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Agenda

Advancing economics in business

Expand or die? Competition law and export pricing of commodities

In a market for commodities where local production competes against foreign imports, what would one expect the 'competitive' price to be? While the answer depends on several factors, the simple example of a mine/factory demonstrates that deviations from the predicted theoretical competitive market outcome do not necessarily indicate an abuse of market power

Competitive markets tend to have pricing structures that reflect the underlying costs of supply. When observed prices deviate significantly from this norm there may be cause for alarm, as this outcome suggests that suppliers possess some form of market power. However, although such a pricing pattern may not be possible without market power, this still leaves open the question of whether the deviation of prices is itself evidence of *abuse*, with all that this entails. Issues of significant deviation of prices from underlying costs can be particularly acute in some local and cross-border commodities markets. Getting the right sort of intervention (which might include no intervention) to ensure economic efficiency is important not only for the economy of the country, but also the world trading structure. In this article we look at the issues behind significant, but welfare-enhancing, price discrimination at points of export and import, and how they can be expected to deviate from the competitive norm.

High fixed costs and fixed locations

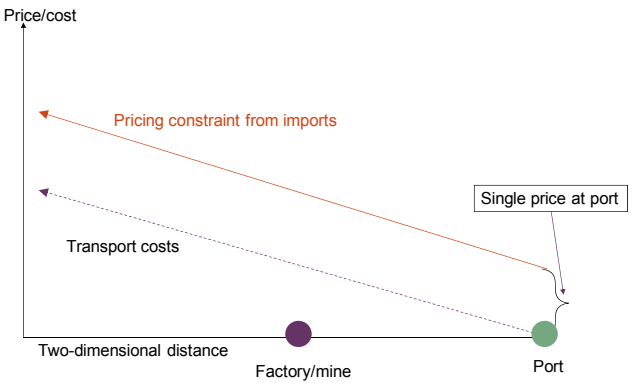
With extractive commodities (such as coal and iron ore), the output has to be produced at a particular location and the cost of getting the commodity out of the ground is dominated by the fixed investment costs of, say, sinking a mine. Once the mine is sunk, the marginal cost of extracting the next tonne of iron ore, say, can be (relatively) small. But if the mine is to be economic and finance itself, both the fixed costs and the variable costs will need to be recovered from the prices charged for, in this case, the ore.[1] Under these circumstances, the problem faced by the producer is how to recover the full costs of the production process, while that for the wider economy is how to recover these costs efficiently and to ensure that the economy as a whole benefits to the maximum extent possible.

As this article will explain, for maximum efficiency, prices may be a long way from the competitive norm of prices equalling marginal cost. (In addition, the pricing pattern may be a long way from what many people would consider 'fair'.) This is best illustrated by situations where the producer of the commodity in question has market power in relation to the domestic market for the product (such as when it is the only possible domestic producer), but faces competition from imports. What pricing structures are optimal from the perspective of the domestic economy, and do these look 'fair'? There is also a question of whether these pricing structures look fair from an international trade perspective.

Import parity pricing

The presence of imports will tend to create a market dynamic where a *maximum* price is imposed on the domestic supplier. This maximum will be a combination of the landed price at the relevant port/entry point (the 'single price at port') and the transportation costs to the required location in the country. Figure 1 provides a stylised example of what the pattern of this

Figure 1 Pricing constraints from imports in 2D land

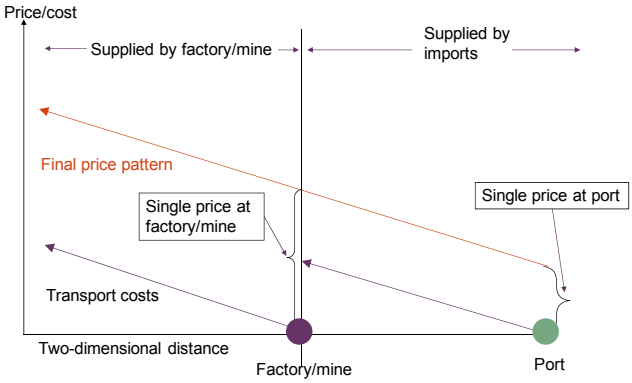


Source: Oxera.

maximum price constraint would look like for a two-dimensional country with a single point of entry (henceforth referred to as '2D land').[2]

A single domestic producer (for convenience for the purposes of exposition here, located in the centre of 2D land) could adopt a single factory/mine gate price. If it sets this at the level of the price constraint from imports at the factory/mine gate, the final price pattern would remain the same, as indicated in Figure 2 below.

Figure 2 Pricing pattern in 2D land—single factory/mine gate price

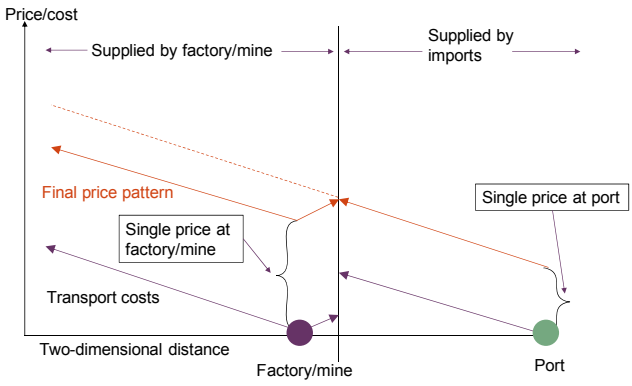


Source: Oxera.

Should the domestic producer adopt a single factory/mine price (as in Figure 2), and set its prices to be competitive at the factory/mine gate, it would satisfy all the demand to the left of its position, and none of the demand to the right. (This demand uses imports, as the price of any supply from the factory/mine to the right would exceed the import pricing constraint.)

The potential problem with this approach is that it would be a coincidence that the price set by imports at the factory gate was the (single) price that reflected the costs of the domestic producer. If the 'right' single price was lower, the pattern of prices would become more complex. See Figure 3.

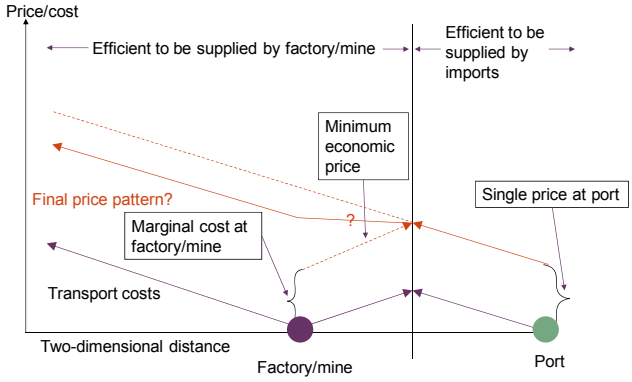
Figure 3 A single cost-based price for the domestic producer



Source: Oxera.

However, given the domestic producer's cost structure, this may still be a very inefficient outcome, and one in which the consumers of the country pay more than is necessary for the product. For example, if the marginal cost of production for the domestic producer is lower than the import price at the point of entry, the country is better off if the domestic producer can satisfy the final demand of even more of the demand on the right-hand side (see Figure 4 below.) But to do that, it would have to abandon its single factory/mine gate price. Trucks heading left could be charged a single price at the gate, but trucks heading right would have to be given a variable price depending on how far they were going, with a lower price for longer shipping distances. The further the truck moves to the right, the higher the shipping costs, and so the lower the price for the goods at the gate would have to be in order for the final price to be competitive with the final price being offered by imports (ie, the price at the port plus the trucking costs from the port).

Figure 4 A more efficient outcome, but no single gate price

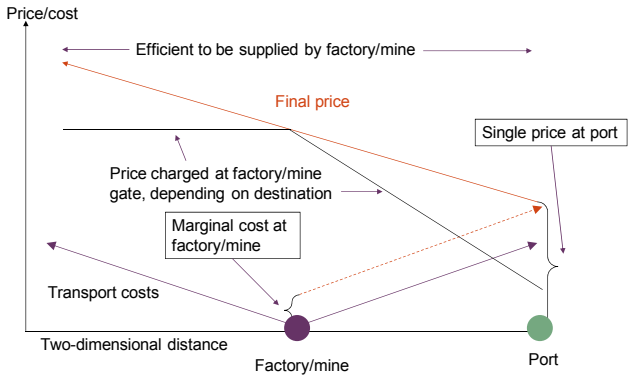


Source: Oxera.

If the domestic producer is still setting its prices so that they are just constrained by import prices (ie, what is termed 'import parity pricing'), the price offered to the trucks going right has to decline twice as quickly as the additional transport costs involved for any given distance: once, in order to compensate the truckers for their transport costs, and once more, in order to take account of the fact that the price of the imported substitute falls as the domestic trucks go further. If the marginal cost at the mine, plus the transport costs to the port, is lower than the import cost at the port, the domestic producer may completely displace imports (see Figure 5 overleaf).

Clearly, the domestic producer would also have to control its distribution network to accomplish this type of price discrimination because, even in a two-dimensional world, a truck owner could claim to be heading right, but actually go left and make a tidy additional profit. This begins to look like price

Figure 5 Extreme price discrimination that displaces imports



Source: Oxera.

discrimination, but a discrimination that is not cost-based in the normal sense—to the right, the price at the mine/factory gate is reduced as the (transport) costs increase (and, in the extreme, is reduced twice as fast as the transport costs increase).

The combination of significant market power and price discrimination may ring alarm bells in some competition authorities.

But what about the consumer?

For domestic consumers, the most extreme price discrimination appears in the contrast between the end-customer at the point of import and those, in the two-dimensional world, on the extreme left. Their costs are the same—they have the same transport costs from the mine/factory—but one gets a price significantly below that at the mine/factory gate, while the other pays significantly more. One question from a welfare and competition perspective must be: 'Is one group of customers (the left-hand side) subsidising the other (the right-hand side); and is the factory/mine therefore making excessive profits?'

If we insist on a normal competitive market price structure, consumers will actually be no better off, and, in reality, probably worse off. A single mine/factory gate price will mean that those on the left-hand side pay the same price, while those on the right-hand side will purchase imports (as in Figure 2). If the marginal cost of domestic output is below the average cost, this will mean that the average cost of the domestic production will rise.[3] In extremis, if the domestic factory/mine is only just economic under the price structure in Figure 5, insisting on a competitive market outcome where the factory/mine sets a single price at the gate (as in Figures 2 and 3) is likely to mean that the domestic production becomes completely displaced by imports. This arises because the single price that matches the import price at the gate means that output falls, as the right-hand side is supplied by imports. This makes the factory/mine uneconomic. A price higher than this means there is no demand at all (since all areas are supplied by imports), and a price lower than this will result in less revenue than was available from the variable gate prices charged in Figure 5. There is, therefore, no single price that allows the factory/mine to be economically viable.

However, a more likely outcome is that, unless the factory/mine is already 100% efficient at exploiting its market power, the price of the domestic product will rise in whatever market it can retain.

In addition, the country is now importing more, and has less employment in the mine/factory. So the application of the pattern of prices expected in a competitive market norm has, rather unexpectedly, reduced economic activity and both consumer and (domestic) producer surplus.

Expand or die?

As demonstrated above, there are conditions where what appears to be a very distorted price structure, and one that is only possible with market power, is actually good for consumers, domestic producers and the country's economy as a whole. Were competition authorities to intervene in order to 'correct' these distorted prices (and, indeed, remove the market power), the outcome could be bad for all concerned. As indicated, in the extreme, domestic production would now no longer be economically possible, and everyone would become supplied by imports.

It is not only the domestic competition authorities that have the ability to get in the way of potentially good outcomes, however. If the mine or factory has a marginal cost of output that is sufficiently low, an even more extreme version of price discrimination will deliver benefits to domestic consumers and the domestic economy—even after taking account of the transport costs to a third country (for example, the origination country for the imports).

In order to make the exports economic in the third country, the export price at the port will have to be below the import parity price, by at least the transport cost to the third country. But these exports can still make the domestic prices lower than they would otherwise be if the exports cover their marginal costs (ie, the marginal cost at the mine/factory plus transport costs to the port).

Not only is this likely to raise questions within the domestic economy—such as 'Why is the country subsidising foreign consumers?'—but it will also look like dumping from the perspective of the country that is now receiving these exports. Under the World Trade Organization (WTO) rules:

> [Dumping] Occurs when goods are exported at a price less than their normal value, generally meaning they are exported for less than they are sold in the domestic market or third-country markets, or at less than production cost.[4]

So the WTO rules may also come into play.[5]

False negatives and competitive market norms

The evaluation of pricing patterns against a theoretical competitive market norm can help to identify where market power exists, and hence where competition authorities should apply their (limited) resources. But a seriously 'distorted' pattern—even including prices falling as costs rise, and export prices below domestic prices—does not in itself show that the market power is being exploited against the interests of consumers. Indeed, under many of the cost and spatial conditions where market power is likely to emerge, a competitive market price structure may actually be economically inefficient and all consumers may be worse off. Some considerable care is therefore needed in interpreting these price structures that, on the surface, look highly suspect.

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[1] The same cost structure can arise in refining processes, with an added complication that some goods may be produced in fixed proportions—eg, different fractions of crude oil—so even the marginal cost of one of the outputs may be zero.
[2] For economists, this is relatively realistic!
[3] The average cost (and hence single price needed to fully recover costs) rises because reducing output by, say, 10%, reduces costs by only 5%. Recovering 95% of the costs over 90% of the volume of output means that average prices will need to rise by just over 5%.
[4] The relevant legal provision is Article VI of the General Agreement on Tariffs and Trade 1994. See: http://www.wto.org/english/thewto_e/glossary_e/dumping_e.htm.
[5] Anti-dumping rules are applied by national governments; the WTO is only the appeals body.