Eastman Kodak Company and ColourCare Limited

A report on the proposed merger

COMPETITION COMMISSION

Eastman Kodak Company and ColourCare Limited

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Presented to Parliament by the Secretary of State for Trade and Industry by Command of Her Majesty December 2001

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[1]These members formed the Group which was responsible for this report under the Chairmanship of Professor P A Geroski.

Note by the Department of Trade and Industry

In accordance with section 83(3) and (3A) of the Fair Trading Act 1973, the Secretary of State has excluded from the copies of the report, as laid before Parliament and as published, certain matters, publication of which appears to the Secretary of State to be against the public interest, or which she considers would not be in the public interest to disclose and which, in her opinion, would seriously and prejudicially affect certain interests.

The omissions are indicated by a note in the text or, where space does not permit, by the symbol ✂.

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Part I

Summary and Conclusions

1 Summary

1.1. On 16 August 2001 the Secretary of State for Trade and Industry referred to the Competition Commission (CC) for investigation and report under the merger provisions of the Fair Trading Act 1973 (the Act) the proposed acquisition of certain assets of ColourCare Limited (ColourCare) by Kodak Processing Companies Limited (KPCL). Our terms of reference are at Appendix 1.1. We were required to report by 26 November 2001.

1.2. KPCL is a subsidiary of Kodak Limited (Kodak) and, ultimately, of the US-based Eastman Kodak Company (Eastman). It was formed in 1991 to look after Kodak's photoprocessing interests in the UK. It manages seven laboratories, located throughout Great Britain. Its core activity is the provision of wholesale photoprocessing services to retailers, but it also has a mail-order business, selling direct to the public.

1.3. ColourCare is a UK company which also provides photoprocessing for retailers through wholesale laboratories. It has a network of seven sites in Great Britain and an eighth in Northern Ireland.

1.4. The proposed transaction will involve KPCL acquiring all of ColourCare's wholesale processing operations (mainly its network of laboratories and their associated equipment). ColourCare employees involved in these activities will transfer to KPCL on their current terms and conditions. ColourCare's distribution operation, which collects films from shops and delivers prints, will remain with its current owners, changing its name to PrintMovers. It will provide distribution services to KPCL and to other customers.

1.5. We began our inquiry by analysing the operations of KPCL and ColourCare and concluded that the part of their businesses with the potential to give rise to competition concerns was their core activity: the provision of wholesale photo processing services to retailers in the UK.

1.6. We then proceeded to examine photoprocessing in Great Britain in detail and concluded that the relevant economic market for our inquiry was the provision of overnight, next-day or longer developing and printing services supplied partly by wholesale processors—of which KPCL and ColourCare were by far the largest—and partly by autonomous retailers (ie those with no controlling ownership links with wholesale processors) using mini labs—machines, about the size of a large photocopier, which allow shop staff to process films on the premises. Taken together, KPCL and ColourCare accounted for about half of this market.

1.7. We then went on to consider the potential for public interest concerns that could result from the significant share of this market that KPCL would enjoy should the proposed acquisition go ahead, and identified a number of areas that merited further consideration.

1.8. [

Details omitted. See note on page iv.

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1.9. We concluded that the proposed acquisition may not be expected to operate against the public interest because:

(a) a significant share of the retailer customer base for wholesale photoprocessing is controlled by large national chains with considerable buyer power, and we found no real concerns that anti-competitive practices would be likely to come into existence or be exacerbated by the proposed merger;

(b) there is evidence of price sensitivity by the ultimate customers of the photoprocessing services which KPCL supplies to retailers and a ready availability of alternative and competitively priced retail services from mini labs, mail-order providers and tied stores;

(c) many retailers can easily shift more of their photoprocessing to mini labs or to regional wholesalers, should KPCL seek to exploit the market position which the proposed acquisition would give it;

(d) there is a likelihood of continued competition, at least at local and regional level, with other providers of wholesalers photoprocessing;

(e) there is a lack of any expectation that the quality of service to retailer customers will be reduced, and the likelihood that technological advances will be accelerated, albeit modestly; and

(f) [

Details omitted. See note on page iv.

].

2 Conclusions

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The reference

2.1. On 16 August 2001 the Secretary of State for Trade and Industry referred to the CC for investigation and report under the merger provisions of the Act the proposed acquisition of certain assets of ColourCare by KPCL, a subsidiary of Kodak Limited and, ultimately, of the US-based Eastman.

2.2. Our terms of reference are at Appendix 1.1. We were required to report by 26 November 2001.

The companies involved

KPCL

2.3. KPCL is a subsidiary of Kodak Limited, which, in turn, is the principal UK subsidiary of Eastman, the US parent company, which has its headquarters in Rochester, New York.

2.4. George Eastman entered the photography business in 1878. Three years later, the Eastman Company began to produce dry photographic plates—made by applying a suspension of photosensitive silver halides to glass. Mr Eastman then went on to investigate cheaper and more manageable means of supporting photosensitive emulsions. By the mid-1880s he began to produce paper rolls, which achieved a degree of public acceptance in 1888 when the 'Kodak' camera made its appearance. But it was not until the 1890s, when celluloid-roll film first became commercially available—and with it major advances in the ease with which cameras could be operated and photographs processed—that photography became fully accessible to the general public.

2.5. Eastman was incorporated under the laws of New Jersey in 1892 and, since then, has developed into a worldwide operation responsible for a number of inventions and advances in photography, particularly for the mass market. These include the 'brownie' camera, motion picture film, cameras and projectors, and Kodacolor, which played a central role in creating a popular market for colour photography in the middle of the last century.

2.6. Nowadays, Eastman has four operating divisions, one of which, Consumer Imaging, supplies films, photographic paper and chemicals, processing services and cameras (including single-use cameras). It offers a wide range of digital products and services as well as those based on more traditional optical systems. And Eastman has also devised products that bridge the two technologies, such as scanners and software which digitize and enhance traditionally-produced images, media for storing digital images, and a network for transmitting them.

2.7. Based on the closing share price on the New York Stock Exchange on 14 November 2001, Eastman has a market value of around $7.9 billion.

2.8. Kodak Limited (Kodak), founded in the UK in 1898, was one of Eastman's earliest overseas companies. (As will be clear from the context, we occasionally use 'Kodak' also as a brand name in products such as Kodak film or Kodak photographic paper.) Today Kodak provides a wide range of photographic and other imaging products and services, both for sale in this country and for export. It also plays a role in the development of new products, such as photoprocessing systems, graphics and chemicals. Kodak's UK sales and marketing head-quarters are in Hemel Hempstead and it has three production sites: in Harrow, Kirkby (near Liverpool) and Annesley, in Nottinghamshire. Kodak and its subsidiaries achieved sales of £686.7 million in 2000, compared with close to £1.26 billion in 1999. The decrease was caused primarily by agreements reached with Eastman Kodak SA in 2000, which resulted in Kodak's main business becoming the manufacture and distribution of products for Eastman, on terms and conditions mutually agreed, and the provision of associated services.

2.9. Kodak has been involved in providing a wholesale developing and printing (D&P) service for UK retailers for many years. (This service is also described as 'processing' or 'photofinishing', and the three terms are used interchangeably in this report.) In the 1970s it owned a number of photofinishing operations outright and had shares in others. In the 1980s it began to rationalize its holdings, with the number of its laboratories coming down from 22 to 12 as the decade progressed. This trend was interrupted in 1989 when Kodak acquired five laboratories from Hedley Taylor. But consolidation resumed in the following decade with the number of laboratories falling to the current total of seven in 1997.

2.10. KPCL was formed in 1991 to look after Kodak's D&P interests. It wholly owns six wholesale processing laboratories (located in Glasgow, Washington, Rugeley, Northampton, Portishead and London). It also manages a seventh, Taylors Developing & Printing Works Limited, at Reading, in which it has a 75 per cent share. Taken together, these labs constitute a network of sites—within about 150 miles by road of all the population centres in Great Britain—which provides a countrywide wholesale D&P service for retailers.

ColourCare

2.11. ColourCare is a UK company which, like KPCL, provides D&P services for retailers through wholesale processing laboratories. It too has a network of seven sites within about 150 miles by road of all the population centres in Great Britain. ColourCare's laboratories are located in Livingston, Morley (near Leeds), Bury, Walsall, Neath, Newmarket and Downton (near Salisbury). It also has an eighth site, at Bangor in Northern Ireland, which gives it coverage throughout the UK.

2.12. Unlike KPCL, which contracts out its transport requirements, ColourCare operates a fleet of vans that collects films from retail stores throughout Great Britain and delivers prints. It also offers a specialist photographic service to estate agents, under the name of Quadrant Miniprint Services.

2.13. The ColourCare business has its origin in 1982 when London International Group plc (LIG), which already owned United Photographic Ltd, acquired Napcolour Ltd. LIG combined the two businesses—which, between them, operated a number of photographic laboratories on the continent of Europe as well as in the UK—placing them under the ownership of a subsidiary, ColourCare International Ltd (CI). The business formed a substantial division of LIG until the early 1990s. But after making losses in 1993 and 1994—which LIG attributed to the advent of camcorders, coupled with the general downturn in the UK economy at that time—the business was put on the market. LIG subsequently sold CI and other companies it owned and parent company debt to Nexus Photo Limited (Nexus)—a company controlled by CI's management—in 1994, for £1.

2.14. The new owner, Nexus, decided to concentrate on D&P in Great Britain. It sold off the operations in Europe and in Northern Ireland, as well as the British businesses not linked to wholesale photoprocessing. It also sought to improve the efficiency of the remaining British operations by closing down three laboratories, and reducing overhead costs and staff numbers in those that remained. By 1996, the business had substantially achieved its current shape and structure. Much of its activity took the form of providing 'own-brand' D&P services to retailers. During this period, the business also invested in new equipment to give it the capacity to process APS (Advance Photo System) images, as well as those on 35mm film.

2.15. In August 1999 the business was acquired by ColourCare, the present owner, for £37.1 million (less £0.7 million of bank overdraft). Much of the purchase price was funded by loans: £18.3 million (secured) from the Bank of Scotland, £5.5 million from the vendors and £11.4 million from Gresham Trust plc (Gresham), a company that owns an 80 per cent share in ColourCare. Gresham, one of whose activities is financing management buyouts, is a

wholly-owned subsidiary of Zurich Financial Services, a company incorporated in Switzerland. In 2000 the new owners restored a presence in Northern Ireland, with the acquisition of the Classic Photo processing laboratory in Bangor. In the year to March 2001, ColourCare's turnover was £[✂] million.

The proposed acquisition

2.16. On 26 June 2001 KPCL entered into a conditional agreement with ColourCare, to acquire all of its wholesale processing and printing business and operations (mainly its network of eight laboratories and their associated equipment). One of the conditions was clearance by the UK competition authorities in terms reasonably satisfactory to KPCL. In announcing the agreement on the following day, KPCL made clear that ColourCare employees involved in these activities would be transferring on their current terms and conditions.

2.17. The terms of the sale and purchase agreement are that KPCL will pay ColourCare £[✂] million on completion of the transaction, with a further £[✂] million deferred for three years (see paragraphs 4.49 and 4.50 for more details).

2.18. ColourCare's delivery and collection fleet—along with other assets (including four leasehold properties) used in carrying out that business—will remain with its current owner, as will the freehold of three properties to be leased to KPCL. The name of the company will be changed to PrintMovers Ltd (PrintMovers). After the acquisition has taken place, the current fleet of 340 vans will expand to just under 500, and begin to operate as an independent distribution business, providing services to the expanded KPCL as well as to other customers.

Jurisdiction

2.19. Under our terms of reference (see Appendix 1.1) we are required to investigate and report on whether arrangements are in progress or contemplation which, if carried into effect, will result in the creation of a merger situation qualifying for investigation, as defined in the Act, in that:

(a) enterprises under the control of Eastman will cease to be distinct (within the meaning of the Act) from enterprises under the control of ColourCare; and

(b) the value of the assets that will be taken over exceeds £70 million (the assets test); or the merger will create or enhance a share of at least one-quarter in the supply of goods or services of any description in the UK, or a substantial part of the UK (the share of supply test).

'Enterprise' is defined in section 63 of the Act as the, or part of the, activities of a business. If we find that either the assets test or the share of supply test is satisfied, we are required to exclude the other from our consideration. One of the circumstances in which enterprises are to be regarded as ceasing to be distinct (set out in section 65) is where they come under common ownership or control.

2.20. If we find that such arrangements are in progress or contemplation, then we are required to consider whether the creation of the merger situation may be expected to operate against the public interest.

2.21. It is clear from the sale and purchase agreement, and from what the parties have told us, that arrangements are in progress which, if carried into effect, will result in enterprises currently controlled by Eastman, and by ColourCare, coming under common control.

2.22. As for the share of supply test, section 68 of the Act makes provision for cases where goods or services of any description are subject to different forms of supply. In determining

whether the test is satisfied in such a case, we are required to take all those forms separately, together or in groups, as appears to us to be appropriate. For this purpose, we may treat services as being subject to different forms of supply if the transactions in question differ as to their nature, parties, terms or surrounding circumstances, and the difference is one that, in our opinion, ought to be treated as material. This is not the same as defining the relevant economic market for this inquiry, which we do in paragraphs 5.11 to 5.39.

2.23. The various forms in which the service of processing amateurs' films are supplied are described in paragraphs 2.28 to 2.43. Wholesale supply to autonomous retailers (ie retailers that have no controlling ownership links with the companies that run wholesale labs) clearly has a number of distinct features that make it materially different from other forms of supply. It has an important role in the industry and we consider it appropriate to take it separately for the share of supply test. Out of all the amateurs' films that were the subject of wholesale supply in the UK in 2000 (estimated at [✂] million rolls), [✂] million, or 43 per cent, were processed by KPCL and [✂] million, or 35 per cent, by ColourCare—a combined total of 78 per cent.

2.24. We accordingly find that the share of supply test is satisfied and that the proposed acquisition would create a merger situation qualifying for investigation.

Conclusion on merger situation

2.25. So, for the above reasons, we find that arrangements are in progress or contemplation which, if carried into effect, would result in the creation of a merger situation qualifying for investigation. And thus we are required to consider whether its creation may be expected to operate against the public interest.

Photoprocessing

2.26. Until the middle of the last century, almost all amateur photography in this country involved monochrome film. This required relatively simple processing, which was generally done by the local chemist. With the advent of colour photography—which started to become widespread in the 1960s—specialist processing companies came on the scene, offering to provide chemists with the more complex photofinishing services that colour film required. We have been told that by the early 1970s there were over 300 of these businesses in the UK. But as that decade progressed, photofinishing became increasingly automated, with new machines that were faster, and able to handle larger quantities of film, than those that they replaced. This led to consolidation in the sector, and the first appearance of the so-called main labs, some of which provided wholesale services to retailers over a wide area, and others which served the public direct, via mail order. Since the 1980s, the main labs themselves have been consolidating—Kodak, later KPCL, for example, coming down from 27 sites then to 7 now, and ColourCare reducing from around 18 to 8. The proportion of films processed by mail order has also declined since this period.

2.27. The 1980s saw the arrival of the first mini labs—compact machines, about the size of a large photocopier, which, when installed in a shop, allow a retailer's own staff to process films on the premises. They are smaller and slower than the plant typically used in the wholesale labs but can offer consumers a very fast service—often characterized as '1-hour' or 'same-day', as films do not need to be transported off-site.

The current arrangements

2.28. It is possible to look at the current arrangements for providing photofinishing services from two standpoints: that of the ultimate consumer, and that of the industry participant.

The consumers' perspective

2.29. Most consumers with films to be developed and printed would probably regard themselves as having three types of services from which to choose. They can be broadly characterized in terms of speed and price.

2.30. Those who want the fastest service—and are willing to pay a premium for it—take their film to one of the 3,000 or so shops with a mini lab on the premises. This could be a specialist photographic outlet (such as The Jessop Group Limited (Jessops), Foto Stop Express, Klick Photopoint (Klick), Max Spielmann or Snappy Snaps); a chemist (such as The Boots Company PLC (Boots) or Superdrug Stores plc (Superdrug); or one of the large supermarket chains. These stores usually offer to provide customers with prints within an hour, or even less, but can charge as much as £8.99 for a 24-exposure roll of 35mm film. The figures that we have been given indicate that around 11 per cent of the films developed in the UK are processed as part of a fast service, normally described as '1-hour' or 'same-day'.

2.31. Those for whom time is not an issue, but who want the cheapest service, may well choose to use mail order. Prices here are normally lower than those charged by retail outlets but prints are not generally returned until about a week or ten days after the film is sent off—though some operators do offer a slightly faster service. We have been told that mail order accounts for just over 18 per cent of all the films processed in the UK.

2.32. The third option—which is neither the cheapest nor the fastest—is the one that most people choose. It contains a range of services such as 'overnight', 'next-day', 'three-day' or 'six-day'. As with the faster services, customers take their film to a store that offers D&P services. KPCL estimated that there were around 22,000 that did (including the 3,000 or so with a mini lab on the premises). These services can be fulfilled in-store, by those that have the necessary capacity on their mini labs. If they do not have such capacity—or for the majority of stores that do not have a mini lab at all—films can be sent to a wholesale lab, such as those operated by KPCL, ColourCare, or a number of others, who will process the films and return the finished prints to the store for collection. We have been told that about [✂] per cent of films in the UK are processed making use of these services, with nearly [✂] per cent being processed in-store and the remainder, a little over [✂] per cent, processed in wholesale labs. The equipment in these labs is the same as that used for mail-order D&P, and some companies offer both services.

2.33. From the technical evidence that we have received, and from reviews published in a number of photographic and consumer magazines (see paragraph 3.81), there does not appear to be a significant difference in print quality between any of these options (though see the discussion of digital technology in paragraphs 2.44 to 2.56). But prices do vary considerably—from not much more than £1 a roll (including postage) charged by some mail-order providers, to close to £9 for a very fast service on the high street. In general, consumers can expect to pay more if they want prints back quickly, and less the longer they are willing to wait—though we found a number of examples of significantly different prices being charged by high street retailers for what was essentially the same product.

2.34. There are also differences in levels of service. Some processors—mainly, but not exclusively, mail order—provide a replacement film or a second set of prints within the price they charge. Some retail outlets also make similar offers available from time to time, or have promotions on albums, reprints and enlargements. Others provide prints in presentation cases, rather than paper wallets.

The industry participants' perspective

2.35. From the point of view of industry participants (described in greater detail in paragraph 3.24 and Appendix 3.4) photoprocessing splits into two categories: main labs and mini labs.

2.36. There are estimated to be around 30 main labs in the UK. Many companies operate only one lab, but four have networks of varying sizes. The largest is ColourCare, with eight. KPCL has seven, Bowie CastleBank Ltd (Klick/Max Spielmann)—which trades under the names of Klick Photopoint and Max Spielmann—has four, and Colorama Processing Laboratories Ltd (Colorama) has two. All main labs carry out very similar operations. They take in rolls of colour film, process them through a series of specialized machines, and send out sets of prints. Most also offer other services, such as producing enlargements, or developing monochrome films, but the great bulk of their operations involve the processing of 35mm and APS colour films.

2.37. These films come to the main labs in three ways: via wholesale D&P contracts with autonomous retailers, from tied stores operated by lab owners, or direct from the public, through mail order.

2.38. The three largest wholesale processors in the UK that provide services to autonomous retailers are KPCL, ColourCare and Colorama. Transporting films and prints between stores and wholesale labs is their responsibility. ColourCare and Colorama operate their own fleet of vans; KPCL contracts out the task to specialist distributors. Although wholesale D&P is the core business of all three companies, Colorama owns a chain of tied shops and has a small mail-order operation; and about [✂] per cent of KPCL's output goes to its mail-order customers. KPCL told us that it processed [✂] million rolls as a wholesaler in 2000, and ColourCare that it processed [✂] million. Colorama is considerably smaller and does not cover the whole of Great Britain.

2.39. The largest tied store processor is Klick/Max Spielmann whose two retail chains amount to close to 600 shops—though Max Spielmann also operates a small mail-order business.

2.40. The major mail-order providers in the UK are Harrier Ltd (Harrier) (owned by the US-based District Photo Inc), which has a site in Devon and markets itself under the Truprint, York and Excel brands, and Grunwick Processing Laboratories Limited (Grunwick) with a laboratory near London, which markets the Bonusprint, Double Print and Triple Print brands. Grunwick also has some tied shops, and provides a small amount of wholesale processing for Dutch retailers and (under the Fotocolor brand) in the UK.

2.41. In addition to the main lab operators named in this section, we have also been told about another eight that, together, processed some [✂] million films in 2000. In total, main labs of all types are estimated to have processed around [✂] million rolls in 2000.

2.42. Mini labs accounted for the rest—estimated at around [✂] million rolls. Most of these were processed by mini labs located in chemists or in specialist photography shops, which ranged from those offering only D&P to those that sold a full range of photographic equipment and services. The remainder were processed on mini labs in supermarkets and other general stores.

2.43. Fuji Photo Film (UK) Ltd (Fuji), (which is a leading manufacturer) estimated that there were now around 3,000 mini labs installed in the UK—though KPCL's latest estimate is 3,100, and the Robinson Report[1] (Robinson) (produced by the US-based Photographic Consultants Limited in July 2001)—estimates that the current total exceeds 3,400 (see footnote to paragraph 3.38). There is a general expectation that numbers will continue to grow in the future. The last decade has seen mini labs become cheaper, smaller, faster and easier to use. (Further details about the increase in mini-lab numbers and the growth in the quantity of films that they process can be found in paragraphs 3.14 and 3.22.) In addition, the competition that they provide to main labs changed significantly from 1997, when machines using digital

[1]The Consumer Imaging Markets in 2000, Forecast 2001 to 2003: Analog and Digital.

technology came on the scene. Before that, mini labs' main advantage was that they could offer a faster service but, from 1997, they could also produce prints of a quality that the main labs' optical processing equipment could not match. (The next section provides a fuller explanation.)

Digital technology

2.44. We have been told that the advent of digital technology is having a major impact on photofinishers, which some expect to become increasingly significant as time goes on. It takes two forms.

2.45. The first is in the printing of conventional films. Developed negatives have a much wider contrast range than traditional optical printing machines are able to transfer on to photographic paper. This means that the prints returned to customers after optical processing—while generally of an acceptable standard—do not reflect fully the subtleties of light and shadow and the variations in colour of the scenes that have been photographed. Replacing optical printers with equipment that scans negatives into digital files, stores and distributes those files, and then prints the resultant images, can create photographs of perceptibly higher quality than those produced by optical printers and can automatically correct common defects in amateurs' pictures, such as 'red eye' in portraits. Digitally-scanned negatives can also provide images in other formats—which can be stored on a CD or transmitted over the Internet—in addition to conventional paper prints.

2.46. Optical printing cannot provide images in these other formats—although equipment is available that enables labs with optical printers to offer some of these facilities to their customers. Some manufacturers also produce equipment which can be incorporated into their main-lab optical printers to reduce the difference between optically- and digitally-produced prints to a significant degree by 'digitally enhancing' optically-processed images. A number of such machines, for example, those used in the 'Dimax' process, developed by Agfa-Gevaert AG (Agfa) are already in use with Grunwick and Colorama.

2.47. Mini labs with the capacity to print digitally were launched by Fuji in 1997 and began to be deployed in significant numbers from 1998 onwards. Boots and Jessops were prominent among the retailers that quickly adopted these machines, and digital mini labs are also being bought by other retailers, either as new equipment, or to replace optical mini labs. The new mini labs are also smaller, easier to operate, and have a faster rate of throughput than the earlier models. KPCL told us that the improved image quality that digital mini labs provided was rapidly becoming the new industry standard. As a result, it was coming under increasing pressure from retailers—particularly those that operated digital mini labs—to employ digital printers too, so that shops could offer customers the same quality of print, whether films were processed in-store or in a wholesale lab.

2.48. Others that we have spoken to are less persuaded that consumers feel strongly about the improved quality that digital printers can offer, unless—which is rarely the case—they are shown digital and optical prints of the same image, side by side. For the moment, at least, while main-lab technology is still in a state of transition, even some of those that have invested in equipment to digitally enhance print quality continue to see consumers as being much more concerned about the price of a conventional wallet of 102mm x 152mm (4 x 6 inch) prints than about whether the quality of their images can be improved or additional services made available. They also point to: the relatively low levels of demand for the additional services—such as images on CDs or transmitted direct over the Internet—that digital technology can provide; the fact that hardly anyone is able to charge a premium for digital prints; and the recent closure of operations such as Boots online—a facility designed to store digital images and provide further products and services based on them.

2.49. The digital equipment currently being developed to scan and print from negatives in main labs is more expensive than its optical equivalent, and operates at slower speeds. KPCL told us that it expected improvements to be achieved over the next year or so, to the point where the two systems were more comparable in speed, but that digital equipment would, initially at least, be more expensive—and bulkier—than the optical alternative. Nonetheless, the new equipment will make possible other changes to current main-lab processes that could contribute to cost reductions and the provision of better levels of service in the longer term. For example, digital images could eventually be printed by high-quality inkjet printers rather than the 'wet' printing techniques and special photosensitive paper that the current methods require. Extra services, such as the enlargement of particular pictures or the provision of images on CDs, could be provided at the same time as prints rather than, as now, through a subsequent process. So all these services could be offered overnight rather than, as at present, needing two or three days. Digital equipment would enable wholesale labs to print all sorts of digital images, not just those derived from cameras. There is also the hope that as, over time, the cost of computing power continues to fall, digital equipment will become cheaper than the optical printers that it will replace, because it will contain fewer mechanical moving parts (which are expensive to manufacture and maintain) and more of its components will be common across a range of industries.

2.50. The other area where digital technology is beginning to have an impact is in cameras. KPCL estimated that the number of digital cameras (DSCs)[1] in the UK increased from about 100,000 in 1997 to 1.8 million now. Research that it commissioned indicated that this could grow to about [✂] million by 2005 (compared with around 30 million conventional cameras currently in use).

2.51. DSCs do not use film. Instead, most contain an electronic light detector—known as a charge coupled device. The degree of resolution of a DSC is measured in pixels—the more it can resolve, the better the image. Early versions of DSCs were low resolution—several hundred thousand pixels—which meant that the pictures they produced were suitable only for showing on a screen, or for making very small prints, because the quality of the image deteriorated at larger sizes. But the latest versions, of over 4 megapixels or even higher, can produce standard-sized prints and, in some cases, enlargements, that are comparable in quality with film cameras.

2.52. DSCs also have features that others cannot match, such as the ability to see a picture as it is taken, on a built-in liquid-crystal display (LCD) screen and discard it if it is not acceptable; and the opportunity to manipulate or crop an image on a PC before it is printed. Images from DSCs can be printed directly from a PC. Different qualities of finish can be achieved depending on the paper used—which can vary from standard computer paper to paper with a special photographic finish—and the type of printer—which can range from a conventional inkjet to something much more sophisticated. Images can also be printed by a main lab or a mini lab with a digital capability. In that case, they would need to be taken to the lab in a physical form—such as the camera's 'memory stick' or downloaded on to a floppy disk—or transferred electronically over the Internet.

2.53. Many also expect DSCs to lead to an overall reduction in the number of photographs being processed because, while it is not normally possible to print only part of a conventional roll of film, photographers can select individual shots from a DSC and print only the best. They can also share digital photographs with friends over the Internet without ever having to print them off. So the combination of 'home printing' and the prospect of fewer images being committed to paper has the potential to reduce photofinishing to a relatively small and specialized sector, compared with the large industry that it has been for most of the last century.

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[1]Digital still cameras: we do not include digital video cameras.

2.54. Again there seem to be two views about whether DSCs are merely a new addition to the range of options available to photographers or whether they herald the end of conventional film. Those who take the second view foresee DSCs becoming increasingly capable, cheaper and easier to use, so that, over a number of years, they will replace conventional cameras for the great majority of photographers, just as colour film replaced monochrome in the third quarter of the last century.

2.55. The contrary view is that film will remain a very cheap and convenient means of collecting and storing visual images for most people. The specialist facilities which DSCs offer will be of value to certain types of photographers, especially those professionals and enthusiasts for whom the ability to transmit images almost immediately, or to transfer them quickly into printed documents or leaflets, is important. But, for most people, the photographs they can continue to obtain from conventional cameras will be good enough: especially if their photofinisher can provide them with images on CD or over the Internet, by digitally printing conventional negatives.

2.56. Our own perspective on the impact of digital technology is that it will be relatively small during the next three to five years, apart from its increased use in printing. We also believe there will probably still be a wholesale D&P business for the foreseeable future. But it may well be much smaller: a significant number of the images that it processes will come to it over the Internet; and the printers that it uses—like many of its customers' cameras—will be digital.

Reasons for the acquisition

2.57. KPCL said that the proposed acquisition of ColourCare's wholesale photofinishing operations would help reposition its business in line with the changes it foresaw in wholesale D&P.

2.58. In the short term, the major challenges would come from mini labs, whose number and rate of utilization it expected to continue to grow until, by about 2005, it predicted that mini labs would be processing more films than the wholesale labs.

2.59. In the longer term, KPCL saw the whole D&P business being eroded by DSCs. By 2005, it predicted that the amount of film being processed would have fallen by about 10 per cent.

2.60. By buying ColourCare's business, KPCL would increase its throughput significantly in the short term. It could also improve its profitability [

Details omitted. See note on page iv.

]. By using those profits to accelerate the conversion [✂] to digital printers, it could compete more effectively with mini labs. Eventually, KPCL thought, it would have [✂], and many of the images that it received for printing might arrive via the Internet rather than in a van. But it believed that the proposed acquisition would enable it to continue to be competitive, however quickly—or slowly—changes in photoprocessing came about.

2.61. KPCL's final reason for the acquisition [

Details omitted. See note on page iv.

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The market for D&P services

Market definitions

2.62. Markets are generally defined by examining whether there are close substitutes on either the demand or the supply side for the relevant articles or services being examined and by applying the 'hypothetical monopolist (or SSNIP)[1] test'. This asks whether someone who supplied 100 per cent of a particular product or service (or collection of products or services) could raise prices materially, and for a reasonable time, without losing profits either because customers buy something else instead, or suppliers of similar products or services shift their business to undercut the monopolist, and take its business. If the hypothetical monopolist could not sustain such a price rise, then those other products or services should be included in the same market as the one under consideration. The application of this test to D&P is discussed at length in Chapter 5, as is the decision to use Great Britain as the relevant geographic market. The concluding paragraphs of this section summarize the outcome.

2.63. As we explain in Chapter 5, the 'hypothetical monopolist (or SSNIP) test' is designed to identify the minimum set of products that are close supply- or demand-side substitutes. It is, however, one thing to draw the boundaries of a market and quite another to determine how competitive it is. A firm that enjoys a large share of the relevant economic market may not have much power to raise prices or indulge in other anti-competitive behaviour if rivals in the market—or potential entrants currently outside the market—will undercut it or if buyers are sufficiently strong to resist price increases. Among other things, this means that competitive constraints can emerge from outside the relevant economic market.

2.64. But before starting our analysis of the market, it is first necessary to say something about the degree of accuracy that can be attributed to estimates of activity in this area—either overall or by company—and about the consequent calculations that have then been made about market size and market shares. This is discussed in more detail in Chapter 3 (paragraphs 3.7 to 3.14). D&P is not an area where precise figures are readily available. Nonetheless, we have been shown a number of estimates for recent years, two of which extend to 2000. Of these, the smaller is KPCL's own estimate that 104.6 million rolls of amateur photographers' colour film were processed in the UK in 2000. The larger is in Robinson, which gives a total of 115.1 million rolls.

2.65. This variation is due, in part, to differing views on the number of films coming into the hands of UK amateur photographers each year. Kodak's estimate is 110 million, while Fuji has cited 120 million. Uncertainties arise because film is sold in a wide range of outlets; some is given away free by processors or retailers as part of their D&P offerings; at least some of the film sold in this country is processed elsewhere; and some film processed in the UK is bought abroad. KPCL's estimate assumes that a certain amount of film is never used—though it is impossible to be certain about the extent to which this is the case or, if it is, whether the level of usage varies over time.

2.66. We have sought to establish our own estimates of market size and shares (see paragraphs 3.7 to 3.14 and 5.43), although the responses received from the industry have not enabled us to be definitive. But equally they have not led us to the view that the broad estimate of between 105 and 115 million rolls is likely to be wrong and, for the reasons explained in Chapter 3, we have estimated a total UK D&P market in 2000 of 110 million rolls for the purposes of our inquiry.

2.67. So, to return to our approach to market definition: KPCL argued—and cited evidence from other jurisdictions to support its case—that the market for D&P in the UK was a very broad one. It contended that all those who were engaged in supplying these services—whether

[1]Small but significant non-transitory increase in price.

they were retailers selling direct to consumers, or wholesalers selling to retailers—were in the same market. We take a narrower view. While we do not disagree that the actions of KPCL and ColourCare are constrained by the presence and activities of a wide range of other photo-finishers throughout the UK, we do not believe that the market in which they are operating includes all the other providers of D&P services in the economy. Our starting point was to consider the principal activity of the ColourCare business covered by the proposed transaction: the provision of wholesale D&P services to autonomous retailers that offer overnight, next-day or longer services to amateur photographers. We estimate that, during 2000, wholesale labs processed some [✂] million rolls of film for these retailers in the UK. Other forms of supply accounted for another [✂] million rolls: [✂] million were finished in mini labs; [✂] million, in main labs operated by the owners of tied shops; and [✂] million in main labs operated by mail-order providers.

2.68. We do not regard the [✂] million rolls processed by the main labs dedicated to tied shops and to mail order as being in the same market as the main labs that offer wholesale D&P to autonomous retailers, as they are not competing for these stores' business. That is also true of the films processed in-store by the autonomous retailers as part of a '1-hour' or 'same-day' service, because, with one or two insignificant exceptions, this is not business for which the wholesale labs compete. There is, however, one other element that we believe should be included in the same market as the output of wholesale labs. That is the part of the output of mini labs, operated by autonomous retailers, which provides all or some of their overnight, next-day-and-longer services. This is undoubtedly a category for which the wholesale labs do compete, and autonomous retailers with their own mini labs have to exercise a choice about how many films to send to wholesalers and how many to process in-store. We do not have definitive figures on how many films come into this category, but from the information that we have received, we estimate their number to be around [✂] million rolls. Adding this to the [✂] million which the wholesalers were estimated to have processed in 2000 gives a total for this market in the UK as a whole of [✂] million rolls, of which Great Britain accounted for [✂] million.

2.69. Of these, ColourCare was responsible for the D&P of some [✂] million and KPCL for some [✂] million. So in the market for the processing of the overnight, next-day-and-longer services carried out through autonomous retail shops, ColourCare and KPCL have a combined share of around 51 per cent.

Public interest issues

2.70. In order to form a view on whether or not the situation that would be created by the proposed acquisition may be expected to operate against the public interest, we have looked at its implications for photoprocessing in Great Britain. We have also considered the nature of current competitive conditions for the D&P services that both companies supply. In the course of this inquiry we have examined carefully the material provided to the Director General of Fair Trading in the period leading up to the making of this reference, and we have also gathered further information from those who might have an interest in the questions raised in our terms of reference. We have visited both KPCL's and ColourCare's laboratories. We have also visited or held hearings with other companies involved in the photographic business: including retailers that send films to wholesale laboratories and those that operate mini labs, and companies that provide mail-order D&P, operate chains of tied stores, offer rival wholesale services, or supply mini labs. In addition we have advertised widely to gather information or views on these issues. There has been very little interest shown in this inquiry by the general public—the ultimate consumers of these services—or by anyone without a direct involvement in the industry.

2.71. The first thing to say about photoprocessing is that, while the market we have described in paragraphs 2.67 to 2.69 is different from the wider market for supplying D&P services to the public, it is severely constrained by the behaviour of retailers and consumers.

This is because the services that autonomous retailers buy from wholesale labs have to compete head to head for the public's business with other services that are outside the boundaries of the economic market identified by the hypothetical monopolist test, such as the '1-hour' or 'same-day' offerings which their own or others' mini labs supply, the tied photographic shops that are owned by main-lab operators, and the mail-order labs that deal direct with the final customer. Indeed, in the case of some retailers—Boots is the clearest example—this competition is internalized within a single firm, as Boots is both the largest autonomous purchaser of wholesale D&P services in the country and also the largest operator of in-store mini labs.

2.72. Nonetheless, with over half of the market that we have described in the hands of KPCL, should the proposed acquisition go ahead there is clearly potential for public interest concerns in areas such as pricing and the maintenance of quality standards. To assess these issues fully we need to look at the competitiveness of the market and at whether the merger will have any effect on these competitive forces. So we next considered two sets of issues:

(a) the extent to which wider competitive pressures on an enlarged KPCL have the capacity to constrain or nullify effects which might otherwise be expected to operate against the public interest; and

(b) [

Details omitted. See note on page iv.].

The extent to which wider competitive pressures on an enlarged KPCL have the capacity to constrain or nullify effects which might otherwise be expected to operate against the public interest

2.73. We looked at this set of issues under a number of headings:

— the potential for new entrants into D&P;

— the potential for rivalry within the market or for other UK processors to expand;

— the potential for an enlarged KPCL to sustain a significant rise in prices, or other anti-competitive practices, in the face of buyer power and other constraints;

— the potential for the vertically integrated nature of the business of KCPL's parent to be used to diminish competition in wholesale D&P;

— the potential effect of the proposed acquisition on technological progress in wholesale D&P over the next five years; and

— the potential for a reduction in quality or levels of service.

These issues are discussed further in paragraphs 5.50 to 5.93.

The potential for new entrants into D&P

2.74. From what we have been told, it does not appear that the barriers to entering the wholesale D&P business are high. We have heard that both new and second-hand optical photofinishing equipment can be obtained for main labs without difficulty, and that a conventional factory building is all that is required to house it. We have also been told that it would not be difficult to contract for a distribution service—as KPCL already does—between retailers and a wholesale lab. And the great majority of retailer customers are not contractually tied to their supplier.

2.75. Nonetheless, we do not expect new wholesalers to appear on the scene so long as the demand for photoprocessing services continues to decline, and margins remain at, or fall below, their current level. We have been told that the number of films that are processed by wholesale labs is falling and that the rate of decline is expected to increase. So we think it unlikely that any newcomer would want to enter such a market, especially at a time when there is such uncertainty about the future impact of digital printing and photography. ColourCare has told us that it had discussed the possibility of selling its D&P assets with [

Details omitted. See note on page iv.

].

2.76. Those who would find it easiest to enter this market would be the large mail-order providers—Grunwick and Harrier—and the main labs tied to retail outlets—the biggest of which is Klick/Max Spielmann. None has expressed any interest in changing the focus of its current business—in some cases, even if wholesale prices were to rise as a result of the proposed acquisition. Grunwick told us that it had once been active as a wholesaler—it was still in the business in a small way with customers in the UK and, to a larger extent, in the Netherlands. But it had a strong preference for mail order, because that gave it control of the whole business and a direct relationship with the final customer. It also enabled it to earn a greater return. Grunwick described wholesaling as being very competitive, and said that the price which consumers pay for having film processed in the UK is lower than in many other parts of Europe. It also found it ultimately unrewarding because retailers took credit for, and profited from, the quality and efficiency of the photofinisher, and could move their business to another wholesaler or invest in mini labs once they had established their reputation on the high street. We have also been told, by KPCL, that Harrier experimented, for a time, with wholesaling in the area around its Devon site, but subsequently reverted to concentrating exclusively on its mail-order business.

2.77. Klick/Max Spielmann told us that it had no interest in becoming a wholesaler at current margins. It said that it saw itself primarily as a retailer and that it had been expanding its business by acquiring extra stores. Its main labs were there to support its retail operations. It saw the wholesale business as being in decline and did not think that it would make commercial sense to invest in new capacity in order to enter it. While it did not rule out the possibility of devoting any spare capacity that might emerge in its existing labs to general wholesaling if margins increased significantly above current levels, it did not consider it likely that they would.

2.78. There is also a more general disincentive for these three firms to enter the wholesaling business. All of them are in head-to-head competition, at the retail level, with the customers of the wholesale labs—Klick/Max Spielmann directly on the high street, and Grunwick and Harrier via their distribution of envelopes and media advertising and promotions. As our consumer survey has shown (paragraphs 5.66 and 5.67 and Appendix 5.1), if a price rise at the wholesale level in overnight, next-day-and-longer services were passed through to customers, then many would change their behaviour in ways that would be helpful to Klick/Max Spielmann's, Harrier's and Grunwick's existing businesses. So, rather than chase this potential increase in work by supplying wholesale services to their retail competitors, they might well opt for gaining a share by simply continuing with their current strategies, in the expectation that any rise in prices would result in extra business coming to them. In that case, they would keep all of the profits on such business, and not have to share them with the retailers for whom they were acting as wholesalers. This argument would have less force to the extent that retailers chose to absorb any increases in wholesale prices. But even in that scenario, none of these firms expressed any enthusiasm for entering the wholesale business.

2.79. For mail-order labs to get into the wholesale D&P business would require them to establish or expand their distribution network. This would not be insuperable—KPCL contracts out its distribution now—and, if the proposed acquisition goes ahead, PrintMovers will be in

the market for just this sort of work. But, nonetheless, creating or expanding a network would be an extra cost and an extra call on management time. This would be less true of Klick/Max Spielmann, which already has a fleet of vehicles.

2.80. The one form of market entry that we do expect to see taking place over the next few years is a sustained growth in the number of mini labs. We have been told that many of those who currently operated these machines intended to buy more, and that other types of retailer, notably supermarkets, that have not had many in the past were planning to increase their capacity significantly. We have also been told that substantial reductions in the price and size of new mini labs could be expected in the next three to five years, particularly if developments in inkjet printing and other technical advances came about. In that event, locations for which mini labs are currently unsuitable, either for reasons of cost or space, may become potential new sites. For smaller retailers, we have also been told that there had been a marked fall in the price of new optical mini labs and that there was also an active second-hand market in them, which could only increase as more of the larger chains upgraded to digital machines. We have also been told that, although outright purchase seemed to be the most common way of acquiring a mini lab, there were leasing deals available, and that manufacturers had arrangements with finance companies to which they could introduce customers who were looking for funding.

2.81. So, while we do not expect any new entrants to set up main labs to do wholesale D&P in the current climate, we have received some indications that companies in other parts of the industry would be willing to move capacity into that area if margins were to rise. We have, however, received strong indications that the number of mini labs—and their rate of utilization—will continue to increase.

The potential for rivalry within the market and for other UK wholesale processors to expand

2.82. Apart from those who are already KPCL customers, all the national retail chains that offer overnight or longer D&P services to consumers (except those that rely on mini labs or tied main labs) use ColourCare as their wholesale processor. Colorama told us that [*Details omitted. See note on page iv.*]. Apart from [✂], all of the other wholesale processors have only single-site operations and are not actively seeking retailer customers with nationwide coverage; so we do not believe that the ability of other wholesale processors to compete for the business of the national retailers will be affected adversely by the proposed acquisition.

2.83. At the local and regional level, it has been put to us by a number of industry participants that the absorption of ColourCare into KPCL will create opportunities for the smaller wholesale processors from retailers who had not previously given them much consideration. This is because they will no longer have two national photofinishers competing for their business, and so will be keen to seek quotes from the smaller providers. And, while most of ColourCare's existing customers can be expected to transfer their business to KPCL, should the proposed acquisition go ahead, some will choose not to do so, and their business too will be available to the other UK processors. Smaller wholesale labs seeking to expand would need to establish or widen their distribution network. But this would not be insuperable and, if the proposed acquisition goes ahead, PrintMovers will be looking for just this sort of work. Nor would distribution be a significant issue for wholesalers, such as Colorama, who already have a fleet of vehicles, or for anyone seeking to set up a 'city lab'—a small wholesale lab operation located in a densely-populated area, from which it might be possible to service a sufficient number of customers without having to travel too far afield.

2.84. The other area of increased competition within the market that we have defined is the greater use of mini labs. The immediately preceding section reported our conclusion that the

number of mini labs was likely to grow and that new operators were expected to enter the market. We have also been told that stores which already had mini labs were likely to use their existing machines more—partly to meet what some retailers saw as a growing consumer demand for shorter processing times and partly because, once a decision had been made to install a machine and train staff to operate it, the more it was used, the more cost effective it became.

2.85. So, for these reasons, we believe that competition in the market will not be materially damaged by the proposed acquisition, and it is possible that opportunities for expansion may arise for some of the smaller wholesale labs at local and regional level.

The potential for an enlarged KPCL to sustain a significant rise in prices, or other anti-competitive practices, in the face of buyer power and other constraints

2.86. We began this part of our consideration by looking at the bargaining position of those who buy D&P services from KPCL and ColourCare. Although about [✂] per cent of KPCL's output goes direct to the public through its mail-order operations, the great majority of its sales, and all of those in ColourCare's amateur photographers' business, are to autonomous retail stores. A substantial majority of all KPCL's current sales are made to sizeable, nationwide groups—indeed, two customers alone (Boots and Tesco) accounted for more than half its sales in 2000. Both of these companies and many other customers of KPCL and ColourCare—which include Safeways, the Lloyds Pharmacy Limited chain, W H Smith and Jessops—have a strong position in their respective sectors, a sophisticated approach to procurement and effective buying power. One illustration of their retail strength is that, with very few exceptions, they market D&P services to their customers under their own brand—whether they are provided by in-store mini labs (which, to varying degrees, most of them have) or by their wholesalers—and do not trade on the reputation of KPCL or ColourCare. As a consequence, they price D&P services as part of their wider marketing strategy, and do not see themselves as intermediaries who simply pass on the prices of their suppliers.

2.87. We have also been told that there is a widespread expectation in the industry that more of the larger supermarkets will offer D&P or extend their operations in it—as happens in other countries, notably the USA. The expectation is that the supermarkets' offering will be mini-lab based—as many of their customers spend over an hour doing their weekly shop, and could drop off a film on the way into a store and collect the prints on the way out. This would put further pressure on wholesale services and motivate retailer customers to resist anything that made them more expensive or otherwise less attractive to the ultimate consumers, who could easily respond by shifting their business to one of the growing number of rival providers.

2.88. It has also been put to us that the non-specialist stores—for which photoprocessing is only part of a much wider retail offering—regard D&P as a 'destination product', which means that they rely on its availability and pricing to attract customers who are then likely to buy other goods or service while in the shop. This makes a competitive price for wholesale processing a high priority, and provides them with a further motivation to negotiate vigorously with an enlarged KPCL, or with one of its regional rivals, to keep prices down.

2.89. The next factor that we looked at was the impact on the smaller retailers of the likely behaviour of the large national chains. Our view is that their behaviour is likely to act as a discipline on the smaller retailers in a number of ways. The most straightforward is that the widespread presence of the large chain stores in all parts of the country means that most amateur photographers have a choice of retail outlets from which they can buy overnight or next-day processing services—and hence a point of comparison. Clearly, some buying decisions will be motivated by considerations other than price—such as proximity or convenience, the local

reputation of a store, or the fact that the customer is visiting it for other reasons—but the existence of large retailers offering keen prices means that the smaller outlets face competitive pressures to offer comparable prices too.

2.90. We next looked at the options available to retailers—apart from robust negotiating—if an enlarged KPCL were to seek to increase its prices. While they will not have the same buyer power as the larger chains to resist any attempts by an enlarged KPCL to raise its wholesale prices, we believe that small retailers will have other options available to them to respond to these pressures. If their throughput is large enough and they have the space, they can install a mini-lab, either new or second hand. It also seems to us that local and regional wholesale processors would be able to apply a real competitive constraint. From what we have been told, there is no part of Great Britain where there is not at least one wholesale processor able to compete for business and, if anything, their standing should be strengthened by the removal of ColourCare, leaving them as the only viable alternative to KPCL in their localities. Unlike the national chains, smaller retailers would have little problem in moving their business to a local wholesale lab, as they would not be concerned about countrywide coverage or consistency between plants.

2.91. But for national retail chains there will be no single alternative to KPCL, should the proposed acquisition go ahead. Here customers have three options (or a combination of options) if they become dissatisfied with KPCL's offering: set up their own wholesaling operation; multi-source from a number of regional processors, or encourage them to form a nationwide alliance; or increase further their reliance on mini labs. None of the retailers that we have spoken to was thinking seriously about setting up a separate wholesale operation—though one, which already had a small wholesale lab, would consider increasing its level of activity, if need be. There was also little enthusiasm for multi-sourcing among retailers—even though some of them had been doing so until relatively recently—and even less for nationwide alliances among the smaller processors—though one or two were willing to consider the possibility.

2.92. Most of the larger retailers saw greater use of mini labs as their most likely response, should there be any indications of a move to raise prices or a shift to anti-competitive behaviour by KPCL. Even though some felt that they currently had an optimal balance between in-store labs and wholesale, that balance would shift—in favour of more mini labs—should KPCL's behaviour change. They were confident that a greater resort to mini labs would be an effective constraint because KPCL's business model depended on a large-volume throughput, which retailers could disrupt by buying extra mini labs, or using existing ones more, particularly at slack times of the year. They also felt that customer preferences were continuing to move towards ever faster turnaround times, which only mini labs could meet, and that the growing use of DSCs would, again, place a premium on in-store processing as customers would be unwilling to have expensive memory devices sent away overnight. Some also pointed to the potential for further reductions in the cost of mini labs as inkjet printing began to supplant current technologies. This would also reduce mini labs' size and make them an option in stores that had previously been seen as too small to take one.

2.93. The willingness and ability of retailers to resist price increases depends in large part on how their customers might respond to whatever percentage of a rise in wholesale D&P prices retailers might choose to pass on to them. To examine this issue we looked next at the attitude of the ultimate customers: the amateur photographers. In order to gauge their response to a small but significant price rise we commissioned a consumer survey (fuller details are provided in paragraphs 5.66 and 5.67 and Appendix 5.1). This asked those who currently use the retail services that are supplied, at least in part, from wholesale labs (overnight, next-day and three-day) what they would do if the prices for these services rose by 10 per cent while prices for other services remained the same.

2.94. A substantial proportion told us that they would switch to another service. Of those who use 35mm film, about 16 per cent said that they would switch: just under 5 per cent to

same-day D&P offered by a mini lab, and around 11 per cent to mail order. Over a quarter of the amateur photographers who use APS film—which is already more expensive to process than 35mm—said that they would switch: over 17 per cent to same-day D&P, and around 13 per cent to mail order. KPCL also showed us a survey that it had commissioned (see Appendix 5.2) which looked at consumers' behaviour in choosing D&P services. This too indicated a high level of price sensitivity. KPCL told us that one of the conclusions that it had drawn from the survey was that it would not be possible for a hypothetical monopolist to increase prices profitably. Our view is that if an enlarged KCPL were to increase its prices for wholesale D&P—and the resultant costs were passed on to consumers by retailers in higher prices—then it could expect to lose business, because of the consumer switching demonstrated by our survey and because of the alternative wholesale D&P providers to whom retailers could turn.

2.95. If retailers chose to absorb some or all of any wholesale price increases by KPCL, thus reducing their margins—and it is far from clear to us how much they would be likely to pass through—then this would change the relative balance of costs between using mini labs and wholesale D&P within their business further in favour of mini labs. This would be likely to mean more mini labs being bought by stores currently without them, and increased usage by those with them. Indeed, the view of a number of the larger retail chains was that the use of mini labs would continue to grow in any event, for a variety of reasons, and that, consequently, the role of the wholesale labs was set to decline. So an increase in wholesale prices would simply accelerate an established trend. This means that whether such an increase were passed on to consumers or, to some degree, absorbed by retailers, KPCL would end up losing business and face a further erosion in the volumes upon which its strategy depends.

2.96. We then considered matters from the perspective of the wholesalers, especially KPCL. We have been told that all contracts—especially those with the major chains—are important because of the large volumes that their labs need in order to maintain the viability of processing lines and justify the investment in new equipment that KPCL and others see as essential to continued competitiveness. The labs owned by companies that provide wholesale services to autonomous retailers already have much lower throughputs than other main labs. So, if it were to seek to raise prices, KPCL would be in danger of further hastening the decline of its wholesale D&P volumes, and thus of jeopardizing the major investments it is about to make, by means of the proposed acquisition and through the introduction of digital printers into all its main labs.

2.97. In short, whatever the form in which retailers and their customers react to any attempt by KPCL to raise prices, the outcome would be likely to be a further reduction in the throughput of its wholesale labs, with consequent implications for its profitability.

2.98. We next examined a number of possible anti-competitive practices that might come into existence with the aim of redressing the balance of power between retailers and wholesalers. In particular, we looked in detail at the potential for price discrimination, for the forcing of full lines of products and/or services on to customers, and for predatory pricing.

2.99. As for price discrimination, both KPCL and ColourCare told us that they charge customers different prices. Both operate a regime which takes into account the volume of films to be processed, the economics of distribution (a given number of films from a small number of easily-accessible sites will generally command a better price than the same number of films collected from a large number of distant locations) and the quality of service required (issues such as how many visits a day dealers require and how flexible they are willing to be on timing). This did not seem to us to be an unreasonable approach, though we were unable to be certain about the extent to which current price structures were fully cost based, not least because the parties themselves were often unable to be definitive about how much it cost them to service a particular contract or outlet. However, KPCL told us that it had no plans to make changes in this area, and we had no reason to believe that the proposed acquisition would result in any.

2.100. We also heard no complaints about suppliers forcing full lines of products and/or services on to customers in this market. All processors offer a portfolio of services, such as various sizes of prints, reprints or enlargements, and some offer more specialist facilities, such as printing photographs on to mugs or T-shirts, or providing images on CDs or over the Internet. Again, no one raised any concerns with us about customers being forced to take any of these products or services. In practice, most result in a higher profit margin for both the retailer and the processor than straightforward D&P, so many retailers promote these services in any event—but not, from anything said to us, because of pressure from the wholesale processor. We did not believe that the proposed acquisition would lead to changes in this area either.

2.101. As for predatory pricing, again we heard no complaints about KPCL, [*Details omitted. See note on page iv.*]. KPCL put it to us that it would not be in its interests to engage in predatory pricing after the proposed acquisition, not least because there would be little scope for it subsequently to raise its prices, in order to recoup the initial losses that embarking on such a course would be likely to create, largely because entry into the market is not difficult.

2.102. So, for all of these reasons, we do not conclude that the proposed acquisition can be expected to lead to a sustained increase in prices for the provision of wholesale D&P services to retailers, nor are other anti-competitive practices likely to come into being.

The potential for the vertically integrated nature of the business of KCPL's parent to be used to diminish competition in wholesale D&P

2.103. A number of KPCL's competitors have put it to us that Kodak is difficult to compete with because it is present in so many parts of the photographic business. It has been suggested, for example, that KPCL may be able to advance its position in D&P by buying photographic paper and chemicals at below-market rates, or by offering Kodak film free or at cut prices. Other forms of cross-subsidy or exercise of undue influence have also been put to us.

2.104. The first thing to say is that, whether or not there is anything in these suggestions (and we found no evidence that there was), Kodak will not be extending its product offer as a result of the proposed acquisition—as KPCL already engages in all of the activities that ColourCare does—though it will, of course, be increasing the number of its D&P customers.

2.105. From the information that we have received (paragraph 4.15 and Table 4.2), it also appeared that the margins that KPCL earned on the provision of D&P services were smaller than those that other parts of Kodak earned from [*Details omitted. See note on page iv.*]. So it would seem to be illogical to seek to win more relatively low-value D&P business by offering concessions on higher-margin lines. Kodak assured us that its sales of paper and chemicals to KPCL—like its other intra-group transactions—were carried out according to a formula based on normal market prices (see paragraph 4.16).

2.106. We also considered whether there was any indication of Kodak using KPCL's position in D&P to seek to press its retailer customers to, say, stock only Kodak film, or use only Kodak paper or chemicals in their mini labs. We found no evidence that this was happening. Many KPCL retailer customers did stock Kodak film, but because their customers wanted to buy it, not because of prompting from KPCL. A large number of them also sold other brands and, in some cases, own-label film but none told us that it had come under pressure from Kodak or KPCL to change its stocking practices. As for the supply of paper and chemicals for mini labs, Kodak's position was weaker here than it was for retail film, but none of the smaller number of KPCL customers that we spoke to who did use Kodak's products did so for anything other than normal commercial reasons. There are also a number of small autonomous retailers

who buy paper and chemicals from Kodak as part of their membership of 'Kodak Express' buying groups (see paragraph 3.117). Their position will not be affected by the proposed acquisition.

2.107. So, for these reasons, we did not conclude that the possibility of anti-competitive behaviour deriving from the vertically-integrated nature of the business of KCPL's parent would be enhanced by the proposed acquisition.

The potential effect of the proposed acquisition on technological progress in wholesale D&P over the next five years

2.108. KPCL has made it clear that it intends to position itself eventually at the forefront of technological developments. It already has pre-production digital printing equipment in all its labs (made by I-Lab, another Eastman subsidiary) and told us that it intended to use the additional profits and throughput generated by the proposed acquisition to accelerate the introduction of production-model digital printers as soon as they are available.

2.109. As ColourCare told us that it would not be able to afford to introduce such equipment itself, were it to remain as a stand-alone company, our conclusion is that the effects of the proposed acquisition are likely to be beneficial, albeit modestly, in terms of technical progress over the next five years.

The potential for a reduction in quality or levels of service

2.110. We have received a number of letters from retailer customers and have spoken directly to some of them (see Chapter 7 and Appendix 1.1). None has raised any serious complaints about the quality of the photofinishing service that it gets from KPCL. Some have, indeed, commented favourably on Kodak's commitment to the photographic business.

2.111. But a number of KPCL's larger customers, and the company itself, have drawn our attention to what they regard as the key quality issue in wholesale D&P: the need for the main labs to be able to offer digital processing in the same way as modern mini labs. As will be clear from the immediately preceding section, we do not have any concerns about the implications of the proposed acquisition on that score.

2.112. As for levels of service, only one concern has been put to us, by a chemist (see paragraphs 7.59 and 7.60). He said that KPCL had withdrawn its wholesale D&P services from his (two) shops because, it said, the volume of work they produced did not justify the transport costs involved. He told us that ColourCare was the only wholesale lab willing to take his business, and he feared that the D&P service might be withdrawn once again, should its labs be absorbed into KPCL.

2.113. We put this concern to KPCL and to ColourCare which, in its new guise as PrintMovers, will be [*Details omitted. See note on page iv.*] for the enlarged operation, should the proposed acquisition go ahead. They made two points. First, ColourCare said that it too reviewed its customer list from time to time to pick out locations that did not justify the costs of collection and, if it were to remain in business as a photoprocessor, would have to do so again in the next few months. So there was no certainty that a small customer would carry on receiving a service, even if ColourCare were to continue. The second point was that, as shown in Appendix 3.3, the proposed new arrangements should be helpful to smaller customers with shops in what might otherwise be seen as marginal locations, for two reasons. One was that, by combining the distribution routes of both companies, there would be some places where two

calls could be made profitably by a single van, where two calls by two separate vans could not be justified. The other was that [

Details omitted. See note on page iv.

]. This would also enhance the viability of distribution routes that might otherwise have been marginal, and thus enable smaller shops to continue to receive a D&P service.

2.114. So, for the reasons put to us, we do not believe that the proposed acquisition can be expected to lead to a reduction in quality in the provision of wholesale D&P services, or in the level of service received by retailers, compared with what would otherwise have occurred.

[

Details omitted. See note on page iv.

]

2.115. [

Details omitted. See note on page iv.

]

2.116. [

Details omitted. See note on page iv.

]

2.117. [

Details omitted. See note on page iv.

]

2.118. [

Details omitted. See note on page iv.

]

2.119. [

Details omitted. See note on page iv.

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2.120. [

Details omitted. See note on page iv.

]

2.121. [

Details omitted. See note on page iv.

]

The potential benefits of the proposed acquisition

2.122. Before concluding our consideration of public interest issues, we considered whether there were likely to be any benefits as a result of the proposed acquisition. KPCL cited two potential areas:

— hastening technological advance; and

— reducing costs and improving efficiency.

[*Details omitted. See note on page iv.*]

[*Details omitted. See note on page iv.*]

2.123. KPCL's plans on the technological front have been described in previous sections. While Kodak's commitment to digitization is clear, the contribution of the proposed acquisition to accelerating this process is likely to be modest. KPCL explained that the normal equipment replacement cycle in a main lab was of the order of seven years, so that it could expect to have moved to a fully digital process by then. The effect of the acquisition would be to reduce the overall period by a year or so and to bring forward into the earlier years changes that might otherwise have taken a year or two longer. So it did not seem to us that the acquisition was likely to have a major impact in this area, and that if KPCL's replacement programme did, in fact, move more quickly, it would be as a result of commercial pressures—such as demands from its larger customers and competition from further technical advances in mini labs—rather than because of the acquisition.

2.124. There seems to be little room for doubt that the proposed acquisition is likely to bring about cost savings and improvements in efficiency. KPCL intends to rationalize [*Details omitted. See note on page iv.*] and maintain a similar level of output, [*Details omitted. See note on page iv.*]. At the same time, savings of at least £[✂] million a year are expected in distribution costs. However, when we asked KPCL how much of this improvement would be passed on to customers in prices that would be lower than might otherwise have been the case, it was unwilling to offer a figure. Instead the company pointed to the cost of the technological upgrade that it planned to undertake, and to the fact that its forward planning assumed that competitive pressures would, in any event, force it to reduce its prices to some extent in the coming years.

2.125. [

Details omitted. See note on page iv.

]

Conclusion on the public interest

2.126. So, for these six reasons:

(a) the significant share of the retailer customer base for wholesale D&P that is controlled by large national chains with considerable buyer power, and the lack of any real concerns that anti-competitive practices would be likely to come into existence or be exacerbated by the proposed merger;

(b) the evident price sensitivity of the ultimate consumers of the D&P services which KPCL supplies to retailers and the ready availability of alternative and competitively-priced retail services from mini labs, mail-order providers and tied stores;

(c) the ease with which many retailers can shift more of their D&P to mini labs or to regional wholesalers should KPCL seek to exploit the market position which the proposed acquisition would give it;

(d) the likelihood of continued competition, at least at the local and regional level, with other providers of wholesale D&P;

(e) the lack of any expectation of a reduction in the quality of service to retailer customers, and the likelihood that technological advances will be accelerated, albeit modestly; and

(f) [

Details omitted. See note on page iv.

]

we conclude that the proposed acquisition may not be expected to operate against the public interest.

Part II

Background and evidence

3 Developing and printing services for amateur photographers

Contents

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Introduction

3.1. The operations of KPCL and ColourCare overlap principally in the D&P of photographic films. Both companies operate main labs that provide wholesale D&P services to retailers. Although their major activity is the first-time processing of colour negative films for amateur photographers, the labs also engage in a number of closely-related activities described in paragraphs 3.25 to 3.31. Additionally, KPCL offers a mail-order service direct to the public, and ColourCare operates some services for professional customers.

3.2. Other Eastman companies are involved in other aspects of the photographic industry, particularly in the manufacture and sale of film, cameras, photographic paper and chemicals for D&P services, and in the production of main-lab equipment. Some independent retailers are licensed to provide D&P services under the Kodak Express quality monitoring service brand but are free to buy equipment and wholesale D&P services from any supplier.

3.3. In this chapter, we describe the product and geographic markets that are relevant to the acquisition of ColourCare by KPCL. We discuss the companies and the details of the transaction in Chapter 4. Our analysis of market definition, and our assessment of the competitive forces in the relevant markets, is set out in Chapter 5.

3.4. We begin this chapter by discussing the structure of the industry. In paragraphs 3.7 to 3.17, we consider demand for D&P services. In paragraphs 3.18 to 3.50, we describe the way that suppliers meet this demand; descriptions of main-lab processing and mini-lab processing are set out in Appendices 3.1 and 3.2 respectively. In paragraphs 3.51 to 3.58, we examine the alternative services from the consumers' point of view and consider their price sensitivity. In paragraphs 3.59 to 3.90, we discuss the relationship between wholesale providers of D&P and retailers and outline the structure of retail provision. In paragraphs 3.91 to 3.96, we outline wholesalers' arrangements for collecting film and delivering photographs; these are discussed in more detail in Appendix 3.3. In paragraphs 3.97 to 3.106, we consider likely future developments, including the impact of DSCs. In paragraphs 3.107 to 3.117, we finish by discussing Eastman's involvement in related photographic activities.

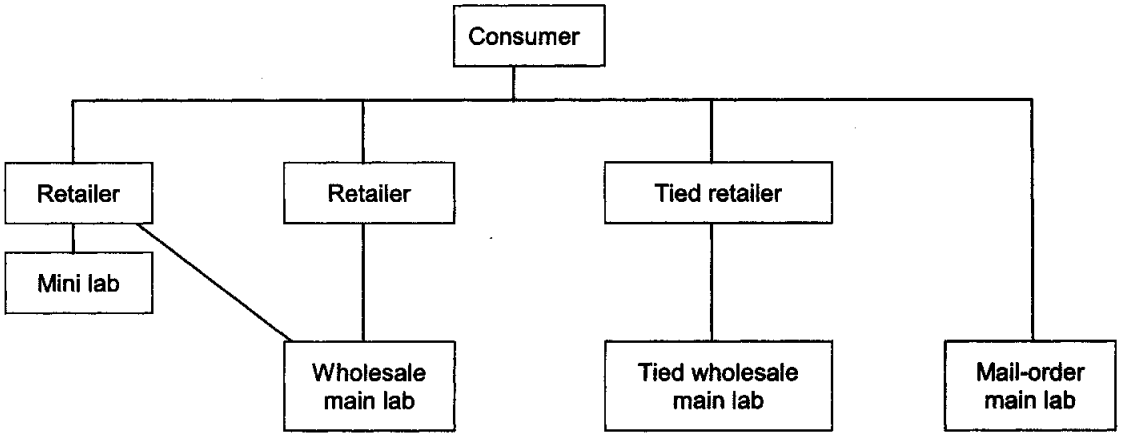
Structure of the developing and printing industry

3.5. In order to produce a viewable image, most cameras use film that has to be developed and printed. Video cameras, instant photography and DSCs are exceptions. While it is possible for enthusiastic amateurs to develop and print their own black and white photographs, the much more popular colour photographs generally have to be developed using specialist professional equipment.

3.6. Figure 3.1 illustrates, in simplified form, the main relationships between the various providers of D&P services. D&P is carried out either by wholesalers and mail-order companies in high-capacity main labs or by retailers using on-site equipment (mini labs). Main labs are described in Appendix 3.1. They are typically light industrial buildings containing several units of each type of high-speed processing equipment. A main-lab printer may be able to produce 20,000 prints an hour, and there can be several such printers in a lab. Some main labs have a number of tied retail outlets. By contrast, mini labs, which are described in Appendix 3.2, are compact processing machines that are prominently installed in retail outlets. The capacity of a mini lab can vary from 250 to over 2,500 prints per hour. In practice, other types of relationship between participants in the industry occur on a smaller scale. For example, tied retailers often have mini labs, some small wholesalers operate 'city labs' consisting of a number of mini labs (rather than a main lab), and some retailers with mini labs may provide wholesale D&P to a number of other local retailers.

FIGURE 3.1

Structure of the D&P industry



Source: CC.

Demand for developing and printing

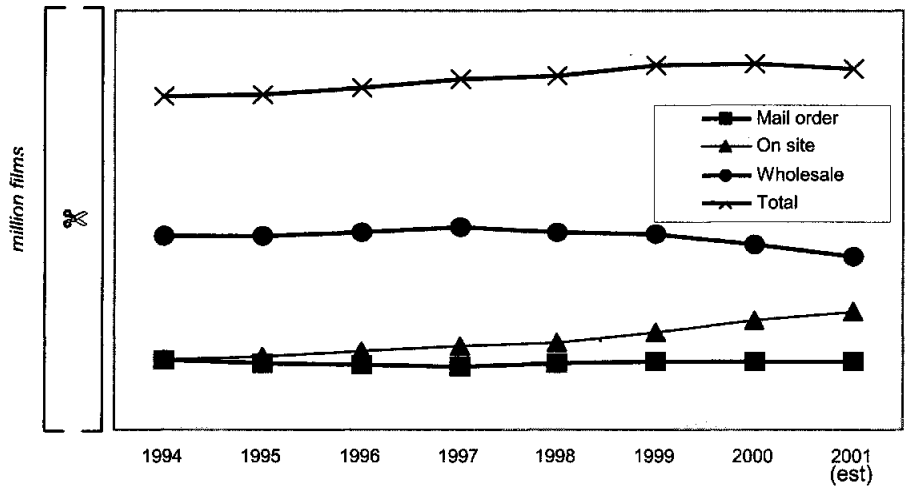
3.7. Total demand from amateur photographers for D&P services is hard to measure with precision, not least because technology is changing (see paragraph 3.97). Rising disposable incomes and new products may persuade more consumers to move to new technologies, such as DSCs, that do not require film. Without such changes, film sales and demand for D&P services would be likely to grow strongly in periods of economic growth, when consumers take more holidays. Demographic and lifestyle changes (such as the geographical dispersion of families) are also likely to drive growth in photography. We obtained a number of estimates of the value of total UK D&P sales. These estimates ranged from £430 million (in 1998) to £540 million (in 1999).[1]

3.8. The parties' estimates of the total demand for processing amateur colour negative films are shown in Figure 3.2. The figure also shows the number of films processed by wholesale main labs, mail-order main labs, and mini labs. Although the market fell from 1991 to 1994, there has been a recovery since 1995. KPCL told us that the increase in demand since 1996 was due to strong growth in the sales of single-use and APS cameras. However, it added that poor weather, and the fuel and foot-and-mouth crises, had hit volumes in 2000/01. It also said that the introduction of DSCs (see paragraph 3.99) was beginning to depress demand for traditional film.

[1]Centric Consulting Ltd (Centric) (in their *Imaging Report* 2000(Centric 2000)) collected various independent estimates: Fuji, Kodak and Centric themselves estimated the value of D&P sales at between £529 million and £540 million in 1999. However, Keynote (in *Cameras and Camcorders* 1999) provided a considerably lower estimate of £430 million for film processing in 1998.

FIGURE 3.2

UK processing of colour print films by route (million films)



Source: KPCL.

3.9. We understand that there are no aggregate industry estimates of processing values or quantities, partly because it is difficult to estimate D&P activity by mini labs and partly because the product mix differs between photofinishers. Total market size estimates are usually based on estimates of film sales and an assumption about the proportion of films that are never processed. There is, consequently, some variation in estimates of market size. KPCL estimated that unused films accounted for around 10 per cent of the total, whereas in 2000 Centric Consultants Ltd (Centric Consultants) estimated this figure at 3 to 5 per cent.

3.10. To help us calculate total demand for D&P and market shares, we collected production data from the major UK main labs and major mini-lab operators. Given the highly fragmented nature of the mini-lab sector (where most chains are franchises), it proved impossible to conduct a full survey of the entire D&P industry and build up a complete picture. We therefore based our assessment of total demand for D&P services on a range of external estimates of the total number of amateur colour films processed. Our survey allowed us to check the accuracy of these estimates in each sector. We also assessed them against information obtained from other industry participants.

3.11. Centric estimated total amateur D&P demand to be 100 million rolls in 1999.[1] Their estimates are consistent with estimates for 1997 from CIR,[2] MAPS[3] and Mintel.[4]

3.12. Only two of the sources gave estimates for 2000. KPCL estimated that total amateur D&P demand in 2000 was 104.6 million. In most cases, we found KPCL's estimates for individual throughputs to be reasonably consistent with the information from our survey. It did, however, appear to underestimate the in-house activity of mini-lab operators. Kodak's estimate of total market size (based on number of films purchased) assumed a higher proportion of undeveloped or spoilt films than other sources. This led KPCL to underestimate the size of the mini-lab sector and thus the total size of the market.

3.13. Robinson[5] estimated the total number of rolls of film developed in the UK to be 115.2 million in 2000, but its estimate exceeded any other (in particular, it reported a higher number of films developed in retail mini labs). Our assessment of the actual number of films processed (as told to us by major processors) leads us to believe that Robinson overstated the size of the mail-order market and understated the size of the wholesale market.

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[1]All estimates of the number of rolls processed include film from single-use cameras.
[2]CIR *Photographic Developing and Processing Market Survey*, Retail Business August 1997, Number 474, Retail Intelligence (quoted in Centric 2000).
[3]MAPS *Report on Photographic Equipment*, April 1997 (quoted in Centric 2000).
[4]Mintel *Report on Cameras and Camcorders*, Leisure Intelligence, January 1998.
[5]See footnote to paragraph 2.43.

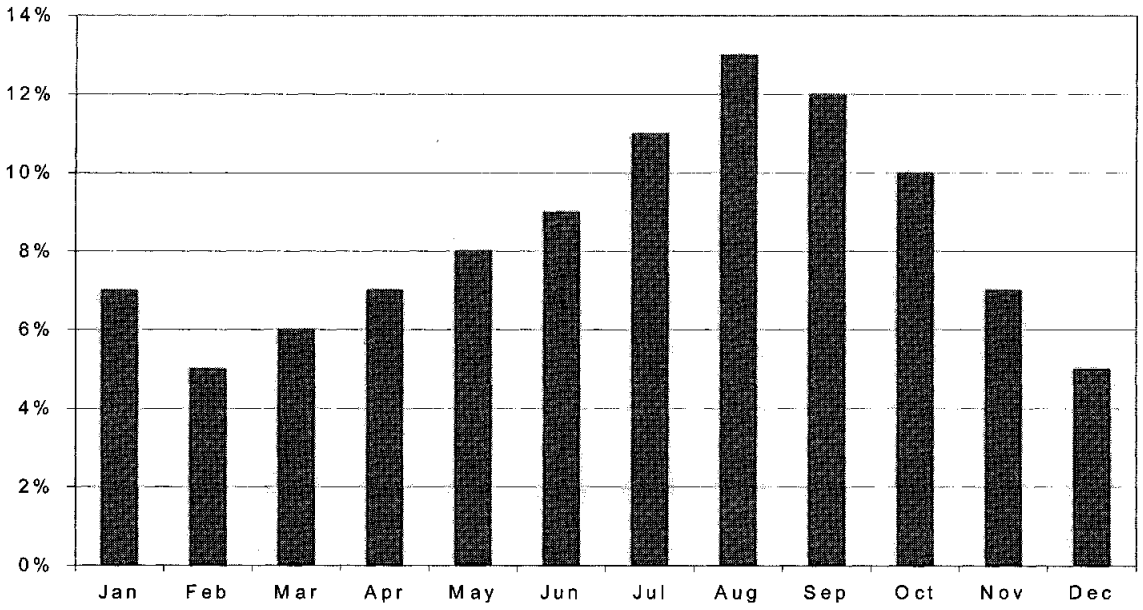
3.14. There is inevitably a degree of uncertainty about the total output of mini labs. Although sources disagree about their number and how intensively they are used, both factors are increasing. On balance, we believe that it is reasonable to use 110 million rolls as a measure of the total number of UK amateur colour films processed in 2000. Of this total, around [✂] million rolls were processed by mail-order companies, [✂] million by wholesalers, and some [✂] million were developed in mini labs. (Our estimates of mail order and wholesale activity are thus in line with the parties' estimates, but we consider that mini-lab activity was higher than they estimated.)

Seasonality and peaks in demand

3.15. The demand for processing services is seasonal. Activity rises over the summer months and peaks in August and September. There is a small peak in January, following the Christmas and New Year celebrations. KPCL provided evidence showing very consistent seasonal patterns of processing demand each year from 1991 to 2000; the average monthly figures are shown in Figure 3.3.

FIGURE 3.3

Monthly share of demand



Source: KPCL.

3.16. As well as a monthly pattern of demand, there is also a weekly cycle as most films are taken to retailers just after the weekend. ColourCare estimated that 25 per cent of its weekly processing volume was picked up from retailers on Mondays and had to be processed that night; only 13 per cent was collected on Fridays.

3.17. KPCL estimated that peak daily demand (which would normally be on the Tuesday following the August bank holiday) was around 2.75 times the lowest daily demand. If processors are to meet seasonal peaks in demand promptly, they must carry excess processing capacity throughout the rest of the year. The limited daily production 'window' (during the night shift that services the demand for overnight processing)[1] further increases the capacity that is required relative to average demand (see paragraph 3.24).

[1]Mail-order processors have a less marked excess capacity problem. As they do not need to meet a tight production window for overnight processing, they can operate processing machines 24 hours a day. Rather than having to meet peak demand on a particular day, this can be smoothed over the following few days. (Work is usually put through mail-order labs within 25 hours.) Of course, there may be practical problems in arranging extra shifts and processors would not want return mailings to be delayed for too long. KPCL told us that, to handle demand on peak days of peak weeks, it widens its production window by making extra collections throughout the day in order to bring some of the volume in before the normal production shift starts.

Developing and printing services

3.18. The method used to develop and print conventional colour films is photochemically similar in wholesalers' main labs and retailers' mini labs. It involves two main stages: the chemical treatment of film to produce colour negatives and the use of the colour negatives to produce colour prints. Two types of printing are currently used: conventional optical printing and a more recent digital printing process that can produce higher-quality prints (see Appendix 3.1).

3.19. Optical printing involves shining light through the negative to transfer the image on to photo-sensitive colour-negative paper. In digital printing, colour negatives are scanned to digitize the image, which can then be printed digitally on to photographic paper. Using a laser printer, or other methods, sharper definition can be achieved than with conventional optical printing.

3.20. The major benefit of digital printing is, however, that software can be used to improve the quality of the final photograph. For example, it can adjust areas of the image that would otherwise be over- or under-exposed or correct for 'red-eye'.[1] This results in improved quality and less wastage from failed prints. Digital compatibility makes it easier to upgrade the printing equipment to accommodate new technologies. It is thus less likely than conventional equipment to be superseded and should, therefore, have a longer economic life. Digital printing is also needed to process images received on magnetic or optical storage media (such as memory cards and sticks, floppy disks or CDs) from DSCs. Digital printing is discussed in Appendix 3.1.

3.21. The design of mini-lab equipment is radically different from that in main labs, as is the scale of the operation. The processes involved are outlined in Appendices 3.1 and 3.2. Main-lab operators are lagging behind mini-lab operators in introducing digital printing, largely because of their substantial existing investment in optical printing and the slower rate of progress in the development of digital main-lab technology. Despite this, some main labs offer digitally-enhanced printing[2] and others are experimenting with 'full' digital printing (see Appendix 3.1). KPCL told us that the merger would enable it to accelerate the adoption of digital printing in its main labs.

Division of processing between wholesalers, mini labs and mail-order photofinishers

3.22. Figure 3.4 illustrates the trends in the proportions of demand for D&P met by different processing routes. It is based on the data shown in Figure 3.2. Mini labs have steadily increased their share of the total. However, the share taken by wholesale main labs has fallen since 1997. The demand for mail-order processing was on a downward trend until 1997. Since then it has stabilized. The parties estimated that, in 2001, [✂] per cent of demand would be met by wholesale main labs, [✂] per cent by on-site mini labs and [✂] per cent by mail-order companies.[3]

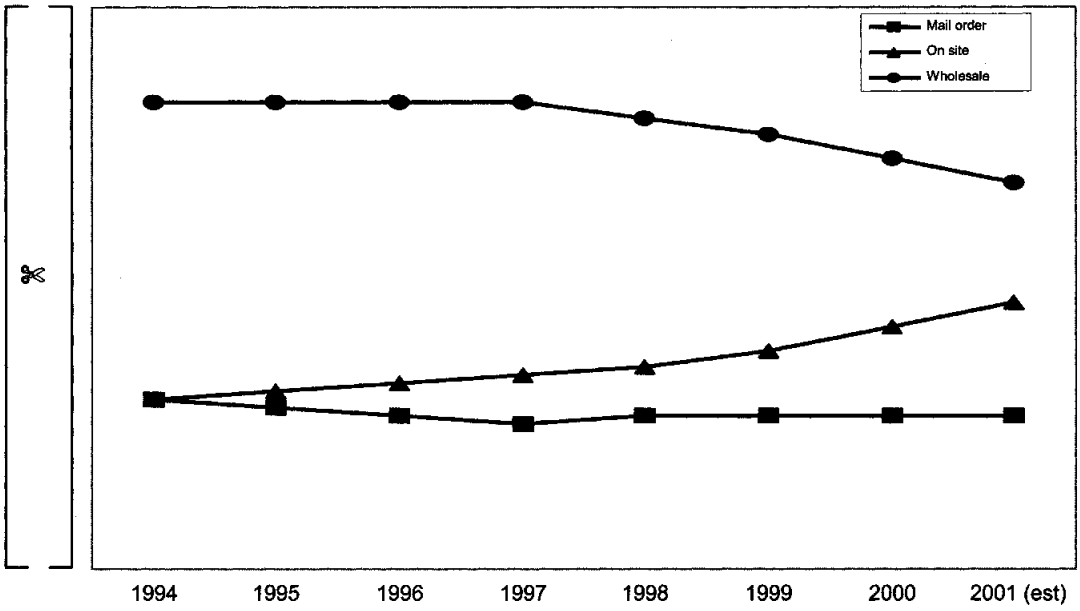
[1] 'Red-eye' is a problem associated with flash photography. Light from the flash can be reflected from the back of a subject's eyes, making them appear red.

[2] Bonusprint and Colorama use the Agfa digital masking exposure (Dimax) system. In this, negatives are scanned digitally, and the resulting information is used to compensate for areas of under- or over-exposure in a photograph. To achieve this an LCD filter is used to control the exposure given to the print during the otherwise conventional optical printing process. This allows near-digital quality to be produced on a high-capacity main-lab printer. This system can be upgraded to become fully digital when high-capacity digital printers become available.

[3] Centric provided similar estimates for 2000 at [✂] per cent, [✂] per cent and [✂] per cent respectively (and it noted that the *1999 International Photo Imaging Industry Report* estimated the share of wholesale processors at [✂] per cent).

FIGURE 3.4

Share of UK processing of colour print films by route



Source: KPCL.

Wholesale developing and printing

3.23. Retailers that choose not to have a mini lab rely on wholesalers for their processing. These retailers include chains and independent outlets (see paragraph 3.75). Retailers with mini labs often rely on wholesalers to provide specialist services, to process any demand that exceeds the capacity of their mini labs and to provide cover in case of breakdowns and maintenance.

Main labs

3.24. The technology used in the main labs of large wholesale processors is described in Appendix 3.1 and the major participants in the industry are described in Appendix 3.4. In brief, a main lab is a central laboratory, which incorporates many items of specialist equipment and provides a service to a substantial region. Seasonal and daily peaks in activity (see paragraph 3.15) severely affect the level at which main-lab capacity can be used. Allowing for these, the average output of a main lab may be as low as 14 per cent of the output that could, in theory, be achieved if the plant were to be run 24 hours a day for seven days a week. The processor is usually responsible for collecting films from the retailers and returning the photographs (see Appendix 3.3), although some retailers choose to use their own transport networks instead.

Wholesale services

3.25. Wholesale photo processors offer a range of services. The most significant of these is the first-time processing of colour prints from 35mm or APS colour-negative film. Prints are offered in various print sizes,[1] most commonly 102mm x 152mm (4 x 6 inches). Specialist services offered by wholesalers include reprints and enlargements, and the processing of unusual film types (for example, 110 and 126 cartridge films, disc films and half-frame films).

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[1]There are three common sizes of print. The most commonly produced size in the UK is 102mm x 152mm and for simplicity we call this a 'standard print'. Next, the 'large print' size is 127mm x 177mm. This is becoming more common and may account for 10 to 20 per cent of print orders. There is a very large size, 152mm x 228mm, but demand for prints in this size (as opposed to enlargement reprints) is low. *Note:* The industry measures print sizes in imperial units. The sizes above correspond to 4 x 6 inches, 5 x 7 inches and 6 x 9 inches.

3.26. Different levels of service are defined by the speed with which photographs are returned to the retailer. The most common levels of service offered are 'overnight', 'next day' and 'three day'. In some densely-populated areas, wholesalers may also offer a number of local retailers a same-day service.

3.27. The processing of black-and-white films, and of colour transparency films, are smaller, declining sectors, requiring different processing equipment. Amateur users of these films include enthusiasts, who particularly value the effects achieved by these films. Such customers may use either wholesalers or 'professional' D&P firms (see paragraph 3.36) that deal with unusual types of film.

3.28. Although main labs have lagged behind mini labs in adopting digital printing (see paragraph 3.19), wholesalers have added new services based on digitizing images from conventional films. These can provide pictures in digital formats, ie on magnetic or optical storage media or in the form of files that can be uploaded on to the Internet. Similarly, a digital printer can print photographs delivered to the lab in digital formats. Finally, there are assorted ancillary services, including reprinting from prints and producing products (such as coasters, table mats, jigsaws and T-shirts) with photo images on them. Such activities account for a very small share of total D&P sales.

3.29. KPCL is testing pre-production digital printing equipment at its main labs (see Appendix 3.1). This equipment is supplied by I-lab, another Eastman subsidiary. KPCL told us that it intended to position itself towards the forefront of technological developments. A part of this would be to produce prints of the highest achievable quality by accelerating the introduction of digital printers, once production models became available. KPCL said that it intended to use the additional profits generated by the merger to achieve this.

3.30. An analysis of KPCL's processing sales by the various categories of activity is shown in Table 3.1. The first-time processing of colour film (excluding other services) accounts for [✂] per cent of revenue. Reprints are the second most important activity.

TABLE 3.1 **KPCL processing sales mix in 2000**

	Revenue £'000	*Share %*
35mm wallet D&P (regular print sizes) 35mm premium-price* D&P APS D&P Other first-time D&P (eg 110, 126, disc) Total first-time D&P	*Details omitted. See note on page iv.*	
Colour reprints (up to 127 x 177mm) Colour enlargements (over 127 x 177mm) Black and white D&P Slide processing Other ancillary services Total ancillary services		
Total digital services (CD, disk, Internet) Other services†		
Total	(✂)	100.0

Source: KPCL.

*Premium-price D&P services include packaging in presentation boxes, better-quality paper, index prints, and borders around prints.

†Other services include on-site mini-lab support services.

3.31. ColourCare's sales show a similar distribution of activities. First-time D&P again accounts for the great majority of activity, while reprints and enlargements are secondary activities and the shares of black and white films, slides and digital services are small.

Suppliers of wholesale D&P services

3.32. The suppliers of wholesale D&P services are described in Appendix 3.4. KPCL and ColourCare are the two major wholesalers supplying UK customers and the only two offering coverage across the whole of Great Britain on a next-day basis. The parties to the merger are thus substantially the

largest two non-tied wholesalers. There are also a number of smaller wholesalers including Colorama, TopFoto, Wembley Photofinishers, Guernsey Colour Labs, Spectra (owner of Belmont), Maxifoto, Mirage Foto Labs, and H S Baldwin (Stroud) Limited. Although much smaller than KPCL and ColourCare, Colorama is able to offer a service to retailers in most parts of Great Britain. One company, Klick/Max Spielmann, has main labs that provide a tied wholesale processing service, limited to its own retail outlets across Great Britain.

3.33. The other wholesalers either offer a service in a limited area or concentrate mainly on providing mail-order services. A number of regional wholesalers operate 'city labs'. A city lab consists of one or more mini labs that provide wholesale services. They typically have a much lower throughput than a conventional main lab and are not sited on retail sites.

Mail-order developing and printing

3.34. Mail-order suppliers use main-lab equipment similar to that used by wholesalers but rely on the post for collection and distribution. KPCL estimated that mail-order suppliers distributed 260 million envelopes a year throughout the UK, using the press and dispensers in various outlets, including airports and motorway service stations. The consumer fills out an order form on the envelope and posts it, enclosing the film and a cheque or credit card authorization. The main lab then returns the prints by post in about a week with a repeat order envelope. The two largest mail-order processors now also offer express services. These guarantee that prints will leave the lab within 24 hours.

3.35. The leading mail-order businesses in the UK are Grunwick (which operates various brands including Bonusprint, Doubleprint and Tripleprint), Harrier (which trades under the Truprint, York and Excel brands) and Intec Laboratories Limited. Guernsey Colour Labs has a main lab in Liverpool that provides a mail-order service to UK customers. There are also a few smaller brands.

Developing and printing for professional photographers

3.36. Commercial customers, such as estate agents, portrait, wedding and school photographers generally require 'professional' processing services. The nature of these services differs from those offered to the amateur market. For example, different sizes and styles of print tend to be required and special film formats, which the parties are not equipped to handle, are also frequently used. The processing of professional films is usually carried out by one of some 500 dedicated 'pro labs', using largely manual D&P processes that can handle the specialist film formats, different chemistry and hand printing and finishing, which are involved. Apart from limited services, such as a pro lab attached to one of ColourCare's main labs and some estate agency business carried out by ColourCare, the parties do not serve this market.

Mini labs

3.37. Mini labs were first introduced in the mid-1980s and many retail chains and independent retailers have subsequently installed them. Users include high-street chemists, supermarkets, photography stores, franchised chains of mini labs and groups of independent mini-lab operators affiliated to major photographic companies. Retailers and franchise chains with a significant in-store mini-lab business include Boots, Jessops, Foto Stop Express, Snappy Snaps, Tesco, Minit UK plc (Minit) (owner of the Supasnaps chain), Superdrug and Klick/Max Spielmann (see Appendix 3.4).

3.38. Estimates of the number of mini labs in the UK vary. Based on an audit of D&P retail outlets conducted by ESA during the inquiry, the parties estimated the total to be 3,100. Other estimates we received ranged from 2,500 (in 1999) to 3,400 (in 2001).[1] The parties expected the number of mini labs to increase further and told us that mini-lab penetration was substantially higher in some other countries, for example mini labs were thought to account for 70 per cent or more of all processing in Spain, Canada and Japan.

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[1]Fuji estimated the number of mini labs to be 3,000 (in 2001). Robinson gave a higher estimate of 3,400 for 2001. Centric estimated that there were 1,660 mini labs in 1991, 2,010 in 1995, and 2,525 in 1999.

Benefits of mini labs

3.39. Mini labs have a number of advantages for retailers. They allow the retailer to offer a rapid service at a premium price. We often heard the view that mini labs should be operated in full view of the public; most are indeed prominently placed with operators in lab coats and gloves. Their presence was thought to create an impression of expertise that brought credibility and additional business to the retailer in all aspects of photography sales. Visible mini labs can also be a 'footfall' driver, ie consumers may be tempted into the shop and make purchases at other counters.

3.40. The on-site location of mini labs enables retailers to offer customers 1-hour and same-day services, for which they can charge a premium price. (Some retailers even offer service times of less than half an hour.) Main-lab wholesalers generally do not offer retailers a same-day service (other than in a few densely populated areas).

Size and position

3.41. Although new mini labs are small and require less space for their installation than earlier models, the retailer could still use this space for other product lines. Some retailers have, therefore, chosen to maximize the space available for retail uses by locating their mini labs in less expensive areas away from the shop floor. This approach does, however, risk reducing the marketing benefit of attracting additional customers (see paragraph 3.39). Lloyds Pharmacy Limited (Lloyds) told us that it had decided against investing in mini labs, partly because it had insufficient space in its generally small stores. Superdrug said that it would not consider mini labs in stores with under 279 square metres (3,000 square feet) of retail area.

Skills needed

3.42. Another potential issue for retailers is the need for specialist staff and their training. The parties told us that modern mini labs do not require highly-skilled staff and that they could be trained to use the equipment in as little as two days. Nonetheless, the mini-lab operators we spoke to said that, as well as several days of training, staff needed considerable experience of using a mini lab before they could operate it optimally. Operation of the mini lab might also require extra staff to be employed to provide cover throughout the week.

Digital mini labs

3.43. Digital mini labs, which were introduced to the UK in 1997, are at present the main means of offering consumers fully digital printing and related services (such as providing digital images on CDs or via the Internet). Wholesalers can, however, replicate some of these services using their own digital mini labs or prototype digital printing equipment (see Appendix 3.1).[1]

3.44. Many retailers told us that the quality improvements offered by digital printing were very important. Some of these thought that digital printing was crucial, as they considered that photography would move rapidly towards digital media. However, other retailers told us that most consumers were unaware of the quality benefits offered by digital processing. These retailers found it difficult to present the benefits to consumers, who were already content with the prints they got and could not compare the same images printed by digital and optical methods. Few retailers charge premium prices for digital services.

3.45. Although expected to grow, the demand for additional digital services and for printing from DSCs (see paragraph 3.98) remains low. Consequently, some retailers who felt that low prices were more important for their customers have chosen to continue to invest in cheaper optical machines.

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[1]KPCL is testing pre-production versions of Eastman's I-lab digital main-lab printers. Gretag Imaging AG (Gretag) is also testing pre-production versions of its similar Cyra system. Some other main labs are already using Agfa Dimax printers that offer some of the advantages of digital printing (see Appendix 3.1).

Technical progress in mini labs

3.46. Since their introduction, technical progress has greatly reduced the size of mini labs and cut the training required of operators. Additional features have been added to many models, such as the ability to process black and white films and to produce prints and enlargements of different sizes. We were told that further significant size reductions were likely in the near future, provided that inkjet printers that produce prints of a quality similar to conventional 'wet' printing could be perfected (see Appendix 3.2). Furthermore, if the use of DSCs grows rapidly (see paragraph 3.98), mini labs concentrating on processing digital images might no longer need a developing process and could therefore be very small, effectively consisting of a printer and a computer for image processing.

Costs

3.47. New mini labs range in price from about £35,000 to £150,000, depending on their speed and features (see Appendix 3.2). Small retailers are able to spread the purchase cost over a number of years by using leasing or arrangements that effectively include the purchase price in the cost of photographic paper and chemicals. Alternatively, they can obtain a second-hand optical mini lab for as little as £10,000.

3.48. Mini-lab processing is much slower than the high-capacity systems used by main labs. Although this leads to somewhat higher processing costs, this disadvantage is compensated for partly by the absence of collection and delivery costs and partly by the fact that a retailer with a mini lab is able to offer premium-priced services.

3.49. The viability of a mini lab depends on using it effectively. This requires some combination of generating additional sales, achieving a high throughput and obtaining an adequate proportion of orders for premium 1-hour services. Appendix 3.5 contains an assessment of the relative costs and benefits to the retailer of main-lab and mini-lab processing. KPCL estimated that, as mini labs generally operated only during shop opening hours and were subject to seasonal and daily variability in demand, their average capacity utilization was under 10 per cent[1] of theoretical capacity. Grunwick, Colorama and Lloyds all expressed doubts about the viability of some mini-lab operations; each of them had recently closed mini-lab-equipped stores. KPCL noted that many mini labs were competing for business in most high streets. Its audit of D&P retail outlets (see Appendix 3.6) found that 79 per cent of households had access to at least three stores equipped with mini labs within 5 miles.

Use of wholesalers

3.50. Retailers with mini labs tend to rely on wholesale main labs for specialist services, such as processing colour transparencies or black and white films. Many of these retailers also send colour-negative films to main labs when their customer does not require a 1-hour or same-day service. Once a retailer has installed a mini lab, its marginal processing costs are, however, likely to be below the wholesaler's processing prices (see Appendix 3.5). This leads many retailers to process as much work as possible in-house and to send films to wholesalers only when their mini labs either cannot provide a service or have insufficient capacity to meet demand on a particular day, owing, for example, to maintenance or breakdowns. On the other hand, where an integrated operation (such as Klick/Max Spielmann) owns both main labs and mini labs, we would expect its cost structure to lead it to maximize the use of its main-lab capacity.

The consumer perspective

3.51. From the consumer's point of view, photoprocessing services differ primarily according to price, the speed with which photos are returned, and whether the service is available through a retail outlet or by mail order. Some consumers may also be interested in the retailer's apparent professionalism and the quality of the 'retail experience', which ranges from specialist photographic shops to newsagents.

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[1]KPCL estimated that there were 3,100 UK mini labs. We estimate that these process around [✂] million films a year. Assuming an average capacity based on processing 50 films an hour for a 9-hour day, and a six-day operating week, this suggested an average utilization of about [✂] per cent.

Retail prices vary mainly according to the speed of the service: the fastest options, 1-hour services (or, in some cases, half-hour services), are the most expensive and mail-order services tend to be cheapest. To a lesser degree, other aspects of the retail offer may also influence price. Thus, consumers face a trade-off between speed of service (and other factors important to particular customers) and price. The price differentials have, however, narrowed in recent years as the real prices of all services have declined.

Services used by consumers

3.52. KPCL told us that most consumers used a variety of types of processing, varying between same-day services, slower retailer services and mail-order D&P. To examine this, we conducted a survey of photoprocessing consumers, which is described in Chapter 5. We asked which services consumers used for D&P, allowing them to give more than one answer. Our survey results showed that 25 per cent of consumers, who had 35mm or APS films processed, used 1-hour services, 28 per cent next-day services, 30 per cent three-day services, 9 per cent six-day services and 21 per cent mail order. Research commissioned by KPCL from Research International found that consumers used services with a variety of processing times.

3.53. However, some third parties told us that some customers were loyal to mail-order services. Research International found that around half of customers tended to be loyal to one type of service and that the degree of loyalty was similar for mail order and other types of service. Mail-order operators told us that their customers were very price sensitive (presumably because they could easily switch to alternative mail-order providers). Such consumers tended to have a higher rate of film usage.

3.54. On the other hand, it has also been suggested to us that many consumers would be unwilling to use mail-order services. In our survey, we looked at the views of respondents who would not switch to mail order, even after a 20 per cent rise in D&P prices for other services with a next-day to within-a-week response time. They gave the following reasons for not choosing mail order:

(a) not trusting mail order or fearing that film could be lost in the post (the reason quoted by 43 per cent of respondents);

(b) using the post was inconvenient compared with going to a retailer (28 per cent); and

(c) the slow speed for getting photos back (22 per cent).

Other reasons may include the complexity of the order forms on the mail-order envelopes.

Consumer price sensitivity

3.55. We were given estimates of the average number of films used per consumer, varying from 2.93 to 4 per year. For most consumers, film developing is, thus, an infrequent and low-value purchase.

3.56. Some third parties suggested that consumers might consequently not be very price aware or price sensitive. Lloyds told us that customers at some of its outlets were more price sensitive than others. Fuji said that it received very variable feedback from retailers on the price sensitivity of consumers. It thought that price sensitivity varied according to the number of films a consumer used and that aggregate demand patterns varied between high-income urban areas and other lower-income regions. Jessops told us that its customers, who were already paying a premium for a quality service and free film, were likely to be less price sensitive than others.

3.57. We were told that consumers with a higher rate of film usage were more price aware, and might thus be more likely to shift from retailer to mail-order processing. Although some third parties suggested that consumers who wanted immediate film processing were less price sensitive than those satisfied with slower processing options, this view was contested by KPCL and was not supported by the results of the Research International study.

3.58. We found that most (but not all) retail locations clearly displayed their pricing, although the number of special offers and processing options (including speed of service, size of prints and extra prints) could complicate comparisons.

Wholesalers' relationships with retailers

3.59. Both parties told us that if business with a retailer dropped below a level where the costs of delivery and collection (and other costs of servicing the account) could be covered, the account could be reviewed and might eventually be closed. KPCL suggested that this sales level would be around £[✂] a year. ColourCare quoted a lower figure, but noted that the marginal cost of distribution would vary depending on the location of the retailer. For example, a different attitude would be taken if the retailer was located on a route already served by a van visiting other retailers, than if serving it necessitated a substantial deviation in the delivery route. Neither party rigidly applied turnover thresholds in all cases. Both parties periodically undertake reviews of accounts and cull uneconomic ones.

3.60. Boots, unusually, had agreed to offload a proportion of the slower services from its mini-lab stores to KPCL, even when there was spare capacity at its mini labs. It told us that it did this to ensure that there was sufficient volume going through the wholesale main labs during quiet months to ensure their viability. Boots said that it had an interest in ensuring that wholesale processing was available to cover requirements at other times and for stores without mini labs.

Contracts with retailers

3.61. We asked the parties to explain their agreements with retailers concerning pricing and the terms of business. KPCL told us that the vast majority of its retailers agreed to a standard set of terms and conditions. Pricing would, however, be negotiated with each individual retailer. Of around [✂] accounts, only the [✂] largest customers had individual contracts [✂].

3.62. Similarly, ColourCare told us that it had only [*Details omitted. See note on page iv.*] and set out pricing, service and quality specifications, promotional discounts and other conditions. Often the agreement consisted of an exchange of letters setting out key commercial matters. It was most common, however, not to have any formal agreement, other than a new-account opening form.

3.63. KPCL told us that it would be easy for a retailer to switch between wholesale providers due to the loose contractual arrangements in the industry. [
Details omitted. See note on page iv.
] The only barrier to switching supplier was the limited investment in retailer-specific packaging stocks. As products and services are standardized (for example, the developing process and the size of prints), other processors would have no difficulty in taking over business. Some retailers use two wholesalers simultaneously, as standard agreements are not exclusive.

Wholesale pricing

3.64. KPCL issues retailers with recommended selling prices (RSPs) for all its products. It told us that its wholesale pricing was based on national guidelines with prices varying according to the sales volume from the retailer and the costs of supply. KPCL explained that its pricing bands were based on expected volume: the rate of discount increased with sales per outlet.

3.65. Wholesale prices for small and medium-sized retailers were calculated by applying discounts to the RSP. There were [✂] groups based on turnover and whether there were one or two calls per day. The discounts increased as the costs attributable to serving the retailer fell. The major cost that varied was collection and delivery. This depended mainly on volume per outlet and the location of the outlet relative to distribution routes.

3.66. KPCL's standard pricing schedules for overnight services show that the wholesale price for D&P of a 24-exposure film with standard-size prints (102mm x 152mm) varies from £[✂] and £[✂] (for a small £[✂] to £[✂] account in Scotland, and England/Wales respectively), down to £[✂] (for a £[✂] to £[✂] account anywhere in Great Britain).

3.67. Substantial quantity discounts, ranging from [✂] per cent for a small account worth £[✂] to £[✂] a year up to [✂] per cent for an account up to £[✂], are available. Retailers with business over £[✂] a year are assumed to need two visits a day. They receive a range of discounts varying between products, extending up to [✂] per cent on regular and large-print D&P for accounts up to £[✂].

3.68. KPCL told us that it offered slightly lower discount rates to smaller retail accounts (below £[✂] a year) in Scotland, because of higher distribution costs (which average £[✂] per call in Scotland compared with £[✂] in England and Wales).

3.69. KPCL negotiates prices individually with larger retailers and retail chains (typically those with three or more stores). Discounts may be negotiated individually for retailers with a very large level of business per retail outlet or multiple stores with a high aggregate level of business. KPCL told us that the prices offered were based on the cost of servicing the account.

3.70. Retailers who did not fit the standard categories would be offered an additional discount, typically on certain lines. Reasons could include an unusual mix of business (for example, a higher proportion of extra sets of prints or 36-exposure films) or accepting either fewer calls or more flexible timing. KPCL said that there were no variations in discounts related to other factors, such as the month, geographic location, distance to the client, type of retail outlet or whether the retailer had a mini lab.

3.71. As well as large customers and those that had simpler distribution requirements, customers that required less support (for example, special services, assistance with promotion or customer-specific point-of-sale advertising) would also be able to negotiate lower prices. KPCL said that it was, consequently, not true that larger retailers would necessarily pay lower wholesale prices than smaller ones. KPCL said that prices were renegotiated periodically, and negotiation could centre on particular lines rather than the overall package.

3.72. KPCL provided the average prices charged to its 12 largest customers and an analysis of the average prices paid by around [✂] small customers. The prices had been calculated by dividing revenues by the number of orders, and the categories include a number of different services (for example, different film lengths and print sizes). Consequently, price figures were not directly comparable, given the varying mix of services between retailers. The analysis did, however, confirm that the largest accounts do not necessarily receive the lowest prices: [*Details omitted. See note on page iv.*]. Average prices per order varied by around [✂] per cent between retailers.

3.73. KPCL said that some customers such as [*Details omitted. See note on page iv.*] achieved high levels of D&P per store, thus reducing average fixed costs. [*Details omitted. See note on page iv.*] stores were served by two van visits per day (often with tight collection-time windows) pushing up distribution costs. KPCL added that average prices for [

Details omitted. See note on page iv.

].

3.74. ColourCare told us that it also applied a discount on RSP lists to determine wholesale prices for smaller customers. Discount rates can vary by product and customer but there are no predetermined turnover bands corresponding to different discount rates. For larger accounts with higher film volumes per call, there is greater freedom to negotiate higher discounts on certain product lines, and/or to provide promotional assistance, for example advertising and free gifts. ColourCare said that its pricing would take into account volume, cost of collection and delivery, as well as the level of wholesale and retail competition. It said that there was no systematic geographic variation in pricing except in Northern Ireland.

Retail outlets

3.75. The main retail groups are described in Appendix 3.4. KPCL carried out a survey of retail D&P outlets, which is described in Appendix 3.6. From the results of the survey, it estimated that there were around 22,000 retail outlets in the UK offering D&P services, the great majority without mini labs. Its estimates of retail market shares for the major UK retail chains are shown in Table 3.2. The table includes all retail groups' D&P sales, whether or not they are subcontracted to a wholesaler, and mail-order companies, ranked by retail market share.

TABLE 3.2 **UK market share of major retail and mail-order D&P providers**

million films

Company	1997 Volume	1997 Share %	1999 Volume	1999 Share %	2001 Volume	2001 Share %
Boots		18.0		19.6		20.4
Klick/Max Spielmann*		15.6		13.8		18.1
Harrier		10.1		7.3		8.0
Grunwick		8.6		8.4		7.8
Tesco		0.7		1.4		4.6
Kodak Express		4.2		3.7		3.7
Supasnaps		4.3		4.0		3.2
Jessops		1.6		1.6		2.7
Foto Stop Express		2.3		2.8		2.4
Snappy Snaps	✂	1.7	✂	2.0	✂	1.9
Lloyds		1.7		1.6		1.6
Fuji Mini labs		1.2		1.7		1.5
Guernsey Colour Labs		1.7		2.0		1.5
Savers		0.1		0.3		1.4
Superdrug		0.6		1.1		1.3
Sainsbury		0.2		0.5		0.6
Other		27.5		28.0		23.8
Total		100.0		100.0		100.0

Source: KPCL.

*Separate volumes shown for Klick and Max Spielmann before their merger.

Chemists

3.76. The largest UK retailer of D&P services is currently Boots with over 20 per cent of the retail market. Its increased market share is partly attributable to its investment in mini labs. Boots was the first retail chain to introduce them on a large scale, and 550 of its 1,440 stores are now equipped with mini labs.

3.77. Superdrug and Savers are other high street chains of chemists offering a photofinishing service, although they have a lower proportion of stores with mini labs and a greater reliance on wholesale processing. Lloyds, on the other hand, is a chain of neighbourhood chemists that has very few mini labs.

Specialist outlets

3.78. The second largest chain of retail outlets is Klick/Max Spielmann. Many of these provide a mix of D&P and dry-cleaning services. Although it operates 570 tied retail outlets, one-third of which have their own mini labs, it also has four main labs that provide a dedicated wholesale service to its own stores. Jessops is a business specializing in the needs of the keen amateur photographer. It has 207 stores, over one-third of which have mini labs. There are also a number of specialized franchised chains of stores with mini labs, including Foto Stop Express, Snappy Snaps and Minit/Supasnaps (see Appendix 3.4). The affinity-marketing programmes for mini-lab operators operated by four multinational photographic companies are discussed in paragraph 3.116.

Supermarkets

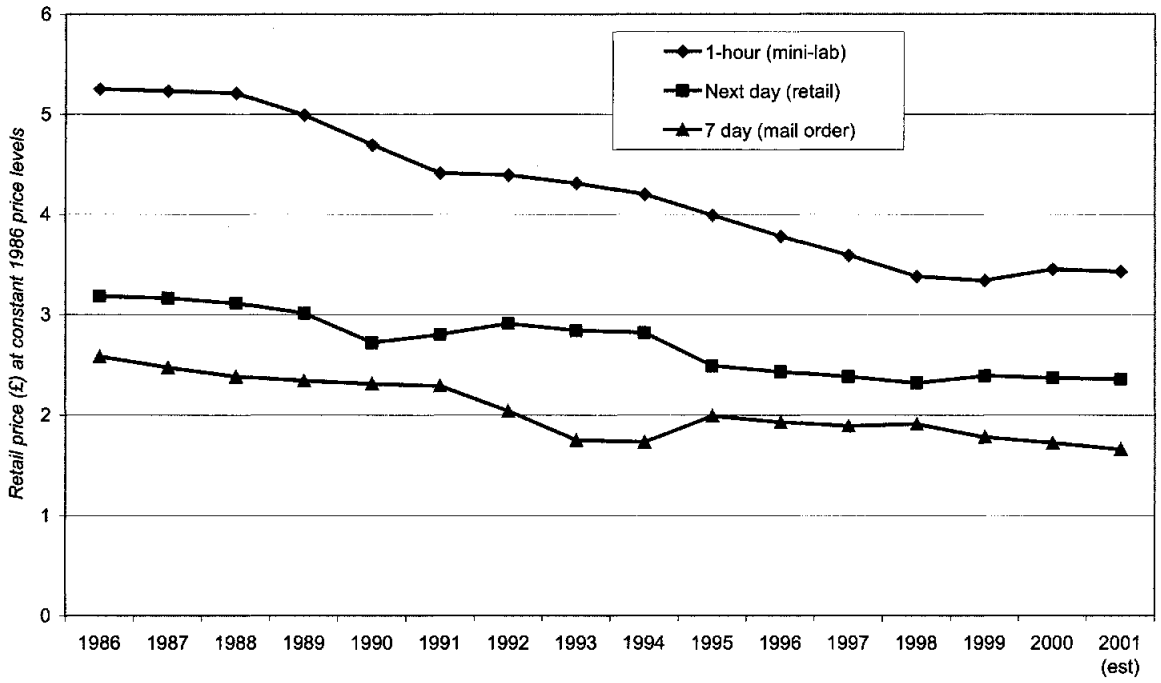
3.79. Another significant category of retailers is supermarkets. Tesco and Sainsbury are included in Table 3.2. It is believed that [*Details omitted. See note on page iv.*] intend to expand the number of mini labs in their stores. ColourCare said that [*Details omitted. See note on page iv.*], while KPCL told us that [*Details omitted. See note on page iv.*]. We heard that, as photoprocessing was a high-margin activity relative to most other supermarket retail activities, it was possible that this could have implications for their pricing strategies (see paragraph 3.90).

Retail pricing and promotions

3.80. Retail prices for all services have fallen steadily over the past 15 years. KPCL provided the price data, shown in Figure 3.5, for 1-hour, next-day and mail-order processing at constant 1986 prices (ie excluding inflation). The prices shown are for 102mm (4-inch) prints from 24-exposure 35mm film. KPCL commented that there had been a decline in the real cost of D&P services, particularly for mini labs. Also, the cost of 1-hour services had declined relative to the other options, which, it said, explained the growth in popularity of mini-lab processing.

FIGURE 3.5

Average retail prices for D&P services at constant 1986 prices



Source: KPCL.

3.81. Reviews of processing services in consumer magazines and the photographic press[1] suggest that there is no systematic difference in quality between wholesale and mail-order main labs, or mini labs, using the same processing technologies. Digital processing, offered by most newer mini labs, provides what are usually seen as higher-quality prints. Premium prices for digital services are, however, unusual.

3.82. We noted that competition was not on price and 'retail experience' alone: retailers also used many promotional and supplementary offers to attract customers. Mail-order processors in particular tend to offer 'free' films[2] (which are often own-label brands) or additional prints. Retail outlets sometimes offer similar deals on promotions, or free or reduced price photo albums, reprints and enlargements (and certain retailers, for example Jessops and Lloyds, always offer a free own-brand film with processing). Examples during the course of this inquiry included 'win a car' or 'win £100,000' competitions on mail-order envelopes and a free processing with purchases of Kodak film offer provided by Tesco at its supermarkets.

3.83. KPCL told us that wholesalers tended to share the cost of such promotions with retailers but, in its view, they rarely resulted in sufficient extra business to cover the cost to wholesalers. Participating in a promotional programme was, however, necessary to secure retailer accounts. ColourCare explained

[1]For example, *Amateur Photographer*, 30 June 2001, pp 25–35 and *Which?*, July 2000.
[2]Processors told us that, as the bulk purchase cost of films was very much lower than the retail price of films, 'free' film offers were very attractive to customers because of perceived value and convenience.

that promotions are attractive to some retailers as they may also increase footfall through a store, leading to purchases of other products. It also felt that promotions could be effective in inducing changes in spending habits. It named one large retailer that had doubled sales with promotions on several occasions. ColourCare operates a national promotional calendar at its own expense (including offers such as 3 for 2 on enlargements, free album with larger-size prints, and reduced prices for poster prints) and it provides some support to larger accounts running their own promotional activity.

3.84. We undertook an investigation of the range of services and prices on offer at various retail outlets. This further examined issues suggested by our consumer survey (see Chapter 5) that had indicated that convenience, price and speed of service were the main reasons for choosing a particular service. KPCL had told us that, at the retail level, the main drivers of price were speed of service, the convenience and ambience of the retail outlet and the trustworthiness of the retailer. For mail-order services, KPCL had told us that the main drivers of price were speed, special offers (free film, extra sets of prints) and the size of the pictures. Our survey also suggested that lack of trust in services, inconvenience and speed were the main reasons not to use mail order.

3.85. Our investigation, therefore, aimed to confirm that these factors accounted for the large variation that we saw in price. We contacted mail-order processors and collected current order envelopes for 20 different brands. Although we noted that there were many special offers, we analysed only the regular price. We also conducted a survey of prices in 26 retail outlets in central and outer London (see Appendix 3.7).

3.86. The results confirmed that consumers made a trade-off between price and speed of service. Speed of service on its own accounted for around 43 per cent of the price variation for 35mm film. The proportion of the price variation explained increased to 52 per cent when we also took account of whether the store had a mini lab and to 70 per cent when we took account of location as well.

3.87. The rest of the variation in prices was specific to individual retailers. These price differences across retailers might reflect differences in other factors that are difficult to measure, such as retail ambience, quality of service and trustworthiness. They might also reflect differing market power and the ability it gives firms to charge higher margins. We were not able to distinguish between these two interpretations.

3.88. Although KPCL and ColourCare both advise retailers of RSPs for all their products, they said that they did not require retailers to set retail prices at these levels. KPCL said that it set the RSP by reference to typical market prices and at a discount to the retail price for the corresponding service charged by Boots.

3.89. Some retailers also told us that Boots' prices were important reference points in determining their own price levels. As Boots was the largest retailer with a very strong brand and a reputation for quality, other retailers considered it important to have a competitive price relative to it. Most retailers (including Boots) have a national price list. However, Lloyds told us that the intensity of price competition varied across the country, and its branches were placed in five price bands for basic, standard-sized prints for first-time 35mm processing (but not other services or APS films). Our own survey noted that there appeared to be lower prices available in outer than central London, and that prices could vary between branches of franchise chains.

3.90. During the inquiry, we noted that some supermarkets had started aggressively advertising their prices relative to those of Boots. Retailers and main-lab operators that we spoke to told us they expected that the roll-out of mini labs to supermarkets would allow them to attack what appeared to be a comparatively high margin business, particularly for 1-hour processing. A processing service could be offered while customers undertook their weekly shop. Thus, retailers expected pricing for 1-hour processing to come under strong pressure from supermarket competitors in the near future. As these rapid service premiums are crucial in justifying investment in mini labs, this may affect the viability of other high street mini labs (see Appendix 3.5) although against this, the parties expected the cost of mini labs to fall.

Wholesale collection and distribution

3.91. Transporting films and prints between stores and wholesale main labs is normally the responsibility of the processor. Some, such as ColourCare and Colorama, have their own fleets of vans. Others,

such as KPCL, contract out the task to specialist distributors. Colorama also uses its vans to carry other products for companies within its group. Following the merger, it is intended that the remaining ColourCare activities will become a specialist distributor called PrintMovers, which will [*Details omitted. See note on page iv.*] for the merged D&P operation. The potential management team of PrintMovers intends to [*Details omitted. See note on page iv.*]. Distribution is discussed in Appendix 3.3.

Catchment areas of wholesale main labs

3.92. In summary, the geographic area that can be served by a wholesale main lab is limited by three factors:

(a) The minimum required production window in the wholesale main lab. This is the minimum time needed to do the processing work and restricts the period available for distribution. It therefore determines the travelling time to the most remote outlet that can be served (although work collected from remote areas may be prioritized on its arrival at the lab). The maximum capacity for any given production window can be increased by using additional equipment and staff.

(b) The time taken to travel between the wholesale main lab and retail outlets.

(c) Any restrictions imposed by individual retailers on the time vans may call at their outlets.

3.93. KPCL told us that, typically, most main labs serve an area with a radius of up to 240 to 320 km by using a combination of local vans and trunker vans. This enables them to provide a largely next-day service, while supporting a minority of retail outlets that require an overnight or same-day service with two van calls a day.

3.94. Other parties we spoke to indicated that wider catchment areas could be served. An extreme example was of TopFoto's lab in Liskeard, which serves retailers in North Yorkshire. Colorama covers much of the country with just two labs in London and Manchester, and ColourCare's Downton lab, near Salisbury, serves customers from the west of Cornwall to eastern Kent.

3.95. The location of wholesale main labs is shown in Figure 3.6. These are labs with a throughput estimated by KPCL to be at least 500,000 films a year. The figure shows large mail-order and tied wholesale main labs as well as wholesale main labs serving independent retailers. If a maximum distribution radius of 240 km is assumed, most parts of the UK could be served by at least one independent wholesale processor with a main lab, in addition to KPCL and ColourCare. In Scotland, the only major processor apart from KPCL and ColourCare is Klick. There are, however, some additional small processors, which use mini-lab-based city labs (rather than main labs) to provide a more local service and have annual throughputs of around 100,000 films a year or more. Some of these are in Scotland. [

Details omitted. See note on page iv.

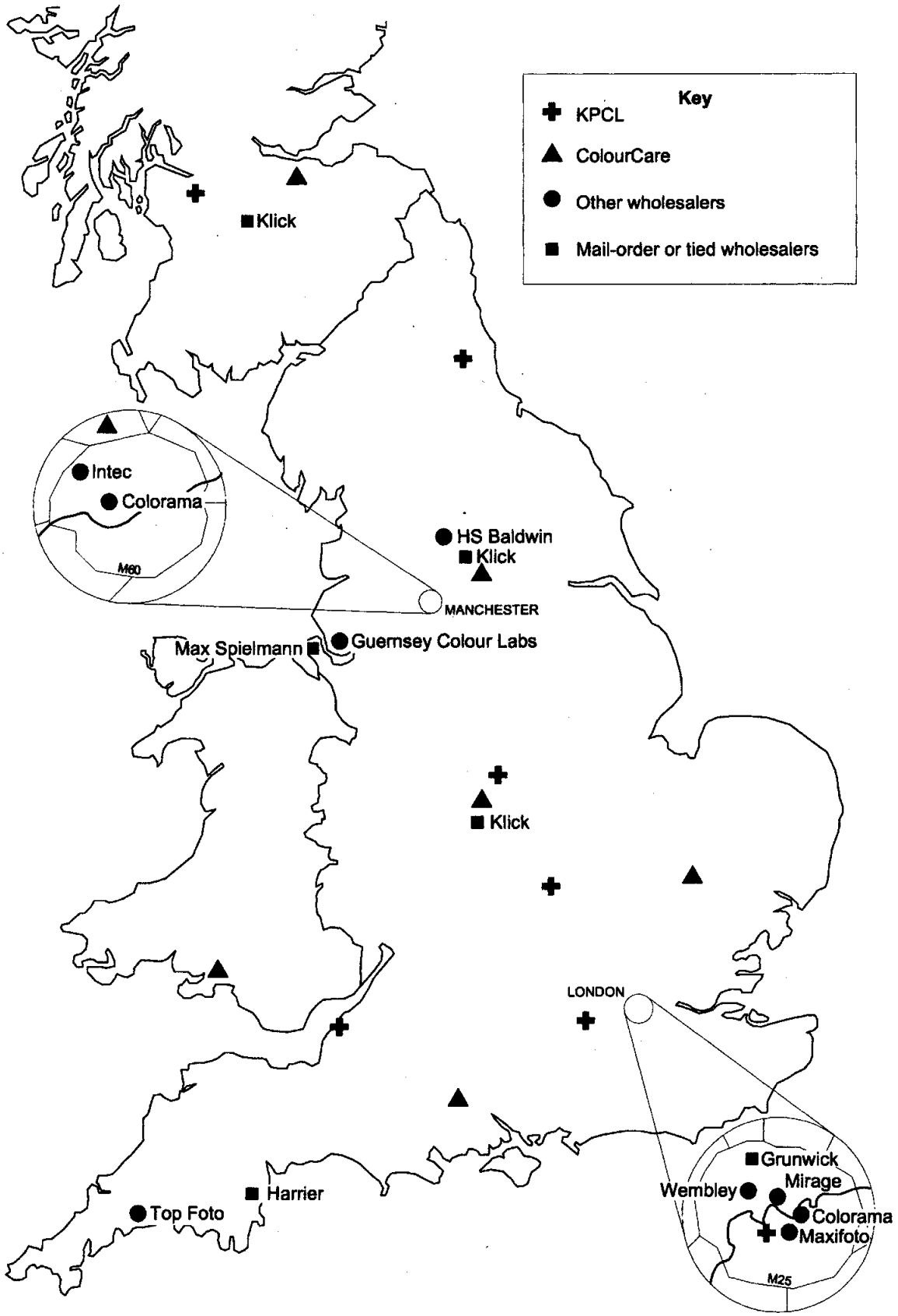
]

National networks

3.96. Until 1991, only ColourCare was able to offer a network of main labs with full national coverage. Some large retailers have chosen to use several processors in different regions, rather than a single national network. Nonetheless, several retailers told us it was important that they should be able to obtain wholesale services from a national processor, of which KPCL and ColourCare were the only examples. Their nearest competitor, Colorama, was unable to offer a full service in Scotland and the far west of England and Wales, and Colorama told us [*Details omitted. See note on page iv.*]. We considered whether it would be possible for regional processors to form a viable alternative to the national wholesale chains. While some national retailers believed such arrangements to be feasible, there was little enthusiasm among them for multi-sourcing. Although contracts could be negotiated with regional processors this would be complex to manage. Retailers considered it important that there was a consistent range and quality of services across all their retail outlets. For example, Boots said that it required its processor to offer national coverage and a good distribution network. The processor needed to visit most stores twice a day and to provide a consistent quality of work across the UK and a standard set of services.

FIGURE 3.6

Location of main labs in Great Britain



Source: CC.

Future developments

3.97. We employed technical consultants to help us assess the impact of ongoing changes in technology. Two influences may be expected to affect demand for wholesale processing services[1] adversely over the medium and long term. The first is the continuing growth of mini-lab capacity offering digital processing (see paragraph 3.19), including the fuller use of existing mini labs, and the second is the growth in the number of DSCs.

3.98. 35mm film has been around for many years. Subsequent film formats such as 110 and 126 cartridges and disc films have been introduced, but have declined in popularity after a few years. Although demand for APS is still growing, it now looks unlikely to capture a large market share. Use of single-use cameras is increasing; these contain 35mm film (or occasionally APS film) which is processed in the same way as normal 35mm film.

DSCs

3.99. DSCs, which have entered the consumer market in the last few years, will potentially have a much more profound influence on the market for D&P services.

3.100. DSCs do not use film. Instead, most contain an array of electronic light detectors and a magnetic storage medium to record the images. Early DSCs had low resolution and could only store a few pictures due to their memory limitations.[2] They could not therefore be used where picture quality was important. But the latest models have greater memory capacity and exchangeable memory cards. These enable them to produce standard-sized prints, and in some cases enlargements, of a quality close to that of prints from conventional cameras.

3.101. DSCs also have other features that film cameras cannot match. These include built-in liquid crystal display (LCD) screens that enable users to see pictures that have been taken and then delete unsatisfactory pictures. The use of digital storage allows photos to be exchanged over the Internet, rather than sending reprints to friends and family. Images from DSCs can be printed directly from a PC. The resulting quality depends on the paper used and the type of printer. Users also have the opportunity to manipulate or crop images on a PC before they are printed. We heard that, although home printing of photographs was popular with new purchasers of DSCs, many found this difficult. Printing could be very time consuming and the limited capability of home printers could restrict print quality and life. Printer cartridges and photographic paper for home printing could be very expensive.

3.102. Digital files containing images can also be sent for printing by a main lab or a mini lab with digital capability. In that case, they could be taken to the lab in a physical form (that is on magnetic or optical storage media) or transferred electronically over the Internet. Thus, although only selected photos would be chosen for printing, it was anticipated that some level of demand would remain for commercial printing.

3.103. Some industry participants foresee DSCs becoming increasingly more capable, cheap and easy to use. They consider that, over a number of years, DSCs will replace conventional cameras for the great majority of photographers. However, others consider that film will remain a very cheap and convenient means of collecting and storing visual images. If this view is correct, most people may continue to be satisfied with the photographs they can obtain from conventional cameras, particularly if their photofinisher can provide them with digital printing from conventional negatives and additional services, such as images on CD or sent via the Internet. Colorama told us that, although the amateur market had not yet felt much impact from DSCs, the professional and commercial sectors had been markedly affected. It thought that commercial users (for example, estate agents) considered that the ability to transmit images almost immediately, or to transfer them quickly into printed documents, was more beneficial where photographic prints were not of primary importance.

3.104. KPCL estimated that the number of DSCs in the UK had increased from about 100,000 in 1997 to 1.8 million in 2001. Research that it commissioned indicated that this number could grow

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[1]The overall demand for D&P services could also be adversely affected by an economic downturn.

[2]Most DSCs consequently allow the option of reducing the resolution of the picture to enable a larger number of pictures to be stored.

substantially to about [✂] million by 2005 (compared with around 30 million conventional cameras in use in 2001). As conventional cameras are typically used for an average of seven years, there will continue to be a significant demand for conventional film processing for some time even if DSC purchases rise substantially in the near future. Whether DSCs replace film cameras, or are just used as a supplementary medium,[1] is likely to depend on technical developments. KPCL's expectation, which was shared by some of the other industry participants that we met, was that DSCs would in time overcome their current technical limitations and that their prices would fall to levels much closer to those of conventional cameras. At that point, digital photography would begin to supplant conventional cameras in a substantial way. The exact effect on the D&P business would depend on how people choose to use these cameras in the future.

Effect on demand for developing and printing

3.105. KPCL told us that overall demand for D&P services for conventional film was set to decline and could, in the longer term, largely disappear. It did not expect an immediate collapse in the market, but predicted that, by 2005, the growing use of DSCs would have reduced the amount of film being processed to 93.0 million rolls, compared with its estimate of 104.6 million in 2000. Fuji estimated that film use would decline in most major markets by about 5 per cent a year.

3.106. At the same time, KPCL saw the wholesale labs' share of this declining market continuing to be eroded by mini labs—which it expected to carry on growing in both numbers and capacity—so that by about 2004/05 they would be processing more films than the wholesale labs.[2] It felt that there was still a strong consumer preference for the speed and convenience of mini labs, that technical progress would lower their cost; also the relative pricing of mini-lab services may be expected to decline (see paragraph 3.89). Any printing from DSCs would occur at mini labs until main labs were able to develop a full digital capability. Jessops told us that as more retailers move into mini labs, wholesalers would essentially be used for offload business and specialist D&P services. This would further accentuate the difference between peaks and troughs in demand for wholesale D&P.

Eastman's presence in related products and services

3.107. Other Kodak group companies are involved in the production of products and services associated with photographic activities other than developing and printing. Those that supply products in the UK are discussed in Chapter 4. It was suggested to us that Kodak's position in other, related industries might influence its power or conduct in the D&P market. For example, it was argued that Kodak may be able to improve the competitiveness of its D&P business by giving KPCL cross-subsidies from other Kodak subsidiaries, for example it might allow KPCL to buy photographic paper and chemicals or Kodak film at below market rates. These suggestions are considered and analysed in Chapter 5. The purpose of this section is to explain how these other products and services relate to the provision of D&P.

3.108. Five other photographic markets are potentially of direct relevance to the supply of D&P services to retailers. These are: the supply of colour film to consumers; the supply of photographic paper to main-lab and mini-lab processors; the supply of photochemicals to main-lab and mini-lab processors; the supply of equipment to main-lab and mini-lab processors; and the supply of D&P services to the public by retailers. These are described in turn.

Colour film

3.109. Colour film is produced and marketed on a worldwide basis. Eastman subsidiaries sell about 40 per cent of the colour-negative film sold in the world. Within this total, Kodak sells [✂] per cent of

[1]The parties pointed to a research study in the USA (*Digital Still Camera Benchmark Study*, NFO Research Inc, 2000) that found that a consumer's use of conventional film was reduced by [✂] per cent when he or she purchased a digital camera; ie the use of conventional film was cut but not eliminated.

[2]Indeed estimates by Robinson suggest that the numbers of films processed by each route may already be nearly equal.

the colour-negative film sold in the UK, mainly of the Kodak Gold Ultra 35mm and Advantix APS brands. Kodak film is reputed to command a high degree of brand loyalty. This enables Kodak to charge slightly higher average prices for its film than other suppliers. Other suppliers of colour film include Fuji, Agfa, Konica Corporation (Konica) and 3M. Film is produced and traded worldwide, as it conforms to various standard industry specifications.

3.110. Although other manufacturers often supply film for sale under retailers' own-brand labels, Kodak does not do so. KPCL told us that Kodak does sell a small proportion of 'Kodacolor', its value brand film, to D&P providers (such as Guernsey Colour Labs, Mirage and Maxifoto). These companies may use this film for promotions, but KPCL itself chooses not to offer free film promotions.

Photographic paper

3.111. Kodak is the largest supplier of photographic paper and photochemicals to UK D&P labs. As the technologies and skills required are very similar, most manufacturers of photographic film also manufacture photographic paper. KPCL told us that the market for paper was wider than the UK, as paper is routinely traded internationally. Other major suppliers of photographic paper include Fuji, Agfa, Konica and Mitsubishi. Kodak estimated its share of the supply of photographic paper to UK main-lab and mini-lab processors to be about [✂] per cent.

Photochemicals

3.112. The cost of chemicals is minor in comparison with the cost of paper. In addition to Kodak, the main suppliers of photochemicals are Fuji, Agfa, Konica, Champion, Tetenal and CPAC. Kodak estimated that its share of this market within the UK was also about [✂] per cent.

Main- and mini-lab equipment

3.113. Nearly all main-lab equipment can be used with any major manufacturer's standard types of photographic paper and photochemicals, subject to minor adjustments. The vast majority of mini labs can be used with any major manufacturer's standard types of photographic paper and photochemicals. KPCL, however, told us that some other suppliers' mini labs are specifically designed to work with a particular manufacturer's proprietary range of photochemicals. These are usually similar chemically but packed into canisters designed to fit the mini lab, allowing simple changeover by store staff. In some cases, these machines can be modified to accept other suppliers' chemicals.

3.114. The major suppliers of equipment to main labs are Agfa, Gretag/Hostert/Systel, Refrema, Gregoris, Calder and Noritsu. Although not a supplier of optical main-lab equipment, Eastman is developing main-lab digital printers under the I-lab brand; KPCL is currently testing pre-production models of this equipment (see Appendix 3.1).

3.115. The main suppliers of mini-lab equipment are Fuji, Agfa, Noritsu, Gretag, Konica and KIS SA (KIS), which is part of the Photo-Me International plc group. Although Eastman does not manufacture mini labs itself anywhere in the world, it does supply mini labs sourced from other manufacturers. In the UK, Kodak's resulting share of the installed base of mini labs is [✂] and Fuji is considered the market leader. Although Kodak has recently launched a digital mini lab, manufactured by KIS, [✂].

Retailing

3.116. Four of the multinational companies in the photography industry offer affiliate-marketing programmes. These are networks of independent mini-lab operators affiliated to each company. The affiliated retailers operate under the fascias of Kodak Express, Fuji One Hour Imaging Centre, Agfa 1-Hour and Konica Photo Express. The retailer generally pays a fee for the right to use the

manufacturer's name and signage and undertakes to provide a certain quality of service, which is subject to checks. KPCL told us that Kodak Express was not a conventional franchise programme. Kodak had no direct investment in these retailers. They had joined a chain to negotiate collectively for cheaper supplies and to receive services, including marketing support in the form of point-of-sale materials and training.

3.117. Although many choose to do so, the retailer is not usually obliged to use the manufacturer's mini labs or (depending on the chain) the manufacturer's paper and chemicals. In the case of Kodak Express, the retailer is, however, required to use Kodak paper and chemicals. The retailers negotiate as a buying group and are thus able to obtain better prices for materials than they would individually. The benefits to the retailer appear to centre on offering their customers the assurance of quality offered by the manufacturer's name and its inspections. In other ways, the affiliated retailer operates independently of the manufacturer and is free to set its own prices and to send offloaded work to any D&P wholesaler.

4 The companies and the merger

Contents

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Introduction

4.1. On 26 June 2001 agreements were signed for the sale, by ColourCare to KPCL, of the business carried on by ColourCare at eight film processing labs in the UK together with certain assets.

4.2. In this chapter we first deal with the background to the transaction and then describe the companies involved. This is followed by details of the merger agreement including the price paid. Finally, we deal with the effect of the merger including projected future returns expected for the merged business [*Details omitted. See note on page iv.*].

Timing

4.3. The sale agreement is conditional upon clearance by the UK competition authorities. The proposed merger was referred to the CC on 16 August 2001 and we are required to report by 26 November 2001.

Business to be acquired

4.4. In summary, the agreement provides for the sale of the businesses carried on by ColourCare under the name 'ColourCare' and other names together with related assets. The assets include plant, equipment, stocks, specified leasehold premises, intellectual property and goodwill. Additionally ColourCare will grant KPCL leases on three freehold properties for ten years from the completion date. ColourCare will retain its current Managing and Finance Directors together with personnel involved in distribution and assets relating to the collection and distribution of film (including four leasehold properties) and the three freeholds on ten-year leases to KPCL. ColourCare will change its name to PrintMovers. The parties will enter other agreements on completion. These include an agreement appointing PrintMovers as [✂] provider of collection and delivery services for KPCL. Further details about the agreements are described in paragraphs 4.48 to 4.55.

The Eastman Kodak group

Parent company

4.5. The ultimate parent company of KPCL is Eastman, incorporated in New Jersey, USA, with headquarters in Rochester, New York State. For the year to 31 December 2000 it reported consolidated turnover of close to $14 billion, net income of $1.4 billion and shareholders' equity of $3.4 billion.[1] The stock market valuation of the company on the New York Stock Exchange on 14 November 2001 was $7.9 billion.

4.6. Eastman operates with four divisions:

(a) *Consumer imaging* supplies films, photographic papers, processing services, photographic chemicals and cameras (including single use). The company has also developed various digital products. These include scanning systems to digitize images, digital media for storing images, software for enhancing images and a network for transmitting images.

(b) *Professional imaging* provides products and services to professional photofinishers, professional photographers and commercial printers and publishers.

[1]Following a share buy-back of $1 billion and dividends of $500 million.

(c) *Health imaging* provides products and equipment for customers involved in radiology, cardiology, mammography and oncology.

(d) *Other imaging* includes products and equipment for customers involved in motion pictures, television, document imaging and digital image capture and output.

4.7. The consolidated sales revenue and operating profits by division are set out in Table 4.1.

TABLE 4.1 **Eastman: summarized profit and loss accounts, 1997 to 2000**

$ million

	Years ended 31 December			
	1997	*1998*	*1999*	*2000*
Sales				
Consumer imaging	7,681	7,164	7,411	7,406
Kodak Professional	2,272	1,840	1,910	1,706
Health imaging	1,532	1,526	2,120	2,185
Other imaging	3,053	2,876	2,648	2,697
Total sales	14,538	13,406	14,089	13,994
Operating profits				
Consumer imaging	1,072	1,080	1,299	1,179
Kodak Professional	284	330	374	261
Health imaging	317	321	470	503
Other imaging	–88	157	197	227
Total operating profits	1,585	1,888	2,340	2,170

Source: Eastman Annual Report 2000.

4.8. The largest division is consumer imaging which includes photoprocessing. Within photoprocessing, Kodak's US Qualex subsidiary is the world's largest photoprocessor with more than 50 wholesale photofinishing labs and over $1 billion in annual revenues.

Global competitors

4.9. One of Eastman's significant worldwide competitors is Fuji, Photo Film Co Ltd of Japan (Fuji) which competes with Eastman in all the sectors set out in paragraph 4.6. For the year to 31 March 2001 Fuji Film Co reported consolidated turnover of $11.6 billion, net income of $952 million and shareholders' equity of $13 billion. The stock market valuation of Fuji Film Co on 14 November 2001 was $17.1 billion. Fuji in the UK is primarily involved in the supply of mini labs, cameras, photographic paper, chemicals and 35mm and APS film. In Japan and certain other countries, but not in the UK, it is involved in wholesale photoprocessing. In the USA, for example, it acquired seven photoprocessing laboratories in 1997. In the following year it contracted to carry out all the photoprocessing for Wal-Mart, a major retailer to which Fuji already supplied mini labs. Wal-Mart had previously been a customer of Eastman's subsidiary Qualex.

4.10. Other global competitors are Konica of Japan and Agfa of Belgium. Konica manufactures photographic materials and photo-related industrial equipment. This includes film, paper, photographic chemicals and photographic equipment. It also manufactures copiers, fax machines, printers and optical products. For the year ended 31 March 2001 Konica reported consolidated turnover of $4.5 billion, net income of $53.8million and shareholders' equity of $1.3 billion. The stock market valuation on 14 November 2001 was $1.8 billion.

4.11. Agfa develops, produces and distributes an extensive range of analogue and digital imaging systems and products mainly for the graphics industry and the medical, non-destructive testing (ie X-ray), photographic and consumer digital imaging sectors. Products include film, paper, photographic chemicals and equipment for wholesale finishing labs and mini labs, desktop scanners, DSCs and inkjet

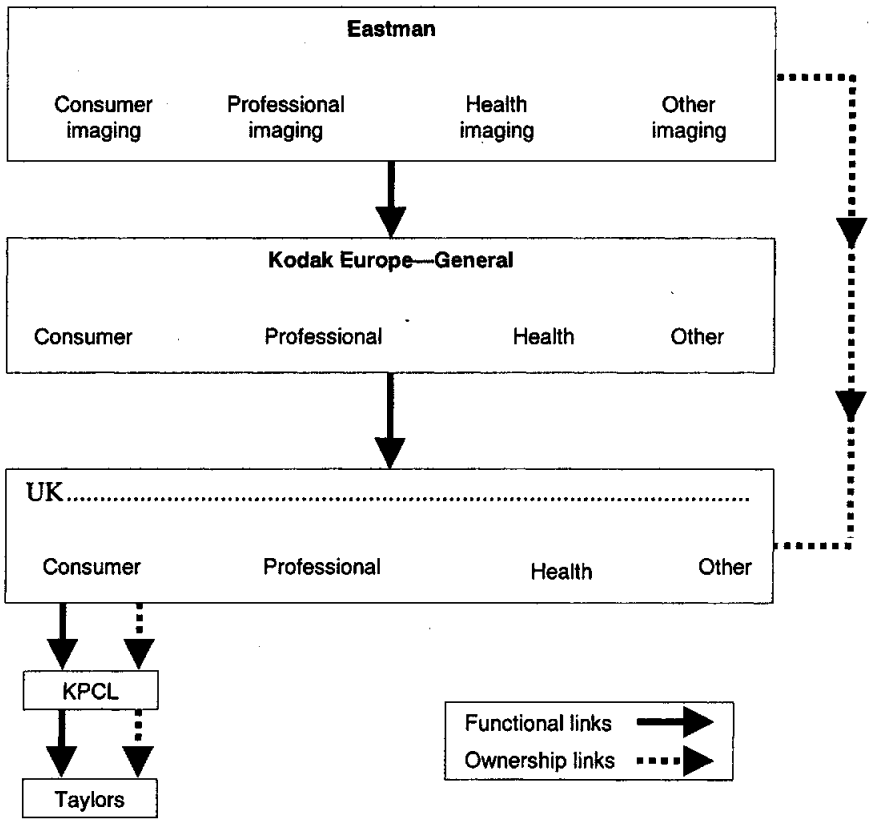
paper. Consolidated turnover for the year to 31 December 2000 was €5.3 billion (£3.3 billion), net income of €175 million (£109 million) and shareholders' equity of €1.6 billion (£992 million). The stock market valuation on 14 November 2001 was €1.6 billion (£957 million).

Structure and organization

4.12. The functional and ownership links between Eastman, the European headquarters and the UK-based companies are shown in Figure 4.1. The UK subsidiaries carrying on developing and printing businesses are KPCL and Taylors Developing & Printing Works Limited (Taylors).

FIGURE 4.1

Eastman: organization structure for UK subsidiaries



Source: Kodak.

4.13. In Western Europe the group has manufacturing subsidiaries in the UK and France and marketing subsidiaries in all countries in the EC area. It has agreed, subject to regulatory approvals, to acquire the wholesale photofinishing and photographic distribution business of Spector Photo Group SA in France, Germany (regulatory approval granted on 22 October 2001) and Austria.

Kodak

4.14. The principal Eastman subsidiary based in the UK is Kodak. It is the parent company for KPCL (which provides photoprocessing services in the UK). Kodak's own business is the manufacture, supply and distribution of photographic film, paper, chemicals, digital products and imaging equipment and the provision of equipment services. Kodak owns International Finance Limited and a controlling interest in Kodak India Ltd, a company incorporated in India. These subsidiaries are respectively

involved in treasury services and sale of products in India. The operations of Kodak and its subsidiaries achieved sales in 2000 of £687 million, compared with £1,259 million in 1999. The decrease is primarily as a result of various agreements with Eastman Kodak SA (EKSA) entered into with effect from 1 April 2000. From this time Kodak's main business became the manufacture and distribution of Kodak products on terms and conditions mutually agreed and the provision of services associated with these activities. EKSA is a Swiss company and is now responsible for the marketing of Kodak products in much of Europe.

4.15. Kodak told us that:

(a) it did not bundle or cross-subsidize between D&P and other products or services and has no reason to do so;

(b) each division, including KPCL, operated at market prices and on arm's length terms; and

(c) this position would not change as a result of the proposed merger.

In addition it provided extracts of its management accounts that showed the different gross margins earned on different products. The highest margins are earned on the sale of [✂], and the margins on [*Details omitted. See note on page iv.*] are also greater than those earned on photoprocessing. These are shown in Table 4.2.

TABLE 4.2 **Kodak: margin analysis latest estimate for the year to 31 December 2001**

Product	*Revenue £m*	*Gross profit £m*	*%*
Details omitted. See note on page iv.			

Source: Kodak.

4.16. Kodak said that a comparison of gross margins was meaningless because it failed to take account of certain sales, advertising, distribution, administration and other local or allocated costs attributable to each product. Kodak told us that it and KPCL traded on an arm's length basis. Kodak supervised the management and provided the interface between the companies within the UK group and European management or Eastman subsidiaries elsewhere in the world. Materials such as paper and chemicals used in developing and printing were purchased from Kodak by KPCL (at fair market prices fixed annually for the volume purchased, less a discount of [✂] per cent to reflect the very low administration costs incurred in an internal transfer). [

Details omitted. See note on page iv.

] In 2000 Kodak purchased KPCL's debtors [

Details omitted. See note on page iv.

].

KPCL

Financial performance

4.17. KPCL is responsible for the developing and printing business in the UK. The trading at six of the seven UK processing labs is recorded in the books of KPCL. The seventh is owned by Taylors which

is 75 per cent owned by KPCL and its trading is recorded in Taylors' books. The statutory profit and loss accounts of KPCL[1] excluding Taylors are summarized in Table 4.3.

TABLE 4.3 **KPCL: statutory profit and loss accounts, 1996 to 2000**

£'000

	Years ended 31 December				
	1996	*1997*	*1998*	*1999*	*2000*
Turnover	55,107	56,948	54,265	52,616	52,481
Cost of sales	-52,083	-42,196	-39,401	-37,110	-36,346
Gross profit	3,024	14,752	14,864	15,506	16,135
Distribution cost	-4,714	-4,086	-4,711	-6,341	-5,776
Administrative expenses	-6,709	-6,825	-5,646	-4,366	-5,459
Other operating income	1	-	-	-	-
Operating profit/loss	-8,398	3,841	4,507	4,799	4,900
					per cent
Ratios to turnover					
Gross profit	5	26	27	29	31
Distribution cost	9	7	9	12	11
Administrative expenses	12	12	10	8	10
Operating profit/loss	-15	7	8	9	9

Source: KPCL.

4.18. Table 4.3 shows that turnover has declined by £2.6 million or 4.8 per cent between 1996 and 2000. The gross profit margin was only 5 per cent in 1996 and has then increased from 26 per cent in 1997 to 31 per cent in 2000. The main elements contributing to this turnaround are better cost control, lab closures and the introduction of APS and other premium services. After making an operating loss of £8.4 million in 1996 (-15 per cent of turnover), operating profits have been between £3.8 million and £4.9 million in the following four years (7 to 9 per cent of turnover).

4.19. The management accounts for the consumer imaging services division in the UK (KPCL and Taylors) show operating profits of between £[✂] million and £[✂] million for 1998, 1999 and 2000 (operating profit margins of around [✂] per cent) as shown in Table 4.4.

TABLE 4.4 **Consumer imaging, (KPCL plus Taylors): management accounts, 1998 to 2002**

£'000

	Years ended 31 December				
	1998	*1999*	*2000*	*Current estimate 2001*	*Kodak plan 2002*
Turnover Cost of goods sold Gross profit Overheads: Selling Advertising Distribution Administration Total overheads Operating profit	*Figures omitted. See note on page iv.*				
					per cent
Ratios to turnover Gross profit Operating profit	*Figures omitted. See note on page iv.*				

Source: KPCL.

[1]KPCL is not required to and does not produce group accounts, ie statutory accounts including for Taylors. For management accounting purposes the results of all seven labs are shown together.

4.20. Table 4.4 shows that KPCL is forecasting in its latest estimate that [*Details omitted. See note on page iv.*]. This is in part due to longer-term trends reducing the proportion of films sent to wholesale labs (see below) and in part due to a reduction in the size of the market this year on account of specific factors such as poor weather and foot and mouth prevalent in parts of the countryside. [✂] the gross profit margin is expected to [✂] percentage points to [✂] per cent. This results from [*Details omitted. See note on page iv.*]. As a result, KPCL's latest estimate for this year is that operating profits for the photoprocessing operations will [

Details omitted. See note on page iv.].

4.21. Kodak's Plan for 2002 in the absence of the merger, produced in August 2001, shows turnover next year [✂]. Gross margins are expected to [✂] reflecting [*Details omitted. See note on page iv.*]. The forecast for 2002 shows [

Details omitted. See note on page iv.].

4.22. KPCL told us that increasing utilization of existing mini labs and installation of large numbers of additional mini labs by retailers such as Boots, Tesco and Jessops among many others and the growth in sales of digital still cameras had reduced demand for film processing at KPCL's main processing labs (see paragraph 3.22). Table 4.5 shows Kodak consumer imaging's declines in volumes of film developed since 1998.

TABLE 4.5 **Profit and loss summary of Kodak consumer imaging products division: sales, volumes of rolls of film developed**

million orders

	Years ended 31 December				
	1998	*1999*	*2000*	*Current estimate 2001*	*Kodak plan 2002*
35mm wallet D&P*	*Figures omitted. See note on page iv.*				
PSP†					
APS D&P					
Ancillaries‡					
Total rolls of film for D&P					
Digital services					
Total orders					

Source: KPCL.

*Wallet D&P is the standard 35mm film 152mm x 102mm (4 x 6 inches) wallet service.
†Premium Service Plus. This includes larger print sizes and services that provide an index print for which a premium is paid.
‡Ancillaries relates to services such as enlargements, additional copies and transfers.

4.23. Kodak told us that [

Details omitted. See note on page iv.

].

Table 4.5 shows the change in the mix of sales with the decline from processing [✂] million [✂] in 1998 to developing [✂] million (looking solely at [✂]) in the latest estimate for 2001. This is a [✂] per cent reduction in volume in [✂] over this period. The volume of [✂] is anticipated to fall by [✂] million rolls in 2001 compared with 2000—a fall of [✂] per cent in one year. Sales increases have been achieved since 1998 in sales of [

Details omitted. See note on page iv.

].

Financial position

4.24. The balance sheets for KPCL for the years 1996 to 2000 are summarized in Appendix 4.1. In previous years when KPCL incurred significant losses, it was the recipient of intercompany loans from its parent, Kodak. Such loans which were [*Details omitted. See note on page iv.*] have led to the build-up of significant levels of intercompany debt. However, since 1998 the amount owed to its parent has been reduced from £[✂] million to £[✂] million at December 2000 as a result in part of more profitable trading. The fact that the trade debtors were transferred to Kodak and deducted from the intercompany debt, accounts for the low level of current assets compared with current liabilities. The company is currently financially viable on the basis of its recent financial performance and current and budgeted profitability.

ColourCare

History

4.25. CI was originally formed in 1966. It was subsequently acquired by LIG. It operated as a division of LIG and during the 1980s expanded by acquiring other developing and processing businesses. In May 1994 following severe trading losses LIG announced the sale of CI and other companies it owned to Nexus, a company controlled by CIs management.

4.26. Nexus paid 50p for the shares of the companies in the CI division and another 50p for £71.7 million of debt owed by these companies to the parent company. In addition LIG leased to Nexus property plant and equipment with a written-down value of £5.7 million. In early 1995 Nexus sold various assets and businesses based in the UK, Netherlands, Spain and France to Nashua Group for £18.1 million. These assets included the UK mail-order business. In 1995 Nexus purchased the leased plant and equipment from LIG. Approximately £4.2 million in 1995 and £252,000 in 1996 of reorganization costs were incurred with the closure of three D&P labs. However, dividends were declared and paid to shareholders of £7.4 million in 1996, £3.1 million in 1997, and £3.1 million in 1998. For the year to 2 April 1999 the Nexus consolidated accounts show a profit after tax of £3.1 million.

4.27. In October 1999 there was a second management buyout. Nexus, which was still owned by the team that purchased the ColourCare International companies from LIG, sold certain of the assets and the photoprocessing business to ColourCare. This business had been hived off into a special purpose corporate vehicle for this transaction on 10 August 1999. ColourCare was formed in August 1999. In October it acquired the business that commenced trading on 10 August 1999. The purchase consideration was £37.1 million less £0.7 million of bank overdraft, creating an amount due from ColourCare of £36.4 million. ColourCare funded this purchase by issuing £1,050,000 in a combination of ordinary and preference share capital. Management subscribed £450,000 and a venture capital investor, Gresham, subscribed £600,000. Gresham also loaned £11.4 million, £18.3 million was borrowed from the Bank of Scotland (secured by fixed and floating charges on the whole of its undertaking), and £5.5 million was borrowed from the vendors, Nexus. ColourCare paid the purchase consideration and also share issue costs and loan arrangement fees totalling £1.5 million during the initial accounting period from 10 August 1999 to 31 March 2000. The balance was raised from short-term borrowing.

Financial performance

4.28. We show a summary of the statutory accounts of ColourCare for the period to 31 March 2000 and the draft statutory accounts for the year to 2001[1] in Table 4.6.

---

[1] [*Details omitted. See note on page iv.*]

TABLE 4.6 **ColourCare: statutory profit and loss summary, 2000 and draft figures to 2001**

£'000

	Years ended 31 March	
	*29 weeks 10.8.99 to 31.3.2000**	*Year 2001 draft*
Turnover	21,955	
Cost of sales	–14,930	
Gross profit	7,025	
Overheads		
Distribution	–4,525	
Administration	–3,864	
Total overheads	–8,389	✂
Operating loss	–1,364	
[✂]		
Interest receivable	41	
Interest payable	–1,842	
Loss before tax	–3,165	
		per cent
Ratios to turnover		
Gross profit	32	✂
Total overheads	38	
Operating loss	–6	

Source: ColourCare.

*An account reclassification caused both turnover and cost of sales [✂] in the period to 31 March 2000 following the filing of the audited statutory accounts. The gross profit was unchanged.

4.29. In Table 4.7 we show the financial results, from the management accounts, commencing from the time of the second management buyout, together with the budget, as approved in January 2001, [

Details omitted. See note on page iv.

].

Operating profit

4.30. ColourCare told the investigating accountants, which carried out due diligence for Kodak, that the results to March 2001 [

Details omitted. See note on page iv.

]

TABLE 4.7 **ColourCare: management profit and loss summary, 2000 to 2001, [*Details omitted. See note on page iv.*]**

£'000

	Years ending 31 March		
	29 weeks 10.8.99 to 31.3.2000	*Year 2001 draft*	*Details omitted. See note on. page iv*
Turnover	21,955	*Figures omitted. See note on page iv.*	
Cost of sales	–14,930		
Gross profit	7,025		
Overheads:			
Distribution	–4,525		
Administration	–3,406		
Total overheads	–7,931		
Operating profit/loss	–906		
Non-operating costs:			
Amortization of goodwill	–458		
Amortization of loan issue costs	–128		
[✂]	-		
Interest receivable	41		
Interest payable	–1,714		
Loss before tax	–3,165		
			per cent
Ratios to turnover			
Gross profit	32	*Figures omitted. See note on page iv.*	
Total overheads	36		
Operating profit	–4		

Source: ColourCare.

TABLE 4.8 **ColourCare: draft operating profit for year to 31 March 2001 adjusted for non-recurring items**

£'000

Operating profit	*Details omitted. See note on page iv.*
Adjustment to cost of sales:	
Redundancy	
[✂]	
Web-site costs	
Capital items expensed	
Sundry	
Adjustment to overheads:	
Redundancy	
Corporate activity expensed	
Sundry	
[✂]	
Adjusted operating profit	

Source: ColourCare.

4.31. [

Details omitted. See note on page iv.

]

4.32. [

Details omitted. See note on page iv.

]

Interest payable

4.33. ColourCare needs to make operating profits to pay interest on the money borrowed to finance the buyout (see paragraph 4.27, Appendix 4.2, Table 4, and Appendix 4.3, Table 1). In February 2001 [

Details omitted. See note on page iv.

]

Other costs

4.34. The company is still amortizing the goodwill from the October 1999 management buyout through its profit and loss account. [*Details omitted. See note on page iv.*] The company is also amortizing the costs associated with the loan note issue at the time of the buyout. [*Details omitted. See note on page iv.*]

Cash flow

4.35. The audited operating cash flow for the period to 31 March 2000 was an inflow of £4.1 million. Operating cash flow according to the draft accounts to 31 March 2001 [

Details omitted. See note on page iv.

]

4.36. [

Details omitted. See note on page iv.

]

Financial position

Balance sheet

4.37. We summarize the balance sheets of the company at 31 March 2000 and 2001 [*Details omitted. See note on page iv.*] in Table 4.9.

TABLE 4.9 **ColourCare: balance sheets, 2000 to [✂]**

£'000

	As at 31 March	
	2000	2001 draft
Fixed assets		
Tangible	10,066	
Intangible	17,914	
Total	27,980	
Current assets		
Cash	1,980	
Debtors	7,135	
Stocks	2,047	
Total current assets	11,162	
Current liabilities		*Figures omitted. See note on page iv.*
Bank overdraft	–2,025	
Bank loans	–2,578	
Creditors	–5,491	
Total current liabilities	–10,094	
Net current assets/liabilities	1,068	
Long-term loans		
Banks	–15,194	
Other	–16,038	
Total net assets/shareholders' funds	–2,184	

per cent

Ratios		
Current assets:current liabilities	1.1	[✂]
Assets:debt	1.09	
Assets:gross liabilities	0.95	

Source: ColourCare.

4.38. The long-term loans amount to 80 per cent of total assets in 2000 [*Details omitted. See note on page iv.*]. Current liabilities are equal to 26 per cent of total assets in 2000 [*Details omitted. See note on page iv.*]. The ratio of current assets to current liabilities [✂] 1.1 at 31 March 2000 [✂] at 31 March 2001. [*Details omitted. See note on page iv.*] The shareholders' equity was negative at 31 March 2000 and [*Details omitted. See note on page iv.*]

4.39. The current liabilities show a bank overdraft in excess of £2 million in 2000 and [*Details omitted. See note on page iv.*]. Short-term creditors' balances [*Details omitted. See note on page iv.*]. These include suppliers, sundry creditors and the Inland Revenue, [*Details omitted. See note on page iv.*]

[*Details omitted. See note on page iv.*]

4.40. [*Details omitted. See note on page iv.*]

[

Details omitted. See note on page iv.

]

The merger agreements

Background

4.41. In June 2000 the Chairman of ColourCare contacted the then General Manager of Kodak's consumer imaging division in the UK to explore whether there was any interest in KPCL acquiring ColourCare. A confidentiality letter was signed by the parties, who then held several discussions with a view to possible acquisition. In August 2000 a meeting took place between representatives of Kodak, ColourCare and Gresham, the controlling shareholder of ColourCare. They agreed that the benefits of bringing the two photoprocessing organizations together were considerable: first as a means of competing with mini labs and the expected decline in the market due to the growth in sales of DSCs; and secondly by taking advantage of the synergistic savings particularly in removing overheads and making economies in distribution.

4.42. The companies were, however, unable to take matters further as they disagreed on their respective valuations of ColourCare.

4.43. In October 2000 the Managing Director of ColourCare and the General Manager of Kodak's consumer imaging division in the UK, held further discussions. Kodak took the view that the valuation of ColourCare had declined further, as a result of mini labs increasing their penetration of the market since the previous meeting. No agreement resulted from this meeting either.

4.44. However, in November the General Manager of Kodak's UK consumer imaging division changed. In January 2001 KPCL and ColourCare met again to discuss developments over the last six months and the ongoing pressure on the industry from mini labs. They also explored:

(a) the merger of the developing and printing businesses of both companies under KPCL; and

(b) the combination of the distribution and collection businesses of both companies under ColourCare.

It was agreed that both managers would discuss these issues with their respective boards and shareholders.

4.45. ColourCare told us that its Managing Director held discussions with its bankers, the Bank of Scotland, and Gresham, its principal investor. [

Details omitted. See note on page iv.

]

4.46. It was agreed with ColourCare's financial backers that other potential purchasers of ColourCare should be approached. In February 2001 ColourCare management either held meetings with or made contact with [

Details omitted. See note on page iv.]

[

Details omitted. See note on page iv.

] Also in March 2001 intermediaries on behalf of the company approached [*Details omitted. See note on page iv.*]. ColourCare told us that [*Details omitted. See note on page iv.*]

4.47. Further discussions were then held with Gresham and the Bank of Scotland. [

Details omitted. See note on page iv.

] In March 2001 a further confidentiality letter was signed by ColourCare and KPCL, resulting in exchanges of information and an outline agreement was signed. Formal agreements were then drawn up and a due diligence investigation into ColourCare was carried out for KPCL. On 26 June 2001 the formal agreements were signed.

The sale and purchase agreement

4.48. The essence of the agreement is for ColourCare to sell the developing and printing assets and business to KPCL. ColourCare would retain the collection and distribution assets and business, four leasehold properties and the three freehold properties on ten-year leases to KPCL. Cash and receivables were also excluded from the sale. ColourCare would change its name to PrintMovers and [*Details omitted. See note on page iv.*]. ColourCare employees involved in the developing and printing activities would transfer to KPCL on their current terms and conditions.

Consideration

4.49. The consideration is to consist of an initial consideration payable on completion and a deferred consideration. The initial consideration is £[✂] million subject to adjustments to reflect the difference (up or down) between the stock value determined in accordance with the agreement and £[✂].

4.50. The deferred consideration is £[✂] million and is payable on the third anniversary of the date of completion. It may be netted against any claims under the warranties in the agreement and any other amounts due to the Kodak group under the agreement or the collection and delivery agreement (see paragraph 4.51*(b)*).

Ancillary agreements

4.51. The sale and purchase agreement requires the two parties, on completion, to enter into several agreements (including agreements with third parties) in forms that were agreed in June 2001. These include the following:

(a) *Transitional services agreement* in respect of services to be provided by the parties to each other after the completion date. Provision is made for KPCL to pay ColourCare for, endeavouring to transfer customer contracts in so far as they exist, for assisting KPCL in the implementation of new work procedures, for assisting in the preparation of the completion accounts and for pension plan administration. Provision is made for ColourCare to pay KPCL for payroll administration and office services. The agreement would be for [✂] following completion of the sale and purchase agreement.

(b) *Collection and delivery agreement* will require ColourCare to provide film collection, delivery and other services to KPCL, [*Details omitted. See note on page iv.*], for [✂] years. These services in terms of service standards, prices and work procedures are specified in detail. KPCL told us that the combined distribution costs for the ColourCare and KPCL business amounted to approximately £[✂] million a year. KPCL anticipated annual savings of around £[✂] million ([✂]) as a result of improved distribution efficiencies. This was based on KPCL's projected volumes and the price of £[✂] per call up to an annual total of [✂] million calls and £[✂] per call in the event that that number is exceeded. These prices are stated in the agreement.

(c) *Right to match agreement* will impose a restriction, on shareholders of ColourCare which is proposing to change its name to PrintMovers Limited, from selling a controlling interest in their company, and on ColourCare selling its undertaking or a substantial part of its undertaking. ColourCare and its shareholders will agree not to do these things unless, and until, an offer, in terms that are the same as the terms of the sale, has previously been made to KPCL.

(d) *Leases of property at Newmarket, Leeds and Salisbury.* ColourCare will lease these properties to KPCL on normal commercial terms for ten years, but with KPCL having the right to terminate each lease at any time on giving [✂] notice.

(e) *Guarantee.* Kodak will guarantee KPCL's obligation to pay the deferred consideration.

Other terms

4.52. The agreement provides for the benefit of the contracts relating to ColourCare's businesses (other than the delivery and collecting business) to be assigned to KPCL. The sale and purchase agreement is subject (among other conditions precedent) to the proposed transaction being cleared by the UK competition authorities in terms reasonably satisfactory to KPCL.

4.53. The agreement provides for completion to take place on the first Friday that is not less than two business days after satisfaction or waiver of the conditions precedent. KPCL has the right to defer completion for up to five days in some circumstances.

4.54. The agreement terminates if the conditions precedent are not fulfilled or waived by [✂].

4.55. A number of additional items and formats of documentation were agreed, but the sale and purchase and the collection and delivery agreements contain the main commercial aspects of the merger.

Effects of the merger

4.56. KPCL told us that the merger gave it the opportunity to rationalize the film processing operations of both itself and ColourCare into a single entity. It hoped to improve overall operating efficiency of the combined businesses principally through a planned rationalization programme that will eliminate unnecessary overheads, deliver improved distribution efficiency and thereby reduce unit costs. KPCL also hoped to offer new products and services to a wider customer base and speed up its installation of digital processing equipment in its labs.

4.57. ColourCare will apply the funds received from KPCL in settling the term loans from the Bank of Scotland. ColourCare will then exit the photoprocessing business and commence the business of national distribution with the advantage of the supply agreement with KPCL. The fact that this agreement enables the loan to the Bank of Scotland to be repaid and that it is anticipated (in ColourCare's plan) that the future trading of PrintMovers would enable the remaining overdraft to be repaid was critical to obtaining the bank's agreement. PrintMovers also gives Gresham the opportunity to have some share in any future returns.

4.58. We were told that Nexus, the previous owner, had a £5.5 million loan note and accrued interest outstanding from ColourCare. [

Details omitted. See note on page iv.

]

KPCL's post-merger projections

4.59. KPCL told us that the industry considered that film-processing companies were valued on the basis of £1 for each roll of film processed. KPCL estimated that ColourCare had previously processed

around [✂] million rolls and in excess of [✂] million ancillary orders and this provided a benchmark for the amount KPCL might be prepared to pay for ColourCare. With this mind, KPCL set about preparing a business case for its ultimate parent company to obtain approval for the acquisition. The paper outlined the key synergies. These included savings from [*Details omitted. See note on page iv*], significant distribution synergies due to route efficiencies, and [*Details omitted. See note on page iv.*]. The figures included in the net present value calculations and their sterling equivalents are set out in Table 4.10.

TABLE 4.10 **KPCL: net present value of costs and benefits of the merger discounted at [✂] per cent over ten years**

	$m	£m
Details omitted. See note on page iv.		

Source: KPCL.

4.60. The distribution synergies are expected from [*Details omitted. See note on page iv.*]. The estimate is based on ColourCare's current collection and delivery costs using its own drivers and leased vehicles, and the costs incurred by KPCL from the three delivery companies it currently contracts with. KPCL told us that it was confident of achieving this level of savings [*Details omitted. See note on page iv.*].

4.61. [

Details omitted. See note on page iv.

]

4.62. KPCL expected to sell certain surplus equipment and achieve some economies in its capital expenditure plans. We were told that it expected to speed up its investment in digital technology and advance its installation by two years, as explained in greater detail in paragraph 3.29.

4.63. Kodak is ColourCare's current supplier of paper and chemistry [*Details omitted. See note on page iv.*]. The amount included in relation these products relates to the benefit to the Eastman group from retaining these sales to ColourCare, ie it is the profit made by the group on these sales. This is not a benefit to KPCL.

Outcome for KPCL

4.64. By bringing almost all of ColourCare's current business into KPCL, KPCL said that it would:

(a) [
Details omitted. See note on page iv.
]

(b) [
Details omitted. See note on page iv.]

(c) amortize its investment in I-lab processing over a greater number of prints;

(d) make £[✂] million a year of transport savings through the agreement with PrintMovers; and

(e) anticipate a payback within [✂] years on its investment in ColourCare.

4.65. KPCL expected the operational benefits created by merging the two businesses to lead to a positive cash flow of [
Details omitted. See note on page iv.
]

4.66. Table 4.11 summarizes the years 2000 and 2001 for KPCL (including Taylor's) and projected profit and loss accounts for the merged business.

TABLE 4.11 **KPCL: profit and loss account, 2000 to 2001, and estimates for the merged entity, 2002 to 2005**

£'000

	Years to 31 December					
	2000	*2001*	*2002*	*2003*	*2004*	*2005*
Turnover	65.0	(				)
Total cost of goods sold	44.8					
Gross profit	20.2					
Overheads:						
Advertising	2.7		*Figures omitted. See note on page iv.*			
Distribution	7.1					
Selling and admin	4.2					
Total overheads	14.0					
Operating profit	6.2					
						per cent
Ratios to turnover						
Gross profit	31	[	*Figures omitted. See note on page iv.*			]
Operating profit	10					

Source: KPCL.

Note: Totals may not sum because of rounding.

4.67. Table 4.11 shows that the merged business expects to achieve [✂] and an [✂] on turnover in the first year following the merger and anticipates [✂] in the following years. KPCL hopes to do this by improving overall operating efficiency of the combined businesses, [*Details omitted. See note on page iv.*] that will eliminate unnecessary overheads, deliver improved distribution efficiency and thereby reduce unit costs. Table 4.12 shows the projected volumes and prices anticipated.

TABLE 4.12 **KPCL: sales volumes and prices, 2000 to 2001, and estimates for the merged entity, 2002 to 2005**

	Years to 31 December					
	Actual	*Current estimate*		*Projection*		
	2000	*2001*	*2002*	*2003*	*2004*	*2005*
Sales volumes (million rolls)						
Traditional D&P + PSP						
APS D&P						
Ancillaries						
Digital						
Prices (£)						
Traditional D&P						
APS D&P						
Ancillaries						
Digital						
Turnover (£m)						
Trad D&P						
APS D&P						
Ancillaries						
Digital						
Other						
On-site processing						
Adjustment						
Scale benefits						
Total turnover						

Figures omitted.
See note on page iv.

Source: KPCL.

Notes:
1. See Table 3.6 for explanation of services.
2. Totals may not sum because of rounding.

4.68. Table 4.12 shows that following the acquisition KPCL expects volumes to increase from [✂] million orders in 2001 to [✂] million orders in 2002. Thereafter total volume is expected to be static but within that total a shift to APS and digital is expected. The volume of 35mm wallets is expected to decline by [✂] million or [✂] per cent between 2002 and 2005. APS is expected to increase by [✂] million or [✂] per cent over the same period. On average, prices are expected to [✂] by varying amounts, between 2002 and 2005, from [✂] per cent for the 35mm standard wallet service to [✂] per cent for APS.

PrintMovers

4.69. PrintMovers will initially rely on its contract with KPCL to pick up and deliver films. However, ColourCare hopes that distribution for KPCL will serve as a platform to tender for additional collection and distribution business from other customers. We were told that it had already gained two customers in the estate agency market and was in discussions with a retailer.

4.70. [

Details omitted. See note on page iv.

]

Table 4.13 shows these distribution costs.

TABLE 4.13 **PrintMovers: distribution costs**

	ColourCare 12 months to 27.2.02	*KPCL* Average 12 months*	*Total*	*Years to 31 December 2002*	*2003*	*2004*
Total income to PrintMovers and cost to KPCL (£'000)	[	*Figures omitted. See note on page iv.*				]
Number of calls						
Cost per call (£)						

Source: ColourCare.

*The KPCL figures were supplied by ColourCare. KPCL's statement of its costs per call is to be found in Appendix 3.3.

4.71. On completion of the merger PrintMovers will retain all 500 personnel involved in the distribution activity. Also the 340 leased commercial vehicles are to be increased to approximately 500. Initially the sole customer will be KPCL, although PrintMovers has the agreements noted in paragraph 4.69.

4.72. Current financial projections produced by ColourCare suggest that [
Details omitted. See note on page iv.
] The projections show that, [

Details omitted. See note on page iv.

].

[Details omitted. See note on page iv.]

4.73. [

Details omitted. See note on page iv.

]

4.74. [

Details omitted. See note on page iv.

]

4.75. [

Details omitted. See note on page iv.

]

[

Details omitted. See note on page iv.

]

4.76. [

Details omitted. See note on page iv.

]

4.77. [

Details omitted. See note on page iv.

]

4.78. [

Details omitted. See note on page iv.

]

4.79. [

Details omitted. See note on page iv.

]

5 Analysis of the relevant markets

Contents

Page

Introduction

5.1. In this chapter, we undertake an analysis of the markets introduced in Chapter 3, in order to define the relevant economic market for this merger, and to assess the concerns that have been raised in relation to this acquisition.

5.2. In addition to the issue of market definition, we need to consider the competitive conditions affecting the relevant market, however defined. These include the competitive constraints posed by prospective new entry, the behaviour of retailers and consumers in the final consumer market, and the impact of new technology.

5.3. We begin by discussing the purpose and methods of defining the relevant economic market. We then apply these methods to establish the relevant market for the evaluation of this particular merger, in terms of both the products to be considered and the geographic extent of the market. We provide estimates of market shares. Then we address the competitive constraints that arise. We finish by discussing issues that arise due to the Kodak group's involvement in vertically related businesses and other photographic businesses, and the potential effects of the merger on technical progress and the provision of wholesale services to small retailers.

Evaluating competition

5.4. The evaluation of the effects of a merger consists of two overlapping stages. First, it is necessary to define the relevant economic market in which the merger should be assessed. Second, it is also necessary to consider the competitive constraints on market power. In this case, these competitive constraints are: the actions of competitors, the threat posed by potential entrants, and the behaviour—and bargaining power—of buyers, and ultimate consumers.

5.5. The two stages of evaluation can overlap in their coverage, and assignment of particular issues to a particular stage may be a matter of judgement. For example, whether or not a substitute product should be considered to be in the same market will depend on how willing consumers are to switch to this substitute product at current price levels; if it is not a close substitute, it may nevertheless be a potential constraint should prices rise. If a producer of other products can quickly and easily switch into the production of the same product, its output may be considered as part of the same market. However, if some level of investment is required or switching may take some time, it might instead be considered as a competitive constraint under the heading of prospective new entry. Whether a substitute product is considered to be in the same market, or is considered to be a possible entrant, is often a judgement call. What is important is that the competitive threats to market power which may arise from a merger are properly identified and evaluated within one or other of the two stages of assessment.

Structure of the D&P industry

5.6. Before turning to these issues it is useful to provide a brief description of the structure of the industry (this is a summary of information in Chapter 3). There are retail and mail-order providers of D&P. We can distinguish three types of retailer:

(a) autonomous retailers (defined in paragraph 2.23) that have an in-store mini lab and may also use an external wholesaler;

(b) autonomous retailers that do not have an in-store mini lab and only use an external wholesaler; and

(c) retailers that use a tied wholesaler (some of which may have an in-store mini lab).

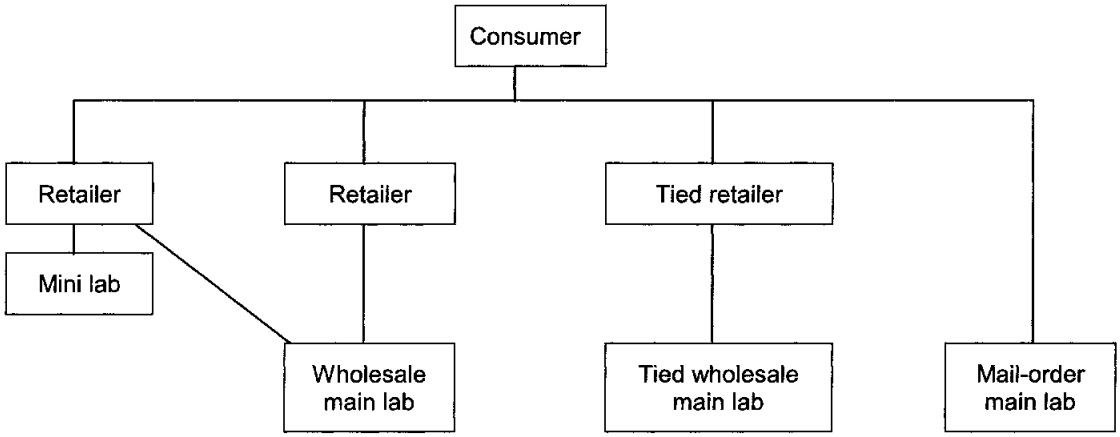
5.7. In this report, we use the phrase 'wholesaler' to mean a D&P provider who services retailer outlets and performs the processing itself, usually from a main lab, rather than dealing direct with the final consumer. In some cases, retailers and wholesalers are vertically integrated (ie where the retailers have controlling ownership links with the companies that run the wholesale labs). In some of these cases,

the retail outlets will only use the associated wholesaler, and in some cases the wholesaler will only serve associated retailers. To the extent that they do this,[1] we refer to them as tied retailers and tied wholesalers.

5.8. The structure of the industry can be represented as in Figure 5.1 (which is identical to Figure 3.1). This is a simplified presentation; as noted in paragraph 3.6 other relationships may exist between industry participants on a smaller scale.

FIGURE 5.1

Structure of the D&P industry



Source: CC.

5.9. Consumers can take their film to a retailer or send it to a mail-order D&P provider. When consumers take their film to a shop they will generally face a choice of services offered by that retailer. These may include processing returned within 1-hour, the same day, next day, three days or six days. Not all retailers offer all of these services. Retailers who have an in-store mini lab are the only ones who can offer a 1 hour service. These retailers may also offload films for overnight or longer D&P service to a wholesaler (retailers without mini labs send all their processing to wholesalers).

5.10. There are two sets of transactions which we have identified as relevant in the processing of colour films for amateur photographers: that between customers who wish to have their films processed and retailers ('retail transactions'), and those between retailers and the wholesalers to whom they send these films for D&P ('wholesale transactions'). The parties in this case participate almost entirely in wholesale transactions (except for the [✂] or so rolls which KPCL processes annually under its Kodapost mail-order service).

Market definition

Method

5.11. As the first of the two overlapping tests identified earlier, we seek to define the boundaries of the relevant economic market. This allows calculation of the market shares we expect to prevail after the merger. One way of doing this is by using what is called the SSNIP test or hypothetical monopolist test. SSNIP stands for 'small but significant non-transitory increase in price'. The idea behind the SSNIP test is to provide a framework for defining the group of products which currently provide competitive constraints on the merging firms, and the geographic area in which this occurs. The goal of the test is to identify the minimum set of products that constitute an economic market.

[1] As some wholesalers may also provide services to retailers outside their groups, or an-in house wholesale facility may be insufficient to service all of the group's retail outlets.

5.12. The SSNIP test is a hypothetical test. We start with the narrowest product or group of products of interest and ask: if there were only one firm supplying these products (a hypothetical monopolist), would that firm be able to increase its profits by raising prices by around 10 per cent? The question is whether, after the price rise, profits would increase, ie whether buyers would continue to purchase the product or whether sufficient numbers of buyers would switch to a different product so that the price rise became unprofitable. As well as substitution in demand by buyers, substitution may also occur on the supply side, if suppliers of alternative products can easily—without significant investment—transfer into production of these products in response to a small price rise. If, after conducting this hypothetical exercise, we conclude that the price rise would be unprofitable, we then add the closest substitute products, and repeat the test in an iterative manner until we find a group of products that could sustain a 10 per cent price rise engineered by a hypothetical monopolist.

5.13. In order to make a price rise unprofitable, sales would have to decline by a greater proportion than the hypothetical price rise (because of the consequential change in cost). If the decline in sales is sufficient to prevent the hypothetical monopolist profitably increasing prices, we conclude that those products are in the same market. We repeat the test adding products until the sales decline is too small to render a price rise unprofitable.[1]

5.14. The parties submitted to us that the relevant product market is the supply of colour D&P services for amateur photographers, and that the relevant product market is the UK. They argued that although they supply wholesale D&P services to retailers, retailers only place a value on such services in so far as they can then sell them on to end-consumers. As such, this 'derived demand' for wholesale D&P services means that any wholesaler not only has to outbid competing wholesalers for retail accounts, but also remains under pressure from those retail outlets to keep its prices down so that the retail accounts can remain competitive against other processing channels. This dual pressure on wholesalers means that they compete in a wider economic market than that for only wholesale services. Specifically, the parties put it to us that the relevant economic market includes on-site processors, and wholesalers, whether tied or not, and mail-order services.

5.15. The parties presented evidence which they said showed that the levels of substitutability between different processing routes and speeds for the final consumer were sufficient to conclude that they were all in a single product market (see paragraphs 5.64 and 5.68). They also argued that, in response to a price rise by a hypothetical monopolist, retailers' long-run response would be to invest in new mini labs, increase usage of mini labs, or encourage new entry into the industry. They also argued that there were no significant barriers to entry into the industry and that potential entry (using a variety of entry strategies) provided a strong constraint on the market. The parties argued that ready substitutability between the different processing options at the final consumer, and at the retail level, and the interplay of these constraints, meant that there was a single market for the supply of colour D&P services for amateur photographers.

5.16. We acknowledge the arguments of the parties; however, we consider that some of these arguments are actually an assessment of competitiveness, rather than an assessment of the boundaries of the relevant market. These issues are therefore addressed later in this chapter as part of the second stage evaluation.

Application to wholesale D&P services

Introduction

5.17. In deciding on the relevant market definition we have considered:

(a) what evidence there is on demand-side substitution (what options do retailers who want to offer D&P services to final consumers have, and in particular if the price of wholesale D&P went up by 10 per cent would retailers switch to these other options?);

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[1]This procedure is also used to determine the geographic extent of the market for a given group of products by starting from a local monopolist and iteratively increasing the area covered until external substitutes in demand and supply no longer render marginal price increases unprofitable.

(b) what evidence there is on supply-side substitution (would tied wholesalers or mail-order D&P providers be able and likely to offer wholesale D&P services to independent retailers if current prices of wholesale D&P went up by 10 per cent?); and

(c) how the behaviour of final consumers in the retail market affects retailers' behaviour towards wholesalers.

These are addressed below, after establishing the relevant products for consideration.

Relevant products

5.18. As explored in Chapter 3, we found that activities in the professional sector, and processing of black and white, and colour transparency films, are conducted using different equipment and production methods from the first-time processing of amateur colour print film (see paragraphs 3.25 and 3.27). Such activities are a minor part of the business of both parties, and they face competition from a large number of small-scale, independent professional labs. However, the production of reprints and enlargements did appear to be undertaken by the same competitors, often using the same equipment. Such activities are therefore relevant, but still constitute a small proportion of the parties' business. We received no evidence indicating that there were any features of these activities that suggested different market behaviour or raised different concerns over the effects of the merger. Therefore we can base estimates of market size and share on numbers of films processed.

Demand-side substitution

5.19. We now consider market definition against the criteria of the SSNIP test. In considering demand-side substitution the question to be addressed is, if prices of wholesale D&P went up, what would retailers do? Would there be a significant shift of retail demand for wholesale D&P services away to other services?

5.20. The first issue to consider is whether a wholesale price rise by a hypothetical monopolist would be passed through fully or partly to the retail market. The purpose of this is to understand the response of retailers to a hypothetical increase in wholesale prices, which is influenced by the behaviour of final consumers, in order to determine whether this would render the wholesale price increase unprofitable, and whether the actions of consumers are a constraint on wholesale pricing. We then look at whether retailers could use their existing mini labs more intensively in response to a wholesale price rise, and whether they could turn to other processing channels (such as tied wholesalers and mail-order processors) to perform a wholesale function.

Price transmission between wholesalers and retailers

5.21. Several pieces of evidence (see, for example, Appendices 5.1 and 5.2) together suggested that there was significant potential for substitution by final consumers between different processing channels on the basis of a hypothetical price rise for all wholesale services. This suggests that if wholesale price changes are fully reflected at the retail level, then retailers reliant on wholesale services could lose business to mail-order services and mini labs. If, on the other hand, retailers do not pass on the wholesale price rise, then the impact of final consumer behaviour on wholesalers would be much reduced. In either case, retailers would be harmed—from a loss in customers if prices were passed through, and a loss of margin if they were not.

5.22. KPCL and ColourCare both told us that they believed that competition between retailers was effective and that any wholesale price rise would therefore need to be passed on completely to consumers as higher retail prices. The parties therefore argued that a 10 per cent price rise by a hypothetical wholesale monopolist would provoke switching behaviour by final consumers sufficient to render the wholesale price increase unprofitable.

5.23. In contrast, Boots did not believe that a hypothetical increase in wholesale prices would necessarily be fully reflected at the retail level. This was because it had to compete for business with other retail outlets, using mini labs, and it had the option of expanding the use of its own mini labs for longer orders (although this would also have the effect of reducing demand for the wholesaler). Lloyds also

mentioned that retail prices had been stable for a considerable time and that it would find it difficult to deviate from these prices given the price sensitivity of its customers. Several retailers believed that any increase in wholesale prices would primarily be reflected in a reduction in retailer margins, more than an increase in retail prices.

5.24. Another argument raised was that retailers see D&P as a destination product, to draw customers into the store, which may result in their making additional purchases of other products. Consequently, retailers need to have a price-competitive D&P offering in order to draw customers in. Therefore retailers may be reluctant to increase retail prices despite a wholesale price increase (and this may give them an additional incentive to take a strong stance in price negotiations for the supply of this service).

5.25. We conclude that wholesale price increases are unlikely to be fully reflected at the retail level, as retailers would probably find it unprofitable to do so.

Use of existing mini labs

5.26. The main alternative to wholesale D&P for retailers is to use a mini lab. The response of retailers to the hypothetical wholesale price increase will differ depending on whether or not they already have a mini lab installed. Retailers that already have mini labs have the option of increasing utilization. Retailers that do not already have mini labs installed would have to make an investment, and so this is considered in the context of new market entry.

5.27. We were told that some retailers with mini labs continued to offload some part of their processing requirements to wholesalers. They tended to use wholesale processors to cover peak workload when mini labs operated at full capacity, to cover mini lab downtime (their agreements with wholesalers were therefore essentially to serve an insurance function), and to provide specialist D&P services (for example, black-and-white or unusual format films, or very large enlargements). In these cases the potential to move business from the wholesaler is somewhat limited. On the other hand, if mini labs are not operating at full capacity (as is usually the case), then they do not necessarily need to offload work to wholesalers, and so shops can choose whether to process in-store or use a wholesaler. When directly asked the question of what it would do if there were a 5 to 10 per cent price increase in wholesale D&P, Boots said that this would probably not be enough to induce it to change its pattern of use of mini labs (for example, by using its mini labs outside normal opening hours). It said that it might, however, reconsider the way in which it currently smoothed out its use of wholesale D&P over the year. For example, Boots continued to send film to KPCL in quiet months even though it had excess capacity in its mini labs (see paragraph 3.60). If prices for wholesale D&P rose it could stop doing this. Furthermore, some mini lab operators currently have a policy of offloading all overnight or longer work to wholesalers; during quiet periods greater use could be made of in-store mini labs. Other operators did not see potential for changing their use of wholesale services; rather they thought a response involving investment in further or higher capacity mini labs would be required (see paragraph 5.53).

5.28. Wholesalers are not generally able to meet demands for same-day processing, which is currently met by retailers' mini labs (for example, the 1-hour and 4-hour service). KPCL argued that same-day mini-lab processing should also be included in the relevant product market along with next-day-and-longer processing. It said that there was close substitutability between same- and next-day processing for retail transactions, and there was very close substitutability in supply. Retailers with mini-lab capacity used their mini labs to provide next-day-and-longer services, and it argued that retailers without a mini lab could acquire mini-lab capability and so meet demands for same-day processing. Additionally, it said that in some cases wholesalers did provide a same-day D&P service to retailers in certain conurbations,[1] and were therefore in direct competition with mini labs.

5.29. However, we found the substitutability in demand between same-day and next-day processing to be comparatively low. As explained in Appendix 5.1, in our survey of consumers, a 10 per cent increase in next-day or longer retail prices induced only a 5 per cent transfer of demand to same-day services. Further, we have doubts that a price change by a hypothetical monopolist of wholesale services would be effectively translated into the retail price change necessary to induce a consumer demand response big enough to make it unprofitable. We consider that acquisition of new mini labs should be

[1]This is possible if vans are doing two calls a day, as they can pick up as well as deliver in the morning, films can be processed during the day (if there is a day shift on), and returned via the late afternoon 'pick-up' round.

dealt with as potential new entry. Finally, the provision of same-day services by wholesalers was very low and confined to only a few cities. Wholesale processors are (with a very few exceptions) simply unable to support retailers in supplying a same-day service.

5.30. In principle, another tactic open to retail chains, where they have multiple stores in close proximity, would be to transfer work to stores with spare mini-lab capacity. However, this would require the establishment of a distribution system. Boots told us that the logistics of arranging such distribution systems would be extremely complex, making this difficult to do on a large scale. We heard anecdotes of such methods being used occasionally; KPCL told us that the Scottish retailer Photo Factory operated a van network to offload between its mini-lab-equipped stores, but in general such arrangements would require investment in a distribution system.

Use of other processing channels by retailers

5.31. Continuing with the SSNIP test, we considered the potential for retailers to turn to the other existing processing channels following a price increase by a hypothetical wholesale monopolist. There is the possibility of using mail-order processors, tied wholesalers, or subcontracting to other retailers with mini labs.

- We found no evidence of any retailers using mail-order D&P.[1] Such a service would be unattractive to retailers because of the uncertainty over the time taken for orders to be processed and returned. They would be unable to offer any guide to customers as to when orders might be available for collection. Whereas wholesale processors have to complete processing within a given time, usually overnight, mail-order processors do not guarantee processing times and may smooth workflow at busy times. No large-scale processor offers a significant mail-order service to retailers. In the case of 'own-label' mail-order processing, the prints are returned directly to the customer. These services are conducted by companies such as Intec Laboratories Limited on behalf of retailers, clubs, etc.

- There are tied wholesale processors such as Klick/Max Spielmann that have made a strategic decision only to service their own retail outlets and so their D&P facilities are not available to other retailers.

- A possibility open to a retailer would be to negotiate a processing contract with another local mini lab, operated by another retailer. We found no evidence of this occurring. The complications and costs of establishing the local distribution system, difficulties in negotiating pricing and reluctance to help a local retail competitor appear to prevent such arrangements being made on any scale.

5.32. For these operational reasons we do not believe that there is easy substitutability between these other processing routes and wholesaler services for the retailer.

Supply-side substitution

5.33. In considering supply-side substitution, we are assessing whether there is likely to be an increase in the supply of wholesale D&P services to independent retailers from integrated wholesalers and mail-order D&P firms if the current prices of wholesale D&P were raised by a small but significant proportion by a hypothetical monopolist. The difference between supply-side substitution and new entry lies in the size of the investment and the length of time required to switch into wholesale D&P. Below, we consider whether other main-lab operators could easily and quickly supply the wholesale market (ie are they within the market?), or whether significant investment is required, meaning they are relevant in the context of new entry to the market for the competitiveness test.

Provision of wholesale processing by existing D&P providers

5.34. Some tied wholesale D&P companies (for example, Klick/Max Spielmann) and mail-order companies (for example, Harrier) do not currently provide wholesale D&P services to independent

[1]Although some (eg Sainsbury) distributed 'own-label' mail-order envelopes for customers to use.

retailers, whereas others (for example, Grunwick and Colorama) do. In order to introduce or extend such a wholesale service they would need to expand or set up a distribution network and reorganize their operating methods. Distribution issues are covered in Appendix 3.3.

5.35. Considering tied retailer/processors, the largest, Klick/Max Spielmann, already has a large distribution system and four processing plants. The choice not to provide a wholesale service to independents is a strategic one, but it appears that it has all it needs to provide such a service if it thought that this would be profitable. KPCL hypothesized that since Klick/Max Spielmann was installing mini labs in its retail outlets, it was likely to have spare wholesaling capacity. This suggests that serving the open wholesale market from such vertically-integrated wholesalers would be relatively easy. However, we heard from Klick/Max Spielmann that it currently only contemplated continuing with in-house processing; while it did not rule out the possibility of devoting any spare capacity that might emerge in its existing labs to general wholesaling if margins increased significantly above current levels, it did not consider it likely that they would.

5.36. In the case of Grunwick, its operations and working practices are mainly set up to deal with its mail-order business, which is very much larger than its wholesale business. Grunwick told us that the flow of work through its plant was optimized for the mail-order activities, and other services such as wholesaling and servicing its own shops involved different checking in and final dispatch procedures, that slowed down and disrupted the flow of work. It does not operate the night shifts necessary to provide a next-day processing service to retailers on a large scale, nor does it have in place a large distribution fleet. As it operates from only one lab, the area of the country it could serve is constrained. Any other mail-order operator will face similar problems (although Harrier is believed to operate a night shift, KPCL's Glasgow lab processes Kodapost mail order during the day and wholesale services at night, and KPCL argued that the problems of reorganization were relatively trivial).

5.37. We have seen little evidence of existing tied wholesale or mail-order processors diversifying into the provision of wholesale processing in recent years. We heard that Harrier had attempted to enter wholesale D&P in the South-West some years ago, but had withdrawn. We heard that there was a perception that margins in the wholesale processing business are low, and also it was expected that the size of the market will shrink. Grunwick said that the reason it had largely withdrawn from the market was because of low margins rather than barriers to involvement. In addition, Klick/Max Spielmann is currently occupied with the consequences of its recent merger.

5.38. The view of existing mail-order and vertically-integrated wholesalers was that serving the free wholesale market would require a degree of investment and reorganization of operating procedures. They considered that this would involve unacceptable cost and time, and would be worth it only if prices rose appreciably. Moreover, there is a reduced incentive for existing tied wholesalers and mail-order processors to enter the wholesaling market in response to a wholesale price rise, as they will already benefit from final consumers turning to their tied shops and mail-order services. Although we think that an immediate shift in supply to wholesaling would not be technically difficult, we accept that this is unlikely to happen at the moment because of low margins and a falling market. We therefore conclude that these activities are not sufficiently close supply substitutes that they can be considered part of the same market. Rather, they should be considered as a competitive constraint on the market due to the potential for new entry.

Conclusions on the relevant product market

5.39. Using the SSNIP test, we started from the narrowest possible definition (that of a hypothetical monopolist in the supply of wholesale D&P services to autonomous retailers). This arises because of the substitution of existing mini-lab capacity for some wholesale services. We conclude that a 10 per cent price rise would lead to a significant reduction in sales which would be likely to make the price rise unprofitable. We conclude that overnight or longer mini-lab processing is contestable by wholesalers, and so is part of the relevant market. However, we note that wholesale D&P is not generally in competition for same-day services (for example, 1-hour or 4-hour), due to the difficulty of distributing films to and from a main lab in this time,[1] and so same-day services are not part of the relevant market. We also conclude that there is unlikely to be substantial substitution on the supply side. Retailers would not be

[1]There are some examples of wholesalers offering a same-day processing service to retailers in major conurbations. However, the level of such activity is very low.

able to switch to other processing channels (like mail order or tied wholesalers) to meet their needs. Therefore, we consider the relevant product market to be the supply of wholesale D&P services to autonomous retailers and the supply of overnight or longer D&P using mini labs.

The geographic market

5.40. The geographic distribution of UK wholesale processors is shown in Figure 3.6. As noted in paragraph 3.93 and Appendix 3.3, there is a limit to the distance over which overnight wholesale D&P services can be offered. However, we were told that these distances could be very large. With such large catchment areas, the overlap in catchments between different wholesale processors will be significant, and it is likely that a chain of substitution will run across most or all of the country (it is possible that choice might be constrained in regions on the periphery of the country). We consider that there will be sufficient potential overlap between catchment areas that in this case it is appropriate to consider the market as at least as wide as Great Britain.

5.41. We found no evidence of overseas processors serving the UK. Grunwick carries out some wholesale processing for retail stores in the Netherlands, and has mail-order sales in the Netherlands and the Republic of Ireland, for which processing occurs in the UK. This was the only significant example of trade with the Continent. We were told that processing prices tended to be lower in the UK than in most European countries, often by a considerable margin (see paragraph 5.56). It appears that the time and cost implications of international transport mean that market horizons are national.

5.42. KPCL argued that the relevant market included Northern Ireland due to substitutability in the consumer markets (mail order covers the whole of the UK and some major retailers have national pricing strategies), and because Northern Ireland operators could service mainland customers. We consider that in order to provide an overnight D&P service in Northern Ireland, wholesale processors would have to be located there as transport to and from mainland Britain would be too time-consuming. Longer processing services or mail-order processing could be transported to Great Britain, but this would not be a viable option for most wholesale services. Therefore we conclude that Northern Ireland is in a separate market from Great Britain. As ColourCare's Northern Ireland facilities will be transferred in ownership by the merger but there is no other effect, and KPCL does not have facilities there, we do not need to consider the market in Northern Ireland, and the appropriate geographic market for assessment of the merger is Great Britain alone.

Market shares

5.43. Having established our market definition, we now compute the market share of the companies in the relevant market. For reasons discussed in Chapter 3 (see paragraphs 3.7 to 3.14), we believe that around 110 million amateur colour films were processed in the UK in 2000. Of this, around [✂] million were mail order, [✂] million were through wholesalers, and some [✂] million were developed in mini labs.

5.44. Our definition of the relevant economic market requires a narrower measure than all film D&P. We need to exclude mail-order processing (such as Harrier, Kodapost and Grunwick's mail-order activities), and the proportion of wholesale activity by vertically-integrated wholesalers serving their tied retail outlets. Examples include Klick/Max Spielmann, Bonusprint, Colorama and others. Based on information received from several such processors, the throughput of tied wholesalers is around [✂] million films.

5.45. It is then necessary to exclude same-day processing at mini labs. In our survey, we asked mini-lab operators what proportion of their business was overnight or longer. There was a wide range of estimates of this: certain retailers (particularly small independent mini-lab operators) had a higher proportion of same-day work than the larger chains (for example, major chemists and supermarkets). Most estimates by large retailers for the proportion of overnight or longer business at mini-lab-equipped stores was in the range of 50 to 75 per cent. We therefore take the proportion of mini-lab activity that is same day to be about 33 per cent (although we recognize that we cannot be precise).[1] We also make an adjustment,

[1]This adjustment also recognizes that some of the overnight or longer work is already offloaded to wholesalers (and so is already counted in the throughput of the wholesalers), and so it should not all be an addition to the contestable market.

based on information received in our survey, to exclude the throughput of mini labs in the stores of tied retailers, as we do not consider such business to be contestable by independent wholesalers. This gives a relevant throughput of overnight or longer processing in mini labs operated by autonomous retailers of [✂] million films.

5.46. Finally, we considered the relevant market to be Great Britain. There was no data available to allow us to determine the number of films processed in Northern Ireland, and so it is necessary to adjust total market size pro rata to the population of Northern Ireland within the UK. We therefore reduced the estimate of the total market size by 2.8 per cent.[1] The total size of the relevant economic market (untied wholesalers plus overnight or longer mini-lab business) is therefore [✂] million films.

5.47. The stages of the calculation of the size of the relevant market (figures rounded to the nearest million) are shown in Table 5.1.

TABLE 5.1 **Calculation of the size of the relevant market, 2000**

	Number of films m
Total D&P activity in UK	
Minus mail order	
Minus tied wholesalers	
Minus same-day mini-lab processing	✂
Minus next-day or longer mini-lab processing at tied retailers	
Total wholesale and overnight or longer mini-lab processing	
Minus Northern Ireland	
Total measure of the relevant market for Great Britain	

Source: CC.

5.48. The number of films developed by the merged company has to exclude Kodapost's mail-order service and ColourCare's Northern Ireland activities to accord with our definition of the relevant economic market. On this basis, KPCL processed [✂] million colour films in 2000, giving KPCL a market share of 28 per cent, and ColourCare, which processed [✂] million, a market share of 23 per cent. Together the parties' combined market share was 51 per cent.

5.49. As explained above, there is inevitably some uncertainty attached to these calculations, but we believe our estimate of D&P activity to be based on the best information available and compatible with all other estimates that we have seen.

Competitive constraints

5.50. In general, we believe that, when a firm accounts for a low share of the market it is unlikely that it can exert market power. However, a high market share does not necessarily mean that a firm can exert market power, because of the possibility of significant competitive constraints. As a consequence, ascertaining what the market is and computing market shares must be supplemented by the assessment of the competitive constraints that operate both inside and outside that market.

5.51. We now turn to a consideration of the competitive constraints that could affect market power in this case. We assess these under three categories: new entry; rivalry within the market; and buyer power and consumer behaviour.

New entry

5.52. We first consider new entry into the industry, either by a retailer acquiring mini labs, or a new entrant to wholesaling based on main labs.

[1]The estimate of mid-year resident population for 1999 is: UK—59,501,000 and Northern Ireland—1,692,000 (*source: Annual Abstract of Statistics 2001*, The Stationery Office).

Investment in new mini labs

5.53. The use of existing mini labs by retailers is addressed as part of our relevant market. We consider the acquisition of new or larger mini labs as entry into the market. Mini labs are available 'off the shelf' from a variety of manufacturers, and there is also a market for second-hand equipment. The cost of a mini lab will vary depending on the capacity and capabilities (for example, digital D&P and other digital services). KPCL estimated that a second-hand analogue mini lab could be purchased for £4,000 to £8,000. Estimates for the cost of a new digital mini lab ranged from £50,000 to around £160,000, depending on the model and its capabilities. We heard that mini labs could be leased although they were usually purchased outright. We were also told that some manufacturers offered 'bundled' deals where the capital cost was repaid in part through higher prices on consumables, such as paper and chemicals, which would have to be purchased from the machine manufacturer.

5.54. The capital and operating costs of mini labs are considered in Appendix 3.5, which includes the results of two discounted cash flow (DCF) analyses by KPCL. On the basis of a number of assumptions,[1] the DCF projections showed that a small retailer could justify investing £55,000 in a small new digital mini lab with an output of 17 rolls an hour, provided that it was able to achieve sales of 8,000 orders a year. Another DCF projection demonstrated that a branch of a multiple store could justify investing £70,000 in a new digital mini lab with an output of 35 rolls an hour if it could achieve annual sales of 10,000 orders. The results showed that the assumption that a retailer would be able to gain a reasonable proportion of premium-priced business (ie same-day business) was crucial in justifying the investment. Another alternative would be for a retailer to purchase a second-hand machine at a much lower cost, and which therefore might be justified with lower annual sales.

5.55. In addition to the capital cost, a new mini lab requires trained staff, and occupies an area of the shop, and so needs to generate a return in excess of those products it displaces (see Appendix 3.5). A further threat to the profitability of an investment in a mini lab is the possibility of aggressive pricing by supermarkets seeking to increase their share of mini-lab processing. This might harm both levels of business and the premium commanded for rapid services. KPCL argued that the cost of mini labs was a limited barrier to entry, as machinery can be resold through the second-hand market, and so such costs were not sunk.

New entry into wholesale D&P

5.56. We now turn to consider new entry into wholesale D&P using main labs. As discussed in paragraphs 5.34 to 5.37, the easiest route in would be for an existing mail-order or tied main lab to diversify into offering wholesale processing to autonomous retailers. Primarily this would involve investment in distribution networks, some revisions to internal working methods and—if it were to be done on any scale—additional investment in plant. There have been very few examples of totally-new entry in the UK in recent years; although main labs have changed hands, the trend has been for the closure of main labs.[2] One exception has been the entry of TopFoto with a plant at Liskeard. We heard from various parties that wholesale margins are low, as are retail prices in the UK relative to other countries. For example, Fuji believed retail level prices for D&P to be less than half those in France.

5.57. The parties argued that there were no significant barriers to new investment. The processes for use in main labs were well known and in many cases were subject to internationally-agreed standards. Equipment is readily available from manufacturers, which means that minimal research and development is required to compete in the D&P business. Although the companies that produce such equipment may have their own processing interests, we heard no evidence to suggest that equipment is not actively marketed to competitors. We were also told that entry would not have to be on a massive scale to exploit economies of size, but that these could be fully achieved in a plant processing 1 to 2 million films a year (see Appendix 3.5). The parties also argued that entry would be possible because there were no significant brand names associated with wholesale processing. Loose contractual arrangements allowed retailers to move their accounts quickly, and a distribution network could be established using third party

[1]In both sets of projections, Kodak assumes that with a mini lab the retailer can achieve a sales mix that includes 25 per cent of orders requiring a 1
-hour service, 25 per cent a same-day service and 50 per cent a next-day service. The premium-priced business is not available to the retailer in the base case where it does not have a mini lab.

[2]Major processors have rationalized and closed labs. The exit of regional wholesalers has usually been through acquisition by major processors. As examples, Worth Photographic in Leeds was acquired by ColourCare in 1996, FotoProcessing (also Leeds) was acquired by Klick in 1997, Classic Photo (Northern Ireland) was acquired by ColourCare in 2000.

providers, such as a specialist distribution company that was already equipped to service retail outlets. Consequently, the parties believed it would be possible to establish a new wholesaling facility within a matter of a few months.

5.58. It was put to us that large retailers could sponsor new entry by guaranteeing levels of business for a period if they were concerned about the behaviour of market incumbents. Boots agreed that this was an option, or that they could undertake their own wholesale processing. Another option would be for a new entrant to offer a local wholesale processing facility using a city lab.

5.59. So entry to this market, either from new mini labs, or existing main labs outside the relevant market, or by new main labs, would not appear to be difficult in principle. Klick/Max Spielmann is very close to the market and could enter easily if it ever believed that this was worthwhile. Mail-order operators are also in a strong position to enter, although they do not have distribution networks in place. New entry through mini labs has been high in recent years. Costs of entry into mini labs appear to be falling (see Appendix 3.2) and major retailers are proceeding with investment programmes, and so we expect that the overall number of mini labs will continue to rise (but perhaps at a slower rate than in the recent past).

Rivalry within the market

5.60. In practice, the pricing power of the merged company will be affected by the actions of other wholesalers currently in the market. The parties argued that existing regional wholesalers provided competition. National retailers could be served by creating a consortium of regional wholesalers or subcontracting to other wholesalers in particular regions (see paragraph 5.70 for discussion).

5.61. We asked about prospects for a regional wholesale processor to expand to serve a wider market. We were told that TopFoto was seeking to expand from the South-West. Colorama's expansion of coverage with its Manchester lab is an example of this growth, and it was put to us that it was now in a good position to expand further to offer national coverage. There appear to be three options to expand geographic coverage without the expense of putting in a new main lab before a critical mass of contract work has been built up. First, a processor could seek new accounts in an area by using a local distribution system feeding into a trunker network, where local vans offload to a larger vehicle at a distribution depot, which then transports all work to a distant main lab. In that main lab, such work would need to be prioritized in order to ensure that it can be returned via the hub-and-spoke system in order to meet morning delivery targets. The other alternative would be to establish a small-scale 'city lab'. This would be likely to consist of several high-capacity mini labs at one location to serve as a local wholesale facility at a lower investment cost. Then, once sufficient business had been gained, a main lab could be put in. The third option is to seek to subcontract business to another local processor. This would allow regional processors to bid for work from national accounts.

5.62. So the potential for regional wholesalers to expand appears to be achievable via several routes. There have been few recent cases of this happening but this is likely to be because of the current low level of margins and the poor prospects for the industry.

5.63. Although there is some risk that KPCL could emerge as a price leader, there are a number of features of this industry that make tacit or overt collusion unlikely. This is a very diverse industry, with many participants, using different production methods (main or mini labs) and distribution channels (for example, tied retailers or mail order). There is also considerable uncertainty about the level of business competitors are doing, or the price they are charging. This makes it easy to cheat on any collusive agreement. Any such arrangement would be threatened by the growing use of mini labs and the possibility of new entry. These features of the industry are not changed sufficiently by the merger as to make collusion a likely risk.

Consumer behaviour and buyer power

Final consumers in the retail market

5.64. Wholesale D&P is an intermediate service provided to retailers, who sell this service on to final consumers. The behaviour of final consumers is therefore important, as it will have a significant influence on the behaviour of retailers, which will in turn influence wholesalers. There are two factors

that are a potential constraint: the ability of consumers to switch between different products, and their potential to switch retailers. We are therefore interested in the extent to which consumers switch between the different products on offer (1-hour, same-day, overnight or longer retail processing and mail-order processing). The parties argued that there was very close substitutability in demand between different processing routes at the consumer level. This argument was based on a number of points:

(a) Processing via mini labs, and wholesale or mail-order main labs, all produced an identical final product (the print) and there was no evidence of systematic differences in quality between these different routes.[1] Consequently the only significant difference between these routes was the speed with which a D&P service could be offered and the prices that were charged.

(b) The parties pointed to movements in the relationship between relative prices and relative shares of different D&P services. Relative prices are shown in Figure 3.5 and relative shares in Figure 3.4. These figures show that, while the relative price of mini-lab processing has declined, its share of the market has increased, which we were told demonstrated the substitutability between these services.

(c) The parties argued that the observed pricing behaviour of retailers was consistent with an expectation of close substitutability in demand. KPCL provided details of pricing for various speeds of service at Boots and Tesco. This showed a stable relationship between relative prices over time, ie a constant gap was maintained. It argued that, if price changes were not applied equally to all speeds of service, then large numbers of consumers would substitute between these services. If they were not demand substitutes, there would be no need for retailers to maintain a constant price gap between the different speeds of service.

5.65. As noted in paragraph 3.52, we were told that most consumers used a variety of processing options over a year, depending on their choice of speed/price combination. Most parties we saw indicated that there were retail customers who would move between services on the basis of price.

5.66. In order to investigate this question we conducted a consumer survey. Details of how the survey was conducted and a full explanation of the results are described in Appendix 5.1.

5.67. We were particularly interested in seeing whether consumers would switch between services for a 10 per cent increase in the retail price.[2] The results of the survey suggest that, for an approximate 10 per cent increase in the retail price of next-day, three-day and six-day D&P services for 35mm film, around 84 per cent of consumers would continue to use one of those services, 5 per cent would switch to same day and 11 per cent would move to mail order.

5.68. KPCL also presented us with the results of a survey it had commissioned from Research International (see Appendix 5.2). Their analysis also looked at consumer switching behaviour across different service speeds by presenting alternative price scenarios. The survey found that an increase of 20 per cent in the price of next-day and three-day D&P led to [✂] per cent of customers switching to a same-day or mail-order service. It also found that in most cases demand for particular processing options was responsive to the prices available for other options.[3] The demand for mail-order services had low responsiveness to the price of other services. These results are consistent with our findings, that there is fairly close substitutability in consumer demand between different speeds of service.

5.69. As well as moving between services, consumers will also have access to a wide range of retailers, including those not served by the merged company. We note KPCL's estimate that there were 22,000 D&P retail outlets in the UK, meaning that most high streets would offer a wide choice.

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[1]There is a significant quality difference between digital and analogue printing, and only mini labs currently offer full digital printing (see paragraph 3.21).

[2]Both our survey and the Research International survey were expressed in terms of an increase in retail prices. Because of retail margins, the percentage change in wholesale price will be larger than the percentage change in retail price, even if the full value of a wholesale price change is passed through to the retail price.

[3]Although, as explained in Appendix 5.2, several of these measures of the cross-price elasticities of demand between different processing speeds were not statistically significant. Some of the reaction to price changes was for consumers to shift between next-day and three-day services, ie services that are still likely to be offered by wholesalers. If many customers trade down to slower services in response to a retail price increase resulting from a wholesale price change, the volume effect on the wholesaler may be limited.

Countervailing power by retailers

5.70. We also considered whether buyers have any countervailing power. KPCL argued that the major issue in establishing buyer power was the potential to transfer processing to existing mini labs or to invest in new labs. It argued that large customers such as Boots and Tesco had major mini-lab investment programmes ongoing and that these could be accelerated, or existing mini labs used more intensively. It also noted that the large size of major accounts was important to main labs, which aimed to exploit economies of scale and ensured high capacity utilization, and so such retailers would be aware that a wholesaler would be reluctant to lose a major account. KPCL also referred to the practice of some retailers of 'double bagging', ie using more than one wholesaler, so that volumes could easily and rapidly be transferred between them. Jessops said that its processing arrangements with TopFoto as well as Kodak gave it increased negotiating power. KPCL also noted that national retailers had the option of transferring their business to several local or regional processors, as well as national processors. Such arrangements had been the norm until recent years when national processors had become established (see paragraph 6.96). Most retailers told us that this arrangement would be complex and difficult to manage. Nevertheless this provided an option to retailers that may strengthen their negotiating position.

5.71. Boots said that it had a number of options open to it. These included reducing the offload of films from mini-lab-equipped stores if wholesale prices rose, increasing investment in, and the operating hours of, mini labs, developing contracts with regional processors, or even setting up its own main-lab processing operation. We note that Boots has a large share of the retail market. In principle, Boots could invest in wholesale processing itself, or sponsoring new entry, or the expansion of regional processors to providing a national service. It could establish small-scale main labs or city labs, which could be serviced either by Boots' own distribution fleet or a contracted distributor. These alternatives strengthen its negotiating power against a national wholesaler. Similar factors will apply in other large accounts. For example, the supermarkets have been increasing their presence in the retail market for D&P. Most have programmes of mini-lab investment so they are also likely to command considerable negotiating power. We also note that the large retailers have chosen to market their D&P services to customers under their own brand rather than that of the wholesaler (and usually make no reference to the identity of the wholesaler). This suggests that the processors do not have the power to insist that packaging also promotes their services.

5.72. In the case of smaller retailers, the parties said that their main negotiating power rested in their ability to switch to local processors who specialized in servicing such accounts. They said that such switching was easy for reasons explained in paragraph 3.63. KPCL said that local processors often cherry-picked high volume retail stores to form a dense local distribution network, so achieving significant economies of scope in distribution and thereby allowing them to offer very attractive pricing to independent retailers.

5.73. So our findings are that consumer behaviour and buyer power will be able to limit the ability of wholesalers to raise prices for overnight or longer D&P.

Potential for anti-competitive practices and other effects

5.74. We also considered whether the merger might facilitate certain anti-competitive practices. The potential for these practices, and whether they might be encouraged by the merger, are considered below. We then evaluate the merger's effects on technical progress, and on the availability of services to retailers.

Price discrimination

5.75. Neither KPCL nor ColourCare currently follow a standard price list; both told us that they operated pricing regimes which took into account the volume of films to be processed, the economics of distribution and the quality of service required (some pricing discretion can sometimes be applied). This is discussed in detail in Chapter 3 (paragraphs 3.64 to 3.74). It did not seem unreasonable to base pricing on these cost-related factors, although, as explored in Appendix 3.3, within a complex system the precise allocation of distribution costs to individual customers is difficult. Pricing is therefore based on approximations of these costs. We considered whether the merger would increase price discrimination or unfairly disadvantage certain retailers. KPCL told us that it had no plans to make changes in this area,

and we saw no incentive for it to deviate from a cost-based approach. Price discrimination might allow a party to exploit increased market power against a particular class of retailer. The smallest retailers, or those requiring a national service, would appear to have the least countervailing power. However, as discussed in paragraphs 5.70 and 5.72, there are alternatives open to these retailers.

Full-line forcing

5.76. All processors offer a portfolio of services, such as various sizes of prints, reprints or enlargements, and some offer more specialist facilities, such as printing photographs on to mugs or T-shirts, or providing images on CDs or over the Internet. We heard no complaints about suppliers forcing full lines of products and/or services on to customers in this market. Retailers generally seemed happy to offer this wide range of services, even though some were purchased very infrequently. There are hardly any additional costs in offering the full range, and in practice most are higher profit margin services than straightforward D&P. We heard no evidence contradicting the parties' statement that retailers could also turn to other suppliers. We saw no reason to expect that the proposed acquisition would lead to changes in this area.

Predatory pricing

5.77. We heard no complaints about predatory pricing by KPCL in the past. [*Details omitted. See note on page iv.*] KPCL argued that predatory pricing would not be a credible strategy. Even if it were able to gain customers at the expense of other wholesalers, it said that it would not be able to raise prices in the long run to make this policy profitable. This would be because final consumers would move to other processing channels, and retailers would increase their use of mini labs. Also, if wholesale margins increased substantially, new entry (most probably from a tied wholesaler or mail-order processor) would be easy.

Summary of the competitiveness test

5.78. The relevant market is defined as the services of wholesalers to autonomous retailers and mini-lab services (excluding same day) of autonomous retailers, and we found that the merged companies would have over half this market. However, we have identified three forces acting as competitive constraints on this market, which will provide sufficient constraint on a merged KPCL/ColourCare to make it difficult to raise prices.

Other potential effects of the merger

Vertical issues

5.79. As outlined in Chapter 3, Eastman is active in many areas associated with photography apart from wholesale processing. It is a major supplier of film, cameras and photographic equipment, and processing materials (paper and chemicals). It also has some involvement in the supply of main- and mini-lab equipment, and is associated with mini-lab operators. These other Eastman companies that supply the UK are discussed in Chapter 4.

5.80. The concern was raised that KPCL might be able to derive some degree of market power from Kodak's presence in these related markets. A number of scenarios was proposed. Kodak might be able to improve the competitiveness of its D&P business by giving KPCL cross-subsidies from other Eastman subsidiaries. It might, for example, allow KPCL to buy photographic paper and chemicals at below-market rates, or push up costs for D&P competitors by raising prices for materials. It might use its power in D&P to strengthen its position in mini-lab processing, either through Kodak Express or the supply of materials or equipment. Finally, because of the success of the Kodak brand in films, it was suggested that it might seek to use its power in wholesale processing to discourage the practice of retailers providing free films with processing.

5.81. The purpose of this section is to assess whether it would be feasible for Kodak and KPCL to engage in such practices, and to consider whether it would be a rational strategy for it following the merger.

5.82. We consider five other photographic markets in turn as being potentially of relevance to the supply of D&P services to retailers, as outlined in paragraphs 3.107 to 3.117. These are: the supply of colour film to consumers; the supply of photographic paper to main-lab and mini-lab processors; the supply of photo-chemicals to main-lab and mini-lab processors; the supply of equipment to main-lab and mini-lab processors; and the supply of D&P services to the public by retailers.

5.83. It was suggested that offering a direct cross-subsidy to KPCL by offering reduced prices on Kodak-sourced materials would only be a rational strategy if D&P offered a better return than the other products.

5.84. We asked Kodak to provide us with details of the margins earned on various activities associated with photography. As shown in Table 4.2, the gross margins on D&P are lower than those on [✂]. While this does not give a full picture of profitability, there would not seem to be strong reason to surrender margin on these other products to promote a lower margin business.

5.85. Kodak told us that its sales of [✂] to KPCL—like its other intra-group transactions—were carried out according to a formula based on normal market prices, as explained in paragraph 4.16, by which internal group companies received a [✂] discount relative to other large customers to reflect the lower costs of handling an internal account.

5.86. KPCL argued that there would be no incentive to cross-subsidize KPCL's activities in order to drive D&P competitors out of business, as the market would remain contestable due to the threat of new entry. They argued that wholesale prices could not be raised in the long term in order to make a predatory policy profitable, because new entry was relatively easy.

5.87. Another possibility was that KPCL could restrict supply or increase prices to D&P competitors for materials, and main- or mini-lab equipment. However, it is doubtful that such a policy would be effective, as there are alternative sources of supply to competitors. Paper and chemicals are produced to a similar quality by other multinational producers, and their products are sold in a worldwide market. The agreed standards in processing and photography ensure that no company has a dominant or unique technological position. For D&P equipment, Eastman was not one of the major producers.

5.88. Although there is some use of product bundling, particularly in the supply of mini labs (see paragraph 5.53), KPCL told us that Kodak did not tend to get involved in such agreements. Because of the substitute producers of processing materials and equipment and its own low market share for mini-lab equipment, it did not appear that Kodak would be in a position following the proposed merger to use bundling to enhance its market power.

5.89. Kodak does have a strong position in the supply of film to consumers (see paragraph 3.109). KPCL does not make free film offers itself. It was therefore suggested that KPCL might use its power in processing to discourage retailers giving away free films, in order to protect its relatively high-margin film business. KPCL told us that Kodak did not produce 'own-label' films, although it sold some Kodacolor film to others, that might be used for a free film offer. It said that there were several other film producers supplying the own-label market (as well as selling their own brands) and that KPCL would not have any power to stop retailers sourcing 'free' films from these routes.

5.90. We found no indication that Kodak used KPCL's position in D&P to press its retailer customers to stock only Kodak film, or use only Kodak paper or chemicals in their mini labs. Although many KPCL customers did stock Kodak film, a large number of them also sold other brands and own-label film. None of the KPCL customers that we spoke to, who also used other Kodak products, told us that they did so for anything other than normal commercial reasons, or that they had come under pressure to change stocking practices.

5.91. As a final option we considered whether there would be any incentive for Kodak to allow the price of wholesaling to rise, recognizing that in the long run many consumers and retailers would turn to mini labs. The Kodak Express chain might pick up some of the transferred business, but it accounts for

only a small number of stores, and Kodak has no direct profit relation with the chain. Similarly, Kodak has only a very small proportion of sales of mini-lab equipment, and it would make fewer sales of paper and chemicals than if it retained the D&P business at KPCL. Consequently, there appears to be no incentive to Kodak to allow wholesale prices to increase in this way.

Effects on technical progress

5.92. Prospects for technical progress in the wholesale D&P industry are explored in Chapter 3 and Appendix 3.1. KPCL argued that the merger would facilitate its investment in main-lab digital processing technology (see paragraphs 3.21 and 6.5). We heard from retailers and processors themselves that the ability of wholesalers to offer digital-quality prints was crucial to the long-run future of main labs, because of both the competitive threat from digital mini labs and the need to handle images from DSCs.

Withdrawal of services to retailers

5.93. The concern was raised that the merger might result in the withdrawal of wholesale services from some retailers (see paragraph 7.59 and 7.60). It appeared that ColourCare is currently more willing than KPCL, in some cases, to serve retailers with a low level of business. However, ColourCare said that without the merger it would shortly undertake a cull of some low-volume accounts (see paragraph 6.97). As explained in Appendix 3.3, there is reason to expect that the merger will result in economies in distribution, which could improve the economics of supplying some currently marginal accounts.

6 Views of the main parties

Contents

Introduction

6.1. This chapter summarizes the views of the main parties provided in written submissions and at hearings. KPCL and ColourCare provided views separately on some topics and jointly on other topics. A summary of their separate views is given first, followed by a summary of their joint views. Finally their separate further views are recorded.

The views of KPCL

The rationale for the transaction

6.2. KPCL told us that, with or without the acquisition of ColourCare, it would need to invest in digital technology and continue to develop new and innovative services, in order to maintain its ability to compete effectively in the market in the face of intense competitive pressure from retailers and other D&P providers. The acquisition facilitated that process because:

(a) the acquisition would enable KPCL to improve the overall operating efficiency of the combined businesses, principally through [✂] rationalization programme and savings in distribution that would eliminate unnecessary overheads, deliver improved distribution efficiency and thereby reduce unit costs; and

(b) these cost savings would enable KPCL to implement its digital strategy more quickly than would otherwise be the case, in turn accelerating improvements in the range, quality and reliability of KPCL's D&P services.

6.3. KPCL forecast major changes in wholesale D&P in the next few years. In particular, its business would be challenged by retailers' increasing use of in-store mini labs. It estimated that the number of mini labs in the UK had risen from 1,650 in 1991 to some 3,100 now and it expected numbers to continue to grow in the future. Mini labs had become cheaper, smaller and easier to use over the last ten years and, since digital mini labs came on the scene in 1997, also offered competition over the quality of prints because wholesale labs still largely had optical equipment. KPCL estimated that, by about 2005, mini labs would be processing more film than wholesalers.

6.4. In the longer term, Kodak and KPCL saw the whole D&P business being eroded by the growing use of DSCs. The numbers of these had grown from 100,000 in 1997 to some 1.8 million now, and might reach [✂] million by 2005, compared with 30 million conventional cameras currently in use. Over time, the price of DSCs would fall and they would begin to supplant conventional cameras in a substantial way. By 2005, the use of DSCs was expected to have grown further and so the amount of film being processed would reduce to some 93 million rolls, compared with an estimated 104.6 million in 2000.

6.5. We discussed the rationale for the merger with KPCL. KPCL said that it had started to invest in main-lab digital printing, having introduced pre-production model machinery in each of its labs. The ColourCare acquisition would allow overhead and distribution savings, thus freeing up capital to enable an acceleration of the digital printing programme. The merged entity would also have access to a wider customer base to which it could offer a range of innovative products such as 'Kodak Pictures' which was a new D&P offering or pictures on compact discs.

6.6. KPCL told us that the merger was not an attempt to take capacity out of the market. Its business case was based on the hope that, although they had plenty of other options available, customers would stay with the merged entity and continue sending films to be developed.

6.7. KPCL saw the need to convert from an optical infrastructure to a digital infrastructure as imperative to its business. Digital mini labs had been in existence for some three to four years. Most major retailers had either converted to digital mini labs or were planning to do so. In the wholesale sphere, retailers would soon be demanding digital printing as a natural standard. KPCL aimed to make a transition to digital equipment in its wholesale labs regardless of the acquisition and had already started down that road. Without the acquisition, full digital conversion would take some seven to nine years; with the acquisition, full digital conversion would take more like five to seven years. KPCL's aim was also to get to a position where customers could automatically expect digital printing on at least the

standard services such as next-day D&P. In order to offer this, KPCL would need to achieve some 40 per cent digital conversion. Without the acquisition, this would take some three to four years; with the acquisition, this would take more like two years. Boots, for example, already had digital mini labs and therefore also wanted to offer consumers digital printing of photos sent for wholesale D&P. Digital printing did make a noticeable difference to print quality, which consumers appreciated if it was pointed out to them. Digital conversion also allowed digital printing from digital sources such as DSC files, CD-ROMs, zip disks or files received over the Internet.

6.8. KPCL told us that Eastman was developing digital printing equipment (I-lab) for use in main labs; that it had introduced pre-production models in all its labs; and that it planned to accelerate the rate of installation of final-production models in all the labs in its new network, should the proposed acquisition go ahead. This would bring a number of improvements in the quality of the work that main labs produced.

6.9. [

Details omitted. See note on page iv.

]

6.10. [

Details omitted. See note on page iv.

]

6.11. We asked KPCL for the business case supporting the price to be paid for ColourCare and its projections for the merged business. This is recorded in paragraphs 4.59 to 4.68.

6.12. [

Details omitted. See note on page iv.]

KPCL's pricing policy

6.13. KPCL gave us details of its pricing policy to its retail customers and information about its sales to customers; two large nationwide groups accounted for more than half its sales in 2000.

6.14. KPCL told us that all its customers had significant buyer power because switching to one or more of the numerous alternative providers was easy, there being few contractual or other barriers to so doing. For example, at several stages over the last three years Boots had made major changes to the way it balanced its volumes between its mini labs and its wholesale suppliers, including using KPCL in Great Britain and Spectra in Northern Ireland and the Republic of Ireland. Jessops, another national retailer, currently used a regional wholesaler (TopFoto) to service its stores in the South-West, while using KPCL for the rest of its national coverage. In addition, the parties also submitted various examples of smaller independent retailers that had switched some or all of their business to different suppliers in recent years, often choosing to dual-source their wholesale D&P requirements. A further demonstration of customers' buyer power was the fact that installation of mini labs and increased utilization of existing mini labs were relatively cheap and cost-effective. KPCL said that, generally, customers did not know the terms offered by KPCL to other customers, although they could expect that customers with larger volumes per store would be charged less than customers with smaller volumes because, fundamentally, pricing was driven by the costs of servicing particular accounts. [*Details omitted. See note on page iv.*] Retailers naturally pushed to get better prices wherever possible; few negotiations resulted in prices to the processor going up. KPCL tended to react to

requests for lower prices by suggesting savings in the level of service offered, for example in the number of deliveries per day or additional procedures in the lab. Another possibility was that KPCL would make suggestions for additional promotional activities or staff training with the aim of increasing the volume of sales, as a result of which the D&P charge could be reduced. KPCL often found that it could not economically service very small accounts (under £5,000) but it believed that there were regional processors that could service such accounts.

6.15. KPCL said that one benefit of the proposed merger was that accounts that currently might not be economic to service were likely to become so, given the reduced distribution costs and overhead savings which were planned for the merged entity. KPCL was not anticipating that it would turn away current customers.

6.16. We asked KPCL whether it could discriminate in the prices it charged retailers in order to fight mini lab competition. KPCL said that it could not offer any financial incentives to retailers to prefer the wholesale route rather than the mini-lab route; if it were to do so, retailers would use the installation of mini labs as a threat to push KPCL into dropping prices and KPCL would be unlikely to be able to sustain its business. More generally, KPCL said that it would have neither the ability nor the commercial incentive to exercise a policy of price discrimination. In particular, KPCL explained that it would not have the market power required to discriminate between retailers (as its behaviour would continue to be constrained both by end-consumers switching across service speeds and across retailers and by retailers switching to other D&P providers) or the ability to differentiate between different types of retailers (as all retailers of different sizes and location had a range of options available to them for their D&P requirements and would therefore switch away from KPCL if prices rose).

6.17. KPCL worked very hard to provide innovation in its D&P services and tried to show retailers that they could be very successful without going down the mini-lab route. Against this, mini labs had become smaller and easier to use and mini-lab manufacturers vigorously promoted their own products. They offered advice and financial feasibility studies to potential customers. They also offered generous financing packages which obviated the need for significant up-front investment to acquire mini labs.

6.18. We put it to KPCL that competition between it and ColourCare in the past had kept prices down and asked what would prevent the merged entity raising prices if the merger went ahead. KPCL said that it had been competing not only against ColourCare but also against all other D&P wholesalers, including Colorama, which covered 80 to 90 per cent of the country and could easily have 100 per cent coverage either by expanding existing coverage at relatively low cost or by subcontracting some operations to a regional wholesaler. The fact that, at the moment, retailers had a choice on a national level between KPCL and ColourCare did not indicate that, if ColourCare disappeared, no other national alternative would come into existence. KPCL did not believe that the proposed merger would change pricing pressures. In its business case, the pricing assumptions were the same with and without the merger. In any event, KPCL stressed that it regarded mini labs and mail order as equally strong constraints on KPCL's pricing (see paragraph 6.30).

6.19. We asked KPCL if the savings created by the proposed merger would be passed on to customers. KPCL said that its aim would be to retain as much volume as possible on a rationalized cost basis by keeping prices and services competitive. The savings would be reinvested in the planned accelerated digital programme. Underlying prices had been going steadily downwards for many years and would be likely to continue to decline, with or without the acquisition.

Vertical concerns

6.20. We asked KPCL about certain concerns expressed by third parties:

(a) Some slight concerns had been expressed that KPCL might be charging retailers prices which were below cost because the photoprocessing business was subsidized by Kodak's film and other businesses. KPCL said that it did not bundle or cross-subsidize between products. Each division, including KPCL, operated as a stand-alone company at market prices and on arm's length terms and was not subsidized by any other Kodak company. None of this would change as a result of the acquisition.

(b) Some third parties had commented on Kodak's policy on not encouraging the giving of 'free' films with photoprocessing, or rather, including the price of a film in the price of photoprocessing. KPCL said that it did not actively support apparently free film as a promotional

activity although it did not ban the practice if retailers wished to offer free film. As a matter of policy around the world, Eastman did not make film to be sold under another brand name.

(c) In response to a query about Kodak Express, KPCL said that Kodak Express was a marketing programme for independent mini-lab operators, analogous to similar programmes run by Fuji and Agfa. Kodak Express operators were obliged to use Kodak paper, chemicals and the Kodak brand name as part of the quality monitoring service and, for buying purposes, were treated as a chain that was able to negotiate appropriate volume discounts. Kodak Express operators were, however, free to choose wholesale D&P providers other than KPCL and frequently did so in practice.

The views of ColourCare

The rationale for the transaction

6.21. ColourCare gave us a history of events leading up to the transaction. This is discussed in paragraphs 4.41 to 4.47.

6.22. ColourCare told us that it [

Details omitted. See note on page iv.

]. Furthermore there was a negative outlook for this industry.

6.23. ColourCare's gross profit rose between 1997 (£16 million) and 1999 (£22 million) [

Details omitted. See note on page iv.

]

6.24. [

Details omitted. See note on page iv.

]

6.25. We asked ColourCare about plans for PrintMovers which, after the proposed merger, would [*Details omitted. See note on page iv.*] service KPCL. [

Details omitted. See note on page iv.

] PrintMovers would also seek other business. Further detail is in paragraphs 4.73 to 4.75.

ColourCare's relationships with customers and pricing policy

6.26. ColourCare gave us details about its customer relationships and pricing policy. ColourCare told us that certain customers were moving to using mini labs at the expense of wholesale D&P. It considered that wholesale prices would continue to be constrained post acquisition because of persistent and increasing competition from mini labs. Retailers were switching to mini labs because they wished to provide a same-day service at a premium price, and then realized that the incremental cost of using the equipment to process overnight work was very low. Furthermore, the existence of a mini lab made the retailer look like a serious professional photoprocessor. As retailers tended to cost their overnight mini-lab service on a marginal basis, it was impossible for a wholesale processor to offer a lower price. Some retailers would need to upgrade optical mini labs to digital mini labs. ColourCare did not feel that the growth in mini labs had levelled out. However, some retailers, such as local pharmacists, were deterred

by space considerations from installing mini labs. Inkjet printing was likely to become significant in two to three years' time and would reduce the space requirements.

6.27. ColourCare said that there was limited brand competition between KPCL and ColourCare. ColourCare's major retail customers tended to use own-brand packaging. ColourCare considered that it competed against KPCL not only on price but also on quality, customer service and promotions. Price was nearly always a key factor when ColourCare was competing against other wholesale D&P processors such as Colorama, Wembley Photofinishers (Wembley) or Top Foto. We asked ColourCare whether, in its view, national retailers could be supplied by wholesalers other than KPCL or ColourCare: in response, ColourCare instanced Colorama which, it said, had competed with it to supply a contract to a retailer with nearly national coverage. In ColourCare's view, competition from regional wholesale processors would act as a check on the prices that the merged entity would be able to charge following the transaction.

6.28. We asked ColourCare about its pricing policy. ColourCare said that, generally, pricing for retailers was based on a discount from a recommended retail price. The price a customer could obtain was determined by the volume of films and the cost of collection and delivery which, in turn, was affected by the number of outlets. The needs of the different customers for processing also varied depending on the extent that APS as well as 35mm film was used. ColourCare had recently looked again at savings in the area of collection and delivery and was negotiating with certain national customers with higher film volumes about servicing only certain outlets. ColourCare added that it had made a point of giving attention to customer service and support to retailers and believed that it was superior in this respect to a number of other wholesalers.

6.29. We asked ColourCare whether it had found it necessary to offer very attractive discounts in the light of the imminence of the proposed merger. ColourCare said that its price negotiations were always conducted on economic grounds.

The joint views of KPCL and ColourCare

Market definition

6.30. KPCL and ColourCare submitted that it would be unduly narrow to define the market solely as 'the provision of wholesale D&P services for amateur photographers to retailers'. Retailers only placed a value on wholesale D&P services in so far as they could then retail D&P services to end-consumers. The activities of KPCL and ColourCare were constrained by retailers that used mini labs on-site; by other wholesale processors; and by mail-order service providers. Following the merger, the merged entity would, in the view of the parties, have some 28 per cent of the market (on the basis of film volumes) and would continue to face competition from these other providers.

6.31. As providers of wholesale D&P services to retailers, KPCL and ColourCare were under pressure to keep prices down so that they remained competitive as against other wholesalers and so that retailers could remain competitive as against retailers not supplied by KPCL or ColourCare: they were not just supplying services to retailers, but indirectly supplying services to end-consumers, namely amateur photographers. These D&P services to end-consumers were also provided by mini-lab operators and mail-order providers. There was no systematic quality difference between the optical products of wholesale D&P providers, mini-lab operators and mail-order providers (though digital printing tended to provide a superior product to optical printing). The parties referred to a survey in *Amateur Photographer*, 30 June 2001, that found no distinction between the quality of colour prints processed through these three channels.

6.32. From the perspective of the end-consumer, the principal factor that differentiated the different D&P products and services was service speed. Service speeds could be classified as:

(a) same day (provided by on-site mini-lab processors and some wholesale processors in large urban areas);

(b) next day (provided by mini labs and wholesale processors);

(c) two to five days (provided by mini labs and wholesale processors); and

(d) six or more days (provided by mail-order services, wholesale processors and also by mini labs).

Higher prices were charged for more rapid service speeds and lower prices for lower service speeds. Even for the same services, consumers might expect different prices from a photo specialist such as Jessops, a supermarket, a newsagent and a pharmacist. This reflected different qualities of 'retail experience'. End-consumers therefore made a trade-off between service (connoted by 'speed' and 'retail experience') and price when deciding which D&P service to purchase and from whom. Therefore, while it was true that there was a variety of prices on the high street, that did not suggest that competition at the retail level was muted. In particular, promotional techniques used by retailers suggested that this was a highly competitive market.

6.33. KPCL and ColourCare submitted that the fact that there were retail price differences between services of different speeds did not suggest that they were in separate markets. The Office of Fair Trading, in its guideline on market definition for the Competition Act 1998, had stated that, if two products performed the same purpose, they might be included in the same market depending on whether the price of one constrained the price of the other. The position was analogous to branded and non-branded goods in a supermarket, which were in the same market even though their prices were different. On the supply side, the technology and equipment used by mail-order firms was identical to that used by D&P wholesalers, with the result that any price increase by wholesalers would encourage mail-order firms to expand into wholesaling. Similarly, the capital cost of mini labs was relatively low and many retailers already possessed the relevant equipment. Retailers had already switched significant volumes of D&P from wholesaling to on-site mini-lab processing, thus showing that they considered these alternatives to be close substitutes.

6.34. We asked whether it was feasible to define the appropriate market in value terms. KPCL and ColourCare said that the market data existed only in terms of volume. On a value basis, the share of D&P wholesalers would be smaller than it was on a volume basis, because the wholesalers were not in the highest price segment of the market (ie same day) and also because the wholesalers' price for a next-day service would be significantly lower than the retail price achieved by a mini lab for the identical service.

6.35. KPCL and ColourCare presented evidence about the relationship over time between relative prices and relative shares of different D&P services. KPCL and ColourCare estimated that, between 1995 and 2001, mail order's share of D&P services had remained static at about [✂] per cent; mini labs' share had risen from [✂] per cent; and wholesale D&P's share had fallen from [✂] per cent. As to relative prices, in 1995 1-hour on-site prices were 60 per cent above overnight prices but, by 2001, this difference had fallen to 45 per cent. The main parties said that the price of mail-order services had also fallen, but at the same rate as the prices for services from wholesale labs.

6.36. The parties offered alternative explanations of the changes in the relative market shares of on-site mini labs, wholesale D&P and mail order services:

(a) The most likely explanation, in the view of the parties, was that consumers had made greater use of faster on-site processing as the same-day price premium had declined.

(b) Alternatively, either (i) more retailers had installed mini labs as equipment costs had fallen or (ii) retailers had expanded use of their mini labs to provide next-day processing on-site and had consequently reduced the volumes sent for wholesale D&P.

6.37. The parties said that both these explanations might have contributed to the falling share of wholesale volumes. However, the conclusion remained that wholesale providers had lost share to on-site processors with mini labs as a result of price-related switching by retailers and consumers. This demonstrated that the relevant market was wider than wholesaling. The parties added that, for certain retailers, some dramatic switching from wholesale D&P to on-site mini-lab processing had occurred in the last few years. In the view of the parties, the same-day price premium was unlikely ever to disappear.

6.38. Moving to the hypothetical monopolist test, the parties stated that the hypothetical monopolist test demonstrated that wholesaling was not a distinct economic market from the other forms of D&P. A hypothetical monopolist of wholesaling would not be able profitably to sustain a 5 to 10 per cent price increase. Retailers' margins were so slim that they would be bound to pass on this increase. As a result, at least three different types of constraint would result in the hypothetical monopolist losing such a volume of sales that its profits would be reduced:

(a) In retail outlets with mini labs, consumers would react to a 5 to 10 per cent price increase by switching to same-day services; therefore the wholesaler would lose sales and profits.

(b) Alternatively, consumers would switch to other retailers that had mini labs, or to mail-order services.

(c) Retailers would respond to a 5 to 10 per cent increase in wholesale prices by switching away from the wholesaler, either increasing usage of existing mini labs, acquiring new mini-lab equipment or encouraging rapid entry or expansion of other wholesalers.

6.39. Considering the sourcing decisions of retailers, the parties argued that, in response to a hypothetical price increase at the wholesale level, profit-maximizing retailers would respond to this relative price increase in two possible ways. First, retailers might move into on-site mini-lab processing. The cost and physical size of mini labs had reduced significantly and was continuing to do so. Mini labs were also easy to use and required no 'build out' to install. Around 3,100 retail outlets ranging from small independent outlets to large national outlets were already equipped with mini labs. Retailers such as Boots, Superdrug, Tesco, Jessops, Minit, SupaSnaps, Safeway and independents were all increasing the capacity utilization of their existing mini labs. This meant that on-site processors were developing additional same-day, next-day and longer services, thus taking away business from wholesalers. Second, retailers could encourage the entry and expansion of wholesalers outside the hypothetical monopoly by offering volumes to mail-order firms or to vertically-integrated main-lab operators such as Klick/Max Spielmann.

6.40. The parties commented on the consumer survey carried out for us by BMRB International (BMRB) (see Appendix 5.1). They thought that it possibly understated the extent of likely consumer switching in response to a price rise. (See paragraph 6.66.)

6.41. The parties presented sales and price data from certain retailers that were large customers, in order to investigate switching. These retailers maintained a constant price differential between 1-hour and next-day services. Retailers tended to lower or raise both prices at the same time by the same amount. The parties said that this suggested these services were regarded as demand substitutes, and consumers chose either the faster, slightly more expensive, service or the slower, slightly less expensive, service. Different speeds competed with each other in such a way that there tended to be a price premium of about £2 payable for speed. Any reduction in the premium would provoke consumer switching to same-day services. The parties also noted that, upon introduction of a six-day service promotion at Boots, consumers switched from faster service speeds to the six-day service. The parties noted that the introduction of this service was intended to compete head on with mail-order services. The reverse was also true: mail order providers increasingly offered express services intended to compete with retail services.

6.42. Turning to mail-order processors, the parties submitted that these were in the same market as retailers that provided services either through on-site mini labs or through a wholesale D&P provider. Mail-order suppliers competed on several dimensions: quality; range of products; price; location; and brand image. The parties also noted that mail-order suppliers increasingly sought to poach customers from three-to-six-day wholesale services (see paragraph 6.41).

6.43. The parties summarized likely future developments in the D&P industry. These were:

(a) improvements in mini labs, including digital enhancement;

(b) growth in sales and usage of DSCs and home printing, which would compete with the rest of the D&P industry; the ability of consumers to scan and upload pictures via the Internet; and

(c) consumers' awareness of digital printing technology.

The parties concluded that the channels through which D&P services were provided would be further blurred over the next few years and that the current constraints on wholesaler pricing would be further reinforced. They added that a number of mini-lab manufacturers were considering alternative printing systems such as inkjet printing.

6.44. As to the relevant geographic market, the parties submitted that this was the area over which substitution took place, and that competition among retailers took place predominantly on a national footing. Boots, Jessops, the supermarkets and other national chains priced on a national basis (as with many retail markets, in order to facilitate national advertising on prices and promotions and for the logistical and management advantages in centralized price setting). Retailers also needed to take account of mail order (offered on a national basis) in setting their prices. Diversity and overlap in each retailer's geographic catchment area created chains of substitution across the UK and wholesalers could quickly expand coverage, so there would be no opportunity of maintaining uncompetitive prices in any particular area.

6.45. In connection with the submission about market definition, the parties referred to similar experience in the USA and rulings by the US courts. In *United States of America v Eastman Kodak Company*,[1] the US District Court determined that: 'Because all segments of the photofinishing market have the potential to take business away from one another and do, in fact, compete .... The relevant product market consists of all photofinishing.' The parties said that evidence supporting this proposition included the wide availability of D&P options, the absence of barriers to entry impeding the entrance of additional options should a wholesaler raise prices above the competitive level, and the similarity of the end-product to the consumer. Finally, the parties said that the decision reflected the true competitive position for the wholesaler: 'whether a roll of film is lost at the wholesale level or the retail level does not matter from the perspective of Qualex [Kodak's US subsidiary]. That business is simply lost.' [

Details omitted. See note on page iv.

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6.46. The parties presented evidence about Qualex, which operates D&P labs in the USA in competition with Fuji and Konica. The parties said that Qualex's prices charged to retailers for wholesale D&P had dropped by 39 per cent between 1994 and 2001. It was implausible that such a price reduction would have occurred if wholesaling were a separate market. The more likely explanation was that the price of wholesale photofinishing had been constrained by on-site mini-lab processing.

6.47. The parties stated that a number of countries around the world had seen retailers moving progressively into on-site processing, as a result of which the wholesale processors were losing out. This applied to Brazil, Canada, Italy, Japan and Spain. In the light of this evidence and their view of the UK market, the parties rejected the Deputy Director General of Fair Trading's (DGFT) conjecture (in the advice to the Secretary of State published on 3 September 2001) that there might be a ceiling on the extent to which mini labs would be installed.

Barriers to entry

6.48. Concerning barriers to entry, the parties argued that, in addition to the constraints already present from within the market, the merged entity would continue to face strong pressure from potential competition. Barriers to entry were not significant and there would be a continuing threat of potential competitors entering the market. Technological developments had facilitated entry and a company seeking to provide D&P services could have a number of options:

(a) developing an on-site mini-lab processing service;

(b) providing wholesale services through a mini-lab centre;

(c) an existing mail-order operator could diversify into wholesaling;

(d) a vertically-integrated D&P provider could expand into offering services to third parties;

(e) any retailer could turn itself into a regional main-lab wholesaler; and

(f) an existing regional mini-lab wholesaler could expand to other regions.

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[1] *93-MC-45, 853 F. Supp. 1454; 1994.*

6.49. The parties submitted, following the OFT guidelines, that there were three sources of entry barrier:

(a) absolute advantages: these were assets or resources owned by incumbents, which were necessary to compete and not accessible by the entrant;

(b) strategic advantages: these arose from the ability of the incumbent to compete more effectively than any entrant because of first-mover advantages, economies of scale or large sunk costs; and

(c) exclusionary behaviour: this referred to the use by incumbents of vertical restraints, predatory tactics or refusal to supply.

6.50. Applying each of these potential barriers to the D&P sector, the parties submitted that:

(a) Incumbents had no absolute advantages. Equipment for photo D&P used for mini-lab, main-lab and mail-order services was the same and readily available either new or second hand. Specialist assets such as computer systems or mini-lab equipment were also readily available. Consumable supplies were available on highly-competitive terms. Labour was low skilled and readily available.

(b) Incumbents had no strategic advantages. Scale economies that might exist in processing and distribution were not significant and did not require the sinking of significant costs. A mini lab with an annual volume of 8,000 rolls could be a viable investment. Distribution services were available from several third party providers. The Deputy DGFT in the advice to the Secretary of State on this case published on 3 September 2001 had stated that mail-order firms were unwilling to enter wholesale D&P because of the high fixed costs of operating a collection and delivery service. The parties told us that they rejected that view. The costs of a distribution network were more closely determined by route density and the collection and delivery demands of the retailers than by the scale of the distribution network. The parties stated that one of the results of the acquisition would be to create a national distribution network, PrintMovers. There were other third party distributors and, in any event, distribution costs would become less relevant as digital technology developed. There were no sunk costs of any magnitude for mini labs and brand-name barriers did not exist.

(c) The parties were not aware of any actual or likely exclusionary behaviour by incumbents. Contracts were loose and retailers could easily switch between providers. Predatory behaviour was not possible due to minimal sunk costs incurred by participants. Competition at all levels in the supply chain meant that any particular supplier of inputs would not effectively be able to refuse to supply the downstream players and thereby hinder entry downstream.

The parties also submitted detailed cost modelling demonstrating the viability of various forms of entry for: an independent retailer investing in a small mini lab; a large retail chain investing in a mid-size mini lab; a new regional main-lab wholesaler; an existing regional mini-lab wholesaler expanding to become a new national main-lab retailer expanding to next-day-and-longer services; and an existing main-lab mail order supplier expanding into wholesale D&P. Business plans for mini-lab retailers and mail-order suppliers were also provided which required no additional investment, and involved a comparison of the marginal cost of production with wholesale D&P prices. In particular, the parties noted that, for a large retail D&P operation, the marginal cost of processing a roll of film was below the average cost per roll for a main lab; and this explained the large shift of volume from wholesale to on-site mini-lab processing in recent years. Moreover, the parties stated, the option of expanding the production window of a mini lab should be added to the investment benefits when deciding whether to acquire a mini lab. This would further increase the returns (or lower the break-even volumes) to independent retailers or chains of retailers.

The effect on competition

6.51. With regard to the effect of the proposed merger on competition, the parties argued that the market over recent years had been characterized by falling prices, improved quality of service and greater consumer choice. The acquisition would facilitate the development of these trends to the benefit of customers.

6.52. The constraints that would bear upon a hypothetical monopolist would restrain the merged entity from behaving to the detriment of retailers or consumers. Following the acquisition, the merged entity's share of the market, in the view of the parties, would be about 28 per cent, with competition from Boots (14.5 per cent), Klick/Max Spielmann (14.3 per cent), Grunwick (7.8 per cent), Harrier (8 per cent) and Colorama (3.8 per cent). The shares of wholesalers were likely to diminish over time due to the increasing use of on-site mini labs.

6.53. The merged entity would also continue to face strong and effective competition from a range of regional wholesalers able to compete on at least an equal basis with the parties for the business of both the independent and regional retail chains, which comprised nearly 40 per cent of ColourCare turnover, and of the national retail chains. Regional wholesalers could combine to offer national coverage with comparable price and service offerings. Indeed, many retailers of all different sizes (from large national chains to small independents) in fact used more than one supplier. Potential market entrants on a wider scale were Colorama, Klick/Max Spielmann, and mail-order suppliers.

6.54. The parties concluded that the acquisition would not lead to a substantial lessening of competition in any relevant markets in the UK. The merged entity would not have market power that might enable it to raise prices above competitive levels or to supply goods and services of a lower quality or to restrict output.

Benefits of the acquisition

6.55. As to the benefits of the proposed acquisition, the parties submitted that KPCL would need, in any event, to invest in digital technology and continue to develop new and innovative services. The acquisition facilitated that process. It would enable KPCL to improve operating efficiency [✂] and so implement its digital strategy sooner than would otherwise have been the case. This, in turn, would accelerate improvements in the service range and quality of KPCL's offering. Retail prices had been falling and the acquisition would not affect this trend. Overall, therefore, the acquisition would benefit end-consumers. The acquisition would accelerate service-related innovation and significantly improve consumer choice without any adverse price effects.

Further views of KPCL

Further points on issues

6.56. In further written and oral submissions, KPCL submitted that some level of what it called 'digital enablement' was imperative for wholesale photofinishers in the short term. KPCL was committed to the I-lab programme as its digital-enablement strategy. Other wholesalers had adopted different digital strategies, for example investing in the Agfa Dimax. I-lab was a more ambitious digital strategy but more expensive, and the timing of its introduction was critical, bearing in mind the roll-out of digital mini labs on the high street, which began in 1998: KPCL was therefore taking a business risk both in terms of the extent of its investment and the timing of its introduction.

6.57. With the acquisition, KPCL aimed to achieve some 40 per cent digital capacity (so that customers could expect digital printing on at least the standard services such as next-day D&P) by early 2003 and 100 per cent by 2005/06. Without the acquisition, KPCL was unlikely to reach 40 per cent digital capacity until 2004/early 2005 and 100 per cent digital capacity until around 2008.

6.58. Investment in digital capacity would, in turn, accelerate improvements in the service range and quality of KPCL's offering as follows:

(a) *Service range:* Rapid digital implementation would enable KPCL to produce images in a variety of different formats and from a variety of different sources, meeting the needs of users of DSCs. KPCL would be able to offer a digitally-enabled wholesale service in the short term, providing a full range of digital products, thus benefiting both retailers and consumers.

(b) *Quality:* The digital enablement process would also allow the development of better-quality prints. In summary, the acquisition would accelerate service-related innovation and significantly improve consumer choice at a key stage in the development of the photoprocessing industry.

6.59. KPCL presented a paper from Frontier Economics on product market definition in UK D&P. KPCL commented that it had presented evidence of a number of constraints that would prevent the hypothetical monopolist supplier of 'free wholesale' (ie the supply of wholesale D&P to non-vertically-integrated retailers) from raising prices or acting in any other way independently of its retail customers or other D&P providers (including mail-order providers, on-site mini labs and vertically-integrated wholesalers/retailers). Those constraints were consistent with the market definition put forward by the parties. KPCL requested that, if the CC agreed with the parties' submissions that, due to the effectiveness of those constraints, the merger was not expected to operate against the public interest but, for technical reasons, wished to define two markets rather than one, then the CC report should contain clear wording to the effect that, despite an apparently high share of a 'narrow' market, this share did not confer a degree of market power that would enable the merged entity to behave in a way that could lead to an increase in price or a diminution in the quality of service, nor allow it in any other way to act independently of its competitors, customers or ultimate consumers.

6.60. KPCL stated that, in the context of Eastman's recent acquisition of certain Continental European photofinishing assets from Spector Photo Group NV, the Federal Cartel Office in Germany had confirmed in writing that its established practice was [

Details omitted. See note on page iv.

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6.61. We put it to KPCL that the real issue was not where the boundaries were to be drawn on market definition, but how competitive the market was. We suggested four competitive constraints:

(a) If wholesalers' prices rose and retailers passed these rises through to consumers, consumers would switch to a same-day service or to a mail-order service.

(b) If some retailers passed on a price rise, consumers would switch to retailers whose prices had not risen.

(c) If wholesalers raised prices to retailers, then those retailers that had mini labs might divert more of their business to mini labs, and retailers without mini labs might acquire mini labs.

(d) In the event of KPCL's raising prices to retailers, there might be new entrants into wholesaling.

6.62. KPCL agreed that these competitive forces were all active in the market and felt that they were all equally important in constraining the behaviour of market participants, including KPCL.

6.63. We discussed with KPCL a possible narrow definition of the market. The results of that discussion are reported in Chapter 5.

6.64. KPCL said it did not consider that there was any natural ceiling for mini-lab expansion, contrary to the Deputy DGFT's speculation in the advice published on 3 September 2001. In Spain, mini labs accounted for the processing of 70 per cent of all rolls of film (compared with 45 per cent previously); in Italy they accounted for 52 per cent (compared with 10 per cent previously); and in Japan they accounted for 71 per cent (compared with 34 per cent previously); in Canada they accounted for 71 per cent (compared with 35 per cent previously); in Brazil they accounted for 98 per cent (compared with 81 per cent previously)—and in each case with a commensurate reduction in the wholesale share. As the number of mini labs increased, competition between those mini labs for same-day services would also increase. The unit costs of mini-lab operation were declining very rapidly.

6.65. We discussed possible new entrants further with KPCL. KPCL thought that Klick/Max Spielmann and mail-order firms, among others, were credible potential entrants into D&P wholesaling. KPCL did not agree with the suggestions made in the Deputy DGFT's published advice to the Secretary of State that the costs of collection and delivery would inhibit mail-order providers from moving into wholesaling.

6.66. KPCL provided comments from Frontier Economics on the survey we commissioned from BMRB (see Appendix 5.1). Frontier Economics considered that the survey confirmed the evidence presented by the parties, namely that end-consumer switching between service speeds would be a significant factor in constraining a hypothetical monopolist. It also suggested that there were factors

which might place a downward bias on the results and therefore that the survey might well understate the extent of switching in response to a price rise of 10 per cent. These factors were:

(a) The long-term effect of a price increase on demand was likely to be greater than the short-term effect; yet the BMRB survey was likely to be capturing only the short-term effect.

(b) The survey excluded actual users of the next-day to six-day service who chose same-day or mail-order when presented with the list of standard prices; this excluded group was likely to have a high propensity to switch.

(c) No account was taken of the impact of a price increase on overall market demand, as it only allowed for switching between service speeds; accordingly, estimates of lost revenue would be understated.

(d) The price of the same-day and mail-order options in the survey were too high, as the same-day price reflected a mix of same-day and 1-hour services and, for mail order, the price would generally be less than the six-day price; this effect would also understate the amount of switching.

(e) Finally, there was evidence that customers who use more rolls per year would have a greater propensity to switch and, accordingly, if the survey's findings had been weighted by usage, they would have shown a proportionately greater reduction in volume and revenue as a result of the price increase: as the BMRB survey attached an equal weight to each respondent, switching was understated.

Frontier noted that, although customer surveys were always vulnerable to a range of biases, there was no basis for expecting the BMRB survey to be susceptible to a systematic bias one way or the other. Frontier therefore recommended that the BMRB survey should be taken at face value as showing appreciable switching across service speeds as prices changed. We asked KPCL about the effect of a price increase on the profits of a hypothetical monopolist of free wholesale. KPCL estimated that, if volume fell by 20 per cent following a 10 per cent price increase, then the immediate impact would be as follows: revenue would fall by 12 per cent; fixed cost per unit would increase by 25 per cent; total costs would fall by 11 per cent; and profits would fall by 16 per cent. KPCL said that it was important to note that this impact resulted from just one of the constraints on the hypothetical monopolist, namely customers switching to different service speeds. In reality, the other constraints—retailers making greater use of mini labs, the installation of additional mini labs and new entry into wholesaling—would result in greater loss of volume and therefore a much greater fall in profits.

6.67. KPCL provided us with an analysis by Frontier Economics of a consumer survey conducted by Research International. This analysis is summarized at Appendix 5.2. In brief, the survey showed significant consumer switching rates in response to price changes, in line with the BMRB survey results.

6.68. KPCL provided us with a nationwide retail audit involving desk-based telephone research by ESA, an external research agency, into every known D&P outlet in the country, covering in excess of some 22,000 outlets. The results showed that 81 per cent of households had access to a mini-lab store within 3 miles of their home and 91 per cent within 5 miles. In addition, 79 per cent of households had access to three or more stores with a mini lab within 5 miles of their home. This analysis is summarized at Appendix 3.6.

6.69. We asked KPCL if the merged entity might be in a position to price discriminate to the detriment of small retailers. KPCL said that the merged entity would have neither the ability nor the commercial incentive to price discriminate. The merged entity would not have market power nor would it be able to target any specific retailer or group of retailers that did not have access to an alternative provider. We asked if there was any possibility of the merged entity engaging in predatory pricing. KPCL said that this would not be a feasible strategy as there were no sunk costs preventing entry, nor were there other barriers to entry. KPCL added that it would not be in its interests to engage in predatory pricing after the proposed acquisition, not least because there would be little scope for it to recoup the initial losses that embarking on such a course would be likely to create, largely because entry into the market was not difficult.

6.70. Concerning the geographic market, KPCL said that it was not present in Northern Ireland as a wholesaler. However, it considered that Northern Ireland formed part of the UK market because Northern Ireland wholesale operators could easily and quickly extend their coverage into Great Britain and British wholesalers could similarly extend their coverage into Northern Ireland. In addition, KPCL said that national retail chains priced nationally across Great Britain and Northern Ireland (see paragraph 6.44).

Possible remedies

6.71. We asked KPCL about possible remedies, on a hypothetical basis. As to the possible prohibition of the proposed acquisition, KPCL submitted that such a remedy would be wholly disproportionate to any conceivable adverse public interest finding. KPCL referred to the evidence it had presented throughout the inquiry which, it argued, demonstrated that the proposed acquisition did not raise any competition concerns or detriments to the public interest. Moreover, KPCL believed any possible public interest detriment that the CC might find could be cured by other remedies that it proposed (see paragraphs 6.77 to 6.85). Consequently, prohibition of the merger would be draconian and unjustified.

6.72. [

Details omitted. See note on page iv.

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6.73. [

Details omitted. See note on page iv.

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6.74. As to the possibility of the proposed acquisition being conditional on the divestment of one or more of KPCL's and/or ColourCare's laboratories and associated businesses relating to specific services or to parts of the UK where adverse effects might be identified, KPCL responded that it had presented evidence to the CC to demonstrate that even a hypothetical monopolist in wholesaling would not have a degree of market power that could be exercised to the detriment of retailers or end-consumers. In particular, there were no significant barriers to entry or expansion in this market. Consequently, KPCL was sceptical about the concerns that such a remedy attempted to address.

6.75. However, KPCL said that, if it were assumed on a hypothetical basis that the adverse effect being considered by the CC was a possible detriment to national retailers seeking to purchase their D&P requirements from a single national wholesaler, KPCL would comment as follows. It considered that an undertaking to divest to an existing or new wholesaler specific laboratories and, so far as KPCL was able, their associated businesses within a defined period would be unlikely to be welcomed by competing wholesalers as a practicable remedy to the perceived public interest detriment, for the following reasons:

(a) Access to laboratories, ie their premises, machinery and employees, did not represent a barrier to entry or expansion in this market. Those assets were freely available right around the country.

(b) KPCL was not in a position, contractually or otherwise, to compel customers to transfer to alternative providers, noting in particular that those customers and their associated businesses were not tied to specific laboratories.

(c) [

Details omitted. See note on page iv.

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6.76. We asked KPCL to explain in more detail the points in paragraph 6.75. KPCL said that the desired location of any laboratory was determined by its relationship to other laboratories in a network. [*Details omitted. See note on page iv.*]

[

Details omitted. See note on page iv.

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6.77. KPCL outlined possible alternative hypothetical remedies, for discussion purposes. It felt that these could be a more effective cure for the hypothetical public interest detriment outlined in paragraph 6.75. These were as follows:

(a) Contract manufacture to support national expansion

If the CC were to conclude that the perceived public interest detriment concerned access to national retail accounts for wholesalers without an adequate existing national network, KPCL would commit to facilitate such access by offering to contract manufacture standard next-day D&P services for an existing (or new) wholesaler, as required to service a national account. Such a 'contract manufacturing' remedy would:

— be offered at an economic and transparent price and agreed service levels, although the remedy would also need to be limited in time and capped on the basis of a maximum volume of rolls;

— thereby enable competing wholesalers to offer a national service without having to incur the up-front cost associated with extending D&P capacity/coverage and the risk of committing those funds before any additional business has been secured; and

— in sum, be a more effective and less rigid remedy than laboratory divestment.

(b) Release of ColourCare's national account customers

In order to facilitate entry or expansion to service national accounts, KPCL would also offer to release ColourCare's existing national accounts from their existing contractual notice periods and to undertake to cooperate as far as possible in any transfer of those contracts. KPCL reiterated that customers switched between providers regularly and readily and this was not expected to change as a result of the merger.

(c) Satisfaction of these undertakings

As KPCL was sceptical about the concerns that these remedies attempted to address, it required that:

— Satisfaction of undertaking *(a)* should not depend on KPCL's 'open offer' of contract manufacturing being accepted by other wholesalers: it was much more likely that an existing wholesaler would win one or more national accounts without needing to use KPCL for contract manufacturing.

— Similarly, undertaking *(b)* should be satisfied by KPCL waiving the respective contractual notice periods: it should not be necessary that one or more retail accounts actually moved their business away from the merged entity.

(d) Collection and delivery

KPCL noted that the CC had not proposed a remedy that included a collection-and-delivery element. KPCL assumed that the CC agreed with KPCL that access to a collection-and-delivery network did not represent a barrier to entry or expansion in this market. However, if a perceived detriment relating to collection-and-delivery was found, KPCL suggested that the CC might wish to consider a remedy involving PrintMovers. Although a remedy regarding PrintMovers was clearly not within KPCL's power to offer, KPCL would undertake not to hamper in any way the effectiveness of such a remedy if it were offered by ColourCare. KPCL would also undertake not to bring any pressure to bear regarding the prices and terms offered by PrintMovers to KPCL as compared with the prices and terms offered to KPCL's competitors.

(e) Extension of contractual terms

KPCL would also honour current prices and other terms with existing national retail customers of KPCL and ColourCare for a period that extended beyond the existing contractual terms by up to one year. Such an undertaking would be consistent with KPCL's submissions to the CC throughout the inquiry—that it did not expect to be able to increase prices or change current terms following completion of the merger. Such a remedy would also ensure that any existing national customers of KPCL and ColourCare that wished to switch to one or more alternative wholesalers would nevertheless have guaranteed service and price certainty from KPCL while it negotiated an alternative deal.

(f) Timing for negotiation of remedies

KPCL submitted that, in view of the highly seasonal nature of the D&P business, it was critical that KPCL have any undertakings in place by early 2002, so that it could implement its [*Details omitted. See note on page iv.*] in time for the summer months. KPCL would therefore be committed to agreeing the wording of any remedial undertakings with the OFT in short order. Consequently, if the CC were to conclude that undertakings were required, the CC's final report should also include a recommendation that the Secretary of State should publish her decision as rapidly as possible after receipt of the CC's report and that the OFT should be directed to use all reasonable endeavours to agree the undertakings within a timetable that met the business needs of KPCL and any wholesaler that might wish to take advantage of the remedies. KPCL said that precise costing of the remedies would be difficult until:

— it was clear whether all or only one or some of the remedies would be required;

— the amount and specification of 'reserved capacity' had been quantified;

— the contract manufacturing price had been agreed; and

— critically, the timetable for agreeing the undertaking and completing the merger had been understood.

6.78. We discussed with KPCL the alternative possible remedies that it had suggested. Concerning the suggestion that KPCL contract manufacture to support national expansion, KPCL said that its idea was to 'prime the pump', ie assist a wholesaler in gaining business coverage without the need for investment in lab facilities in the first instance. This would need to be provided at an agreed economic price. The price would need to be similar to the costs that an entrant would incur, which would approximate to the Kodak internal price. Subcontracting already took place between wholesalers on similar conditions. We asked if six months would be a reasonable period for KPCL to provide this contracting service: KPCL said that that policy would depend on the individual circumstances of the new or expanding entrant.

6.79. As to KPCL's offer to release ColourCare's national account customers, KPCL said that it had in mind the possibility of early termination. (KPCL confirmed that, under the Transitional Services Agreement, ColourCare was obliged to endeavour to transfer its customer contracts to KPCL.)

6.80. With regard to PrintMovers, we asked if PrintMovers was likely to be perceived as independent, given that it would start life servicing the merged entity. KPCL said that PrintMovers would be a free agent that could also win other business—and was highly incentivized to do so. KPCL added that it was for ColourCare to present the CC with PrintMovers' business plan.

6.81. We asked KPCL about its offer to honour existing contractual terms with customers at KPCL and ColourCare for up to one year. KPCL said that this was largely intended to smooth the transition for any customer who wished to take its business elsewhere. KPCL reiterated that it did not intend the merged entity to implement price increases. Customers were likely to be offered similar deals to those they had had before the merger. Customers could easily transfer to different D&P suppliers if they so wished. KPCL added that some customers currently used more than one supplier.

6.82. In final comments about possible remedies, KPCL said that acceptability would crucially depend both on their detailed terms and also on their speed of implementation and capability of

satisfaction. It was critical that KPCL had any undertakings in place by early 2002; therefore, if undertakings were required, the CC should recommend that the Secretary of State and the OFT proceed expeditiously. KPCL reiterated, as it was sceptical about the concerns that the remedies attempted to address, that its 'open offer' of contract manufacturing should not have to be accepted by other wholesalers for the undertaking to be satisfied.

6.83. As to additional detail requested by the CC on the contract manufacture remedy (see paragraph 6.77), KPCL said that, if the CC concluded that the perceived public interest detriment concerned access to national retail accounts for wholesalers which were very nearly national, it could offer to contract-manufacture standard next-day D&P services for such a wholesaler. This would provide a 'platform' from which the wholesaler could service a national account. The remedy would not be conditional on the wholesaler's acceptance. The offer would be made at cost; to exacting service levels consistent with those offered to KPCL's own national accounts; for two to six months, ending no later than 31 October 2002; and up to an annualized total of 2 million rolls, limited to a maximum of 300,000 rolls from any one lab.

6.84. KPCL said that such a remedy would be more flexible because, rather than offering an infra-structure that might favour a particular wholesaler, it provided a 'platform' from which any wholesaler could offer a full national service. It would be effective, because the wholesaler would not have to incur the up-front cost associated with extending D&P capacity and the risk of committing funds before any additional business had been secured. It would also be proportionate, because it would address the hypothetical concern identified in a less onerous manner than either prohibition or lab divestment.

6.85. Commenting further on the preference that had been alleged by national retailers to use a national wholesale provider, KPCL reiterated that retailers could be serviced by a consortium of wholesale providers, and noted that a number of retailers used more than one supplier or had recently switched supplier. KPCL concluded that, comparing this hard evidence with the unsubstantiated views of certain retailers, the most reasonable inference must be that any retailer alleging a preference for dealing with one wholesaler must do so as a matter of preference, rather than for any cost-related reasons.

Further views of ColourCare

Further points on issues

6.86. ColourCare submitted that the merged entity would not have market power to increase prices or reduce the quality of service because of the severe competitive constraints. These were as follows:

(a) if prices were raised, end-consumers would switch 'across service speeds', ie from a next-day or longer service to a same-day service provided by mini labs or a week-long service provided by mail order;

(b) alternatively, end-consumers would switch across retailers, ie they would move to another shop offering lower prices for the next-day or longer service (because the retailer would be using a less expensive D&P provider);

(c) retailers would switch their accounts, ie they would switch to other providers of D&P; and

(d) retailers could acquire a mini lab or make more use of their existing mini lab.

6.87. Therefore, in ColourCare's view, the proposed acquisition did not raise competition concerns.

6.88. We put it to ColourCare that the real issue was not where the boundaries were to be drawn on market definition, but how competitive the market was. We suggested four competitive constraints:

(a) If wholesalers' prices rose and retailers passed these rises through to consumers, consumers would switch to a same-day service or to a mail-order service.

(b) If some retailers passed on a price rise, consumers would switch to retailers whose prices had not risen.

(c) If wholesalers raised prices to retailers, then those retailers that had mini labs might divert more of their business to mini labs, and retailers without mini labs might acquire mini labs.

(d) In the event of KPCL's raising prices to retailers, there might be new entrants into wholesaling.

6.89. ColourCare agreed that these were the constraints, although it thought that not all were needed to act as an effective constraint. ColourCare felt that the growth of mini labs particularly had affected the market. Expansion of wholesalers had not been seen in recent years. If existing wholesalers were to expand, they might well choose to do so through a network of city mini labs as opposed to the establishment of another wholesale lab.

6.90. We asked ColourCare if wholesalers could compete for same-day D&P. ColourCare said that it and KPCL, as well as Colorama and Wembley, offered same-day services in London through a wholesale network, on a small scale. ColourCare added that the cost of mini labs would come down over a period of time, enabling retailers to sustain their margins.

6.91. [

Details omitted. See note on page iv.

]

6.92. [

Details omitted. See note on page iv.

]

6.93. Concerning the possibility of new entry, we asked ColourCare whether an existing wholesaler that wished to expand could subcontract D&P processing and transport to another provider in order to extend coverage. ColourCare said that this had not happened in the industry to any great degree, although subcontracting was already the practice in certain specialist areas such as black-and-white photo-processing. If such an idea were to be pursued, the price would have to be right and the quality of service satisfactory from the company that was carrying out work as a subcontractor. Service levels could be secured by a satisfactory service-level agreement.

6.94. ColourCare commented on the BMRB survey (see Appendix 5.1). It felt that attention should be directed to what would happen if the merged business were to increase prices. It did not feel that the survey might have overstated the amount of switching. It thought that the survey should have asked about switching to a 1-hour or even a 25- or 20-minute service.

6.95. We asked about the effect on other wholesalers of a possible aggressive pricing approach by the merged entity. ColourCare said that, at the moment, competing wholesalers tended to price below KPCL. The merger would not alter that situation.

Possible remedies

6.96. [*Details omitted. See note on page iv.*] ColourCare added that national retailers were able to look after their own interests. In any case, the idea that retailers needed to have national contracts was relatively recent. Up until five to ten years ago, there were no national D&P wholesale providers. There was no significant operational or commercial advantage to having a national contract.

6.97. [

Details omitted. See note on page iv.

]

[

Details omitted. See note on page iv.]

6.98. [

Details omitted. See note on page iv.

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6.99. As to the possible remedy of partial divestment, ColourCare said that it would need to be clear what the adverse effects of the transaction might be in particular services or geographic areas. It did not think that partial divestment would successfully ensure further entry. Businesses were not associated exclusively with any particular laboratory. Suitable purchasers would be anxious to acquire sufficient customers with any part of the business. Furthermore, ColourCare doubted if divestiture would result in viable wholesale operations. A new entrant would be better starting from scratch with a new lab or a city-lab network, rather than buying one of KPCL's or ColourCare's labs.

6.100. ColourCare added that it employed 1,200 people, 500 of whom were in distribution. [
Details omitted. See note on page iv.]

7 Views of other parties

Contents

Introduction

7.1. In this chapter we summarize the evidence put to us by third parties in written and oral submissions.

H S Baldwin (Stroud) Limited

7.2. Baldwin, a wholesale photofinisher, said that it needed to use KPCL for certain services and products and would be concerned about the ability of the enlarged group to manipulate internal prices so that they were lower than those available in the marketplace. KPCL was dominant in the key market in which Baldwin operated, and this was of particular concern as KPCL could undercut on price or loss lead in order to squeeze out smaller players. Baldwin said that, while it did not fear competition, it was concerned about the ability of KPCL to abuse its position, and felt that, as a condition of the merger being allowed to proceed, safeguards should be put in place to protect the remaining competition. Baldwin also had concerns regarding Kodak Express, stating that, although often independently owned, these outlets might be able to access service or products more easily, or possibly cheaper, than Baldwin.

The Boots Company PLC

7.3. Boots said that it had no concerns about the merger. It currently sent about 30 to 40 per cent of its D&P business to wholesale labs, and thought that it had the right balance between wholesale and mini labs. If wholesale prices were to rise, it could increase its mini-lab capacity but there was a limit. For example, KPCL offered an overnight service, which Boots could not do unless it were to hire staff to work through the night. Boots said that there were six or seven other wholesale D&P firms operating in the marketplace, but there had been considerable consolidation across the whole industry.

7.4. Boots said that the wholesale D&P business was very important to it as it represented about 4 per cent of total group turnover. Boots has had a long-standing business relationship with KPCL for the supply of wholesale D&P services and Kodak products. It was critical to Boots that its supplier had the ability to offer national coverage, and had a good distribution network in place to meet its needs, which might require two deliveries daily to its stores, even in remote areas. The ability to offer consistent quality of work across the UK was also essential so that Boots could, in turn, offer a standard set of services to its customers.

7.5. Asked about alternatives, Boots believed that ColourCare had a lower production capacity than KPCL, and Colorama could not offer national coverage. It said that, even if there were only one credible wholesale supplier in the marketplace, it still had alternative choices available because of the investment it had made in its mini-lab operations. Boots said that it had the ability, if it so chose, to extend the operating hours of its mini labs. It could also set up its own main labs and distribution network. A small price rise by KPCL would not trigger such a major change in approach but might cause Boots to reconsider its policy of offloading some of its work even at quiet times of year so as to help KPCL keep capacity available.

7.6. As to future developments within the industry, Boots thought that advances in technology would see a greater proportion of prints being printed digitally. It anticipated some changes resulting from DSCs but, fundamentally, it still expected to see significant volumes of conventional film formats being processed. Investment in digital printing was important and the main labs needed to catch up with mini labs so that the customer got the same quality of service irrespective of whether his or her film was processed on- or off-site. Boots expected that there would be a decreasing reliance by retailers on wholesalers because of the greater adoption of mini labs; the profitability of processing on-site was greater and therefore it made economic sense to operate a mini lab if there was sufficient volume.

7.7. Boots believed that prices would reduce over time because there was now much more competition in the marketplace compared with a year ago. There had been a number of new entrants, most notably large supermarkets, and they were now becoming more active. They did not yet have a significant market share, but they were investing significantly in mini-lab operations. Supermarkets were competing aggressively on price, and were undercutting the majority of the other retail prices in the high

street. Boots did not see itself as competing primarily on price: it aimed to provide a differential service, and it offered services that consumers currently could not get from other processes within the high street, for example premium digital services.

7.8. Boots thought it unlikely that there would be any significant changes in the marketplace following the merger. It would expect the merger to have the potential to bring some positive benefits, including cost savings to be passed on. Boots questioned whether there would be sufficient volume over the next few years to sustain two major wholesalers in the marketplace. It would be concerned if the wholesalers could not afford to invest in new technology.

Colorama Processing Laboratories Ltd

7.9. Colorama is a family-owned business mainly involved in photofinishing, which accounts for between 80 and 90 per cent of its turnover. It also operates 41 retail shops, which account for between 15 and 20 per cent of its photofinishing business; the remainder comes from independent pharmacies and photographic shops. Colorama operates two processing plants, located in London and Manchester. It has a fleet of vans and runs its own distribution system. It also has a small mail-order operation. Colorama does not provide a national service, as Scotland and the West Country are not covered.

7.10. Colorama said that it operated primarily in the amateur photography market. It believed it was unlikely that there would be major changes in the wholesale processing market in the next three to five years. It did not expect DSCs to have much impact in this period. Digital technology was developing very quickly throughout the marketplace as a whole, and it was difficult to predict what impact this would have in the longer term. Colorama said that it had invested in the most up-to-date technology at both its plants, and had chosen the path of investment in areas where, it believed, there would be an impact on the quality and service that it offered. Colorama offered digital services, but the demand was such that those companies offering these services were losing money; the return on any new technology was limited. Colorama said that it provided what it thought was the current required demand from the customer's point of view.

7.11. Colorama said that most of its retail outlets had mini labs that offered a 1-hour and same-day service. Some customers wanted a quick service and were prepared to pay a higher price for an on-site facility. However, mini labs were restricted by capacity and those customers seeking a quick service would be encouraged to accept a 24-hour lab service if a mini lab was working to full capacity. Colorama said that some mini-lab operators were also the owners, and operators attempted to keep staff to a minimum. In order to keep a mini lab running continuously there was essentially the need for a full-time operator. It was not necessarily cheaper to process on-site those films that were not required immediately. Colorama was not convinced that there was sufficient demand in the marketplace to enable all operators to run mini labs at full capacity. Like mail order, it was not Colorama's aim to become more involved in the mini-lab sector, but rather to concentrate on wholesale processing. It had significantly reduced the number of its own retail shops, and knew of other retailers who were giving up mini labs. Colorama considered that the mini-lab market was separate from the wholesale market.

7.12. [*Details omitted. See note on page iv.*] It believed that the minimum service to consumers today should be 24 hours. If Colorama were unable to offer that minimum service, then it would not take on the business. Colorama said that distribution was very complex, and it depended largely on the number and timing of service calls demanded by customers. For example, one national retail chain might have priorities that were totally different from the service requirements of other national chains, even though they were all providing similar services. It would be difficult to meet the needs of competing wholesale processors. It had considered using PrintMovers but had decided that its needs would not get adequate priority. Asked about the viability of distribution, Colorama thought that it carried many other products besides photographic on its vans. Colorama did not see PrintMovers as a viable proposition if it only carried D&P work.

7.13. Colorama said that it was able to compete with KPCL and ColourCare because it was smaller, flexible and more attractive to independent customers; it had tended to provide innovative products. Colorama said that it had serviced national retail chains in the past, including Boots, but that it no longer had any national accounts.

7.14. [

Details omitted. See note on page iv.

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7.15. Colorama stated that retail prices had not increased for a number of years because the independents and the national retail chains felt that, if prices were to increase, they would lose volume. [*Details omitted. See note on page iv.*] Prices overall had remained stable.

7.16. [

Details omitted. See note on page iv.

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7.17. Colorama said that, historically, KPCL had always tried to win business in the independent sector and, following the merger, this was unlikely to change. The new entity would be in a position to offer lower prices and so undercut Colorama. It said that the merger might result in a loss of quality and service to the consumer and that, through predatory pricing, the whole industry could suffer. Colorama thought it unlikely that it would be able to form an alliance with other smaller regional wholesalers to enable them to build up a national business and so compete with KPCL, as there would be too many players wanting their own say. Should rationalization result from the merger, then Colorama believed that it would be well placed to take advantage of this and so enable it to provide national coverage in a true sense by establishing plants in Scotland and the West Country.

Dixons Group plc

7.18. Dixons Group plc (Dixons) said that it viewed the proposed merger as favourable. In its experience, the market for D&P services had historically been a highly competitive one comprising not just the traditional wholesale sector (in which KPCL and ColourCare participated), but also the fast-growing mini-lab sector and the long-established (but in relative terms, declining) mail-order segments. Consumers were faced with considerable choice between these sectors, each of which competed aggressively with the others on price and service. The fact that mini labs had gained a significant increase in market share in recent years at the expense of other sectors indicated the extent to which consumers were influenced by the speed of delivery of developed films. Dixons said that a variety of types of outlet, ranging from more conventional stores to convenience stores that traded for extended hours, now provided mini-lab services offering fast turn-round times. Wholesale operators needed to achieve economies of scale and greater efficiencies, especially in terms of collection and delivery if they were to be able to compete effectively with mini-lab operators both in terms of price and in turn-round times.

7.19. Dixons believed that these considerations underpinned the proposed merger between KPCL and ColourCare. Accordingly, if the merger were allowed to proceed, it would, in Dixon's view, enhance rather than hinder competition by ensuring that the present wide choice of channels enjoyed by consumers was maintained.

Fuji Photo Film UK

7.20. Fuji did not express any views either for or against the merger. It provided evidence at an oral hearing. Fuji's operations in the UK are concerned with distribution only; it has no manufacturing base here. Turnover in the UK for the last financial year was £250 million. Fuji regarded Kodak as its main competitor, particularly in key products such as film and paper. It had no wholesale lab operations in the UK because, historically, KPCL and ColourCare had dominated this market, and Fuji had not found an opportunity to enter it. [*Details omitted. See note on page iv.*]

[

Details omitted. See note on page iv.

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7.21. Fuji said that retail prices for film processing in the UK were much lower than those in mainland Europe or Japan (less than half those in France), [

Details omitted. See note on page iv.

]

7.22. Fuji said that it had supplied nearly half the 3,000 mini labs currently operational in the UK. It believed that it was the leader in digitally-enabled mini labs, and had enjoyed success over the last two years because of that. Prior to that it had been technically more advanced than its competitors. Fuji said that about 38 per cent of films processed in the UK went through mini labs. This compared with about 65 per cent in Japan and about 50 per cent in the USA.

7.23. Fuji said that outright sales to customers, both large and small, accounted for most of its mini-lab business. Boots was its largest customer, and it also supplied Asda. Fuji offered service contracts for its mini labs, and it did not insist that customers bought its materials. Fuji believed that one of the reasons why retailers had mini labs installed was the sales of other photographic and non-photographic goods that were generated as a result.

7.24. We asked Fuji about Fuji Imaging Services. Fuji told us that Fuji Imaging Services, of which there are about 200 outlets in the UK, is a franchise operation offering a processing service using the Fuji name; it is not owned by Fuji. Franchisees pay a fee to participate, and Fuji has a legal ability to remove the Fuji name if a franchisee reneges on any of the arrangements in place. Fuji did not insist that franchisees installed its machines.

7.25. Fuji said that there were differing views on whether or not the public was sensitive to the prices charged for film processing. It believed that in urban areas of higher than average wealth, people were not very price sensitive, but that there tended to be more price sensitivity in the North.

7.26. Fuji believed that the merger would have little effect on the supply of products such as paper, film, chemicals and machines. There was no strong connection between any pressure that a dominant wholesaler could bring to bear on a retailer and, for example, a retailer's ability to obtain supplies of film. The merger was unlikely to have much impact on the operation of the market: there was increased competition from digital mini labs and greater efficiencies in the marketplace in which KPCL and ColourCare operated. Fuji did not think that there would be radical changes in the market over the next three to five years as a result of the merger.

Grunwick Processing Laboratories Limited

7.27. Grunwick is primarily a mail-order photofinisher. It also has 31 shops trading as Bonusprint and undertakes some wholesale D&P. It told us that it used to process for Boots but had found that wholesale D&P was not a business on which it was easy to make any profit. Mini labs, in Grunwick's view, were not a business on which a stand-alone retailer would be able to make a profit, because of the cost of rent, employees and equipment. Retailers that, like Boots, had decided to make the investment in a mini lab, were in a different position as they were also selling other products in their stores.

7.28. Grunwick said that the advantage of mail-order processing was that it went direct to the consumer. The crucial difference in cost between a mail-order lab and a wholesale D&P lab was that a mail-order lab did not have to turn film around in 12 hours at night. Recruitment of customers took place through what Grunwick called 'first-time envelopes' delivered to homes or inserted in magazines.

Existing customers were sent 'repeat envelopes'. Grunwick's quality was known to be excellent; its selling point was price. About 60 per cent of its business came in 'repeat envelopes', but some existing customers used 'first-time envelopes'. Recruiting new customers was becoming more difficult because Grunwick envelopes in magazines had to compete with growing volumes of other inserted material.

7.29. Grunwick considered that mail-order customers were likely to be more price sensitive than customers who had their photos developed through retailers. Although there was a core of loyal customers, many people sometimes used mail order and sometimes not, depending on what was convenient to them at any particular time. Grunwick offered printing of photos from DSCs sent over the Internet, and offered digitally-enhanced prints using Agfa Dimax printers. For the next few years, it thought, the future lay in digitalization of analogue images, introducing new products as a result and reducing costs. A major investment would be needed to digitalize all its business.

7.30. We asked Grunwick about the effect of price rises on customer switching. Grunwick considered that, if the price of mail order went up 10 per cent, its volumes would drop 10 per cent because its customers were not fundamentally loyal to mail order. It constantly tried to woo customers with special offers and to move to offering new products such as photos on CDs. Operationally, it would not be easy for Grunwick to expand its dealer business, of which 10 per cent came from the Netherlands. Grunwick added that European retail prices for photofinishing were higher than UK prices. Grunwick's view was that collection and delivery services were expensive to run and that its skill and expertise lay in remaining a mail-order processor. Mail order gave it control of its business and a direct relationship with the final customer; it was also able to earn a greater return. Wholesaling was ultimately unrewarding because retailers took credit for, and profited from, the quality and efficiency of the photofinisher.

7.31. We asked Grunwick about Kodapost, Kodak's mail-order service, which competes with Grunwick's brands. Grunwick said that Kodak did not offer free film but offered other promotions, although its prices were higher than Grunwick's. Kodapost was able to trade on the Kodak name.

7.32. Grunwick thought that Kodak possibly subsidized its processing business out of its film and paper business and pointed out that Kodak marketed its film, on which margins were very high, at events such as the Olympic Games and in locations such as Disney World. However, Grunwick did not consider that Kodak's competitive position would be altered by the merger. Grunwick added that Harrier was a subsidiary of District Photo, whose paper was supplied by Kodak in the USA.

7.33. We asked Grunwick if it was considering offering a faster mail-order service. Grunwick said that it was attempting to do this to some extent but that there were limits to what could be achieved given that it had to use the postal services to deliver photos. Grunwick did not regard the merger as a challenge. It thought it was the natural result of an overpriced management buyout of ColourCare.

Intec Laboratories Limited

7.34. Intec, a mail-order provider, said that there was overcapacity in the UK market for film processing. This overcapacity had existed since 1988, and had become more acute with the increased availability of mini labs in the high street and in major supermarkets. Overall, 35mm and APS film volume sales in the UK were in decline, and one in four new camera purchases in the UK were digital, requiring no film or processing.

7.35. Intec said that there were major factors in determining the future shape of the industry and its ability to embrace and enhance new technology. A strong brand leader was needed to devote considerable resources to continued research and development for the preservation of the industry and those employed within it.

7.36. Clearly, it was important for photo dealers to be able to obtain their photofinishing requirements on a competitive basis, and Intec was convinced that national coverage of competitors to the merged firm could be achieved, albeit on a regional basis through various laboratory organization combinations. However, this was not the case in Scotland where there appeared to be less competition.

7.37. Intec said research had shown that, in spite of photoprocessing outlets offering a next-day service, the reality was that customers' orders remained in the shop for the best part of a week before the

customer actually collected them. Therefore, it would not seem unreasonable for competitive services to be offered using Royal Mail for transferring customers' orders to and from high street dealers and stores.

The Jessop Group Limited

7.38. Jessops is a specialist photographic business geared to the keen amateur photographer. In 1996, it was the subject of a management buyout. It told us that its strategy was to grow the business rapidly and that it currently had 210 stores; 92 per cent of its business was retail-based. Jessops felt that its particular strength lay in its product range and accessories, with knowledgeable staff. Jessops' D&P was a highly-profitable part of its business and it intended to expand specialist shops that had mini labs and also mainly used Jessops' own D&P. That said, Jessops also was expanding mainstream stores that used KPCL or TopFoto for wholesale D&P.

7.39. Jessops said that digital mini-lab technology was far superior to analogue mini-lab technology and that it had made a big investment in digital mini labs. Mini labs were only more profitable if a premium was charged for same-day processing. Currently, slightly over one-third (35 per cent) of Jessops' photos were developed in mini labs; a little over one-twentieth (6.5 per cent) were developed in Jessops' own lab; about half (52.6 per cent) were developed by KPCL; and a relatively small amount (3.4 per cent) were developed by TopFoto. It projected that its use of mini labs would increase. Jessops was investing quite heavily in Internet printing in its own main lab in which it did about 8 per cent of its photoprocessing. It did not at the moment feel that it wanted to move to service other retailers. Looking at the future, Jessops thought that high-quality inkjet printers might replace conventional photographic printing.

7.40. Prior to August 2001, Jessops had used ColourCare for wholesale D&P. It had switched to KPCL for various reasons: one determining factor in making the switch had been the ability of KPCL to invest in digital technology (all Jessops' work is printed on the pre-production I-labs which KPCL is running). Jessops was also concerned about ColourCare's financial position, in particular its ability to invest in digital equipment. In the event KPCL had offered better terms than ColourCare and Jessops had felt that it was operationally too difficult to have both KPCL and ColourCare as suppliers.

7.41. Jessops regarded Boots and high street stores as competitors in a sense, but it offered a free own-brand film with prints and therefore its pricing was not strictly comparable. Jessops thought that the supermarkets were likely to emerge as a competitive force as consumers were likely to be attracted by 1-hour film processing, as films could be handed in before shopping and collected afterwards. Independent chemists might find their photo-developing business threatened. We asked Jessops how consumers would react if the price of overnight D&P went up by 10 per cent. Jessops thought that most consumers would switch to a same-day service. We asked if the reaction of owners of APS film was likely to be different. Jessops felt that it would be but APS film was likely to decline in popularity.

7.42. Jessops said that, with the coming of DSCs, customers would not want to leave expensive memory devices for developing, because cameras did not use film but, rather, put a card into a PC. This had many implications for mini-lab equipment and customer relations; Fuji had a system called Fujikiosk that allowed a customer to input a card into a PC at a mini lab. Some sort of similar input device would be desirable for retailers that were using wholesale D&P. It was quite likely that, in a few years' time, owners of DSCs would be reluctant to print pictures at all, though admittedly DSCs were not yet produced for the mass market. Home printers were still relatively expensive and could not match the quality of prints produced by mini labs. The challenge was to make it more attractive to print from DSCs professionally rather than at home.

7.43. We asked about the effect of the merger. Jessops said that it had some concerns but did not believe that KPCL was likely to raise prices, because of the threat from mini labs. Jessops felt that the smaller retailers were adequately serviced by wholesalers such as Colorama, and that consumers benefited from the competition provided by Klick/Max Spielmann and the independent chemists. [

Details omitted. See note on page iv.

]

Kent Photo Services

7.44. Kent Photo Services was concerned that the proposed merger would give KPCL a market share of between 50 and 70 per cent. Market forces were already making survival difficult for those independent wholesale photofinishers that remained. It felt there was a strong possibility that firms like itself could be forced out of business, which would lead to less choice for the public.

Klick Photopoint/Max Spielmann

7.45. Klick and Max Spielmann are photofinishing businesses owned by Bowie CastleBank Ltd (Bowie CastleBank), which has its headquarters in Scotland. The company had four main labs, which were located in Birmingham, Leeds, Liverpool, and Wishaw, near Glasgow. It operated a total of 600 shops at locations ranging from Inverness in the North to the Isle of Wight in the South; 440 of the outlets were under the Klick name and 160 traded as Max Spielmann. The company had little or no representation in East Anglia or within the M25. About 90 per cent of its shops were serviced by its own distribution network. The company thought that any future expansion was likely to be through organic growth. Bowie CastleBank said that it attributed the growth of the company over the last 20 years to economies of scale and the competitive prices that it offered its customers.

7.46. The company said that about 200 of its shops currently had mini labs, none of which was digital. It did, however, operate digital mini labs within its main-lab operations. The company did not use other wholesalers to process any of its work; this was partly for cost-cutting purposes, and it also believed that it could offer its shops a better service than other competing wholesale labs.

7.47. Bowie CastleBank said that, in its experience, the market had been shrinking for a number of years, and this had been accelerated in the last couple of years by entry to the marketplace of supermarkets and other retailers offering mini-lab services. The company said that this trend would be likely to free up capacity in its own labs, which would allow it, if it so chose, to compete for wholesale business—though it thought that it was unlikely to do so at current margins. Its current preoccupation was integrating the recently-acquired Max Spielmann business. The company said that the same-day service that it offered was processed through its mini labs, while all other business went through its main labs. Main labs were more cost-effective to run than mini labs.

7.48. As to the long-term future of wholesale labs, the company believed that high street retailers were increasingly investing more in mini labs so as to create independence from the wholesaler. Digital technology would also mean that mini labs could offer more services than those currently offered by analogue machines.

7.49. Asked about possible expansion into the South of England, the company said that its current set-up meant that its Birmingham laboratory could go a long way to servicing the South of the country. It would also have the option of using other wholesalers in the far South and far South-West, including KPCL, but it might also choose to rely more heavily on mini labs to provide a faster service in these locations. It was unlikely to set up another main lab.

7.50. Bowie CastleBank believed that the merged company was bound to be more efficient than the present structure because wholesale photofinishing was currently unprofitable. Consumers were unlikely to suffer because there was increased competition in the marketplace from mini labs; prices were falling and, in the longer term, there was also the potential of new entrants to the marketplace through European integration. If the wholesale D&P market became less competitive, it would itself consider entering the market and could do so very quickly.

Lloyds Pharmacy Limited

7.51. Lloyds operates 1,320 pharmacy outlets across the UK. Turnover in 2001 was nearly £1 billion across NHS and non-NHS. About 45 per cent of non-NHS turnover came from over-the-counter sales of medicines, and some 7 per cent was related to photofinishing. Lloyds said that only some 13 of its outlets had mini labs. It did not see mini labs as a strategic element of its business for a number of reasons; these included the amount of space required, the staff needed to operate them and the throughput it would take

to make them economic. The location of its pharmacies was such that there was not the level of throughput to justify such an investment.

7.52. Lloyds said that ColourCare was the only supplier that it used for its wholesale D&P business on the UK mainland. The two companies had had a good working relationship for the past number of years, and ColourCare was able to provide national coverage; Lloyds was therefore able to monitor consistency. ColourCare was content for Lloyds to supply its own-brand films for D&P, which Lloyds regarded as an advantage so far as its customers were concerned (it gave a free own-brand film back with each film developed); and it was also seen as a means of building the Lloyds brand. Kodak, on the other hand, had not been willing to provide Lloyds with that particular service or with solely Lloyds branding in D&P wallets, and also its prices were higher than those of ColourCare. Lloyds did not see Colorama as a national supplier because of its inability to cover the whole of the UK, particularly Scotland.

7.53. Asked about wholesale prices, and possible increases, Lloyds said that the current pricing structure within the UK for wholesale overnight processing had been static for some time. Its own pricing structure dictated that it could not increase its price points without putting them beyond what it saw as a barrier. The price of the average basket of goods at a Lloyds chemist was considerably lower than many other retailers, and to ask customers to bear increased film processing costs would significantly increase its current basket spend.

7.54. Lloyds said that it competed with other pharmacies, supermarkets and mail order. It believed that, in general, supermarkets drove price points down in any market that they entered. They were now investing heavily in mini labs.

7.55. Lloyds stated that the digital market had grown substantially in the last few years. It would not be viable for Lloyds to invest in digital technology. It offered a film-to-CD service through ColourCare, but the volume was very limited; the average consumer was probably not fully aware of what was available.

7.56. Lloyds said that its customers valued the convenience of a next-day service at competitive prices and a free film. This had helped Lloyds to increase volume and, in its view, outperform the market. Whether that was sustainable in the future was difficult to predict. Lloyds added that a next-day service was very important to it; if that were to slip to three days, for example, then potentially its customers might find mail order more attractive.

7.57. Lloyds was concerned about the way in which KPCL might conduct itself following the merger—not only in the near future but also over the longer term. Lloyds currently had an agreement with ColourCare with which it was very comfortable. [

Details omitted. See note on page iv.

] It did not regard Colorama as a national distributor; it had too few labs and did not cover the whole country. Lloyds felt that KPCL would inevitably want to improve its overall profitability and that might have a detrimental effect on Lloyds. [

Details omitted. See note on page iv.]

Minit UK plc (Supasnaps)

7.58. Minit said that KPCL and ColourCare were the only wholesale processing businesses in the UK with truly national coverage. If the proposed merger were allowed to proceed, then retail processing chains would have very limited negotiating options; this might drive costs up for retailers, which would inevitably be passed on to the consumer. Minit was also concerned about placing its third party processing in the hands of a company such as KPCL, which offered a mail-order service. It feared that this could produce a conflict of interest within KPCL itself, which could, in a worst-case scenario, result in the retailer being totally excluded from the photoprocessing link.

Parkers Pharmacy

7.59. Parkers Pharmacy (Parkers), which operates two independent pharmacies on the outskirts of York, was opposed to the merger because it believed it would severely reduce competition in the independent D&P sector. Parkers said that until recently KPCL was its supplier, but about two years ago KPCL refused to supply it on the grounds that its turnover was too small. The only other supplier that was prepared to deliver to both Parkers' shops was ColourCare, and this was currently the case.

7.60. Parkers said that, if the merger were allowed to proceed, then KPCL, because of its size, would be the dominant partner. It would therefore only be a matter of time before KPLC demanded that Parkers' ColourCare account was closed. As a result, Parkers would be unable to offer D&P services at either of its branches. It said that many other retailers would be similarly affected as KPLC had closed other accounts at the same time as Parkers.

Robert Whyte Photographics Ltd

7.61. Robert Whyte Photographics Ltd said that it was unlikely to be affected by the proposed merger. KPCL and ColourCare had, between them, controlled wholesale photographing processing in the UK by operating nationwide to multiple retailers, mainly chemists' chains and supermarkets. It said that it found it impossible to do business locally with these types of retailer despite offering them superior service times and prices. As a result, it was unable to expand its business, or even to maintain its present turnover.

Superdrug Stores plc

7.62. Superdrug said that it had only started offering a D&P service through mini labs in 2000 and was still learning. It now provided a D&P service at 700 of its stores, 90 of which had mini labs. In addition to the mini-lab service, Superdrug offered a counter service and also a 'do-it-yourself' service where customers could dispatch the orders themselves. Those stores which had mini labs were in a position to promote a 1-hour service. Superdrug said that there was little difference between wholesale D&P and mini-lab D&P costs if all mini-lab costs, such as payment for paper and chemicals, were taken into account. Superdrug's aim was to promote the 1-hour service where a premium could be charged. None of Superdrug's mini labs was digital. In its view, the majority of customers just wanted standard photographs, and Superdrug wanted to increase its share of this market. Customers were unlikely to appreciate a digital service. Superdrug said it expected that price competitiveness was likely to increase, especially with supermarkets becoming increasingly active in the market.

7.63. Superdrug said that it had switched from ColourCare to KPCL in the late 1990s. Its unusually long, five-year, contract with KPCL included the purchase of paper and the ability to display the Kodak logo on its photo envelopes. Kodak also had an exclusive deal with Superdrug to service its mini labs. Superdrug felt that Kodak had excellent quality and could provide a fully-integrated service consisting of both wholesale D&P and mini-lab supplies and maintenance. Superdrug believed that the merger would strengthen KPCL by giving it greater capacity to deal with peaks in business. It wanted a national service and regretted the potential loss of a competitor to Kodak but did not consider that ColourCare offered a real alternative now: it had not been in touch recently.

Transport and General Workers' Union

7.64. The Transport and General Workers' Union (T&G) said that currently some 1,500 members of its members were employed at KPCL, and approximately 140 at ColourCare. It also had a significant number of members working in other companies within the industry, as well as in related industries and suppliers such as chemicals and paper.

7.65. The T&G recognized that the photographic industry was currently going through a period of flux and rapid change. One of the most important contemporary characteristics of the industry was excess capacity. Companies were also facing the challenge of increased competition from high-street mini labs and desktop photo printing. Moreover, the future success of any company involved in this market increasingly depended on its ability to invest in, and make use of, new technologies.

7.66. The combination of all these factors was putting increased pressure on many smaller companies, such as ColourCare, which operated in the photographic industry. In view of the relatively weak position of ColourCare and, given that KPCL and ColourCare overlapped in terms of their markets and products, the T&GWU regarded both parties as logical candidates to merge. A merger would therefore stabilize KPCL's market share, enable it to provide effective national coverage to its customers and, by doing so, improve the job security of the T&G's members. In addition, the T&G's own research revealed that both companies believed that the economies of scale arising from a merger could help finance the installation of the latest digital processing equipment, thereby enhancing the business performance of the merged entity.

7.67. The T&G said that naturally it was always concerned about the implications of any merger for job security, for terms and conditions and for employee/employer relations. When considering any proposed merger (in addition to assessing its impact on competition and the public interest), the CC should also take fully into account the potential impact on jobs, employment conditions, existing bargaining arrangements and workplace relationships. However, having examined the evidence relating to this proposed merger, and after consultation with its representatives in both companies, the T&G was of the opinion that, on balance, the merger was in the long-term interests of its members, consumers, the industry in general and both companies in particular.

Mr William Watford

7.68. Mr William Watford of Ringwood, Hampshire, said that his major concern was for the security of the jobs of local people employed by ColourCare, particularly at its Downton plant. He was convinced that rationalization was likely, which would affect jobs in all areas within ColourCare's processing plant. Mr Watford was also concerned that quality might suffer as the result of the merger.

A photographic laboratory

7.69. A photographic laboratory based in London objected to the proposed merger. It felt that a merger, along with KPCL's other activities in the social photographic market, would, in the long term, seriously weaken competition and put smaller players out of business. If KPCL were to gain a substantial 50 to 70 per cent of the wholesale development and printing services market, that gain would give it an unfair advantage, especially with the marketing budget that it had at its disposal. It would be extremely difficult therefore for other competitors in the marketplace to promote themselves at that level and to compete on cost. The laboratory said that Kodak's involvement in setting up the Venture Portraits Group of high-street studios, and tying in individual studios to use Kodak's processing and printing facilities to the exclusion of others, was yet further evidence of Kodak wishing to monopolize a substantial share of the UK's photographic printing services.

A photographic studio

7.70. A photographic studio, based in the North of England, operates a mini lab offering D&P services locally. Until recently, it had accounts with both KPCL and ColourCare; the majority of its APS films were processed by KPCL, and it used ColourCare on occasions for services that KPCL did not offer, for example slides from negatives and copy negatives. ColourCare terminated its account with the studio around mid-2001 on the grounds that insufficient business was being generated. The studio said that recently it had encountered problems with KPCL and that it wished to terminate its current arrangement. It approached ColourCare with a view to doing business with it instead, but was informed that, because of the proposed merger, ColourCare would not accept business accounts of less than £10,000 a year—and in any case would not accept customers which operated mini labs. The studio believed that both companies were now working together, but that they would probably deny it.

7.71. The studio said that it had been unable to find an alternative to KPCL or ColourCare for the processing of APS films and other services. The monopoly that KPCL now had through all its subsidiary processing companies was likely to become even more uncompetitive.

P A GEROSKI *(Chairman)*

S BROWN

J C HANRATTY

T S RICHMOND

E J SEDDON

R FOSTER *(Secretary)*

23 November 2001

APPENDIX 1.1
(referred to in paragraphs 1.1, 2.2, 2.19 and 2.110)

The reference and conduct of the inquiry

1. On 16 August 2001 the Department of Trade and Industry sent the CC the following reference:

Whereas it appears to the Secretary of State that it is or may be the fact that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a merger situation qualifying for investigation, as defined in section 64(8) of the Fair Trading Act 1973 ('the Act'), in that:

(a) enterprises carried on by or under the control of Eastman Kodak Company (one at least of which is carried on in the United Kingdom) will cease to be distinct from enterprises carried on by or under the control of ColourCare Limited; and

(b) as a result, the condition specified in section 64(3) of the Act will prevail, or will do so to a greater extent, with respect to the supply of development and printing services for amateur photographs in the United Kingdom.

Now, therefore, the Secretary of State, in exercise of her powers under sections 64, 69(2) and 75 of the Act, hereby refers to the Competition Commission ('the Commission'), for investigation and report within a period ending on 26 November 2001, the following questions:

(i) whether arrangements are in progress, or in contemplation as described in paragraph (a) above, which, if carried into effect, will result in the creation of a merger situation qualifying for investigation;

(ii) if events so require, whether the actual results of those arrangements are the creation of such a situation; and

(iii) if so, in either case, whether the creation of that situation may be expected to operate or (if events so require) operates against the public interest.

In relation to the questions in paragraphs (i) and (ii) above the Commission shall exclude from consideration one of paragraphs (a) and (b) of section 64(1) of the Act if they find the other satisfied.

16 August 2001

(signed) DAVID MINER
An official of the Department of Trade and Industry

2. The composition of the Group of members responsible for the present investigation and report is indicated in the list of members in the preface.

3. Notices inviting interested parties to submit evidence to the CC were placed in *Amateur Photographer, BPI News, Chemist & Druggist, Community Pharmacy* and the *Salisbury Journal.*

4. In addition, we sought evidence from companies providing photo processing, retailers and trade unions. Written evidence was received from a number of these parties and we held hearings or meetings with eight of them.

5. We received written submissions from KPCL and ColourCare. We held two hearings with each company, and they both attended a joint hearing.

6. In September and October 2001 we sent Issues and Remedies Letters to KPCL and ColourCare, and published a Statement of Issues and a Statement of Remedies.

7. Members of the Group, accompanied by staff, visited operations of KPCL and ColourCare at Wimbledon and Downton respectively. Visits were also made to some third parties. The Group were advised on technical aspects of the inquiry by PA Consulting Group.

8. We should like to thank all those who assisted in our inquiry, particularly KPCL and ColourCare.

APPENDIX 3.1
(referred to in paragraphs 3.4, 3.6, 3.18, 3.20, 3.21, 3.24, 3.29, 3.43, 3.114 and 5.92)

Colour film processing in main labs

1. D&P is carried out either by wholesalers and mail-order companies in main labs or by retailers using on-site equipment, known as mini labs. Main labs may process 10 million or more rolls of film a year; mini labs have an annual capacity ranging from under 10,000 to 100,000 rolls of film per mini lab (see Appendix 3.2). As all main labs carry out very similar operations, the descriptions below apply to both wholesale and mail-order labs. The labs take in rolls of colour film brought in from retailers by road, or from consumers by post, process them through a series of specialized machines and send back the developed films and sets of prints. Although most also offer other services, such as enlarging prints or developing monochrome films, the great bulk of their operations involve the processing of 35mm and APS colour negative films.

2. Main-lab photoprocessing equipment is mainly bought off the shelf, either brand new or second-hand. Some manufacturers specialize in particular pieces of equipment; others offer equipment for each stage in the process. The following description explains the methods used to develop and optically print conventional colour negative films. Although the details differ between 35mm and APS films, the processes are essentially the same. There are two main stages to the basic D&P operation.

3. In the first stage, the processor opens the film in darkroom conditions[1] and chemically processes it to produce colour negatives. In the second stage, the colour negatives are used to produce colour prints. Two types of printing are currently used: conventional optical printing and new, higher-quality, digital printing processes. (Images from DSCs (see paragraph 3.101) do not require developing and can be printed using either a digital photographic printing process (see paragraph 19) or a high-quality inkjet printer.)

4. The processes used in main labs are photochemically the same as those used in retailers' mini labs (see Appendix 3.2), but the design of the equipment and the scale of the operation are different. Main labs are lagging behind mini labs in introducing digital printing, principally owing to the slower rate of progress in commercializing high-speed main-lab digital technology but also because of their substantial existing investment in optical printing.

5. The flow chart at Figure 1 illustrates the processes used in a conventional main lab with optical printing. The processes typically occupy a light industrial building. The key production stages are described below.

Sorting

6. The processor empties the delivery bags received from retailers and counts, logs and sorts the dealer order envelopes (DOEs) they contain according to the type of film, service required and the degree of urgency. Typically, 20,000 orders per night may need to be sorted into 120 service options. This is either done manually or by a machine that can read dealer details and service requirements automatically. Bags from remote dealers tend to be processed as quickly as possible to allow the maximum time for the return journey.

Splicing

7. In a lightproof splicing machine, the processor removes 100 to 200 films that require the same type of service from their cassettes and splices them together before inserting the resulting composite film roll into a lightproof cassette. This film roll is then inspected for any damage that might cause problems in processing. Films are spliced at 300 to 400 an hour per machine.

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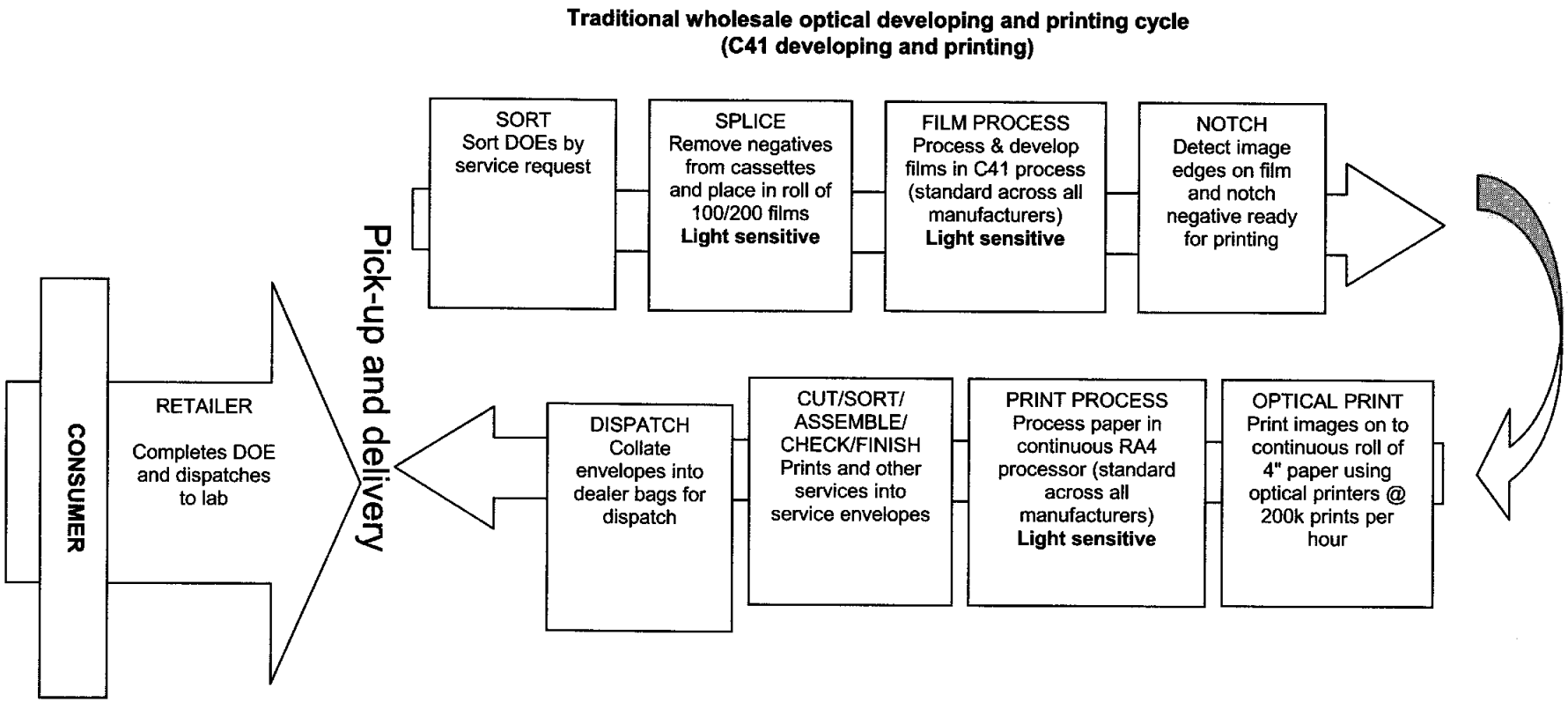
[1]That is, in the presence only of red light at frequencies to which the film is insensitive.

FIGURE 1

Processing in a main lab with optical printing



Source: KPCL.

8. Splicing equipment can be sourced from three or four international suppliers including Agfa and Gretag. New 35mm splicers cost about £48,000 and second-hand units may be obtained for £10,000. New APS splicers cost about £60,000 and second-hand units are available for around £25,000. (There is an effective second-hand market for both main-lab and mini-lab equipment.)

Developing

9. The composite film roll is next passed through a standard C41 process in a darkroom. The C41 process is a worldwide standard originally established by Eastman and now adopted by the entire photographic industry. It consists of a series of chemical baths. In these, the processor first develops the film, using developer, to produce colour negatives, which are then bleached and fixed, using bleach and fixer and, finally, washed. The negatives are then dried. About 1,400 rolls of film can be processed per hour.

10. During development, colours are formed in the photographic emulsion on the film[1] that are complementary to the colour of the original scene: for example a red object is recorded as cyan in the negative. A combination of yellow, magenta and cyan dyes, in separate layers, records all the other colours in the scene. These dyes control the colours of light that can pass through the negative. Bleaching and fixing stabilize the developed negative film to stop it being sensitive to light. After drying, the roll of films is wound on to a spool.

11. The manufacturers of film-processing equipment include Calder and Hostert. New film processors cost about £85,000 and second-hand equipment may be purchased for around £30,000.

Notching

12. The next step involves passing the negative composite film roll through a machine that detects the position of each image and marks it on the side of the film with a notch, ready for the printing processes. About 550 films an hour can be processed. APS films do not require this stage as they are 'pre-notched' in manufacturing.

13. The manufacturers of notching machines include Agfa and Gretag. New machines cost about £3,000.

Printing

14. There are three alternative main-lab printing systems: conventional optical printing, a new 'full' digital printing process and a 'hybrid' process.

Optical printing

15. In this long-established process, the processor inserts the negative film roll into a lightproof photo printer, capable of producing up to 20,000 positive prints an hour on a continuous strip of 89mm to 152mm (3½ to 6 inches) wide light-sensitive photographic paper. The printer projects light through each negative in turn on to photographic paper. It assesses the exposure level of the negative and then utilizes algorithms to control the length of light exposure on to the paper. Coloured filters are used during exposure to control the overall colour balance of the print.

16. The manufacturers of optical printing equipment include Agfa and Gretag. New high-speed printers cost about £240,000 and second-hand equipment can be bought for about £50,000.

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[1]Like black-and-white films, colour negative films record scenes in image densities opposite to the brightness of the objects in the scene. They consist of three separate emulsions on a single film base. Each of the three emulsion layers records one of the three additive primary colours: red, green or blue. The top emulsion layer is sensitive to blue light and produces yellow dyes. Between the top emulsion layer and the middle emulsion layer is a yellow filter. The yellow filter absorbs the blue light that would otherwise affect the middle and bottom layers. During processing, this yellow filter is dissolved. The middle emulsion layer records green light and produces magenta dyes. The bottom emulsion records red light and produces cyan dyes.

17. The paper is next passed through an RA4 continuous processor. The RA4 is a worldwide standard process set by Eastman and now adopted by the entire photographic industry. It consists of a series of chemical processes, similar to those involved in developing. These in turn develop the images, bleach the paper, and fix the images to stop them from being light sensitive. The prints, are finally, washed and dried. About 2,000 orders an hour can be processed.

18. Manufacturers of paper-processing equipment include Noritsu, Agfa and Gretag. New paper processors cost about £190,000 and second-hand equipment can be obtained for about £50,000.

Digital printing

19. Eastman is developing high-speed main-lab digital printing technology (known as I-lab) for two main reasons: first, to match the quality of prints produced by digital mini labs and, second, to produce prints from digital sources such as CD-ROMs, floppy disks, zip disks, scanners or the Internet. These media might, for example, originate from DSCs (see paragraph 3.99). Figure 2 shows the modified main-lab production flows resulting from the incorporation of digital printing.

20. Gretag is also testing a high-speed fully digital printing system, known as Cyra, in several of its customers' labs. Like Eastman's I-lab, it is not yet commercially available, but is soon expected to be widely available to third parties. Agfa's hybrid Dimax system (see paragraph 28) is also expected to be converted into a fully-digital system.

21. In this method, the processor first passes the processed composite negative film roll through a high-speed digital scanner. This digitizes the images to produce numerical data files (known as digital image files) in a standard format suitable for use by a digital laser printer. These files are processed by computer with a view to enhancing ultimate print quality. The files can also be used to produce a photo CD and/or uploaded on to the Internet.

22. The digital laser printer produces positive images, in darkroom conditions, on a continuous strip of standard 89mm to 127mm (3½- to 5-inch) light-sensitive RA4 photographic paper. Alternatively, miniature light arrays or cathode ray tube (CRT) devices can be used to write the digital data optically on to the same RA4 photographic paper. The photographic prints are then processed in the same way as in conventional printing.

23. High-speed digital film scanners and image data managers for main labs have been in use for some time, for example to produce the small index prints supplied with APS films. High-speed main-lab fully digital printing equipment is not yet available commercially, although hybrid technology is (see paragraph 28). KPCL labs currently have access to a limited number of Kodak pre-production I-lab printers.

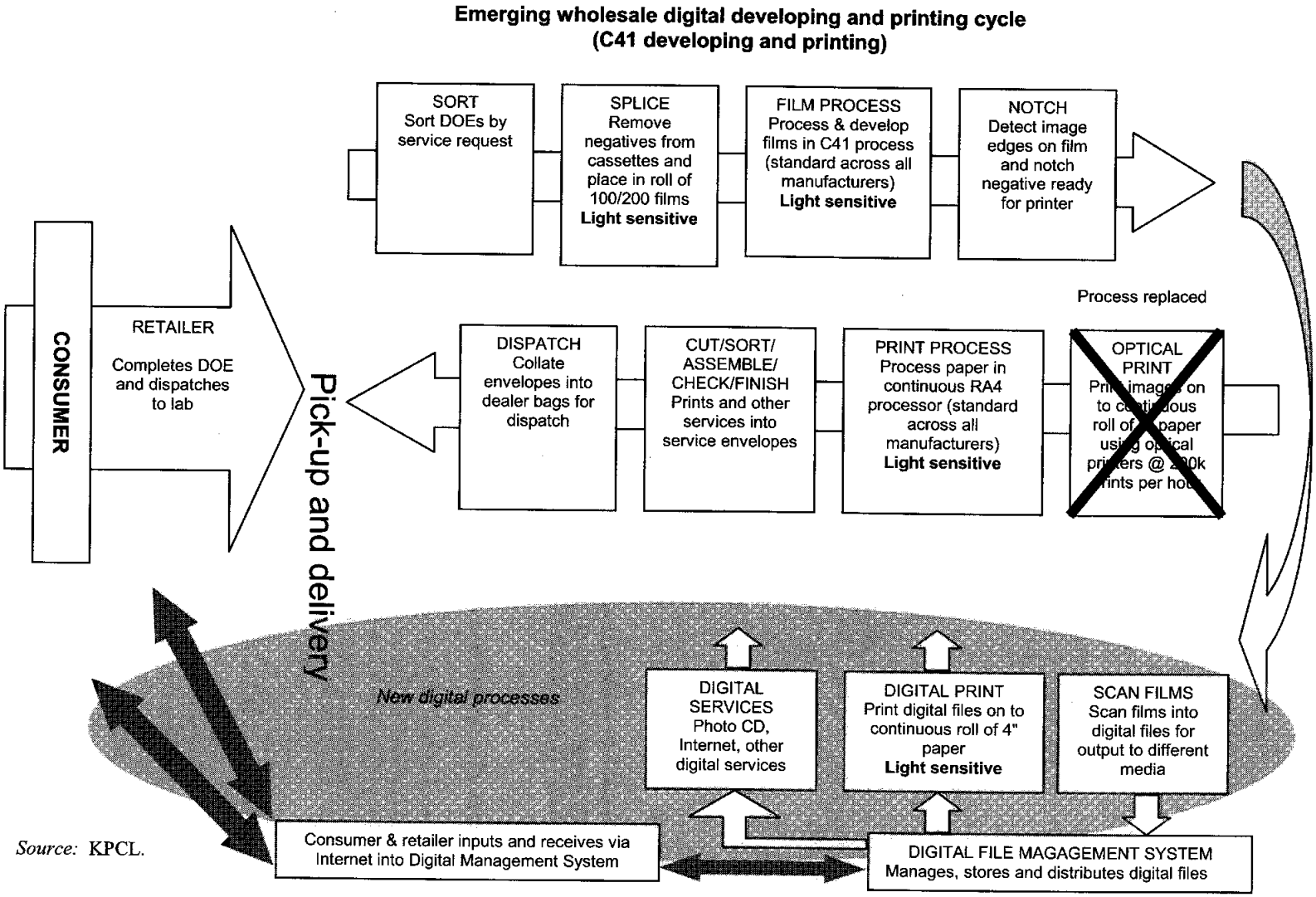
24. As main-lab equipment cannot at present scan negatives as fast as optical printers can print, it is expected that the first machines expected to be available commercially from Kodak and Gretag by the end of 2001 will be limited to 10,000 prints an hour. Within a further two years, digital printing machines that match the speed of optical printers are expected to be available from Kodak, Gretag and Agfa. At present, prototype digital printers cost about £370,000. Given the level of investment required to replace otherwise adequate optical equipment, it could, however, take wholesale processors as long as ten years to convert all their main-lab capacity to digital printing.

25. Under favourable conditions, colour negative films are capable of capturing a contrast ratio of 1,000:1. Colour negative paper is, however, only capable of reproducing a small part of this brightness range (about 50:1) on the print. Optical printing can, therefore, only record part of the contrast range available in the negative. Depending on the exposure given to the print, parts of the image outside the contrast range of the paper may appear nearly black or nearly white and detail is thus lost.

26. The image enhancement process applied in digital printing uses complex image-processing algorithms to resolve problems caused by highly contrasting light levels in the image. Otherwise hidden detail may be revealed in areas affected by heavy shadow or overexposure. Sharpness, colour balance and ambient lighting problems can also be improved. Digital printing consequently produces prints of superior quality and reduces the number of prints that are lost completely, compared with optical printing.

FIGURE 2

Processing in a main lab with digital printing



Source: KPCL.

27. DSCs produce their images as a standard data file that a digital printer can handle directly, without any pre-processing.

Digitally-enhanced printing

28. Digitally-enhanced printing is a compromise 'hybrid' process used by a number of main labs. It incorporates some of the advantages of digital printing into an optical printing process. This is achieved by first scanning the negative to produce a digital image. This digital image is then used to control an LCD mask, which in turn controls the degree of exposure given to individual parts of the image during optical printing. In other respects, the process is similar to conventional optical printing. The proprietary Agfa process is referred to as digital masking exposure or Dimax. Similar hybrid technology is also available in some Gretag printers. Although it gives an improvement in quality compared with conventional optical printing, digitally-enhanced printing is not thought capable of matching the quality achieved by 'fully' digital printing. As main-lab digital printers become commercially available at reasonable prices, they are consequently likely to replace the limited number of digitally-enhanced printers now in use (or convert them into fully digital systems).

Finishing

29. In the finishing stage, the processor inspects the continuous strip of images and cuts it into individual prints. Checks are made at this point for product quality (for example, correct service, colour balance and damage). Substandard prints are rejected and good prints are sorted, assembled into individual orders, together with other services as required, and then reunited with the order documents and the corresponding negatives. About 220 orders can be processed per hour.

30. Gretag is the main manufacturer of finishing equipment. A new 35mm finishing station costs about £36,000 and second-hand equipment can be bought for around £15,000.

Dispatch

31. Finally, the prints and negatives are packed in dealer order envelopes, priced, placed into the appropriate dealer dispatch bags and prepared for dispatch to the retailers. Much of this work may either be done manually or by automatic sorting machines that read the relevant bar codes on the envelopes.

The effect of seasonal and daily cycles in production and product mix

32. Demand is highly seasonal and subject to a daily cycle. Main-lab capacity has to be geared to meet peak-day and peak-hour requirements (for example, during the evening of the day after August bank holiday when demand is around 2.75 times the lowest daily level). These peaks, the seasonality of demand and the limited daily production window make it inevitable that capacity utilization levels at off-peak times of the year can be very low.

33. Product mix has a considerable impact on capacity utilization, since the speed of the service required affects the production window available to perform it. Wholesale labs typically provide for a mix of 70 per cent next-day and 30 per cent three-day orders, which allows a production window of around 14 hours a day. The 70 per cent of next-day work must be carried out between the hours of 4 pm (when the films are received from retailers) and 9 am (when the prints are returned to retailers). All remaining work can be carried out either at day or at night. Mail-order work, with its longer turnaround time, can be carried out at day or at night, allowing a production window of around 22 hours. In either case, switching production from day to night requires little lab floor reorganization.

34. Even on the busiest days, capacity utilization can be as low as 50 per cent (based on a theoretical 22-hour day). Average capacity utilization over the year may only be around 20 per cent of annual rated capacity, even when this has been accurately matched to peak demand.

APPENDIX 3.2
(referred to in paragraphs 3.4, 3.6, 3.21, 3.46, 3.47 and 5.59)

Film processing in retailers' mini labs

Background

1. Since their launch in the mid-1980s, mini labs located in shops have revolutionized film processing. Equipment suppliers have miniaturized the processes that previously occupied a main lab and can accommodate all the activities within one or two cabinets little larger than a substantial photocopying machine. Significantly, on-site processing enables retailers to offer customers a 1-hour or same-day service, for which they can charge a premium price.

Suppliers

2. Mini labs are available commercially from a number of suppliers, including Fuji, Agfa, Noritsu, Gretag, Konica and KIS. Fuji is the market leader and has supplied the majority of the digital mini labs installed in the UK. We were told that Gretag was the overall market leader in optical mini labs.

Processes used

3. The processes, such as C41 developing and RA4 printing (see Appendix 3.1), that retailers carry out in mini labs are photochemically identical to those performed in a main lab. The original mini labs used digital printing technology. Most mini labs currently being installed incorporate digital printing.

Optical mini labs

4. Figure 1 illustrates the processes involved in D&P using an optical[1] mini lab (that is, one based on conventional optical printing). The processing scheme is similar to that of an optical main lab (see Appendix 3.1), but less complex owing to the absence both of collection and delivery and of the need to combine many films into a compound film roll for developing. Optical mini labs are being rapidly superseded by digital mini labs, although a substantial installed base remains.

Digital mini labs

5. Digital mini labs began to appear on UK high streets in 1998. Most leading retailers are now rapidly replacing their remaining optical mini labs both to achieve the better quality resulting from digital printing (see Appendix 3.1) and to obtain additional features that digital mini labs offer. These features include printing from digital sources, including DSC memory sticks and cards. Figure 2 illustrates the sequence of processes involved in a digital mini lab.

Capacity

6. Mini-lab processing is slower than the high-capacity systems used by main labs. In the 1980s, most of the original mini labs produced no more than 600 prints (or 20 rolls of film) per hour and were expensive; the highest capacity available was around 1,000 prints per hour. Mini labs are now available in a wide range of capacities, from 250 prints (8 rolls) per hour up to 2,500 prints (80 rolls) per hour. Single-cabinet mini labs have a lower capacity than mini labs with separate film processing and paper processing units.

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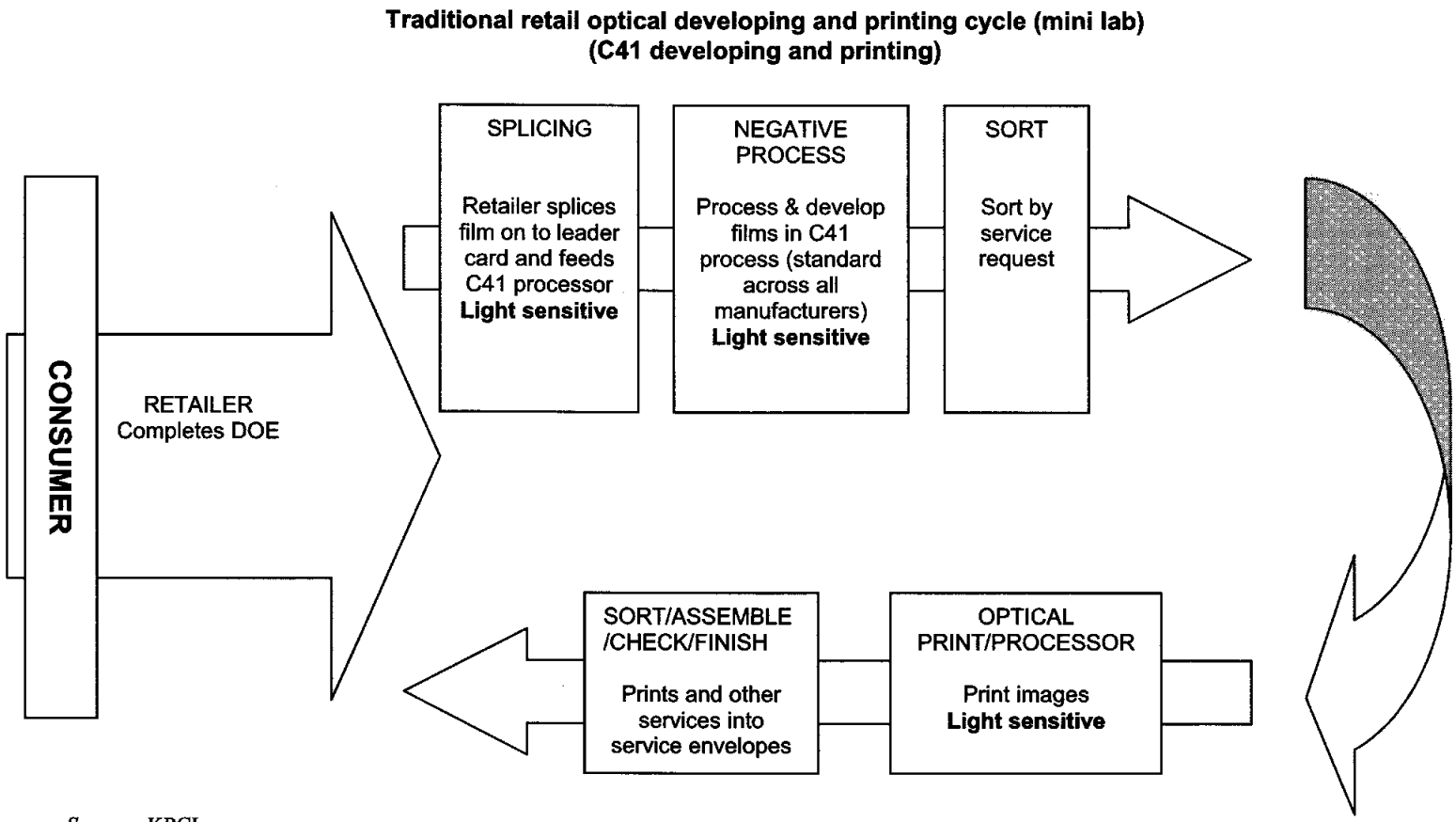
[1]Sometimes referred to as analogue mini labs.

FIGURE 1

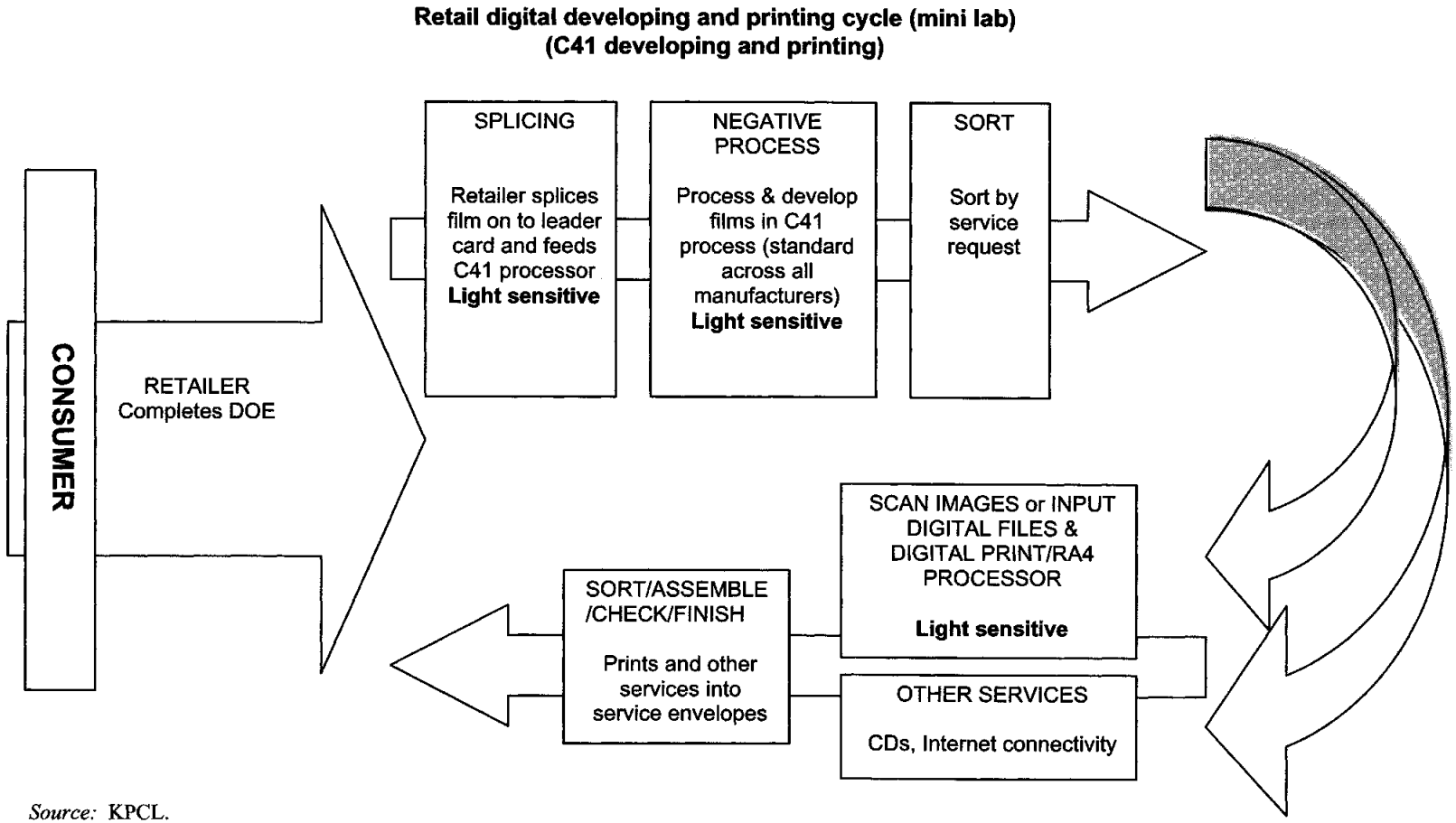
Processing in an optical mini lab



Source: KPCL.

FIGURE 2

Processing in a digital mini lab



Source: KPCL.

7. A typical mini lab has sufficient capacity to handle most of the requirements of all but the largest retail outlets. All retailers with a mini lab use it for same-day services. The capacity needed for same-day services is usually relatively low, leaving spare capacity available to provide next-day-and-longer services.

Size

8. The earliest mini labs were large and required up to 8 sq metres of floor space with access on all four sides. Mini labs are now available that require little more than 1.2 sq metres of floor space and can be installed against a wall or even in a corner. Despite capacity having more than doubled, the size of machines at the top end of the range has not increased substantially.

Cost

9. Prices for new mini labs (especially optical models) have fallen significantly: new optical mini labs cost between £35,000 and £50,000 and the cost of new digital mini labs ranges from £55,000 to £150,000. Kodak told us that a retailer could justify investing in a new small digital mini lab if it could achieve a yearly volume of 8,000 orders (see Appendix 3.5). Although the lower capacity of mini labs leads to somewhat higher processing costs than those of main labs, this disadvantage is partly compensated for by the absence of collection and delivery costs. Any net cost penalty, compared with main labs, tends, however, to be outweighed by marketing advantages in the form of increased sales generation and premium prices for 1-hour services.

10. Mini-lab manufacturers offer their customers advice, feasibility studies and financing packages. This support sometimes reduces the initial investment that retailers have to make by spreading equipment costs over the life of the machine as part of a charge for consumables.

11. As a highly active market for second-hand mini labs has emerged, including Internet-based dealers, small retailers can obtain used optical mini labs for as little as £10,000 (or £20,000 if able to process APS films).

Ease of use

12. The early mini labs required a skilled operator to monitor the processing of both films and paper, and to adjust the printing of each frame manually for colour and density differences. All modern mini labs include advanced automatic process monitoring, scanning and printing systems. These enable films to be processed with operator involvement limited to loading unprocessed films at one end and packaging the finished prints at the other. Staff can now be trained to operate the equipment in as little as two days.

Quality

13. Digital mini labs are able to deliver enhanced print quality and additional services that are difficult for main-lab processors to match. These services include low-cost digitized copies on disk or CD, index prints and complex print orders containing multiple print sizes. Digital image enhancement and printing technologies are now further adding to mini-lab capabilities.

14. Mini-lab technology is advancing much more rapidly than main-lab technology. This is leading to steady improvements in product features, size and cost effectiveness. Reductions in the size of mini labs are further extending the range of retail outlets in which they can be accommodated. Improvements, such as automatic 'red-eye' removal, are expected to be implemented for use in mini labs several years before they can be applied in main labs.

Other

15. Apart from miniaturization, another technical difference from main-lab processing is that mini labs process films singly, rather than as compound film rolls assembled from many individual films.

16. Major mini-lab manufacturers, including Gretag, are said to be developing inkjet mini-lab technologies without the significant adverse effect on print quality and life associated with present-day inkjet printers. It is expected that they will produce commercially viable inkjet printing systems for use in digital mini labs by the end of 2003. By dispensing with conventional printing and the associated 'wet' processing of prints, this 'dry' printing method will enable mini labs to print on to non-photosensitive paper. Suppliers would then both be able to reduce the size of mini labs substantially and to deliver further improvements in their ease of use and cost.

Summary

17. The rapid development of mini labs has encouraged their widespread installation. The utilization of existing mini labs has also extended from premium same-day services to include longer services. The net effect has been an increase in on-site D&P and a reduction in processing by wholesalers.

APPENDIX 3.3
(referred to in paragraphs 2.113, 3.4, 3.24, 3.91, 4.70, 5.34, 5.40, 5.75 and 5.93)

Collection and delivery

Introduction

1. The collection of exposed films from retailers and delivery of the developed photographs ('distribution') is a significant cost for suppliers of wholesale D&P services. In the last year, distribution cost KPCL £[✂] million a year and ColourCare £[✂] million a year. Based on a joint review, KPCL and ColourCare considered that distribution cost savings of £[✂] million a year (after tax) could be achieved following the merger, a significant part of Kodak's rationale for the acquisition (see Chapter 4).

2. In this appendix, we examine distribution issues in more detail.

Methods of distribution

3. Wholesale processors utilize fleets of vans operating pre-set routes that cover their selected operating area. They can either manage distribution in-house or subcontract it to a specialist logistics company. For a few large customers, it may sometimes be advantageous to make use of the retailer's own distribution system. In some cases, it may be possible to combine print delivery with other goods (for example, pharmaceuticals or dry cleaning) to provide economies of scope. ColourCare manages its own distribution using an in-house van fleet consisting of 340 vans. KPCL uses contractors (National Freight Services and Jeeves Couriers).

4. Mail-order processors rely on the post for their distribution requirements. Customers post exposed films to mail-order processors in prepaid envelopes and the processors have contracts with the Post Office for the delivery of photographs. However, whereas distribution is a hidden cost of wholesale processing, an explicit charge is usually made for postage by mail-order processors.

5. On-site mini-lab D&P does not, of course, entail any distribution cost.

Economies of scale and density

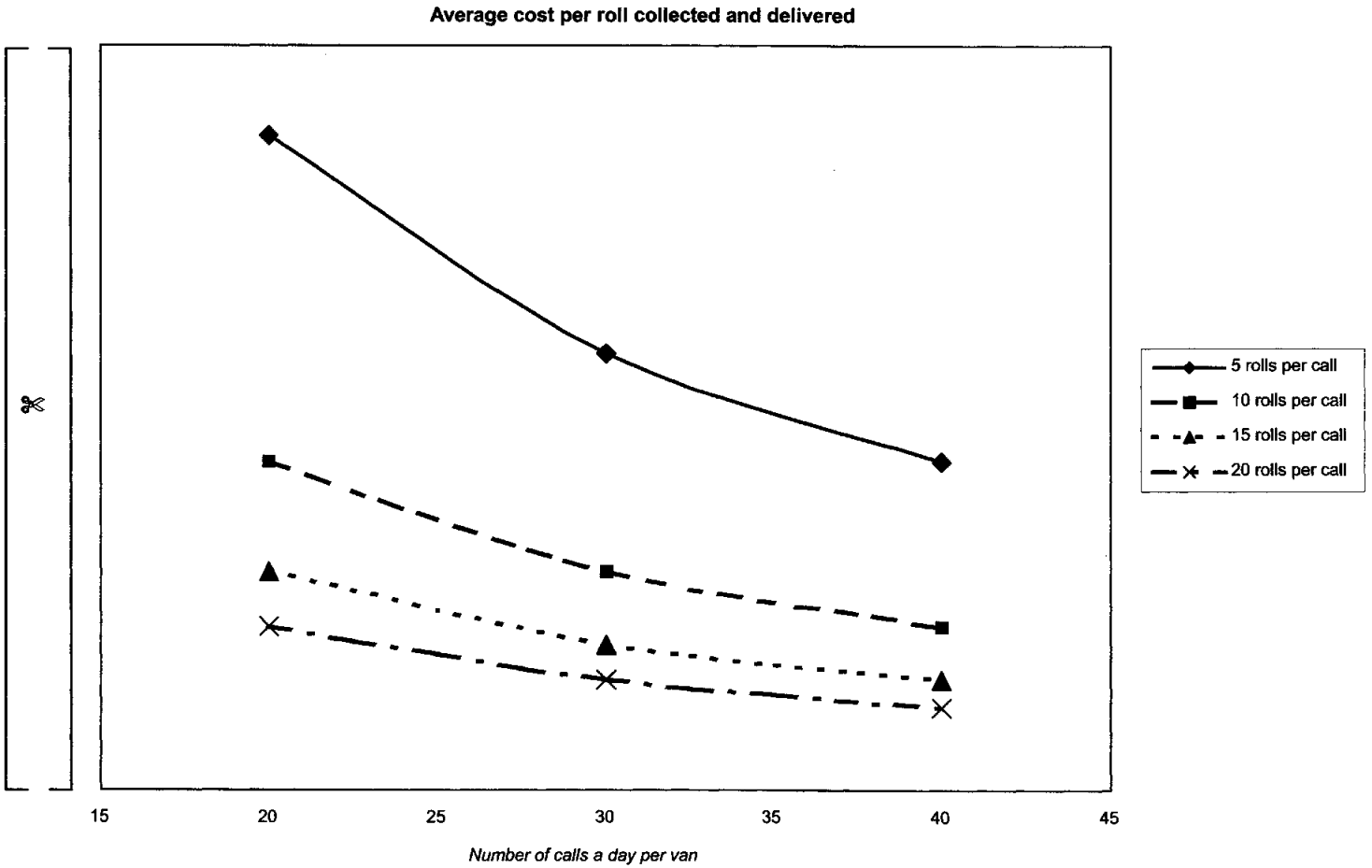
6. The economics of distribution are dictated less by the size of the D&P processing operation than by other factors. Chief among these are the distance travelled and the average daily number of films that can be collected and returned per van. The viability of a distribution network depends, therefore, first on the geographical density and location of retail customers, secondly on the average number of films collected from each retailer and thirdly on whether they require specific collection and delivery times. Average costs do not fall significantly as more vans are added to the network. Most of the distribution savings envisaged by Kodak and ColourCare derive from the increased density of customers the merger would bring (see paragraph 24).

7. The number of calls made a day depends on the location of customers relative to each other and relative to the wholesaler (the former is much more important than the latter). Customers can be a long distance from the laboratory if there are sufficient of them (although there is an absolute constraint caused by the need to collect, process and return films in the available time). The number also depends on traffic conditions and the time spent on each call. If the cost of a van and driver (including salary costs, van leasing, fuel and insurance) is approximately £[✂] a year and there are 240 working days in a year, the daily cost of a van is just under £[✂]. An efficient distribution system in an urban area might enable a van to make 30 calls a day, costing £[✂] per call.

8. The second element of the density effect is the number of rolls collected per call. If, for example, a van made 20 calls a day and collected, on average, 10 rolls per call the average cost per roll would be £[✂]. If 30 calls a day were made and 20 rolls collected per call, distribution costs could theoretically fall to as little as £[✂] per roll. Figure 1 shows the combined effect of these two factors on average distribution costs per roll of film.

FIGURE 1

Effect of collection density on costs per roll collected



Source: CC analysis of data from KPCL.

9. In practice, such low distribution costs are unusual. Competition between wholesale processors makes high call densities difficult to achieve; retailers often insist on receiving their van call between specified times. To cover a large area, some vans have to drive for as long as 2 to 3 hours before starting to make calls. For widely extended distribution networks, a number of larger 'trunker' vans may be used to drive to a distant meeting point (which in extreme cases could be 4 to 6 hours away) before dividing the orders between a number of smaller vans that make the calls.

10. Retail outlets with low D&P requirements in relatively remote areas incur high distribution costs. A processor is likely to review its customer list from time to time to pick out locations where the customer density does not justify the costs of collection.

11. Conversely, regional and local wholesale processors may be able to 'cherry-pick' low-cost areas, such as major conurbations, by targeting customers in those areas. In such cases, KPCL considered that a distribution cost of £[✂] per roll could be achieved. Hence, the largest processors do not necessarily have the lowest distribution costs.

Laboratory catchment areas

12. A balance between processing costs and distribution costs determines both the optimum network of main labs and its distribution system. The parties differed as to how far retailers could be from the lab.

13. Typically, most main labs serve an area with a radius of between 150 and 200 miles. They use a combination of local vans and trunker vans to provide a next-day service and support a small proportion of retail outlets needing two van calls a day.

14. The maximum distance that can be serviced from a wholesale lab is determined by the 'window' for production times required by the lab; the time taken to travel between the lab and the furthest retail outlet; and any requirements of retailers concerning call times. Most wholesale labs require a production 'window' (the time from the first few vans arriving at the lab to the departure back to the retailers of the last few vans) of approximately 10 hours. Work collected from remote areas will, however, often be prioritized on its arrival at the lab, and 'leapfrogged' over work from nearby retailers. For example, in KPCL's Portishead lab, work collected from routes that cover the furthest parts of west Wales must receive priority so that it can be processed in less than 5 hours ready for delivery on time the next morning.

15. Although adding further equipment and more staff could reduce the production window, a balance must be struck between savings in distribution costs and increases in production costs. (The absolute minimum time to process a batch of films through each stage of main-lab processing given unlimited equipment is little more than 2 hours.)

16. If a processor decides to offer only a next-day service, based on one van call a day, the call window can be relatively wide (for example, between 10 am and 4 pm). This permits a single van route to cover a sizeable area efficiently. A true overnight service requires two calls a day (typically 3 pm to 5 pm for the afternoon collection and 9 am to 11 am for the morning delivery). Such services are becoming less common but are still requested by a number of large groups, including Boots and Jessops.

17. The following example shows how a next-day service can be operated at up to a 300-mile radius from a main lab:

10 am—2 pm	Local collections/deliveries to retailers
2.30 pm	Local vans transfer work to a trunker van
2.30 pm—9 pm	Trunker van drives to main lab
9 pm—3 am	6-hour production window in main lab
3 am—9.30 am	Trunker van returns from main lab
9.30 am	Trunker van transfers work to the local vans
10 am—2 pm	Local collections/deliveries to retailers

18. This radius of operation is manageable for limited next-day volumes (for example, to cover a small number of remote stores belonging to a national retailer). It could not viably sustain more than around 20 per cent of a lab's total volume. Beyond that level, it would be more cost-effective to establish an additional small main lab, city lab or wholesale mini lab to serve part of the area.

Ways of extending the area covered

19. The use of extended trunker routes to offer D&P services to remote customers is an effective approach to expanding the area covered by a lab. If sufficient customer support is won in the new area, a new main lab (or a 'city lab', providing a wholesale service by using one or more mini labs) can be built to meet the demand. Alternatively, if unsuccessful, the trunker route can be withdrawn at little cost.

20. There are also some examples of air transport being used regularly to extend the area covered by a main lab to a remote area or to another country.

National coverage

21. A consequence of the limited viable size for a catchment area is that several laboratories are required to enable a wholesaler to provide full national coverage. We were told that it would be possible to cover the whole of Great Britain with three or four laboratories, compared with the seven currently operated by each of Kodak and ColourCare (and around 30 overall).

22. Wholesale processors that wish to service a national retailer have to cover every town and village with one of its stores. They also have to call at even the smallest stores which might average less than two rolls a day. Hence, the large wholesale lab networks may find it difficult to match the distribution efficiencies of local and regional operators.

Economies following the merger

23. KPCL told us that, despite using a specialist distribution subcontractor, route-planning software and distribution coordinators in each lab, it averaged a distribution cost of approximately £[✂] per call. After taking account of the number of rolls collected per call, this equated to an average distribution cost of £[✂] per roll.

24. If the distribution systems of KPCL and ColourCare are combined, the effect in many urban areas, where two vans at present collect from the same streets, will be nearly to double the density of film collection. Given that vans are rarely completely full, existing collection and distribution rounds will be able to handle many more films, greatly reducing the cost per film collected.

25. There will be some places where two calls could be made profitably by a single van, although separate calls by two vans could not previously be justified. ColourCare's in-house system and KPCL's current transport contractors are used only to collect films and deliver prints. [*Details omitted. See note on page iv.*] This would enhance the viability of distribution routes that might otherwise have been marginal, and may enable smaller shops to continue to receive a D&P service.

APPENDIX 3.4
(referred to in paragraphs 2.35, 3.24, 3.32, 3.37, 3.75 and 3.78)

Major participants in the D&P industry

1. This appendix briefly describes major UK processing companies other than KPCL and ColourCare, categorized by wholesaler, mail order, or in-store mini-lab operations, according to the greatest part of their activity. In the case of wholesaling, we distinguish where main labs are used to service tied retail outlets that are owned by the same company. Some participants, however, are active in more than one of these categories, for example Grunwick is primarily a mail-order processor, but also provides wholesale processing and operates some mini-lab-equipped retail outlets, to which it also provides wholesale services.

2. The parties believed that each of the following main-lab wholesalers and mail-order companies processed more than 500,000 films a year (there are also a number of smaller local and regional processors offering wholesale and mail-order services, as well as many mini-lab-equipped retail outlets).

Wholesalers

Colorama Processing Laboratories Ltd

3. This company is primarily a wholesale processor, operating from main labs in London and Manchester. It offers wholesale services over much of the country, mainly serving autonomous retailers and small chains. It also has 41 retail outlets, most of which are equipped with analogue mini labs (hybrid digital processing is offered via its Agfa Dimax-equipped main labs). It also has a very small mail-order business.

TopFoto

4. This company entered the market in 1994 with a new main-lab facility in Liskeard. It has primarily served the South-West but is expanding its coverage and has a few customers much further afield for specialist services using post and courier distribution.

Wembley Photofinishers

5. Wembley Photofinishers is a wholesale photofinisher based in north-west London, serving retailers in the South-East, including a same-day wholesale service in some areas.

Intec Laboratories Limited

6. Intec is based in Manchester, offering a wholesale service to retailers in the Yorkshire/ Lancashire/Merseyside area. It also offers mail-order services to a large range of supermarkets and other stores, associations etc, who use 'own-label' processing envelopes to customers/members.

Maxifoto

7. Maxifoto is a London main-lab wholesaler based in Streatham.

Mirage Foto Labs Ltd

8. Mirage Foto Labs Ltd is a London wholesaler based in Fulham.

H S Baldwin (Stroud) Limited

9. This company offers wholesale processing and has a small retail chain including two mini-lab-equipped outlets. Its primary lab is at Keighley, West Yorkshire, serving the whole group's photo-processing requirements, including customers around West Yorkshire, and parts of Lancashire, Manchester and Leeds. It also has city-lab facilities at Evesham (serving the local area) and Shepton Mallet (serving the West Country south of Bath).

Spectra/Belmont

10. Belmont was a Belfast-based main-lab wholesale operator, which was purchased in 1998 by the Irish processor Spectra. It continues to offer wholesale processing to retailers in Northern Ireland.

Tied wholesalers

Klick Photopoint/Max Spielmann

11. Klick Photopoint/Max Spielmann are the trading names of the Bowie CastleBank Group Ltd. Klick (based in Glasgow) acquired Foto Processing in 1998, and Max Spielmann (whose operations were centred in Liverpool) in June 2001. Both Klick and Max Spielmann operate a network of stores and wholesale processing labs. Klick/Max Spielmann now has 570 shops spread across the UK, of which 190 are equipped with analogue mini labs, and the group has four wholesale labs serving its stores. Its current policy is to offload all overnight or longer processing to its main labs. There is also a small Max Spielmann mail-order business.

Mail order

Grunwick Processing Laboratories Limited

12. Grunwick is primarily a mail-order processor, operating under the Bonusprint, Doubleprint and Tripleprint brands (and some smaller and specialist brands, such as Bonuspool, Bonusfilm and Bonusphoto). It has a small level of mail-order business from the Republic of Ireland and the Netherlands. It also operates 31 mini-lab-equipped Bonusprint shops, mostly in the South-East, and it provides wholesale processing to 65 dealers (mainly independent chemists) under the Fotocolor brand. Additionally, some wholesale business is flown from the Netherlands and shipped back.

Harrier LLC

13. Harrier is owned by District Photo (a US processor), which entered the UK market in 1998 by acquiring the processing business of Nashua, and consolidating operations to Newton Abbott. Harrier operates exclusively by mail order under the Truprint, York and Excel brands.

Guernsey Colour Labs

14. Guernsey Colour Labs offers a UK wholesale and mail-order service from a main lab in Liverpool (it also has a large business based in Guernsey). It covers independent retailers across a large area of the North, and has its own shops around the M63 corridor.

Retailers with mini labs

15. The parties estimated the following retailers as being among the largest for D&P in the UK, where these also have a significant business from in-store mini labs.

The Boots Company PLC

16. Boots has 1,449 stores offering D&P services, of which 550 are equipped with mini labs. It is the largest retailer of D&P in the UK, and much of its business is processed in-store.

Foto Stop Express

17. Foto Stop Express is a chain of franchised mini-lab operators with around 280 mini-lab-equipped stores.

Snappy Snaps

18. Snappy Snaps is a chain of franchised mini-lab operators with around 100 mini-lab-equipped stores.

Tesco

19. Tesco began a major installation programme for mini labs in 1997. It currently has around 223 Gretag optical mini labs installed at its supermarkets.

Minit UK plc/Supasnaps

20. Supasnaps is a large retailer of photoprocessing services. We heard that Supasnaps has increased its number of mini-lab-equipped stores from 50 to 200 in the last two years.

The Jessop Group Limited

21. Jessops is a specialist photographic retailer servicing, inter alia, the keen amateur photographer, and has 207 stores throughout the UK. It currently has 77 stores equipped with digital mini labs, and it intends to continue to expand this number.

Superdrug Stores plc

22. Superdrug has around 700 stores and has recently begun to install optical mini labs, with around 90 currently in place.

Marketing programmes for independent retailers

23. The parties provided the following estimates of the number of independent mini-lab-equipped stores operating under contractual arrangements for use of the large photographic companies' brand names (also referred to as affiliate marketing groups):

Kodak Express	280
Fuji One Hour Imaging Centre	130
Agfa 1-Hour	65

Konica Photo Express also operates a similar scheme with a considerable number of mini labs around the UK.

APPENDIX 3.5
(referred to in paragraphs 3.49, 3.50, 3.90, 5.54, 5.55 and 5.57)

Developing and printing costs

1. To help us understand the competitive dynamics of the changes taking place in D&P, we asked KPCL to provide estimates of the comparative processing costs in main labs and mini labs. We also asked two retailers to provide their estimates of the costs of operating a mini lab. Both KPCL and one of the retailers supplied financial projections to demonstrate the case for a retailer to invest in a mini lab. The costs from the retailers were broadly consistent with KPCL's estimated mini-lab costs. The analysis in this appendix therefore relies on KPCL's cost estimates for main labs and mini labs.

2. KPCL provided unit operating costs for main labs processing 1 and 3 million rolls a year and for a mini lab processing 27,500 rolls of film a year.[1] These are set out in Table 1. These rated capacities are the output that could be achieved by operating the lab intensively, given current methods of working. In each case, higher outputs would be possible if operating hours were to be extended.

TABLE 1 **Estimated unit operating costs of main labs**

pence per order

Type of lab:	*Main lab*	*Main lab*	*Mini lab*
Capacity:	*1m rolls/year*	*3m rolls/year*	*27,500 rolls/year*
Fixed costs			
Site costs			
Depreciation			
Management			
Overheads			
Subtotal			
Variable costs			
Utilities		*Details omitted.*	
Maintenance		*See note on page iv.*	
Direct labour			
Materials			
Subtotal			
Distribution			
Grand total			

Source: CC analysis of cost data from KPCL.

KPCL's estimates of main lab costs

3. KPCL's costs in Table 1 show that there is little overall reduction in unit costs between the small (1 million rolls a year) and large (3 million rolls a year) main labs. The reduction in processing costs before taking account of distribution costs is [✂]p per order processed (about [✂] per cent).[2] As most parts of a main lab include a number of similar pieces of equipment, capacity and costs can be adjusted in line with increases in planned volumes by adding further units of the same types of plant, subject to any constraints caused by the building. Nearly all costs can be varied in this way in less than one year.

4. The depreciation shown in Table 1 was based on equipment costs of £[✂] million, for the 1 million rolls a year lab, which was capable of processing about 500 rolls an hour. The equipment cost for the 3 million rolls a year lab was £[✂] million. It was assumed in both cases that new equipment was used and that it had a life of ten years. These costs do not include any provision for site and building

[1]This example was based on a Noritsu 2711, capable of processing 35 rolls per hour.
[2]KPCL calculated its unit costs on an average 'per order' basis, assuming the normal mix of orders. It told us that the cost of developing and printing a roll of film was less than the unit cost of non-standard orders, such as reprints and enlargements. The cost of developing and printing a film was about [✂]p less than the average cost per order.

costs. KPCL told us that second-hand plant could be used to reduce costs. This would, however, result both in a shorter plant life than assumed in the cost analysis and in technology that was not fully up to date.

5. KPCL told us that the volume of orders determined paper, chemicals and packaging costs. The volume of orders also largely determined labour and utilities costs. Site and equipment costs were, however, determined by the level of installed capacity.

6. KPCL's analysis shows distribution costs rising as the size of the lab increases. The number of labs and the location and density of customers determine distribution costs. In the two cases, it was assumed that the same overall level of demand was supplied by a different number of labs. In the case of the large lab, this resulted in extended collection and delivery journeys and thus increased average distribution costs by [✂]p per order. This diseconomy effectively halved the saving from the economies of scale within the larger lab.

Capacity utilization

7. Operating main-lab equipment as fully as possible is important. If the 1-million-rolls-a-year plant in Table 1 were to operate at 50 per cent of its rated capacity, its unit operating costs would increase by about [✂]p per order, assuming that no savings were made in fixed costs. It is, however, often relatively easy to adjust capacity in line with the level of demand projected for the next year.

8. The rated capacities are based on current operating methods. In theory, however, a lab could be operated for 24 hours a day, seven days a week. On this basis the 1-million-rolls-a-year lab would have a theoretical capacity of about 6.8 million rolls a year. In other words, the current pattern of production enables the lab to be used at only 14 per cent of its theoretical capacity.

9. There are two main reasons for this low level of utilization: the seasonality of demand and the daily production cycle. If the peak day's demand is to be met promptly, wholesalers need to plan their level of capacity to match it. (Although some wholesalers may adopt measures, such as using additional vans and making extra calls on peak days, to enable them to make do with less capacity.) KPCL told us that the planned level of capacity has to be nearly three times the level that would be necessary if daily demand were to be at its average level all year.

10. The daily cycle of collection, processing and delivery dictates a production window of approximately ten hours (see Appendix 3.1). Although some production can take place at other times (for example, for orders not needing next-day delivery), the result is that wholesale main labs are normally fully used for less than half the day.

11. The consequential low level of utilization, compared with the theoretical maximum capacity, makes it impossible for wholesale main labs to achieve the economies of scale that would otherwise be expected.

Mail-order processors

12. Mail-order companies use equipment similar to that needed by a wholesale lab with a capacity of 3 million rolls a year. They are not, however, subject to the same daily production cycle as wholesalers. Mail-order companies can consequently plan for higher utilization levels and it becomes economic for them to invest in automatic handling equipment to link some of the processes together. In some cases, they can use plant for 20 hours a day (compared with ten for a typical wholesaler). In other cases, they choose to operate shorter hours, but then have the advantage of not working unsocial hours that may make it difficult (or more costly) to recruit and retain good staff. The higher plant utilization they achieve enables mail-order companies to make unit cost savings. They also gain from having no distribution costs, other than postage, but incur additional marketing costs, for example in distributing envelopes through the press.

City labs

13. KPCL considered that, for a wholesaler intending to process fewer than 1 million rolls a year, several mini labs would be more cost-effective than a small main lab. The wholesaler could, for example, set up one or more city labs, based on between three and five large minilabs, and processing from 50,000 to 500,000 rolls a year.

KPCL's estimates of mini-lab costs

Unit costs

14. The cost estimates shown in Table 1 for mini labs are based on a medium-sized Noritsu mini lab capable of processing 35 rolls of film an hour. Given the normal pattern of usage, KPCL assesses its annual capacity to be 27,500 rolls. KPCL told us that this size of mini lab was typical of Boots' stores. The estimates in Table 1 show that the average unit cost for the mini lab, at £[✂] per order, is [*Details omitted. See note on page iv.*] the unit cost of the main lab processing 1 million rolls a year. After adjusting this cost on to a comparable basis, we found that it was [✂] to estimates made by Jessops.

Capital costs

15. Mini labs are available 'off the shelf' from a variety of manufacturers (see Appendix 3.2) and there is a market for second-hand equipment. KPCL told us that a second-hand optical mini lab could be purchased for around £10,000 (or £20,000 to £25,000 if APS enabled). The cost of a new digital mini lab ranges from £55,000 to around £150,000, depending on the model and its capabilities (for example, the ability to carry out additional types of processing). The capacity of new digital mini labs is such that most shops would find a small mini lab sufficient for their purposes.

16. We heard that, although mini labs could be leased, they were usually purchased outright. We were also told that some manufacturers, [✂], offered 'bundled' deals whereby the capital cost could be paid in part through higher prices for paper and chemicals, which would have to be purchased from the supplier.

Flexibility

17. As for main labs, most mini-lab costs can be varied in less than one year. If a retailer finds that the capacity of its mini lab is insufficient, some suppliers are prepared to trade-in machines for larger models. A branch of a multiple store also has the option of arranging with another branch to move orders between the branches for processing. Some retailers are, however, reluctant to allow their branches to do this.

Utilization

18. Like main labs, mini labs are affected by seasonal demand. The capacity a mini lab operator needs is driven by the peak demand for its 1-hour service (or that part of it that it intends to meet). Some retailers may choose to have a lower level of capacity and suspend their 1-hour service at a few peak periods. Since few retailers operate their mini labs outside shop opening hours, most mini labs are unused for a large proportion of the day. The combined effect of seasonal demand and limited operating hours may result in an equipment utilization level of only about 10 per cent. A substantial level of capacity could therefore be brought into use if retailers decided to operate their mini labs for longer hours.

Decisions to be made by retailers

19. Table 1 shows that the unit operating costs of the 1 million rolls a year main lab are about [✂]p per order [✂] those of the mini lab, after allowing for distribution costs. This comparison would

be important to a company, such as Klick/Max Spielmann, that operates both types of equipment. Based on these costs, it would be likely to [*Details omitted. See note on page iv.*], when there was a choice of using capacity either in mini labs or main labs. Other retailers are, however, in a different position.

Whether to invest in a mini lab

20. In making the decision to invest in a mini lab, most retailers are effectively comparing the projected cash flows from operating a new mini lab with those from the alternative of sending films to a wholesaler for processing. They are therefore interested in comparing the costs of operating a mini lab with the prices charged by wholesalers. In addition, they would also take account of capital costs and any extra revenue that could be generated by a mini lab, either through higher prices or increased sales volumes.

21. First, we can compare mini-lab costs with wholesale prices. Table 1 shows that the total operating costs of the mini lab are £[✂] per order. The range of wholesale prices on an average per order basis depends on the mix of orders. For an assumed typical mix of orders, KPCL estimated its prices to be between £[✂] and £[✂] per order for a small retailer and between £[✂] and £[✂] per order for a large retailer. (In both cases the price depends principally on the average order size and distribution costs.) [*Details omitted. See note on page iv.*] To carry out a more thorough assessment of the case, a discounted cash flow (DCF) analysis is necessary.

22. KPCL prepared two sets of DCF projections. These demonstrated a retailer's financial case for investing in a new digital mini lab. In both cases, KPCL made a number of plausible assumptions, most notably that the retailer would be able to gain a reasonable proportion of premium-priced business. It assumed that the retailer could obtain a mix of business that included 25 per cent of orders for a 1-hour service (at prices generally £2 above next-day levels) and 25 per cent of orders for a same-day service (at prices generally £1 above next-day levels). These premium prices would not be available to the retailer in the alternative 'base case', where it relied on a wholesaler for its processing and could not offer such rapid services. The overall effect is a weighted average price premium of £0.75 per order compared with the base case. In addition, the retailer with a mini lab would be expected to achieve an improved mix of business, for example more reprints, enlargements and APS film. This would further raise the average revenue per order to a level £[✂] higher than in the case of a similar retailer without a mini lab.

Financial case for a small shop to invest

23. The first example was a small shop considering investing in a small new digital mini lab. KPCL assumed that this equipment would cost £55,000 and would be able to process 17 rolls of film an hour. On this basis, the DCF projections showed that the retailer could justify the investment, if it was able to achieve sales of 8,000 orders a year.

Financial case for a branch of a multiple to invest

24. KPCL's other DCF projection demonstrated that a branch of a multiple store could justify investing £70,000 in a new digital mini lab with an output of 35 rolls an hour (similar to the mini lab costed in Table 1) if it could achieve annual sales of 10,000 orders.

25. Jessops also provided us with DCF projections that demonstrated the case for a new store to have a mini lab. It commented that the long-run profitability of mini labs, compared with sending films to a wholesaler, was dependent on the price premium for rapid services.

Increased sales

26. Many retailers contemplating investing in mini labs anticipate other advantages. Jessops supplied us with DCF projections for the same new store with and without a mini lab. The most notable feature of these projections was the increased sales level attributed to the presence of an in-house mini lab. Jessops estimated that, in its first two years, the D&P revenue for a new store with a mini lab could exceed that for a new store without a mini lab by a factor of 2.8 times.

Opportunity cost of space

27. In addition to justifying its capital cost, a new mini lab that occupies valuable retail space needs to generate a return greater than that achieved by the products it displaces. This leads some retailers to place mini labs in 'back stage' locations, despite the marketing advantages of a more prominent site.

Whether to offload next-day orders to a wholesaler

28. Where a retailer already has a mini lab, it will normally (subject to maintenance and break-downs) use its own mini lab for services such as 1-hour and same-day processing that wholesalers cannot normally provide. If spare capacity remains after processing these orders, it needs to decide whether it should use this to process orders for next-day-and-longer, services or send them to a wholesaler. To make this decision, it needs to compare the mini lab's marginal costs with wholesale prices for a next-day service.

29. KPCL estimated these marginal costs to be between £[✂] and £[✂] per order for a small mini lab and between £[✂] and £[✂] per order for a large mini lab. As shown in paragraph 21, KPCL's estimated average wholesale prices per order range from £[✂] to £[✂], depending on the particular circumstances. It should therefore usually be advantageous for a shop with a mini lab to process next-day orders in-house, particularly if it has a large mini lab.

30. Jessops told us that its cost estimates confirmed this. It added that, as the variable costs of using a mini lab were below the cost of using wholesale processing, operators would seek to use mini labs up to full capacity.

Summary

31. The crucial factors for retailers considering investing in mini labs thus include the marketing advantages both in terms of higher selling prices for premium services and in terms of increased sales volumes. The presence of these factors is likely to outweigh any small disadvantage in terms of the comparison between the mini labs' unit processing costs and the wholesale price. After taking account of them, many retailers are likely to find the investment in a mini lab attractive. As more mini labs are installed, the 1-hour price premium is, however, likely to be eroded. The potential for new mini labs to attract premium-priced orders and increased sales volumes is also likely to be diluted.

APPENDIX 3.6
(referred to in paragraphs 3.49, 3.75 and 6.68)

CC summary of a nationwide audit of D&P outlets commissioned by KPCL from ESA

1. KPCL commissioned a nationwide retail audit from ESA (an external research agency) to demonstrate that a large number of households in the UK have access to D&P outlets. The survey covered more than 19,500 outlets. Using desk-based telephone research, ESA collected the outlet's name and address, services offered, and the name of the D&P wholesale provider. KPCL estimated that the audit identified around 90 per cent of all UK D&P outlets. The main conclusions that KPCL drew from the survey are set out below.

2. KPCL concluded that almost all households (99 per cent) are within an 8 km radius of a D&P outlet and 97 per cent are within 8 km of two or more outlets.

3. KPCL assumed that if an outlet offered a 1-hour service it had a mini lab and thereby estimated that 16 per cent of D&P outlets, that is some 3,100 shops, had mini labs. It estimated that 91 per cent of households are within 8 km of a 1-hour processing outlet and 85 per cent are within 8 km of two or more of these outlets.

4. KPCL classified shops as 'non-KPCL/ColourCare outlets' if the shop either used a wholesale provider other than KPCL or ColourCare, or provided on-site processing through a mini lab, or both. KPCL suggested that these shops would be substantially unaffected by the proposed merger. The ESA audit found that 96 per cent of households were within 8 km of one of these 'non-KPCL/ColourCare outlets' and 92 per cent of households were within 8 km of two or more such outlets.

5. Finally, KPCL concluded that the ESA audit demonstrated that UK consumers have access to a large number of D&P outlets.

APPENDIX 3.7
(referred to in paragraph 3.85)

Hedonic analysis of retail prices

1. We considered the retail price for the provision of D&P services. We were interested in gaining an understanding of what drove variation in retail prices.

2. Retail prices for all services have fallen steadily over the past 15 years (in real terms). Also, the cost of 1-hour services have declined relative to the other options (see Figure 3.5).

3. KPCL told us that at the retail level the main drivers of price were the speed of service, the convenience and ambience of the retail outlet and the trustworthiness of the retailer. Our consumer survey (see Appendix 5.1) indicated that convenience, price and speed of service were the main reasons for choosing a particular service. For mail order services, KPCL told us that the main drivers of price were speed, special offers (free film, extra sets) and the size of the pictures. Our survey suggested that lack of trust in services, inconvenience and speed were the main reasons not to use mail order.

4. We noted that competition between retailers is not on price alone: there are many promotional and supplementary offers as well.

5. We undertook an investigation of the range of services and prices on offer at various retail outlets in order to ascertain whether there is a trade-off between speed of service and price. We examined whether price differentials could be explained by the difference in speed of service, and other factors listed above.

6. We contacted mail-order processors and collected current order envelopes for 20 different brands. We noted that there were many special offers, but we considered only the regular price. We also conducted a survey of prices in 26 retail outlets in central and outer London.

7. Boots, Superdrug and W H Smith told us that they had national prices; so we only recorded their price once. Some other chains told us that their prices varied between stores, and so we may have many prices for different retail outlets.

8. We found a wide variation in prices, ranging from £11.99 for a 1-hour service developing an APS film to £2.99 for developing a 24-exposure 35mm film using a next-day service providing 102mm x 152mm (4 x 6 inch) prints. Even within a particular service, we saw wide price variation. For example, for a same-day service developing a 24-exposure 35mm film providing 102mm x 152mm prints we saw prices varying from £3.49 to £7.99.

9. Prices also varied widely in a number of other dimensions, for example depending on the size of prints.

10. We focused on prices from 32 establishments (retail and mail order) for developing 24-exposure 35mm and APS film for a 1-hour, same-day, next-day-and-longer service, where they were offered. This gave us 115 prices—65 for 35mm and 51 for APS.

11. We were interested in seeing whether the price differentials could be explained by obvious differences in the quality of the service. To do this we used what is known as hedonic price analysis. This is a method used to compare prices of a product when there are quality differences in the product sold. Hedonic analysis allows us to 'explain' as much price variation as we can using observable quality differences and then analyse the remaining price variation that is left 'unexplained'. It also allows us to estimate the price premium that consumers pay for specific quality differences.

12. We began by looking at how much of the observed price variation could be explained by differences in the speed of service. We did this by running a regression of the log of the price on the length of service. We ran a regression with 115 data points each representing a unique retail

establishment length of service combination.[1] From this regression we obtain two useful pieces of information. First, the estimated coefficients on the different lengths of service[2] indicate the differential in price, that is, they tell us how much less consumers pay for slower services. Second, the R-squared parameter of the regression is a measure of the amount of the variation in price that is explained by the length of service.

13. The coefficients indicated that consumers paid around 25 per cent less for same-day service than for 1-hour, around 43 per cent less for next-day (than for 1-hour) and 55 per cent less for longer (than for 1-hour). For APS there was no statistically significant difference between 1-hour and same-day. Next-day was around 23 per cent lower and longer was 37 per cent lower. These were all statistically significant.

14. The R-squared parameter indicated that the speed of service alone accounted for around 43 per cent of the price variation for 35mm film and 50 per cent for APS. Thus, the picture that we have been given of consumers making a trade-off between price and speed of service is confirmed.

15. The other main factors that KPCL said determined retail prices were the convenience and ambience of the retail outlet and the trustworthiness of the retailer. Unfortunately, some of these features are unmeasurable.

16. We did collect information about whether the store had an in-store mini lab. Using the hedonic approach described above, we find that stores with mini labs charged around 22 per cent higher prices for 35mm film (for longer than 1-hour services, and after accounting for differences in the speed of service). The total variation in prices explained after accounting for speed of service and whether the store had a mini lab, as measured by the R-squared, was 52 per cent for 35mm.

17. Accounting for the location of the shop, whether, for example, it was in central or outer London, as well as the length of service and whether the store had a mini lab, meant that nearly 70 per cent of the price variation was explained.

18. The rest was explained by controlling for ownership (ie a dummy variable for each retailer). The price differences across retailers could be interpreted in several ways. It could be that this reflected differences in the retail ambience, quality of service, trustworthiness and other factors that are difficult for us to measure, but for which consumers may be willing to pay a price premium. It could also reflect market power and the differential ability for firms to charge higher margins. We are not able to distinguish between these two interpretations with the data that we have.

[1]This was of the form $\ln P_{(it)} = a + b_{(t)} + e_{(it)}$ and was estimated by ordinary least squares.
[2]We included a dummy variable—same-day, next-day-and-longer—using 1-hour as the reference group.

APPENDIX 4.1
(referred to in paragraph 4.24)

KPCL: balance sheets, 1996 to 2000

£'000

	Years ended 31 December				
	1996	*1997*	*1998*	*1999*	*2000*
Fixed assets	11,694	10,940	14,628	15,055	14,843
Fixed asset investments	5,024	5,050	5,050	5,050	5,050
Total	16,718	15,990	19,678	20,105	19,893
Current assets:					
Stocks	1,629	2,007	1,389	1,897	1,389
Debtors	7,589	9,444	9,825	5,754	2,252
Cash	18	25	12	9	18
Total current assets	9,236	11,476	11,226	7,660	3,659
Current liabilities:					
Trade creditors	–1,769	–2,384	–1,389	–926	–1,380
Parent company	–31,500	–26,911	–35,264	–27,573	–17,016
Other	–9,841	–11,550	–1,133	–2,571	–2,962
Total current liabilities	–43,110	–40,845	–37,786	–31,070	–21,358
Net current assets/liabilities	–33,874	–29,369	–26,560	–23,410	–17,699
Provisions for liabilities and charges	-	-	-	–262	–730
Net assets/liabilities	–17,156	–13,379	–6,882	–3,567	1,464
Share capital and reserves:					
Called-up share capital	100	100	100	100	100
Profit and loss account	–17,256	–13,479	–6,982	–3,667	1,364
Equity shareholders' funds	–17,156	–13,379	–6,882	–3,567	1,464

Source: KPCL.

APPENDIX 4.2
(referred to in paragraphs 4.31 to 4.33)

Colourcare: summaries from management accounts

TABLE 1 **ColourCare: sales order volumes from management profit and loss accounts, [*Details omitted. See note on page iv.*]**

Years ending 31 March

Sales core business:	
Orders:	
Rolls of film	*Figures omitted.*
Other: extra sets, enlargements	*See note on page iv.*
Volume—orders	
Average sales price	

£'000

Sales value of core business	
Other business	
Turnover	*Figures omitted.*
Promotion and sundry	*See note on page iv.*

Source: ColourCare.

TABLE 2 **ColourCare sales order analysis by product, [✂]**

'000 units of film

Years ending 31 March

Developing & printing:	
4" D&P	
5" D&P	
6" D&P & other	
Film to CD	*Figures omitted.*
APS D&P	*See note on page iv.*
Multisets	
Total film	
Extra sets	
Reprints and enlargements	
Contract E6	
Other ancillary	

Source: ColourCare.

TABLE 3 **Colourcare sales analysis by customer**

£'000

Details omitted.
See note on page iv.

Source: ColourCare.

TABLE 4 **ColourCare: estimate of debt service cost assuming interest base rate of 5 per cent and continuing operations**

£'000

		Years ending 31 March					
	Loan principal	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*
Total debt repayments*			–2,000	–2,000	–3,000	–3,500	–3,750	–9,500
Interest:								
Banks	–16,250							
Banks	–2,000							
Loan note	–5,500							
Subordinated debt†	–11,400							
Total interest								
Total repayment plus interest								

Figures omitted.
See note on page iv.

Source: ColourCare.

*We have been informed that repayments have been revised downwards by approximately 4 per cent.
†The subordinated debt was converted to preference share capital from 1 April 2000.

APPENDIX 4.3
(referred to in paragraphs 2.115, 4.33 and 4.40)

ColourCare: loans and loan covenants

TABLE 1 **Loans to fund the management buyout**

£'000

Lender	*Amount*	*Repayment terms*		
		Year of repayment		*Interest rate**
Bank of Scotland	18,250	2001	2,000	2.125% over LIBOR
		2002	2,000	
		2003	3,000	
		2004	3,500	
		2005	3,750	
		2006	2,000	
		2006	2,000	4% over LIBOR
Vendors	5,500	2006	5,500	16%
Venture capital company†	11,400	2006–2011	1,900	8.365%

Source: ColourCare.

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*[*Details omitted. See note on page iv.*]

†[*Details omitted. See note on page iv.*]

TABLE 2 **Covenants in loan agreements**

Ratios unless stated otherwise

	Bank of Scotland				*Gresham*	
	*Senior debt interest cover**	*Debt service cover†*	*Debt & equity service cover‡*	*Adjusted net worth§ £'000*	*Senior debt interest cover¶¤*	*Debt service cover¤#*
June 2000:						
Actual						
Target						
Result						
September 2000:						
Actual						
Target						
Result						
December 2000:						
Actual						
Target			*Details omitted. See note on page iv.*			
Result						
March 2001:						
Actual						
Target						
Result						
March 2002:						
Budget						
Target						
Result						

Source: ColourCare.

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*Profit before interest and taxation divided by the interest on the Bank of Scotland debt.

†Cash flow after capital expenditure divided by the total of bank loan interest and bank principal repaid.

‡Cash flow after capital expenditure divided by the total of interest and principal repaid to all lenders and preference share dividends.

§Net assets of the company adjusted to reflect the position of the bank as a secured creditor.

¶Profit before interest and taxation divided by the interest on the Bank of Scotland debt.

¤[*Details omitted. See note on page iv.*]

#Cash flow after capital expenditure divided by the total of bank loan interest and bank principal repaid.

[*Details omitted. See note on page iv.*]

APPENDIX 5.1
(referred to in paragraph 2.78, 2.93, 3.54, 5.21, 5.29, 5.66, 5.67, 6.40, 6.66, and 6.94)

Survey of consumers' attitudes to film developing and printing services

1. The CC arranged for BMRB International Limited (BMRB) to conduct a questionnaire survey in order to understand the behaviour of consumers of D&P services. The main objective of the questionnaire was to identify the likely behaviour of consumers in response to an increase in the price of next-day-to-within-a-week D&P. The questionnaire also gathered information on attitudes towards and use of D&P services.

2. We commissioned BMRB to include a set of questions within their ACCESS Omnibus survey conducted between 13 and 19 September 2001. A representative group of 2,198 adults, aged 15 or older, were interviewed face to face in homes across Great Britain. Approximately 40 per cent of those interviewed said that they had used a next day to a week service for developing and printing either 35mm (135 size) or APS colour-negative roll film in the past year. These are the main types of film that are processed by wholesale photofinishing laboratories. We separately identified users of 35mm film and users of APS film because they faced different prices for D&P services.

Survey method

3. The sampling methodology was a controlled form of random location sampling using national census Enumeration Districts (EDs). Each ED contains about 150 households and every private household in Great Britain is included, whether or not anyone living there is on the electoral register. All 150,000 EDs were in the sampling frame, which was stratified in three levels:

(a) by standard region;

(b) within region, by ITV area; and

(c) within *(a)* and *(b)* by ascending order of ACORN neighbourhood type, which is a geodemographic classification.

The probability that any individual would be randomly selected as a respondent was proportional to the stratified population.

4. BMRB weighted the frequencies of responses to ensure that the demographic profile matched that for all adults in Great Britain aged 15 or older. A rim weighting technique was used in which target profiles were set for the five demographic variables of sex, age, social grade and standard region. A weight was given to each individual and the overall results were then balanced to the target demographic profile.

5. The questions are listed in Table 1 and the answers are summarized below. There then follows an analysis of the key results on switching behaviour.

TABLE 1 **The questions used in the consumer survey**

Q1.	What is the main type of film you have used in the last 12 months?	Base: All adults 15+
Q2.	What do you do when you want a film developed and printed?	Base: All who used APS or 35 millimetre/ 135 size colour-negative film.
Q3.	In the last 12 months, roughly how many films have you had developed and printed where you collected them in the next day to a week?	Base: All who took their film to a shop for a next day service, or a 3 day service, or a 6 day service.
Q4.	Why did you use next day to a week film processing rather than a same-day or a mail-order service?	Base: All who use next day to a week film processing and who developed and printed at least one film.
Q5.	Here are some typical current prices for the various ways of processing a 25-exposure APS film. If these prices were to apply everywhere in the country, which service would you normally choose?	Base: All who use APS colour negative film, next day to a week film processing and developed and printed at least one film.
Q6.	If the prices of the next day, 3 day and 6 day services were to increase by 76 pence, but the prices of same day and mail order remained the same, which would you choose?	Base: All who chose next-day, 3-day or 6-day D&P at Q5.
Q7.	If there was a further price increase of 74 pence for the next day, 3 day and 6 day services, but the prices of the same day and mail order STILL remained the same which would you NOW choose?	Base: All who chose next-day, 3-day or 6-day D&P at Q6.
Q8.	Here are some typical current prices for the various ways of processing a regular 24 exposure colour film. If these prices were to apply everywhere in the country, which service would you normally choose?	Base: All who use 35 mm colour negative film, next day to a week film processing and developed and printed at least one film.
Q9.	If the prices of the next day, 3 day and 6 day services were to increase by 50 pence, but the prices of same day and mail order remained the same, which would you choose?	Base: All who chose next-day, 3-day or 6-day D&P at Q8.
Q10.	If there was a further price increase of 50 pence for the next day, 3 day and 6 day services, but the prices of the same day and mail order STILL remained the same which would you NOW choose?	Base: All who chose next-day, 3-day or 6-day D&P at Q9.
Q11.	When asked what you would do if there were a price rise in some services, you did not choose mail order film processing as an alternative. Why was that?	Base: All who did not choose mail-order D&P at Q7 or Q10.

Main type of film used (Q1)

6. When people were asked about the main type of film they had used in the previous 12 months, 70 per cent of respondents had used some form of colour-negative roll film. When we analysed the responses across demographic groups we found that a relatively higher proportion of those around 40 years old had used 35mm film and relatively higher proportions of those around 20 and 30 years of age and in the AB social grade had used APS film. Those aged 65 or above were relatively least likely to have used APS and one in two had not used any type of film in the past year. Similarly, more than half of those in social grade E had not used any film in the last 12 months. Users of digital cameras tended to be men and were relatively more likely to be in the AB social grade. People around 20 years old were relatively higher users of single-use cameras.

TABLE 2 **The main types of film used in the previous 12 months**

per cent responding

		Sex		Age			Social grade*		
	All	*Men*	*Women*	*15-24*	*25-64*	*65+*	*AB*	*C1C2D*	*E*
35mm colour film	54	53	55	40	60	43	60	55	39
APS colour film	11	10	12	16	12	4	15	11	4
Single-use camera	9	7	10	19	8	2	11	9	4
Digital camera	8	12	4	11	9	2	13	7	1
Other	2	3	2	2	3	1	2	2	1
Not used any	24	26	23	20	18	50	12	24	53
Don't know	0	0	1	0	0	0	1	0	0

Source: BMRB International ACCESS Survey, September 2001.

*Social Grade is defined by the occupation of the head of household, according to the Institute of Practitioners in Advertising (IPA) classification:

A Higher managerial, administrative or professional
B Intermediate managerial, administrative or professional
C1 Supervisory or clerical, and junior managerial, administrative or professional
C2 Skilled manual workers
D Semi and unskilled workers
E State pensioners or widows (no other earners), casual or lowest grade workers, or long-term unemployed

7. Table 2 shows the percentages of different demographic groups using different types of film. Table 2 also shows that the most popular type of colour-negative film was 35mm used by 54 per cent of all respondents, followed by APS at 11 per cent and single-use cameras at 9 per cent.

8. Although these survey questions were not designed to estimate market share, it might be thought that the proportions of users should be indicative of relative market sizes. The results do agree broadly with market research estimates of relative market shares.[1]

Film processing method (Q2)

9. Users of APS and 35mm film were asked what they would do when they wanted a film developed. Based on their responses, the most popular film processing choice is a three-day service, followed by a next-day service and a 1-hour to same-day service. One-fifth use mail order. When we analysed the responses across demographic groups we found that fast, 1-hour to same-day services attract a relatively higher proportion of young adults (15–24), who are least likely to use mail-order D&P. In contrast, people who are 65 or older are relatively least likely to use a fast D&P service. Relative to other social grades, people in social grade C1 show the highest preference for mail order and AB users are least likely to opt for a six-day service. Table 3 shows the D&P choices made by users of 35mm and APS film according to demographic group.

TABLE 3 **Types of film processing chosen by 35mm and APS users**

per cent responding

		Sex		Age			Social grade		
	All	*Men*	*Women*	*15-24*	*25-64*	*65+*	*AB*	*C1*	*C2DE*
1 hour to same day	25	27	23	39	24	16	28	22	24
Next-day service	28	27	29	29	29	23	31	23	29
Three-day service	30	31	29	29	29	33	29	30	30
Six-day service	9	8	9	6	8	11	5	10	10
Mail order	21	20	22	12	22	23	21	26	19
Other process	2	2	2	0	2	2	2	2	1
Don't know	0	0	0	1	0	0	0	0	0

Source: BMRB International ACCESS Survey, September 2001.

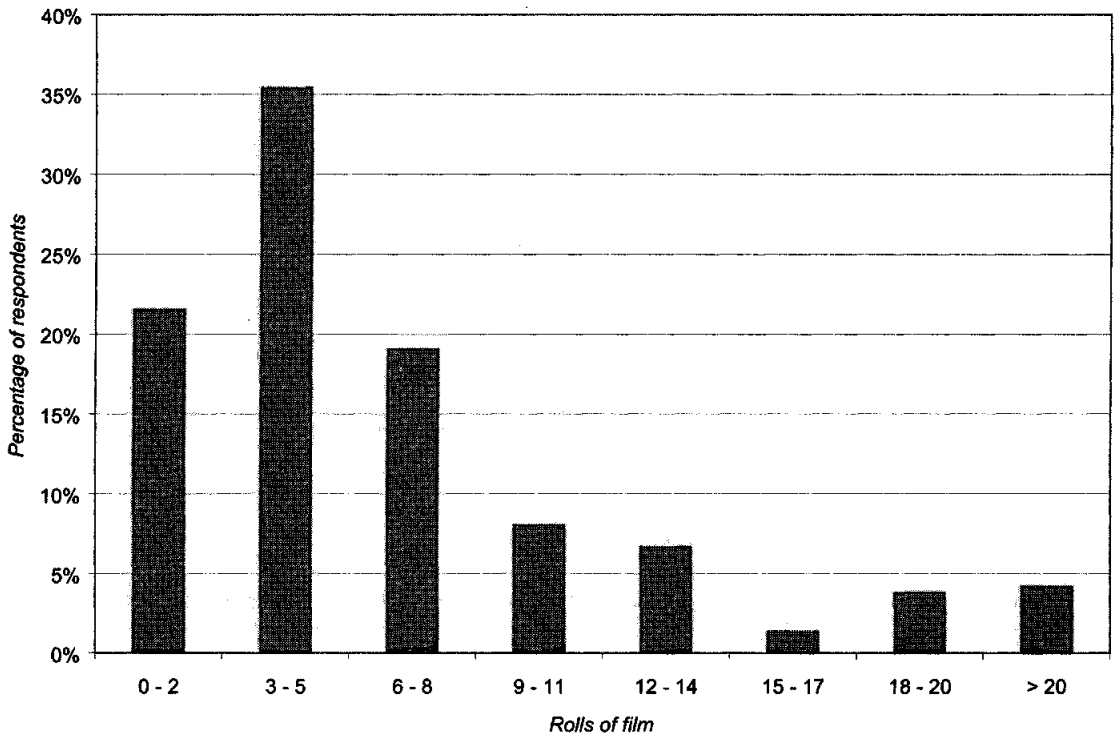
[1]In terms of the responses relating only to colour-negative roll film, 35mm (135 size) accounted for 73 per cent of these responses, APS was 15 per cent and single-use cameras were 12 per cent. These figures broadly agree with the ranking in the Robinson Report for the different types of roll film processed in Western Europe in 2000. The report suggested that APS film was 16 to 17 per cent of the total roll film processed in the UK.

Number of films processed (Q3)

10. The adopters of next-day-to-a-week services for processing APS and 35mm colour film reported a wide range of annual use, with a few people processing over 50 films in the last 12 months. As Figure 1 shows, the most likely number of films processed by a typical member of the public who uses next-day-to-a-week D&P is about four in a year and more than half of those respondents who could estimate their level of use developed five or fewer films.

FIGURE 1

Numbers of 35mm and APS colour films processed in previous 12 months using next-day-to-a-week services



Source: BMRB survey, September 2001.

11. Table 4 gives median values for the rolls of film processed by different groups of users. The table shows that older people tend to process less film, and C2DE users process less film than AB users. Also, APS users tend to process more films than 35mm users.

TABLE 4 **Rolls of film processed by 35mm and APS users**

		Median number of rolls processed in previous 12 months
	All	5
Sex	Men	5
	Women	4
Age	15-24	5
	25-44	6
	45-54	5
	55-64	4
	65+	3
Social grade	AB	6
	C1	5
	C2DE	4
Film type	35mm	4
	APS	6

Source: BMRB International ACCESS Survey, September 2001.

Reasons for using next-day-to-a-week D&P (Q4)

12. Table 5 lists the reasons given for choosing next-day-to-a-week D&P by men and women and by different age groups. Only users of 35mm or APS film who used this type of service were asked this question. In rank order, the main reasons are; convenient location of shop; relative cheapness; speed of getting films back, value for money. Two of the main reasons—cheapness and value for money—relate to the price of the service. Other reasons, such as quality or trust, are less important for most people. When we analysed the responses across age groups we found that cheapness is relatively more important to those under 35, whereas those aged around 40 are relatively less likely to mention value for money as a factor in their choice of this type of service.

TABLE 5 **Reasons to choose next-day-to-a-week D&P for 35mm or APS film**

per cent responding

		Sex		*Age*					
	All	*Men*	*Women*	*15-24*	*25-34*	*35-44*	*45-54*	*55-64*	*65+*
Convenient location	39	38	39	27	30	44	44	42	46
Cheaper than alternatives	31	29	32	43	39	29	23	26	23
Speed to get photos back	17	14	18	23	19	18	18	8	12
Good value for money	15	15	15	14	17	9	20	10	21
Quality of prints	9	9	10	9	4	10	12	16	7
Trusts supplier	7	5	9	6	7	8	4	9	8
Shop only has this service	5	4	5	4	4	6	3	6	8
Other reason	17	17	17	13	19	16	18	15	21
Don't know	1	1	1	0	0	1	1	3	0

Source: BMRB International ACCESS Survey, September 2001.

Reasons for not choosing mail-order D&P (Q11)

13. As will be explained below, interviewees who were users of next-day-to-a-week D&P were asked if they would switch to different D&P service offerings, including same-day and mail order, if their existing service were to increase in price. Those who did not choose mail-order D&P were asked for their reasons. Table 6 shows that the main reasons are: lack of trust; posting is inconvenient; it is slow to get the films back.

TABLE 6 **Reasons for not choosing mail-order D&P**

	% responding
Don't trust mail order/could lose film	43
Post inconvenient/shop convenient	28
Slow getting photos back/takes too long	22
Poor quality of prints	9
Dislike form-filling	5
Poor value for money	3
Don't know	3
Other	11

Source: BMRB International ACCESS Survey, September 2001.

Switching behaviour of 35mm film users (Q8-10)

14. Users of 35mm film who typically used next-day-to-a-week D&P were shown a set of baseline prices for different D&P services, including same-day and mail order. They were asked to say which service they would choose at these prices. 5 per cent said that they would use either a same-day or mail-order service if the baseline prices were to apply. Those who selected a next-day-to-a-week service were

then asked what they would do if these services were to increase in price by about 10 per cent while the same-day and mail-order services were kept at the same price. The possibilities were that they could choose from among the one-, three- or six-day services which had increased in price, or switch to either the same-day or mail-order services, which had not changed price.

TABLE 7 **Switching of 35mm film users after 10 per cent price rise**

			*Type of service and baseline price**		
			Next day	*3 day*	*6 day*
		All	£4.99	£3.99	£2.99
			Count of responses		
Unweighted base		667	195	309	163
Weighted base		666	191	313	162
Service	*New price†*		*Per cent of responses*		
Same-day	£6.49	5	13	2	1
Next-day	£5.49	**17**	**50**	4	3
Three-day	£4.49	**44**	28	**72**	8
Six-day	£3.49	**22**	2	13	**63**
Mail order	£3.25	11	5	9	24
Don't know		1	2	0	2
Same-day or mail order		16	18	11	25

Source: BMRB International ACCESS Survey, September 2001.

*Baseline prices, except for mail order, were the prices of a national retail chain at the time of the survey. Mail-order prices were obtained from envelopes of a major mail-order D&P provider at the time of the survey and are inclusive of post. Prices are for 152mm x 102mm (6 inch x 4 inch) prints from a 135/24 colour film.

†Same-day and mail-order prices remain at their baseline values.

Base: 35mm users who chose within-a-week D&P at baseline prices.

Note: Figures in bold type show the percentages remaining in the one-day, three-day and six-day services after the price rise.

15. Table 7 shows the baseline prices for next-day, three- and six-day services and the numbers of people initially choosing these services (ie the count of responses). The table also shows how BMRB weighted the responses to make them representative of the British population. Using the weighted responses, the table gives the percentages of people who selected either a same-day, next-day, three-day, six-day or mail-order service under the new price regime. The new prices are about 10 per cent higher for next-day, three-day and six-day services but the baseline prices are retained for same-day and mail order. The last row in the table shows that 16 per cent say they would switch into mail-order or same-day D&P. It appears that 50 per cent of people who first choose a next-day service then move to an alternative, such that 13 per cent switch to a more expensive, same-day service and the rest switch to a cheaper, slower service. Almost three-quarters of those who first choose a three-day service stay with their choice, as do two-thirds of those who choose a six-day service. Almost one-quarter of the latter group said they would switch to a mail-order service.

16. The people who did not switch to a same-day or mail-order service were asked what they would do if there were another 10 per cent price rise in the next-day, three-and six-day services, again leaving the same-day and mail-order prices unchanged. As shown in Table 8, 13 per cent said that they would now switch either to a same-day or to a mail-order service. The pattern of switching is different from that in Table 7. Although similar percentages switch out of the three-day service, there is less switching from next-day into same-day and less inclination to switch from six-day to mail-order.

TABLE 8 **Switching of 35mm film users after second 10 per cent price rise**

		Type of service and baseline price			
		Next-day	*3-day*	*6-day*	
	All	£5.49	£4.49	£3.49	
		Count of responses			
Unweighted base		550	115	283	152
Weighted base		551	113	290	148
Service	*New price**	*Per cent of responses*			
Same-day	£6.49	3	8	2	2
Next-day	£5.99	**15**	**59**	5	0
Three-day	£4.99	**40**	21	**67**	2
Six-day	£3.99	**30**	4	15	**78**
Mail order	£3.25	10	5	9	16
Don't know		2	3	2	2
Same-day or mail-order		13	13	11	18

Source: BMRB International ACCESS Survey, September 2001.

*Same-day and mail-order prices remain at their baseline values.
Base: 35mm users choosing within-a-week D&P at baseline prices + 10 per cent.
Note: Figures in bold type show the percentages remaining in the one-day, three-day and six-day services after the price rise.

17. Table 9 summarizes the results of the responses of 35mm film users to successive hypothetical price rises of 10 per cent in the next-day, three- and six-day D&P services, with other prices remaining fixed. Initially, 5 per cent of respondents revised their normal choices when presented with comparative baseline prices and opted for same-day or mail-order D&P. 16 per cent of those choosing within-a-week D&P switched to same-day or mail-order D&P after the first price rise, and a further 13 per cent switched when presented with a second price rise.

TABLE 9 **Switching of 35mm film users after successive 10 per cent price rises**

	Count of respondents selecting (ii) to (iv) on previous occasion		
Unweighted base	714	667	550
Weighted base	716	666	551

*Per cent of respondents selecting D&P service at price shown**

	Baseline	*%*	*First rise*	*%*	*Second rise*	*%*
D&P service:						
(i) Same-day	£6.49	3	£6.49	5	£6.49	3
(ii) Next-day	£4.99	27	£5.49	17	£5.99	15
(iii) Three-day	£3.99	44	£4.49	44	£4.99	40
(iv) Six-day	£2.99	23	£3.49	22	£3.99	30
(v) Mail-order	£3.25	2	£3.25	11	£3.25	10
Don't know		2		1		2
Same-day or mail-order		5		16		13

Source: BMRB International ACCESS Survey, September 2001.

*Baseline prices, except for mail order, were the prices of a national retail chain at the time of the survey. Mail-order prices were obtained from envelopes of a major mail-order D&P provider at the time of the survey and are inclusive of post. Prices are for 152mm x 102mm (6 inch x 4 inch) prints from a 135/24 colour film.
Base: 35mm film users who normally choose within-a-week D&P.

Switching behaviour of APS film users (Q5-7)

18. Similar tests were conducted with users of APS film who typically used next-day-to-a-week D&P. They were initially shown a set of baseline prices and were asked to say which service they would choose. Table 10 shows that 15 per cent said they would use a mail-order service if the baseline prices

were to apply. Compared with the responses of 35mm film users, a significantly larger proportion of APS users who normally use within-a-week D&P opt for mail-order D&P when they are made aware of comparative prices.

19. APS users have a higher tendency than 35mm film users to switch in response to successive 10 per cent price increases, and are more likely to switch to same-day D&P. As Table 10 shows, after the first price rise, 29 per cent switch from within-a-week D&P: 17 per cent switch to a faster, same-day service and 13 per cent switch to mail order. After a second rise, a further 17 per cent switch out of within-a-week D&P.

TABLE 10 **Switching of APS film users after successive 10 per cent price rises**

	Count of respondents selecting (ii) to (iv) on previous occasion		
Unweighted base	141	115	80
Weighted base	152	127	88

	*Per cent of respondents selecting D&P service at price shown**					
	Baseline	*%*	*First rise*	*%*	*Second rise*	*%*
D&P service:						
(i) Same-day	£8.99	0	£8.99	17	£8.99	11
(ii) Next-day	£7.49	32	£8.25	18	£8.99	15
(iii) Three-day	£6.49	33	£7.25	32	£7.99	40
(iv) Six-day	£5.49	19	£6.25	20	£6.99	23
(v) Mail-order	£4.75	15	£4.75	13	£4.75	7
Don't know		1		1		1
Same-day or mail-order		15		29		17

Source: BMRB International ACCESS Survey, September 2001.

*Baseline prices, except for mail order, were based on the prices of a national retail chain at the time of the survey. Mail-order prices were obtained from envelopes of a major mail-order D&P provider at the time of the survey and are inclusive of post. Prices are for 152mm x 102mm (6 inch x 4 inch) prints from an APS/25 colour film.

Base: APS users who normally choose within-a-week D&P.

Overview of results

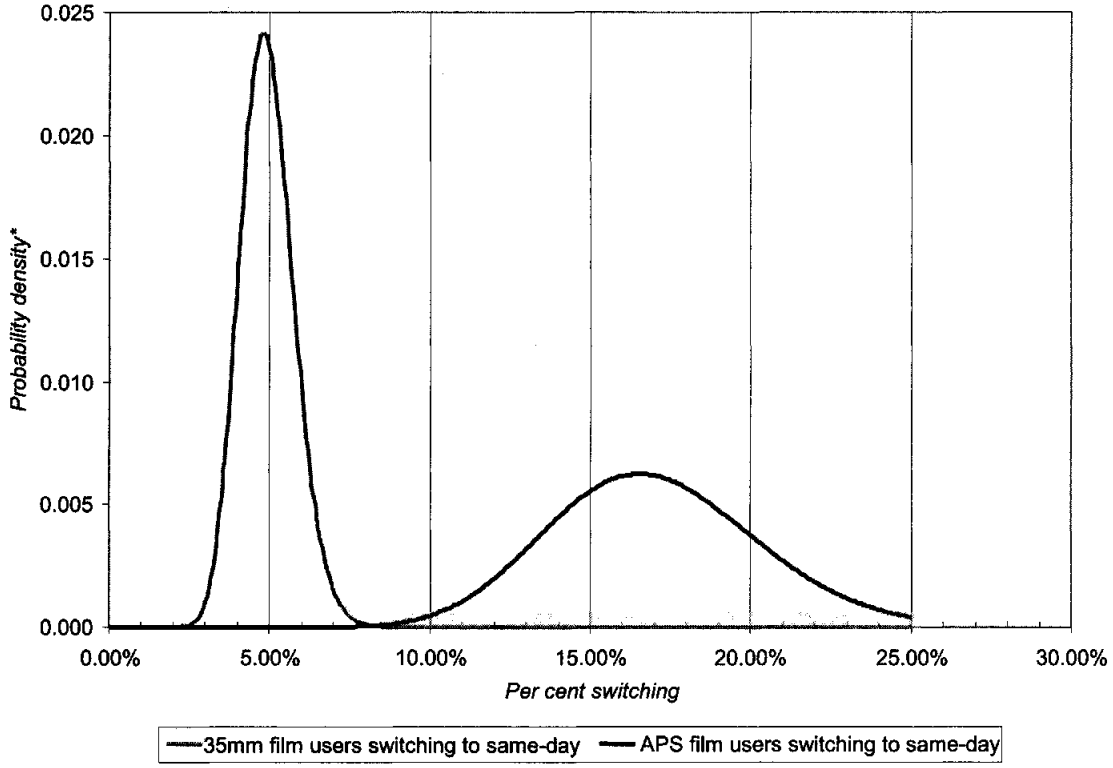
20. A primary objective of the questionnaire was to quantify the proportions of users of next-day to within-a-week D&P services who were likely to switch to same-day or mail-order D&P in response to a relatively small non-transitory increase in the price of next-day to within-a-week D&P. It was not possible to observe this behaviour in practice or to test it experimentally. Instead, the questionnaire asked representative members of the public to make an informed choice by providing them with a full set of D&P prices. In this way it was possible to identify whether informed consumers would be likely to change their buying behaviour.

21. From the results of the survey, we can estimate the proportions of informed consumers saying they are likely to switch in response to a 10 per cent price rise in next-day to within-a-week D&P and we can show the accuracy of our estimates. We explain this next.

22. Although BMRB asked a large sample of adults, the results may not correspond to the results that they would have obtained had they interviewed all the British adult population. Figure 2 shows how likely are the proportions saying they would switch to same-day D&P. The peak of each curve is the most likely proportion according to the data and the least likely proportions are where the curves approach the horizontal axis. The figure shows that the most likely estimate of the proportion of 35mm film users switching to same-day D&P is 5 per cent because this is where that curve reaches its peak. Similarly the most likely estimate for APS users is 17 per cent switching.

FIGURE 2

Switching to same-day from next-day/within-week D&P in response to 10 per cent price rise



Source: CC estimates based on BMRB survey, September 2001.
*Taking the most probable per cent switching to mail-order D&P, for the purpose of computation.

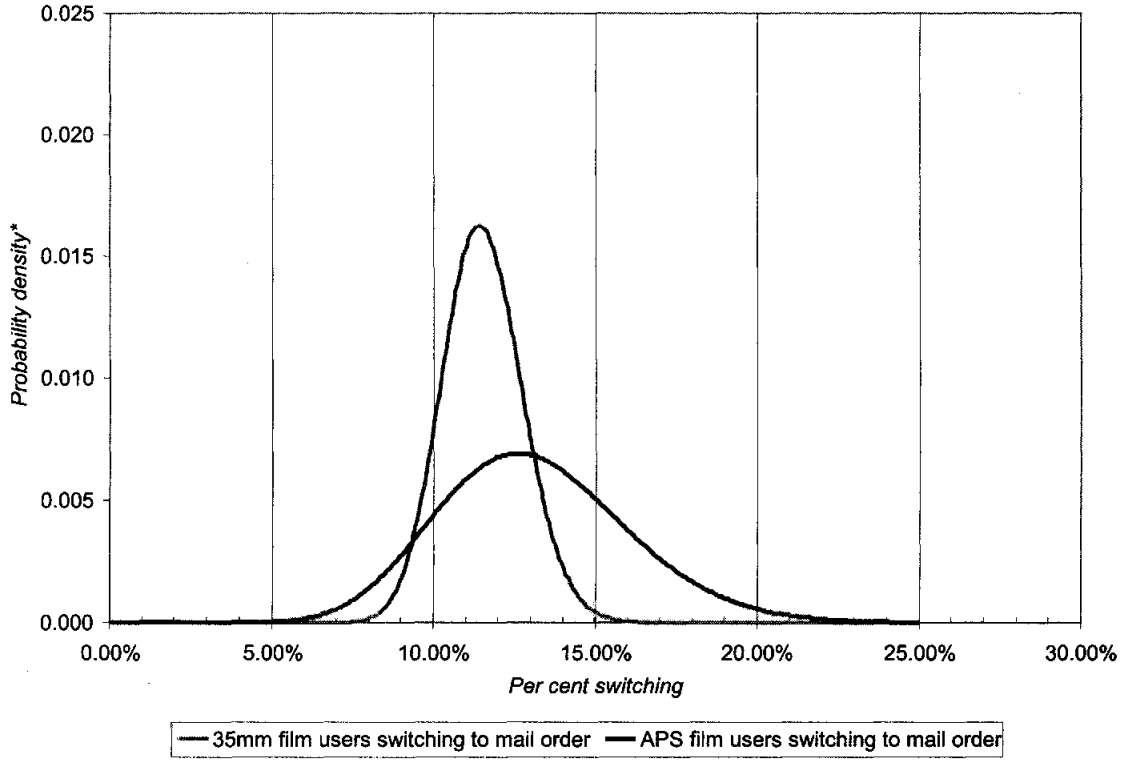
23. The width of each curve shows the precision in these estimates. For example, relatively fewer APS users were interviewed and so the estimate for APS users is less precise. Figure 2 shows that the curve for APS is wider and covers a greater range of possible switching percentages, illustrating that the precision of this estimate is lower. In sum, Figure 2 shows that the proportions saying they would switch to same-day D&P are significantly larger than zero, and the proportion of 17 per cent for APS users is significantly higher than the proportion of just under 5 per cent for 35mm film users. These results suggest that more of the APS users, who already have opted for a relatively more expensive type of film and camera, tend to switch to a service with a similar or better speed of delivery.

24. Figure 3 shows statistical estimates of the proportions saying that they would switch to mail-order D&P in response to a 10 per cent price rise in next-day to within-a-week D&P. The figure shows that the proportions saying that they would switch to mail-order D&P are significantly greater than zero. However, because the two curves substantially overlap, the proportion of 13 per cent for APS users is not significantly different from the proportion of just over 11 per cent for 35mm film users. Neither value should be taken as being significantly different from 10 per cent, given the precision of these estimates.

25. The results of the survey may overstate the actual level of switching by consumers for three reasons. In practice, consumers may not be fully informed of comparative prices at the moment of purchase, particularly with regard to the price of mail-order D&P compared with the prices displayed in a shop for the other types of D&P service. Moreover, consumers may not be aware of price increases in D&P, which for most people is an infrequent and low expenditure purchase. Finally, using a mail-order service involves a different pattern of buying behaviour compared with going to a shop for an over-the-counter service.

FIGURE 3

Switching to mail order from next-day/within-week D&P in response to 10 per cent price rise



Source: CC estimates based on BMRB survey, September 2001.
*Taking the most probable per cent switching to same-day D&P, for the purpose of computation.

26. However, ColourCare commented that it did not feel that the survey had overstated the amount of switching. It felt that attention should be directed to what would happen if the merged business were to increase prices. ColourCare thought that the survey should have asked about switching to a 1-hour or even a 25- or 20-minute service.

27. KPCL provided comments from Frontier Economics on the BMRB survey. Frontier considered that the survey confirmed the evidence presented by the parties, namely that end-consumer switching between service speeds would be a significant factor in constraining a hypothetical monopolist. Frontier also suggested that there were factors which might place a downward bias on the results and therefore that the survey might well understate the extent of switching in response to a price rise of 10 per cent. These factors were:

(a) The long-term effect of a price increase on demand was likely to be greater than the short-term effect; yet the BMRB survey was likely to be capturing only the short-term effect.

(b) The survey excluded actual users of the next-day to six-day service who chose same day or mail order when presented with the list of standard prices; this excluded group was likely to have a high propensity to switch.

(c) No account was taken of the impact of a price increase on overall market demand, as it only allowed for switching between service speeds; accordingly, estimates of lost revenue would be understated.

(d) The price of the same-day and mail-order options in the survey were too high, as the same-day price reflected a mix of same-day and 1-hour services, and for mail order, the price would generally be less than the six-day price; this effect would also understate the amount of switching.

(e) Finally, there was evidence that customers who use more rolls per year would have a greater propensity to switch, and accordingly, if the survey's findings had been weighted by usage, they would have shown a proportionately greater reduction in volume and revenue as a result of the price increase; as the BMRB survey attached an equal weight to each respondent, switching was understated.

Frontier noted that although customer surveys were always vulnerable to a range of biases, there was no basis for expecting the BMRB survey to be susceptible to a systematic bias one way or the other.

28. Given these various considerations, it is not clear that there is an overriding argument that would lead to the conclusion that the results are either seriously exaggerated or seriously understated.

APPENDIX 5.2
(referred to in paragraphs 2.94, 5.21, 5.68, and 6.67)

CC summary of a consumer survey commissioned by KPCL from Research International

1. Research International undertook a consumer survey on behalf of KPCL. The survey explored consumers' behaviour in choosing their D&P services. It also attempted to establish consumers' switching behaviour across the different service speeds under different pricing scenarios. This appendix briefly explains the survey methodology and then summarizes the conclusions that KPCL drew from the results.

The survey

2. The objective of the survey was to understand the effect price has on service choice and the key factors determining channel choice for processing.

3. The fieldwork was carried out at the end of September 2001 using face-to-face interviews in central hall locations in towns across the country.[1] Respondents were chosen who used 35mm film and who were responsible, or jointly responsible, for deciding where the film was developed. Also, each respondent was to have processed between 3 and 30 films a year. This led to a sample of 625 persons being identified.

4. Quotas were set on the type of service used most often, with respondents classified into one of the following three cells:

- Those who used a 1-hour or same-day developing service most often (the 'Quick' cell).

- Those who used a next-day or three- to six-day services most often (the 'Medium' cell).

- Those who used a mail-order service most often (the 'Slow' cell).

5. The sample was chosen by Research International to give equal weighting to these cells. As a result, the initial results did not reflect realistic market shares (for example, mail order accounted for one-third of the sample but constituted only 20 per cent of the market). KPCL asked Research International to reweight its results on the basis of realistic market shares.[2]

6. As well as classifying respondents by the type of service most often used, respondents were asked to recall the D&P services they had used for their last ten rolls of film. KPCL used these results to illustrate the extent of overlap between services and the awareness of service availability. They found that almost 30 per cent of mail-order users had used three- to six-day services in the previous two years, 18 per cent had used next-day services, 14 per cent had used same-day and 21 per cent had used 1-hour D&P. Among users of 1-hour and same-day D&P, over 30 per cent had used next-day, 21 per cent three- to six-day, and 11 per cent mail order. Users of next-day, three-day and six-day D&P included 27 per cent who had used 1-hour D&P, 18 per cent who had used same-day and 15 per cent who had used mail order.

7. Respondents were asked about the retail outlets they used for D&P over the previous two years. The profile of channels used by consumers who mainly use 1-hour to same-day D&P was found to be similar to that for those who mainly use either next-day, three-day or six-day services. KPCL inferred from this that there is a high degree of awareness about service availability and prices.

---

[1]These were: Ramsgate, Sutton, Romford, Braintree, Bristol, Swansea, Birmingham, Nottingham, Sheffield, St Helens and Newcastle.

[2]The weights were 25 per cent for Quick (15 per cent for 1-hour and 10 per cent for same-day), 55 per cent for Medium (25 per cent for next-day, 30 per cent for 3+ days) and 20 per cent for mail order.

8. Respondents were also asked about which D&P service they would choose under particular pricing scenarios. In particular, each respondent was asked to consider 25 permutations of different pricing scenarios. From a base set of prices for 1-hour, same-day, next-day, three-day and mail-order D&P, each scenario adjusted two or more of these prices by amounts ranging from £0.50 to £3.00. Price adjustments were sometimes increases, decreases or a mixture. The percentage price adjustments relative to base prices were computed and compared with the percentage changes to market share which KPCL inferred from the responses to the survey.

9. KPCL fitted a mathematical model, in which the logarithm of market share for each type of D&P service was explained by the logarithms of prices for all D&P services, by a constant and a residual term. The coefficients of the logarithms of prices are estimates of market share elasticities and are shown in Table 1. The residuals measure the differences between the mathematical model and the observed behaviour of respondents to the survey. Table 1 also shows standard errors computed by KPCL from these residuals. It should be noted that the estimates of elasticity and the standard errors in Table 1 are based on the sample of 25 experiments and not on the 625 original observations.

TABLE 1 **Estimated market share elasticities and their standard errors***

	Dependent on the price of D&P service				
Share of D&P service	*1-hour*	*Same-day*	*Next-day*	*3-day*	*Mail order*
1 hour					
Same-day					
Next-day			*Figures omitted.* *See note on page iv.*		
3-day					
Mail order					

Source: KPCL based on Research International survey.

*Estimated elasticities that were different from zero (at the 5 per cent level of significance) are shown in bold with their corresponding standard errors in brackets.

10. Table 1 shows own-price elasticities as diagonal entries and cross-price elasticities as off-diagonal entries. The own-price elasticity for a service is the ratio of its percentage change in market share resulting from a corresponding percentage change in its price, assuming that prices of other services are held constant. Own-price elasticities are negative, which means that a price increase in each of the services will lead to a reduced market share for that service. The larger the elasticity, the more sensitive is the behaviour of consumers. For example, a 10 per cent increase in the price of the three-day service is estimated to reduce the demand for that service by around [✂] per cent (since the elasticity is [✂]). This movement out of the three-day service could be to any of the other services.

11. The figures off the diagonal are cross-price elasticities. Not all of these could be shown statistically to be significantly different from zero but those that were positive. This means that, for example, if the price of the three-day service were to increase and if consumers behave according to the model, the market share for mail-order D&P will increase. Moreover, the proportional increases will be about the same (since the elasticity of [✂] is not significantly different from [✂]), so that a 10 per cent increase in the price of the three-day service would lead to an increase of about [✂] per cent in the share of consumers choosing mail-order D&P.

12. Table 1 indicates that consumers are most sensitive to the price of same-day (ie longer than 1 hour) D&P and least sensitive to the price of mail-order D&P. The table also shows several positive cross-price elasticities that are significantly different from zero. The results suggest that a price increase in 1-hour D&P increases market share in same-day and three-day D&P. Similarly a price increase in same-day D&P increases the share of next-day D&P, and a price increase in next-day D&P increases the share of same-day D&P; this also leads to an increased share for three-day D&P. Increasing the price of

three-day D&P increases the share for mail order, while increasing the price of mail order increases shares for three-day and next-day services.

13. KPCL interpreted the results as showing that consumers are more willing to switch from next-day or three- to six-day services into mail-order services than from mail order into next-day or three- to six-day services. For example, the own-price elasticity for mail order is relatively small and yet its cross-price elasticity with respect to three-day D&P is approximately equal to [✂]. It gave two possible explanations for this behaviour of the respondents to the Research International survey. First, the respondents were selected on the basis of the service they most preferred and, if they had chosen mail order because it was cheapest, few would switch to a more expensive service even if relative prices reduced price differentials. Second, it suggested that mail-order users may be more loyal while other consumers may be more willing to switch into a cheaper service in response to a relative price increase.

Conclusions

14. KPCL's key findings from the survey and price switching analysis are set out below:

(a) The Research International survey found evidence for overlap in the use of different service speeds by consumers. The proportions of users who normally used one type of service but who also used slower or faster services ranged from around [✂] per cent.

(b) KPCL found a high degree of price sensitivity among D&P consumers. It concluded that consumers of next-day or three- to six-day services are price sensitive and that a hypothetical monopolist of these would not be able profitably to increase prices.

(c) KPCL suggested that its analysis of the Research International survey showed that consumers are more willing to switch from next-day or three- to six-day services into mail-order services than from mail order into next-day or three- to six-day services. KPCL pointed out that this is of relevance when considering the ability of a hypothetical monopolist of next-day or three- to six-day services to raise prices profitably.

15. KPCL concluded that, looking at demand-side substitution on its own, 1-hour or same-day services and next-day or three- to six-day services are in the same market.

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