

Anticipated acquisition by Air Products Group Limited of a controlling interest in CryoService Limited

ME/3626/08

The OFT's decision on reference under section 22(1) given on 16 June 2008.
Full text of decision published 24 June 2008.

PARTIES

1. **Air Products Group Limited** (AP) is an international supplier of gases, chemicals and related equipment. In the UK, AP produces and distributes a range of gases by a variety of delivery modes.
2. **CryoService Limited** (CSL) is a UK based distributor of a range of gases by a variety of delivery modes, although does not produce gases itself. In the year to August 2007, CSL's turnover was £29.8 million.

TRANSACTION

3. AP previously acquired a 25 per cent shareholding in CSL in 1998. On 4 April 2008, AP agreed to purchase an additional 47 per cent shareholding, subject to regulatory approval, bringing the total CSL share capital owned by AP to 72 per cent.
4. The parties notified the OFT of the transaction on 21 April 2008. The administrative deadline is therefore 17 June 2008.

JURISDICTION

5. As a result of this transaction AP and CSL will cease to be distinct with AP increasing its shareholding to the level of a controlling interest. The share of supply test in section 23 of the Enterprise Act 2002 (the Act) is met;

the parties overlap in the bulk supply of oxygen and nitrogen and have a combined share of supply exceeding 25 per cent. The OFT therefore believes that it is or may be the case that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

MARKET DEFINITIONS

6. The parties overlap in the distribution of oxygen, nitrogen, argon, carbon dioxide and specialty gases for calibration¹ by bulk, micro-bulk and cylinder modes of delivery.
7. The parties submit that the OFT should follow the approach taken by the European Commission (EC) in previous decisions relating to industrial and specialty gases.² The EC has defined the product market in such cases by reference to the type of gas and method of distribution and considers the geographic market to be national in scope.

Product market

Distinct markets by type of gas

8. Gases can be obtained from air (atmospheric gases) or from synthetic and other natural sources (non-atmospheric gases). The most common gases used are oxygen, nitrogen, hydrogen, argon, carbon dioxide, acetylene, carbon monoxide and helium.
9. The EC has taken the view in previous cases that different gases are not interchangeable because of their different chemical and physical properties and that therefore each gas constitutes a separate market from the demand side perspective.³ While the EC acknowledged that there may be some applications where different gases can be used, it has noted that generally one gas is considered technically superior and preferable for any type of application. From a supply-side perspective, the EC noted that the production process for atmospheric and non-atmospheric gases produces

¹ Calibration gases are used to calibrate technical instruments.

² M.1630 *Air Liquide/BOC*, M.1641 *Linde/AGA*, M.3314 *Air Liquide/Messer*, M.4141 *Linde/BOC*

³ M.1630 *Air Liquide/BOC*, M.1641 *Linde/AGA*, M.3314 *Air Liquide/Messer*

pre-determined proportions of each gas which therefore limits the potential for supply side substitution.⁴

10. The EC has not specifically considered the potential for supply side substitution with respect to distribution, but has noted that differing gases are supplied in different states (gaseous or liquid) and through a variety of methods. The costs of switching to supply a different gas which requires a different method of distribution can vary considerably in cost. For example, one competitor noted in this case that for gases requiring delivery by micro-bulk the cost of delivering a new vessel and removing the old one could be as low as £150. This compares with delivery by bulk, which may require civil engineering works involving costs of several thousand pounds, and tonnage schemes, which will involve lengthy building works costing several million pounds.
11. Overall, third party competitors and customers contacted in this case tended to agree with the conclusions drawn by the EC. Only one customer indicated any ability to switch between different types of gas following a price rise.

Distinct markets according to forms of supply

12. Three main modes of delivery for the distribution of gases have previously been defined by the EC; tonnage, bulk and cylinder.
13. Tonnage involves the supply of over 100 tons per day (tpd). It takes place in gaseous form through dedicated cryogenic air separation plants on the customer's site or by pipeline if the density of customers is sufficient to make it economically viable to create a pipeline network linking gas production sites. Customers are mainly industrial users.
14. Bulk delivery is generally used for requirements of between 20 tpd and 100 tpd. Primarily delivered in liquid form, the gases are transported by road or rail tanker⁵ to be stored at the customer's site. Specialist cryogenic transport and storage is needed, although smaller amounts of nitrogen and oxygen can also be supplied for certain applications in gaseous form using non-cryogenic units.

⁴ M.4141 *Linde/BOC*

⁵ Note that in the UK bulk delivery is only carried out by road.

15. Cylinders are used to supply quantities of gas typically less than 0.1tpd. The gases are delivered in gaseous form in pressurised cylinders (carbon dioxide is delivered in liquid form). Cylinders can be filled at and distributed from the supplier's plant or gases can be transported in liquid state to special cylinder filling centres. Gas producers will tend to service direct the larger customers, while smaller customers are typically serviced by agents. Prices of gases delivered by cylinder are typically six to eight times those delivered in bulk form for equivalent gas.
16. The EC has taken the view that the different modes by which the various gases can be distributed form different markets. It has noted that customer facilities differ greatly depending on distribution channel and that charges vary greatly depending on the mode used. This is consistent with there being substantial costs to demand side switching, as customers would need to adapt their facilities to accept supply from different channels.
17. From a supply side perspective, physical and technological differences clearly exist between the different modes of delivery such that, while firms may operate across all channels, it is not clear that it would be straightforward or economical for a supplier to shift capacity between the different modes following a moderate price rise.
18. The parties submit that the OFT should also consider that micro-bulk constitutes a distinct mode of supply, although previous EC decisions have not drawn such a distinction. Micro-bulk delivery typically involves delivery of quantities equivalent to 10 cylinders per month up to 1 tpd using specialist cryogenic tankers.
19. Some firms focus operations on just one of bulk or micro-bulk and it is clear that different types of vehicle are required for each mode. However, the technology (cryogenic delivery) is largely similar and the parties accept that it is relatively easy for suppliers to start providing a micro-bulk delivery service for gases currently delivered by bulk.
20. Third party comments support the distinction drawn by the EC and to some extent the further distinction of micro-bulk delivery. One competitor noted that vehicles were configured specifically such that new fleets are likely to be needed for each distribution mode; a vehicle used for bulk delivery will not be able to be used for micro-bulk or cylinder delivery.

Conclusion on the product market

21. The competitive assessment does not differ depending on the definition used so no conclusions on the relevant product are drawn in this instance. However, for the purposes of this assessment the OFT has not received sufficient evidence to warrant a deviation from a cautious approach of following the conclusions of the EC.
22. The different chemical and physical properties of different gases mean that there is no general demand side substitutability between different gases. With respect to the supply side, previous EC decisions have focused on production, which may not be relevant to the distribution of gases as in this case. However there still appear to be reasons to believe that constraints on supply side substitution exist, and that these may vary depending on the mode of delivery.
23. With regard to the different modes of supply, the OFT has adopted a cautious approach and considered the three main modes of distribution as being distinct. The question of whether micro-bulk should be considered separately is not clear given the limited information from the parties and third parties. This assessment consequently remains consistent with the conclusions of the EC, however specific unilateral issues arising from a distinct micro-bulk market are considered for completeness.⁶
24. For the purposes of this assessment, the following relevant product markets on which the parties overlap have therefore been considered:
 - i) Bulk supplies of oxygen, nitrogen, argon and carbon dioxide
 - ii) Cylinder supplies of carbon dioxide
 - iii) Cylinder supplies of calibration gases

Geographic market

25. The EC has previously concluded with respect to deliveries by bulk and cylinder that transport costs depend on the distance between the production/filling plant and the customer, meaning that delivery by bulk is only economical within a certain area. However, the EC found that

⁶ It should be noted that consideration by the OFT of micro-bulk as a separate market would act to lessen competition concerns as AP is not active in the micro-bulk market, being reliant on CSL for deliveries by this mode.

overlapping areas served by filling centres and the existence of swap agreements between suppliers reduced transportation costs so that competition could be considered to take place at a national level.

26. Despite this, where distribution costs represent a substantial proportion of overall costs it may be that competitive conditions still differ at the regional level, as distributors may not be able to serve all customers efficiently. The parties note that distribution costs account for around [25-35] per cent of their total prices, but that [...]; AP drop and transport charges are set nationally and do not vary by region and CSL similarly sets a single national transport fee irrespective of distance.
27. Two competitors considered that, while they operated a national pricing and distribution strategy, prices and services may be affected by geographic considerations. A third noted that as production plants were located throughout the UK, the costs of supplying customers throughout the UK were broadly similar although there were some exceptions for remoter areas such as the Scottish islands.
28. Customers generally considered that the market was national in scope, noting that a substantial proportion of contracts were agreed at a national level. However, one customer noted that, again, supply in Scotland was limited by geographical factors.

Conclusion on the geographic market

29. There is some evidence of competitive variations at more remote localities, such as in Scotland. However overall the evidence, particularly the use of a single delivery charge, suggests that in line with previous EC decisions the market is broadly national in scope. While the OFT has not concluded on the matter, for the purposes of this investigation the OFT considers the various markets to be national in scope.

BACKGROUND TO THE COMPETITIVE ASSESSMENT

30. AP has held a 25 per cent shareholding in CSL since 1998. This transaction involves the purchase of an additional 47 per cent, bringing the total shareholding of AP in CSL to 72 per cent and so a controlling interest.

31. In addition to the prior shareholding, AP also sub-contracts all of its micro-bulk deliveries to CSL.

HORIZONTAL ISSUES

Market shares

Bulk markets

32. In the case of oxygen and nitrogen distribution by bulk, the parties combined share will be approximately [30-40] per cent, with an increment of less than [0-5] per cent in both cases. In the case of argon distribution by bulk, the combined share will be less than [20-30] per cent, again an increment of less than [0-5] per cent. In the case of bulk deliveries of oxygen, nitrogen and argon, BOC remains the largest competitor with a market share about double that of AP post merger. Air Liquide has a market share of between five and 10 per cent for each.
33. In the case of carbon dioxide, the combined share of the parties at less than [0-10] per cent (increment of less than [0-5] per cent) is substantially smaller than the remaining competitors, the smallest of which, BOC, still accounts for a share of supply approximately twice that of the parties.
34. These figures do not include supply of carbon dioxide and nitrogen supplied by bulk to the leisure sector for drinks due to difficulties in extrapolating the figures for each gas in this instance. On a share of all gases used for drinks dispensing purposes, the parties will have share of supply of less than [5-15] per cent. BOC is again the market leader with a share of supply of approximately 40 per cent, with brewers⁷ and Air Liquide accounting for less than 20 per cent and 10 per cent respectively.
35. In all cases, the increment in the share of supply of the gases delivered by bulk is less than [0-5] per cent. When combined with the continued existence of larger and strong competitors post-merger, there is no realistic prospect of a substantial lessening of competition in these markets.

⁷ Brewers produce their own gases for drinks dispensing purposes, often as by-products from their manufacturing processes.

Micro-bulk issues

36. CSL currently undertakes all of AP's micro-bulk delivery so that while there appears to be a nominal overlap, AP does not in fact supply micro-bulk by itself. However, the transaction could still raise competition concerns if it reduced the likelihood of entry by AP into the micro-bulk segment or the potential for AP to sub-contract to another distributor and so, subsequently, the competitive constraint created by this threat. However, since AP already has a 25 per cent interest in CSL, it might be expected to seek to benefit from this relationship, which it would not if using another sub-contractor. Entry by AP itself into micro-bulk delivery would involve some investment and planning and the OFT has found no evidence to suggest that this was being considered. Therefore, the OFT does not believe that, in the absence of the merger, AP would have entered the micro-bulk segment. Further, as BOC will continue to provide strong competition there is no realistic prospect of a substantial lessening of competition in a notional micro-bulk segment.

Cylinder markets

37. The parties' only overlap in cylinder delivery is in relation to the supply of carbon dioxide. The combined share of supply is less than [0-10] per cent, with an increment of approximately [0-5] per cent. BOC will continue to have the highest share of supply at approximately 40 per cent, with Air Liquide at less than 30 per cent and others accounting for approximately 20 per cent.
38. Given the small increment and share of supply, and the continued presence of larger competitors, there is no realistic prospect of a substantial lessening of competition on this market.

Calibration gases

39. The parties' combined share will be less than [20-30] per cent, with an increment of less than [0-5] per cent. BOC will continue to have the largest share of supply with approximately 50 per cent, with Air Liquide and others on approximately 20 per cent and less than 10 per cent respectively.

40. Given the small increment and share of supply, and the continued presence of larger competitors, there is no realistic prospect of a substantial lessening of competition on this market.

Coordinated effects

41. Based on the EC's findings on the characteristics of the market for helium,⁸ the similar gas markets in this case would appear to display characteristics conducive to coordination, although the parties argue that some substantive differences exist in this instance with regard to the transparency of the market in particular.⁹
42. With regard to the impact of the transaction itself, whilst the merger will clearly affect the market structure to a degree, the effects are unlikely to be substantive given the limited size of CSL's activities. Specifically, the merger will not significantly increase symmetry between the business models of the main competitors, and neither will it result in a market structure substantially more conducive to coordination, such as for example duopolistic supply. Further, there is no evidence to suggest that CSL is a maverick competitor, As such, there is little scope to consider that the pre-transaction capacity of CSL to limit coordination is greater than that implied by its market share.
43. Moreover, the fact that AP already had a 25 per cent shareholding in CSL rather suggests that the merger itself will not increase the incentives (if any) for coordination that may have existed pre-transaction.

VERTICAL ISSUES

44. AP, operating both as an upstream supplier of gases and a downstream distributor, is purchasing a controlling interest in CSL, a downstream distributor. The OFT has therefore considered the potential for vertical concerns.
45. For any vertical effects to arise, there must be the ability and the incentive to foreclose inputs to downstream competitors or downstream markets to upstream competitors.

⁸ M.1630 *Air Liquide/BOC*

⁹ Such as homogeneity, technological similarity and stability, and a small number of distributors and upstream suppliers.

46. The continued existence of a leading supplier (here BOC, or Yara in the case of carbon dioxide) is likely in the majority of cases to limit the ability of the parties to foreclose inputs. This is however dependent to an extent on the absence of any capacity constraints and in this case the parties have noted that such constraints exist in the case of the supply of argon. However, no third party concerns relating to upstream supply were raised concerning argon.
47. With regards to the foreclosure of downstream markets, CSL purchases only a small part of its requirements for gases other than argon from sources other than AP, equivalent to one per cent or less of the relevant markets discussed above. The proportion with regards to argon is slightly higher, but still represents less than two per cent of the total market. Accordingly, if the parties chose not to continue to take supplies from other providers it is unlikely that competition concerns would arise.
48. One third party argued that the merger would impact on CSL's incentives to provide them with micro-bulk delivery services for their distribution downstream and that this could substantially affect their competitive offering as there are no long term contracts in place to prevent CSL from retracting its services post merger. However, there will continue to be an alternative supplier of micro-bulk services post merger (BOC) and the existence of any incentives to enact such a policy would have existed pre-merger given the existence of a material shareholding by AP in CSL.
49. In conclusion, there is no evidence to support a credible theory of vertical effects. AP's ability to foreclose is largely limited by the presence of BOC, its incentives to do so are unlikely to change as a result of the merger, and CSL's activities are not sufficiently large enough to impact on other upstream suppliers.

THIRD PARTY VIEWS

50. The OFT received views from 10 customers and three competitors. Of these, four raised competition concerns as a result of the merger, relating to vertical issues, regional concerns in Scotland and supply to the drinks sector. These concerns are dealt with above.

ASSESSMENT

51. The parties overlap in the supply of various gases by cylinder, bulk and micro-bulk delivery in the UK. While the OFT has not concluded on the relevant market, for the purposes of this assessment it has considered that each gas and each mode of distribution constitutes a separate market, with the exception of micro-bulk, following previous practice by the EC. Micro-bulk is however considered in so far as it impacts on the closeness of competition between the merging parties.
52. CSL's relatively small share of supply in all overlapping markets means that any increment will be small and thus there is no realistic prospect of a substantial lessening of competition. To the extent that micro-bulk and bulk are seen as differentiated, BOC remains as the largest supplier by this mode. Further, the limited size of CSL also means that the transaction is unlikely to raise any vertical issues.
53. In addition, the fact that AP currently holds a 25 per cent shareholding in CSL suggests that incentives (if any) for either foreclosure or co-ordination are unlikely to change as a result of this merger.
54. Consequently, the OFT does not believe that it is or may be the case that the merger may be expected to result in a substantial lessening of competition within a market or markets in the United Kingdom.

DECISION

55. This merger will therefore not be referred to the Competition Commission under section 33(1) of the Act.