition in e-
commerce markets.

- **Access to online marketplaces.** Where an online marketplace is owned by a number of the
  major buyers or sellers in a market, there is a risk of third-party buyers or sellers being denied
  access to the market, or alternatively being given access only on such bad terms that they are
  unable to compete effectively.

- **Access to portals.** Links from portals can play an important role in bringing customers to a
given e-commerce site and in encouraging trust in that site. Fair and non-discriminatory
  access to portals may thus play an important role in the success of e-commerce companies in
certain B2C markets.

- **Access to software design.** For example, Amazon.com is currently engaged in a patent
  infringement case with BarnesandNoble.com for its ‘one-click’ software. If successful,
Amazon may be able to preclude its competitors from using this feature, which could in turn
limit their ability to compete.

**Network dominance**

36. Many characteristics of e-commerce will tend to lower barriers to entry into both B2C and B2B
e-commerce, reducing the potential for players to secure and exploit market power. These include, for
example, lower search and selection costs on the buyer side, lower transactions costs, the reduced need for
physical assets for many businesses, and the rapid expansion of the market. There is a balance to be struck
between not inhibiting innovation, and not leaving intervention so late such that markets may be
foreclosed.

37. There are, then, certain characteristics of e-commerce, and associated patterns of behaviour, that
may tend to raise barriers to entry in e-commerce services. The most important of these are the following.

- **Sunk costs of establishing customer loyalty.** In the absence of a local customer base and
physical sales outlets, and in the presence of potentially low buyer switching costs,
reputation, branding and customer loyalty may become increasingly important, especially at
the B2C level where customers are relatively small and unsophisticated. These factors are
known as ‘neural real estate’, as opposed to physical real estate. The sunk costs involved in
developing such neural real estate may create significant first-mover advantages, and act as a
barrier to later entrants.
Online marketplaces are often characterised by ‘network effects’, which occur where a system becomes more useful to its participants, the more participants it has. In such markets, the strong players become stronger and the weak weaker as consumers refine their search for the technology that will ultimately prevail. Such markets are called ‘tippy’, meaning they can tip in favour of one particular firm, with a potential entrant facing large barriers to entry. These barriers will be particularly high in markets where liquidity is important and exacerbated where market participants are tied into the market via proprietary supply chain management systems.

There are a variety of ways in which these first-mover advantages can be reduced.

- **Sunk costs of establishing customer loyalty.** The ability of sellers to provide tailored offerings to long-term customers, based on information they have gained about these customers, could be reduced if customers were able to ‘port’ their own database entries from site to site. At the same time, the importance of brand name for winning customer trust can to some extent be reduced by effective consumer protection legislation, or by other companies playing a quality assurance role.

- **‘Tippy’ markets.** The tippiness of online marketplaces will be strongly affected by the ability of market participants to monitor different marketplaces and to switch easily between them. For example, in the C2C auction environment, biddersedge.com monitors a number of online auction houses on behalf of its users. This reduces the comparative advantage held by the larger auction houses (such as eBay.com) over smaller competitors and may help prevent the market tipping. Such intermediaries could potentially have a similar effect in B2B markets.

In order to carry out such a function, the intermediary will require access to the price information of all auction houses. However, this information is arguably proprietary and, in the US, eBay.com has successfully challenged the rights of biddersedge.com to use its proprietary price information. Such a ruling might be expected to serve to increase tippiness and market power.

Even where first mover advantages persist, they need not imply market power. High barriers to entry for e-commerce operators will not confer market power on incumbents if e-commerce operators compete in a wide product market that includes traditional commerce, and if barriers to entry into the traditional service are low. Likewise, even if the relevant market includes e-commerce operators only, high barriers relating to branding for ‘pure-play’ e-commerce operators (i.e. companies without any traditional market position) need not imply market power, so long as there are sufficient mix-play operators (such as Tesco Online) that are willing to leverage their existing brand name into an e-commerce context.

Increased buyer power (particularly of businesses) will also tend to limit the extent to which high market shares and barriers to entry will confer marker power. E-commerce might be expected to increase buyer power for a number of reasons. First, it facilitates searching by buyers, and thus increases the credibility of threats to switch suppliers. Secondly, it facilitates the creation of buying clubs, often run by an intermediary, whereby purchasers combine their buying needs in order to increase their total buying power with suppliers. Thirdly, buyers may be able to design auctions (and specifically reverse auctions) to their own advantage.

On the other hand, where first-mover advantages do confer market power, they may be of particular concern in rapidly expanding e-commerce markets, since they will tend to result in current market power being maintained and enhanced into the future, rather than being transient as might be expected within such dynamic markets.
company to seek to create a dominant position, nor is the existence of that position an abuse in itself, the use of anti-competitive behaviour by dominant companies to foreclose markets to competition or conduct which has the consequence of stifling innovation, may be (for example in predation cases).

43. The extra difficulty is assessing, in a new and dynamic market, how an agreement is likely to stifle innovation via a dampening of the competitive process. We might know that an on-line exchange agreement produces large cost efficiencies which might give the OFT scope to exempt a given agreement. But such an action carries the possibility of making the market very “tippy” – and might prevent competing exchanges that would have in turn produced even better innovation exceeding the cost efficiencies.

Collusion

44. Internet technology could potentially offer an ideal micro-climate for collusion, due to increased communication and transparency in the market, as well as the potential for more frequent market interactions. In particular, collusion concerns may arise with respect to market design and ownership within both online marketplaces and joint Internet sales ventures.

- **Information sharing.** There are many benefits to interested parties access to some market data. As such, it would inappropriate for a competition authority to prevent information sharing unless it raised a serious risk of collusion. There may be a role here for competition authorities to indicate the degree and types of information that may be shared. For example, the provision of historical sales data can have less impact on the potential for collusion than the sharing of current sales data.

- **Market design.** The way in which online marketplaces are designed, and their ownership structure, can have important implications for the ability of participants to collude. For example, where the operation of the market is taken out of the hands of major suppliers participating in the market, the operators will have an interest in enhancing the attractions of dealing in their market by keeping it free from anti-competitive practices.

- **Forming Horizontal Agreements** It has been speculated that the increased use of electronic communication associated with e-commerce might make it easier to form or operate cartels. It seems unlikely, however, that undertakings wishing to form cartels have been prevented from doing so by the practical difficulties of meeting for a discussion. For some executives travelling the world to participate in cartel meetings is, until the moment of discovery, enjoyable. If the use of devices such as private chat rooms is to lead to more cartels it will probably be because it offers anonymity but this is not what participants in cartels necessarily want: to make participation in a cartel worthwhile an undertaking needs to know which other enterprises are committed. Chat rooms, in which it is common to assume other identities seem an unlikely forum in which to agree on cartels. As a means of arranging a cartel electronic communications also suffer from being easy to intercept and difficult to destroy. Although participants in cartels may well e-mail each other this is not necessarily associated with electronic commerce and seems no more likely to encourage cartels than the invention of the phone.

- **Operating Cartels.** Once a cartel has been formed the mechanisms of electronic commerce, through the introduction of greater anonymity and greater transparency may well make it easier to police the cartel and detect cheating. If this is happening then competition authorities may soon start to find examples of such policing in cartels that come to light through the normal mechanisms of whistleblowers or informed complainants. On the other
hand we may find that technology develops to remove transparency by enabling suppliers to
know their customers and to vary the prices and terms they quote according to what they
know of the customer. This is an area that needs to be kept under review but it is probably
too soon to start drawing firm conclusions.

45. Competition authorities may wish to consider how to employ market-monitoring search engine
software, which might be used to track prices, sales and conversations in chat rooms, with the aim of
detecting evidence of collusive behaviour.
Annex A

Future work

In order to ensure that barriers to e-commerce remain subject to appropriate regulation the OFT proposes the following activities:

- Continued and close liaison and co-operation through OECD and with the European Commission, and regular bilaterals with national competition authorities;

- A study into the nature of new media dynamic markets, including consideration of market definition in fast moving industries;

- Continued and close co-operation with OFTEL (and other regulators with an interest in the converging industries) on matters of mutual concern through the Concurrency Working Party and regulatory working groups such as the Group of Three\(^8\).
NOTES


3. Where prices are below the average variable costs of production, predation should be presumed; but the purpose of the conduct should also be simultaneously considered where prices are above AVC but below average total costs.

4. Under the Block Exemption Regulations, there is a presumption of legality for vertical agreements where the market share of the supplier does not exceed a threshold of 30 percent. Where the agreement contains an exclusive supply obligation, it is the buyer’s market share that is relevant.

5. Active sales occur where a supplier makes an active attempt to sell into the exclusive territory or to an exclusive customer group reserved to the supplier or allocated by the supplier to another buyer. (Commission Regulation (EC) No 2790/1999, Article 4).

6. Proposals such as the Platform for Privacy Preference (http://www.w3.org/P3P) facilitate such portability.

7. Or perhaps, because of liquidity reasons and network effects, one exchange is the optimal solution.

8. OFT, OFTEL and ITC.