

CRA Competition Memo



Raising rivals' costs: proceed with caution

It is now routine in competition analyses of vertical mergers to investigate the possibility that the merger will lead to foreclosure of rivals in the upstream and/or downstream markets affected by the merger. It is therefore no surprise that foreclosure was a central issue in the recently concluded investigation in South Africa of Anglo American's acquisition of control of Kumba Resources, a transaction which (as explained below) involved assets in the vertically-related iron ore and steel industries.¹ Though many of the issues in the investigation were specific to the facts of the acquisition, the foreclosure analysis in the Anglo-Kumba case identified a limitation of the "raising rivals' costs" argument that analysts would be well advised to keep in mind in future cases.

The foreclosure issue

Anglo, a global natural resources company, controls companies that account for about 20% of the sales of steel products in South Africa. Kumba is the largest iron ore producer in South Africa. The largest firm in the South African steel industry is Iscor, which accounts for about 70% of domestic sales. Iscor buys all of its iron ore from Kumba and, indeed, all of the iron ore used by South African steel producers is sourced from South African iron ore producers. The local price of iron ore inside South Africa is approximately 30% less than the price at which iron ore could be imported ("import parity").

A central issue in the competition investigation was whether Anglo would have the incentive following its acquisition of control of Kumba to raise Iscor's iron ore costs so as to benefit Anglo's operations in the domestic steel market. It was suggested on behalf of an intervener in the transaction that this is precisely what would happen, using the following logic. Before the acquisition, Kumba had no interests in the downstream domestic steel industry. After the acquisition, there allegedly would be "an extra term in Kumba's profit function". Prior to the acquisition, Anglo's downstream interests in the South African steel industry were obviously of no concern to Kumba. However, once Anglo acquired control of Kumba, it supposedly would want Kumba to take into account the effect on Anglo's downstream domestic steel operations of an increase in Iscor's iron ore costs. Therefore, it was argued, Kumba would have an

incentive after the acquisition to increase the price of iron ore to Iscor.

There was much debate at the hearing over whether Kumba would have the ability to increase iron ore prices to Iscor in light of long-term supply contracts between Iscor and Kumba in which Iscor would receive iron ore from Kumba at cost plus 3%. If Kumba lacked the ability to increase Iscor's iron ore price, then that would end this part of the investigation. There was also extensive discussion over whether it could ever make sense for Kumba to raise Iscor's iron ore price since, given the terms of the supply contract, this would require Kumba to let its costs increase, which would have a negative effect on Kumba's profits on the iron ore that it exported to customers in other parts of the world.

Lexecon presented calculations that demonstrated that the costs to Kumba from reduced profits on export sales would vastly exceed any downstream benefit to Anglo's South African steel operations, even if one assumed that an increase in Iscor's iron ore costs would lead to an increase in domestic steel prices.²

The terms of the supply contract between Kumba and Iscor, and the need for Kumba to consider the effect of higher costs on the profitability of its export sales, are issues that were specific to the case. There was, however, another problem with the "raising rivals' costs" theory posited on behalf of the intervener that was more fundamental and which may have relevance to other merger analyses.

Input costs and domestic sales

For the raising rivals' cost strategy to work in this case, there has to be a connection between an increase in Iscor's iron ore costs and the amount of steel that Iscor sells on the domestic South African market. The strategy depends on showing that higher iron ore costs will lead Iscor to sell less steel in the local market, which will raise domestic prices (to the benefit of Anglo's domestic steel operations). Under the circumstances of the case (which, as discussed below, seem likely to be present in other cases), no such link exists. An increase in Iscor's iron ore costs would have *no* effect on its marginal cost of selling steel on the domestic market and therefore *no* effect on domestic steel prices.

¹ Lexecon advised Anglo American throughout the merger review process and gave evidence on competition issues before the South African Competition Tribunal. On 4 September 2003, the Tribunal issued a decision approving the acquisition subject to a condition unrelated to the vertical foreclosure issues discussed in this memo.

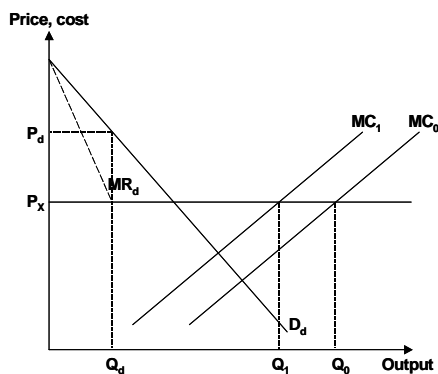
² The South African Competition Tribunal cited these calculations in paragraph 119 of its decision and stated that the intervener "failed to contradict the data presented and therefore we can comfortably dismiss the likelihood of this [raising rivals' costs] scenario."

To explain, note first that Iscor exports approximately 50% of its steel production. Since Iscor always has the option of increasing exports, the marginal cost of selling steel on the domestic market is the opportunity cost of the revenue it foregoes when it sells domestically instead of increasing exports. In the language of international trade, the marginal cost to Iscor of selling steel on the domestic market is the “export parity” price. Since South Africa accounts for less than 2% of world steel production, it is reasonable to regard Iscor as a price-taker in the export market for steel products, i.e., to regard the export parity price as exogenously determined on the world market.

These are the key points. Under these circumstances, an increase in Iscor’s iron ore costs will have no effect on its marginal cost of selling steel on the domestic market, because the marginal cost of selling steel domestically is the export parity price that Iscor foregoes when it sells domestically instead of increasing exports. But, if an increase in Iscor’s iron ore costs has no effect on its marginal cost of selling domestically, then there is no link between Iscor’s iron ore costs and the amount that it chooses to sell on the domestic market, and hence no link between Iscor’s iron ore costs and domestic steel prices. Therefore, Anglo would have no “raising rivals’ cost” incentive to cause Kumba to increase Iscor’s iron ore costs.³

Supply-demand graph

A diagram may help explain further. To simplify, suppose Iscor was the only producer of steel in South Africa. Then suppose that Iscor’s marginal cost of producing steel increased as a result of an increase in its iron ore costs. The question is whether this change in Iscor’s costs would have any effect on the price it charges on domestic sales.



³ The South African Competition Tribunal understood and endorsed this argument. In paragraph 122 of its decision, the Tribunal wrote: “Finally, given the agreement between the expert witnesses that the marginal cost of steel production in South Africa is determined by export parity, higher iron ore costs would fail to impact on domestic prices charged by Iscor for steel. Therefore, in conclusion, on the basis of the evidence before the Tribunal there is little support for the contention that Anglo would follow a strategy of raising rivals’ costs in steel making.”

In the diagram, the domestic demand D_d for steel facing Iscor is downward sloping, which implies that the domestic marginal revenue MR_d is also downward sloping. For the reasons discussed above, the marginal cost of selling on the domestic market is the export parity price P_x . Thus, to maximise profits on domestic sales, Iscor sells Q_d domestically, which is the level of sales at which domestic marginal revenue equals domestic marginal cost. The domestic price is P_d .

The marginal cost of production is shown in the diagram as MC. To maximise profits, Iscor produces at the level at which the marginal cost of production equals marginal revenue. Because Iscor is a price-taker in the export market, its marginal revenue on export sales equals P_x , therefore Iscor produces at the level at which marginal cost equals the export parity price. When the marginal cost of production is MC_0 , Iscor produces Q_0 , with exports equal to the difference between Q_0 and Q_d . The increase in Iscor’s iron ore costs results in a shift to the left of Iscor’s marginal cost curve, from MC_0 to MC_1 . This leads to a reduction in the total amount that Iscor produces, from Q_0 to Q_1 . However, because the increase in Iscor’s iron ore costs has no effect on the export price P_x (which is determined in the world market), there is no effect on the amount that Iscor sells on the domestic market and hence no effect on domestic prices. The reduction in Iscor’s output is taken up entirely by a reduction in exports.

Implications for other cases

The important facts in the Anglo-Kumba case are not especially unusual. Many markets have a spatial dimension in which producers purchase key inputs locally and then sell their output both locally (in competition with other local producers) where they have a transport cost advantage and in more distant areas (in competition with producers from other areas). Examples include bricks, cement and flat glass. It is not uncommon in such settings to see vertical mergers between the downstream firms and their upstream suppliers.

When a vertical merger occurs in such a setting, the lesson of Anglo-Kumba is that one should proceed with caution in considering the possibility that the merger might lead to a strategy of raising rivals’ costs designed to benefit the merging firms’ downstream interests in the local market. If the downstream rivals will continue exporting after the merger, then the marginal cost of selling on the local market is the export price. If the downstream rivals are price-takers in the export market, then there can be no gain to the merging firms’ downstream operations in the local market from increasing the input costs of local rivals.

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