

BOC/INEOS PACKAGED CHLORINE MERGER INQUIRY

Summary

1. On 29 May 2008, the Office of Fair Trading (OFT) referred to the Competition Commission (CC), for investigation and report, the anticipated acquisition of the chlorine packaging and distribution business of Ineos Chlor Limited (Ineos Chlor) by BOC Limited (BOC). The reference requires us to determine:
 - whether arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation; and, if so,
 - whether the creation of that situation may be expected to result in a substantial lessening of competition (SLC) within any market or markets in the UK for goods or services.

2. We are required to report by 12 November 2008.

3. Chlorine is a key building block of modern chemistry. It is a hazardous gas which is subject to a range of health and safety regulations. Depending on the volume required and the application, chlorine may be supplied in bulk (either via a pipeline or in a tanker) or as 'packaged' chlorine, ie in drums or cylinders. Around one per cent of the chlorine produced in the UK is sold as packaged chlorine. A substantial proportion of the packaged chlorine sold in the UK is sold to water companies for water disinfection.

4. The supply structure for packaged chlorine in the UK has three levels (*a*) production of bulk chlorine, (*b*) packaging, and (*c*) distribution. The activities of BOC and Ineos Chlor only overlap at the distribution level:
 - Ineos Chlor produces chlorine, chlorine derivatives and PVC in several European countries. Ineos Chlor is 100 per cent owned by Ineos Group Ltd, the

holding company of a large international group of chemical companies. Ineos Chlor is the sole manufacturer of chlorine in the UK and all of the chlorine produced by Ineos Chlor is produced at its site at Runcorn, Cheshire. Ineos Chlor also packages chlorine at the Runcorn site. Ineos Chlor distributes packaged chlorine to customers in Great Britain and to one customer in Northern Ireland from the Runcorn site.

- BOC is a UK-based industrial gases provider. BOC is a subsidiary of Linde AG (Linde), a multinational industrial gases and engineering company. BOC does not currently produce or package chlorine itself. It sources most of its drum and cylinder packaged chlorine from Albion Chemicals Ltd (Albion) which has a chlorine packaging facility at Sandbach in Cheshire (and which is also itself a distributor of packaged chlorine). BOC also imports some of its packaged chlorine cylinders from Germany. BOC distributes packaged chlorine to customers in Great Britain and to one customer in Northern Ireland (which is serviced using BOC's Irish depot network).

5. BOC proposes to purchase Ineos Chlor's chlorine packaging and distribution business (hereafter 'the Target Business'). We found that arrangements were in contemplation which, if carried into effect, would result in the creation of a relevant merger situation, and no party disputed this during our inquiry.
6. Before assessing the competitive effects of the proposed merger, we considered what was likely to have happened in the absence of the merger. This is known as the counterfactual and provides the baseline against which the effects of the merger can be compared. In this inquiry we were also aware of possible future events which meant that, even in the absence of the merger, the structure of the industry was likely to have changed, and we took these into account as well.

7. We found that:
- a suitable counterfactual period in this inquiry would be until late 2012, and that it would not be possible to assess the competitive effects of the merger beyond that date;
 - Albion would exit packaging at some time between 2009 and late 2012, regardless of the merger (but would remain in distribution during this period); and
 - the proposed merger and the resulting loss by Albion of its chlorine packaging business with BOC might bring forward Albion's withdrawal from packaging, but would not affect Albion's ultimate decision to exit.
8. As a result, we concluded that, following the proposed merger and before Albion's exit from packaging, BOC's newly acquired packaged chlorine business (hereafter 'BOC/Target Business') and Albion would be the only two UK chlorine packagers and BOC/Target Business, Albion and Air Products PLC¹ would be the only UK distributors of packaged chlorine. Following Albion's exit from packaging, BOC/Target Business would be likely to increase the price for wholesale packaged chlorine above the current levels, but to a level below the constraint imposed by the possibility of imports.
9. In the absence of the merger, we found that:
- Ineos Chlor would not have sold the Target Business in 2008 and the Target Business (whether owned by Ineos Chlor or another company) would have remained an independent competitive constraint in the relevant market(s) during the counterfactual period (hereafter 'Independent Target Business');

¹Air Products PLC is a large UK manufacturer of industrial and specialty gases. It is owned by Air Products and Chemicals, Inc of the USA.

- Independent Target Business would have continued to package chlorine at Runcorn during the counterfactual period, leaving it as the sole UK packager following Albion's exit;
- competing distributors during the counterfactual period would be Independent Target Business, Albion, BOC and Air Products; and
- following Albion's exit from packaging, Independent Target Business would be likely to increase the price for wholesale packaged chlorine above the current levels, but to a level below the constraint imposed by imports.

10. We next considered the definition of the relevant markets. We concluded that:

- drum distribution and cylinder distribution were distinct markets. On the demand-side the containers were not sufficiently close substitutes to be within a single market. On the supply-side, while there were some shared features in the distribution of the two different types of container, some key requirements (namely purchasing containers and purchasing or contracting vehicles to deliver packaged chlorine to customers) were distinct;
- for the purposes of this inquiry water company and non-water company customers could be considered together;
- alternative water disinfection methods did not act as a sufficient competitive constraint to be included in the relevant product market; and
- the geographic market was no wider than Great Britain (although we analysed the market as if its geographic scope were the UK because this did not alter our conclusions).

11. We found that, both before and after Albion's exit from packaging, entry into the relevant distribution markets by distributors of other chemicals and/or industrial gases or European distributors of packaged chlorine was unlikely. This was because of barriers to entry associated with sourcing competitively priced packaged chlorine in

the UK, the fact that imports were not economically viable, other additional costs of entry and the evidence from the possible entrants themselves.

12. We found that, regardless of Albion's exit from packaging, any future expansion by existing UK distributors would be unlikely to be sufficient to prevent BOC/Target Business exercising any market power in the relevant markets following the merger.
13. We also found that any buyer power would be unlikely to be sufficient to prevent BOC/Target Business exercising any market power in the relevant markets following the merger.
14. We examined the extent of competition between BOC and Ineos Chlor in the relevant markets. We considered that this was an appropriate proxy for the extent of competition between them in the counterfactual before Albion's exit from packaging, given that we believed that the Target Business would have remained an independent competitive constraint in the relevant markets during the counterfactual period. We concluded that BOC and Ineos Chlor were the leading suppliers in the relevant markets, and, on a tender by tender basis, they were usually each other's principal rival.
15. We assessed the overall competitive effects of the proposed merger in two phases, Phase 1 and Phase 2. Phase 1 covered the period of time from the proposed merger up until Albion's likely exit from packaging following the proposed merger.
16. We found that during Phase 1 compared with the counterfactual the merger would reduce the number of competing distributors from three to two in each relevant market, making each market even more concentrated. We also found that the merger would end the close rivalry between BOC and Ineos Chlor and would remove the

only competing distributor to the Target Business that currently supplies both drums and cylinders. In each relevant market, BOC/Target Business would attain a very high market share. Further, we noted that BOC planned to introduce a cylinder rental charge for the generality of its customers following the proposed merger, which we considered to be additional evidence that, following the merger, BOC would be subject to fewer competitive constraints than currently.

17. Phase 2 covered the period between the exit of Albion from packaging in the counterfactual and late 2012, ie the period when we thought that Albion would have exited as a packager whether or not the merger proceeded.
18. We found that during Phase 2 the scope for competition might be reduced both following the merger and in the counterfactual as a result of likely increases in the wholesale packaged chlorine price and the fact that all distributors would be sourcing from a single vertically integrated chlorine packager and distributor. However, we concluded that some scope for competition would remain based on price (for example on the basis of the efficiency of distribution operations) and on other factors (such as additional services or the range of other chemicals and/or gases supplied). Further, compared with the counterfactual, (i) the merger would reduce the number of competing distributors from three to two in each of the relevant markets, (ii) the merger would reduce the number of distributors currently supplying both drums and cylinders from two to one, and (iii) in each relevant market, BOC/Target Business would attain a very high market share.
19. Since it was possible that the proposed merger might accelerate Albion's exit from chlorine packaging, we also assessed the effect of the proposed merger on competition during any such period of acceleration (ie the time, if any, between

Albion's exit from packaging following the merger and its exit from packaging in the counterfactual).

20. We found that there would be a loss of competition in the relevant markets compared with the counterfactual during any such 'acceleration' period for the same reasons as during Phase 1. There would also be an additional loss of competition associated with reduced scope for price-based competition between the remaining distributors following the merger due to the reduced rivalry at the packaging level of the supply chain during this period.
21. Taking our competitive assessments in Phase 1, Phase 2 and any period of accelerated Albion exit from packaging together, we therefore expect that the proposed merger will lead to higher prices and/or lower service levels than would otherwise be the case in the markets for the distribution of packaged chlorine in cylinders and in drums in the UK, and thus that the proposed merger may be expected to result in an SLC in those markets.