

# Vertically challenged

## A GUIDE TO THE COMPETITIVE EFFECTS OF VERTICAL MERGERS

*With the publication of its non-horizontal merger (NHM) guidelines in 2007, the European Commission (EC) sought to put the competition assessment of vertical and conglomerate mergers on a more economic footing.<sup>1</sup> This article discusses the economic analysis that has subsequently been employed in recent decisions, and the outstanding issues that the authorities in Europe have not yet needed to address. Whilst cases such as TomTom/TeleAtlas have analysed the ability and incentive to foreclose rivals, dealing with the ‘vertical arithmetic’, none have prompted the full competitive effects analysis that is required when these two pre-conditions are in fact met.<sup>2</sup> The challenge of determining whether a vertical merger would ultimately harm consumers, notwithstanding a degree of foreclosure being expected, has yet to be put to the test.*

Where a merger brings together two companies with strong market positions and complementary offerings, it raises the question how pricing will change and how competition will be affected. This includes vertical mergers between companies at different levels of the supply chain, and conglomerate mergers between suppliers of products that are assembled by customers into a single system. In the eyes of customers, this type of merger brings together products or services that are used together, rather than being in direct competition with one another.

The NHM guidelines explain that such mergers provide substantial scope for efficiencies, but also have the potential to cause harm by giving rise to ‘anticompetitive foreclosure’. Foreclosure here refers to impeding the ability of rival firms to compete effectively, for example by denying them access to an important input, or blocking an important route to market. The guidelines emphasise that the prices paid by end consumers ultimately matter, distinguishing between ‘foreclosure’ and ‘anticompetitive foreclosure’. ‘Foreclosure’ is said to arise where rivals’ access to supplies or markets is hampered, and such foreclosure is considered to be ‘anticompetitive’ where the merged entity is consequently able to increase the prices charged to end consumers.

The guidelines provide a three-stage framework for assessing whether a vertical or conglomerate merger is expected to be problematic:

- **Ability** to foreclose: the merged firm must be able to place its rivals at a significant competitive disadvantage by worsening the terms on which it deals with them, or by ceasing to deal entirely.
- **Incentive** to foreclose: the merged firm must benefit sufficiently from foreclosing its rivals to outweigh the costs of implementing the strategy.
- **Effect** or market impact: the foreclosure strategy must - either directly or indirectly - lead to higher prices for end consumers.

In this article, we use the case of ‘input foreclosure’ to illustrate the relevant analysis and evidence, although the discussion applies generally to the other forms of foreclosure

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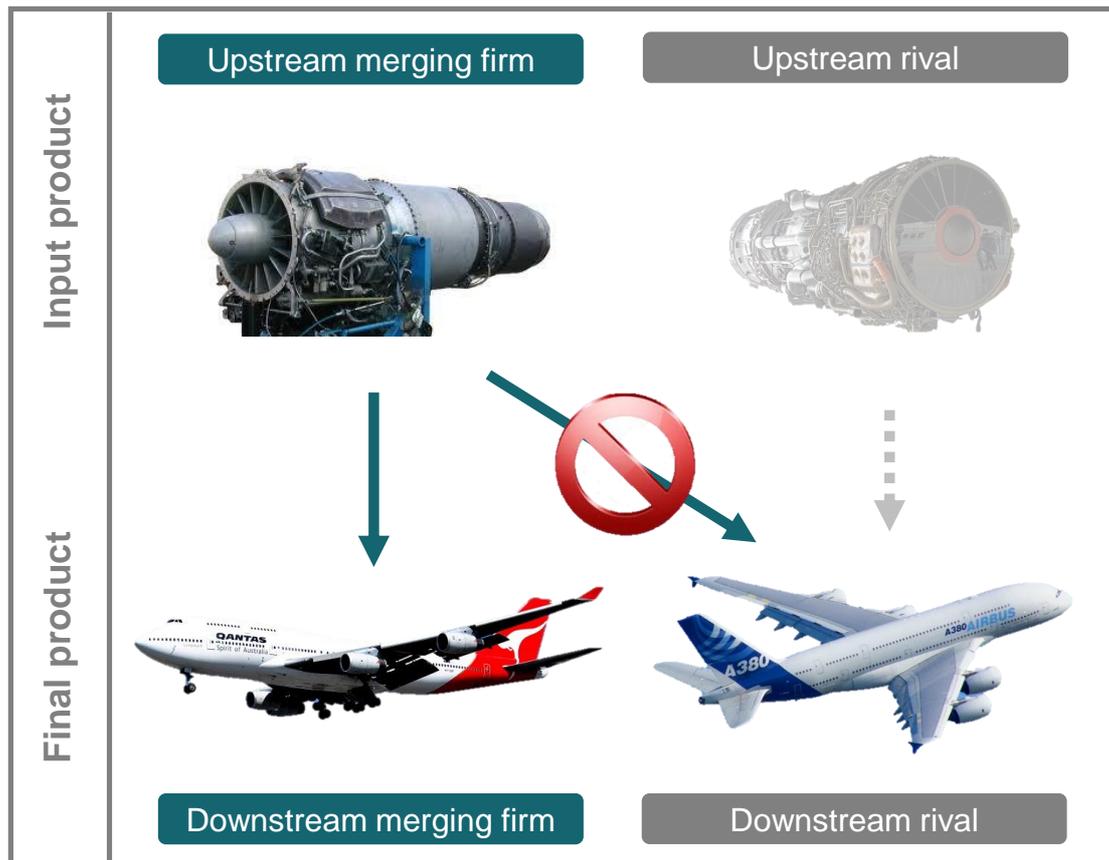
<sup>1</sup> Official Journal of the European Union, 2008/C 265/07. Similar guidance has been produced by some national competition authorities, such as the joint publication of the Competition Commission and the Office of Fair Trading in the UK titled “Merger Assessment Guidelines”, September 2010.

<sup>2</sup> Case No COMP/M.4854 – TomTom/TeleAtlas.



described in the guidelines. Input foreclosure refers to where the upstream division of the merged firm either stops supplying inputs to downstream rivals altogether ('total foreclosure'), or continues to supply them but at higher prices ('partial foreclosure'), and the merged firm's downstream division thereby increases its market power. The figure below shows a simple example. If a leading engine maker were to merge with an aircraft manufacturer, then the new conglomerate might stop supplying engines to rival aircraft manufacturers. That could be a concern if this forced other aircraft manufacturers to rely on inferior engines, impairing their planes in the eyes of final customers.

**Figure 1.** An example of 'input foreclosure'



### Could I?

The ability test amounts to asking whether the merging parties have sufficient market power to foreclose rivals. If their market power is significant, then the terms on which they make their products or services available can impact on rivals and market outcomes. In the case of input foreclosure, this will depend on the degree of market power enjoyed by the merged firm's upstream division, and the importance of the input for the downstream product. If there is a competitive market for the input, then downstream rivals will easily be able to find an alternative source of supply even if the merged firm were to stop supplying them. The ability test can therefore be undertaken with the standard evidential tools that are used to assess horizontal mergers, such as:

- market shares and concentration measures;
- evidence of rival firms growing and winning business;
- evidence of customers switching suppliers; and

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- the ability of customers to sponsor new entry in a timely way.

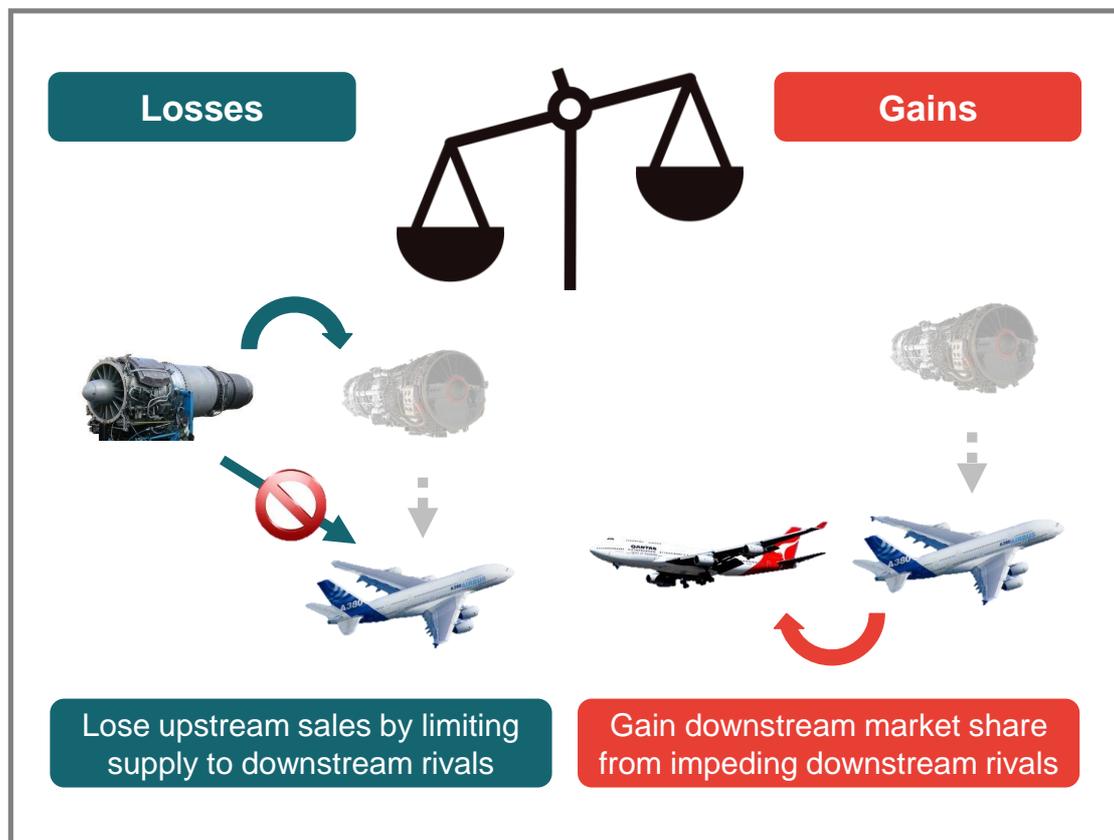
The ability test is useful for screening out those vertical mergers which do not raise potential foreclosure concerns. Beyond this, however, it adds little. Where companies are found to enjoy significant market power, the ability test will be passed independently of whether the merged firm could profitably exercise its market power and raise rivals' costs, or the scale of damage to competitors that would entail. These questions are deferred to stages two and three of the framework.

## Would I?

The second stage of the competition analysis relates to the incentive of the merged firm to raise rivals' costs, and involves applying the increasingly familiar 'vertical arithmetic'. The NHM guidelines recognise that it could be a profit maximising response by the merged firm to raise its input prices to downstream competitors in order to advantage its own downstream business, but that this depends on various factors. The merged entity would have less to lose from raising its input prices than the independent upstream company pre-merger, as a proportion of the input sales lost would be recaptured as consumers switch to buying from the merged firm's downstream division. The incentive test establishes the degree to which such foreclosure would be profitable.

The profitability of an input foreclosure strategy depends on the size of the profit gained on the downstream market (from increased sales diverted from rivals) compared with the lost profit on the upstream market (from a reduction of input sales). The figure below illustrates this trade-off.

**Figure 2.** The trade-off facing a merged firm pursuing an 'input foreclosure' strategy



The balance of this trade-off turns on a number of key variables:

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- the amount of upstream sales lost if the merged firm increased its input prices;
- the extent to which downstream sales would be diverted from competitors to its own business; and
- the relative profit margins achieved upstream and downstream.

Economic theory reveals that the merged firm would likely require not only significant market power upstream but also a reasonably strong market position downstream for an input foreclosure strategy to be profitable. This is because the merged firm's downstream division would typically need to pick up a significant amount of sales diverted from rivals. If the merged firm's downstream product or service offering is weak, then consumers will be unwilling to switch their purchases and will tend to stick with rival suppliers. Downstream margins would also need to be sufficiently high in order that any sales that are diverted in the downstream market are worth recapturing, and the associated profits are sufficient to offset lost profits upstream.

Downstream gains are unlikely to outweigh upstream losses simply if the downstream activity is considerably more important in terms of value-added than the upstream business. In this case, the input would account for only a small proportion of the downstream product price, meaning that an increase in input prices would not have a large impact on the competitiveness of downstream rivals. Hence, in addition to significant market power upstream, a degree of market power downstream - and an associated ability to generate reasonably-sized margins on downstream sales - is likely to be required if the incentive test is to be passed.

Two factors played an important role in the TomTom/TeleAtlas clearance. First, TeleAtlas (an upstream supplier of digital maps to downstream manufacturers of navigation devices) faced competition from NavTeq; it stood to lose considerable sales if it were to increase the price of maps to TomTom's downstream competitors, and so the costs of an input foreclosure strategy were high. Second, digital maps accounted for only a small proportion of the final price of a navigation device; this limited the competitive impact on TomTom's downstream rivals of an increase in the price of maps, and so the benefits of an input foreclosure strategy. The EC carried out an econometric estimation of downstream price elasticities to measure the downstream sales that TomTom would be expected to capture from competitors if TeleAtlas raised its input prices, and compared these with the critical elasticities that would render an input foreclosure strategy profitable. It concluded that the merged entity would have no incentive to increase input prices in a manner which would lead to anti-competitive effects downstream. As a consequence, the EC did not need to move to stage three of the analysis.

## The road less travelled

If the ability and incentive tests are both passed, then the third stage of the competition analysis is to determine the impact on consumers, and whether the foreclosure strategy would lead to higher end-user prices. Here the analytical approach of the authorities in Europe cannot be gleaned from their recent practice. Since anti-competitive effects from vertical mergers have been ruled out using the ability and incentive tests, we still await a case in which the first two pre-conditions are met and a market impact analysis is to be performed.

The NHM guidelines provide limited assistance in this respect. They state that *“anticompetitive foreclosure may occur when a vertical merger allows the merging parties to increase the costs of downstream rivals in the market thereby leading to an upward pressure on their sales prices”*<sup>3</sup>.

<sup>3</sup> Paragraph 47.

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They also explain that the effect on competition needs to be assessed in the light of any efficiencies generated by the merger, including possible price reductions resulting from the integration of complementary activities: *“The Commission may decide that, as a consequence of the efficiencies that the merger brings about, there are no grounds for declaring the merger incompatible with the common market ... when the efficiencies generated by the merger are likely to enhance the ability and incentive of the merged firm to act pro-competitively for the benefit of consumers, thereby counteracting the adverse effects on competition which the merger might otherwise have”*<sup>4</sup>. Thus, the guidelines appear to envisage a bifurcated analysis, similar to that employed in the case of horizontal mergers, whereby the competitive effects of the transaction are first analysed, and - if prices are predicted to increase – there is subsequently an assessment of whether there are offsetting efficiencies. Beyond this, they do not shed light on the circumstances in which a vertical merger will raise concerns, and the relevant evidence and analysis.

Economic theory does, however, offer important insights. The NHM guidelines recognise that *“a vertical merger allows the merged entity to internalise any pre-existing double mark-ups resulting from both parties setting their prices independently pre-merger”*<sup>5</sup>, and treat this as an efficiency, presumably to be explored once the competitive effects analysis has been conducted. However, unlike in the case of horizontal mergers, it does not make economic sense to separate this efficiency from the competitive effects analysis. This is because the same forces that would incentivise the merged firm to raise rivals’ costs would also incentivise it to reduce its own downstream prices to consumers. They both follow from the internalisation of a ‘vertical externality’, and are simply two sides of the same coin. A vertical merger leads the downstream firm to internalise the margin earned by the acquired upstream firm, and so is incentivised to cut its prices. Why is this? Because, after the merger, the downstream firm knows that a lower price will generate not only extra sales downstream, but also extra sales upstream. And those extra upstream sales bring in profits to the merged firm which the downstream firm did not care about pre-merger when it was independent. So incentives have changed. And the greater is the merged firm’s incentive to raise rivals’ costs, the greater will be its incentive to reduce its own downstream prices to consumers.

Thus, the economic logic behind vertical merger analysis leads to the conclusion that both upward and downward price pressure will inevitably be present. These are both constituents of the direct competitive effects of the merger on prices, and it is not meaningful to address these separately in a two-stage approach. Whilst downward price pressure can also arise in the case of horizontal mergers, this does require that a merger leads to cost reductions of a nature and scale that the firm is incentivised to reduce price. No such cost savings are required in the case of vertical mergers.

Second, focusing on the direct effect on prices of a vertical merger is inappropriate, and can lead to a misleading view as to whether the transaction is ultimately likely to harm consumers. Economic theory suggests that the direct effects of a vertical merger will in many circumstances be to lower consumer prices. As just explained, a vertical merger leads to a combination of both upward pricing pressure (as rivals face higher input costs) and downward pricing pressure (as the merged firm reduces its downstream prices). It will often be the downward pricing pressure that dominates, at least in the short run. This is because, although rivals might ideally wish to respond to higher input costs by putting up their prices, they are constrained from doing so by the lower downstream prices of the newly merged firm. Rivals are caught, in effect, in a margin squeeze – they

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<sup>4</sup> Paragraph 52.

<sup>5</sup> Paragraph 55.

are paying higher input costs, but face a more competitive price downstream. The result of this can often be lower prices across the board, as rivals accept lower margins to prevent losing market share to the merged firm. Alternatively, some consumers could suffer (those who continue to purchase the final product from the merged entity's competitors, and who may now face higher prices as a result of the increased input prices charged by the merged firm), but there will always be others who would benefit (those who now enjoy the lower price of the merged firm's downstream offering). Overall, there is no expectation that the direct impact on consumer prices of vertical foreclosure will be detrimental.

## What really matters

If a merger involving complementary offerings is to cause significant consumer harm, then an indirect effect on prices - through a weakening of the competitive capabilities of rivals - would need to be expected. The likelihood of damage to consumers will ultimately depend on whether the viability of competitors would be impaired by the merged firm's pricing strategy, and whether competition on the market would thereby be lessened.

Whilst little or no consumer harm may result directly from changes in the merged firm's prices, competitors would clearly suffer. Their sales would be reduced, both by the merged firm's input price rises and by its downstream price cut. In response, downstream competitors would feel the need to cut their own margins in an effort to retain market share. However, without the benefits of vertical merger, they would gain less from price cuts than the merged firm, would cut their prices less deeply, and would not succeed in preventing all loss of market share. This combination of lower margins and reduced sales would hit their profits.

The third stage of the competition analysis should therefore focus on whether the loss of profits by the merged firm's rivals would have an adverse effect on their competitiveness, and hence on the intensity of competition on the market. It is important not to equate harm to competitors with harm to competition. This requires establishing whether their profit loss would impact on their willingness to remain in the market and invest in their businesses.

The most obvious potential concern is that rivals might be forced to exit the market. In order to test this, a financial analysis of future cash flows is required, determining whether their revenues are sufficient to cover their cash costs, ignoring any costs that are already sunk, but recognising any future investments that may be needed. If the immediate viability of rivals would not be threatened, then there may nevertheless be a concern that their competitive capabilities would be impaired over the longer term if, for example, investments in new capacity or product and process developments were compromised. This requires identifying the investments that rivals are planning to make, and establishing whether the anticipated loss of profits resulting from the merger would overturn their financial appraisals.

<b>CONTACT</b>	<b>Zoltan Biro</b> zoltan.biro@frontier-economics.com
	<b>Chris Newton</b> chris.newton@frontier-economics.com
	<b>David Foster</b> david.foster@frontier-economics.com
	Frontier Economics Ltd
	<b>FRONTIER ECONOMICS</b> BRUSSELS   COLOGNE   DUBLIN   LONDON   MADRID
	<a href="http://www.frontier-economics.com">www.frontier-economics.com</a>