

Incentives to Foreclose

(Still Work in Progress – Comments Welcome!)

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1. Introduction

The European Commission's new non-horizontal merger guidelines envisage a three-step approach to assess the threat of subsequent foreclosure (European Commission 2007). The first step concerns the merged firm's *ability* to distort competition and harm rivals on the upstream or downstream market through full or partial foreclosure. The second step deals with the integrated firm's *incentives* to foreclose, followed then by the assessment of potential competitive harm. In this article, we deal, in particular, with the second screen: the assessment of the *incentives* of a vertically integrated firm to partially or fully foreclose its rivals. Throughout our analysis we focus exclusively on input foreclosure.

The European Commission's guidelines develop several theories on when incentives to foreclose should be deemed to be higher or lower. In this article, we report on the findings from a formal economic analysis that question the validity of these theories and criticize, more generally, the overall approach that is taken there.³ The European Commission's guidelines develop theories on the incentives to foreclose under the—explicitly stated—presumption of holding “other things constant”. As we argue, this is, however, not appropriate in this case.

To be specific, we are mainly concerned with theories that link incentives to foreclose to the observed pre-merger up- and downstream margins. The guidelines assert that

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³ For the formal analysis see Inderst and Valletti (2008). These theories were already applied, before the new guidelines were issued, to investigate a complicated joint venture and acquisition transaction in the European aerospace industry (Thales/Finmeccanica/Alcatel Alenia Space & Telespazio COMP/M.4403). In its inquiry, the “[c]ommission considered some vertical arithmetic submitted by the parties in which the profitability of a foreclosure strategy was assessed; in line with the methodology outlined in the draft guidelines, using estimates of the mark-up upstream, the mark-up downstream, and the relative values of the input upstream and the output downstream, the diversion ratio downstream that would make the strategy of raising rivals' cost profitable was calibrated” (Neven and Albaek 2007). Data on margins to document (the lack of) incentives to foreclose were also used recently in Philips/Intermagetics COMP/M.4300.

incentives to foreclose should be higher if, “other things constant”, the (pre-merger) upstream margins are lower and the (pre-merger) downstream margins higher.⁴ This assertion fails to ask, however, *why* the respective margins are higher or lower in the first place. This is no minor issue. As we show, whether the incentives to foreclose are high or low depends precisely on the reasons why pre-merger up- and downstream margins are high or low.

The formulation “other things constant”, though it is common in the typical “partial equilibrium” analysis that economists tend to undertake, is problematic in the present case. It suggests wrongly that there exist robust (formal) results or empirical evidence that would support the asserted monotonic relationship between pre-merger observables, namely the margins in the presently analyzed case, and incentives to foreclose.

Suppose downstream margins are low and upstream margins high as the (pre-merger) downstream market is highly competitive. Formal analysis as well as sound economic arguments show that there are *first-order* and *robust* effects that work towards an increase, rather than a decrease, of the incentives to foreclose. Such a relationship, which contradicts the one asserted in the guidelines, is robust to various modifications of why competition in the downstream market is high, e.g., as firms’ market shares are low or as their products are relatively undifferentiated.⁵

The guidelines’ theory that high upstream margins and low downstream margins should make foreclosure more likely is admittedly at first intuitive. However, the problem lies in the attempt to establish a robust relationship between *endogenous* variables, namely pre-merger margins and post-merger behavior, without an explicit economic theory. Such a theory (or “model”) is necessary, however, to ask what are ultimately the underlying *exogenous* forces and variations, say in the degree of up- or downstream competition, that affect both pre-merger observables (i.e., margins) and the projections of post-merger behavior (i.e., of foreclosure). Section 2 of this article develops these arguments in detail.

Our arguments in this article, as well as the underlying formal analysis, encompass the case where the considered input is not essential (i.e., not a “bottleneck” or “essential facility”) Compared to the US agencies, the European Commission as well as national European antitrust agencies seem to be much less reluctant to consider potential harm to competition in such cases. As noted by the Church report (Church 2004) for the European Commission, in the case of (full or partial) input foreclosure the argument of potential competitive harm relies mainly on the threat of “raising rivals’ costs”. In Section 3 we put our analysis and results in relation to the extant economic literature, as surveyed by the Church report. We argue that next to suffering from some conceptual problems, the extant literature has simply not addressed the task of providing sufficiently rich theories on the incentives to foreclose. Further formal work seems thus to be a prerequisite to provide guidelines on the incentives to foreclose.⁶

⁴ “Other things constant, the lower the margins upstream, the lower the loss from restricting input sales. Similarly, the higher the downstream margins, the higher the profit gain from increasing market share downstream at the expense of foreclosed rivals.” (European Commission 2007, para. 41.)

⁵ We also discuss the case where the underlying variation that affects pre-merger upstream and downstream margins relates to changes in competition in the *upstream* market.

⁶ In light of the increasing use of formal (structural) analysis in cases (cf. footnote 3), we also comment on some features of the approach taken in the formal analysis that underlies this article.

Based on our formal analysis, Section 4 turns to the assessment of the potential competitive harm from foreclosure, which represents the third step according to the European Commission’s new guidelines.⁷ We focus on the assessment of competitive harm from “raising rivals’ costs” if there is only partial (instead of full) foreclosure, given that there are other suppliers of more or less close substitutes.⁸ We also restrict ourselves to highlighting only one result from the formal analysis. This result sheds doubt not only on the *substantive* part of the new guidelines, but also on the overall *procedure* taken therein, as we show that projections for the incentives to foreclose (i.e., the second screen) may be misleading when it comes to the overall assessment of competitive harm from vertical integration.

To illustrate this, we consider once again a change in downstream competition as the driver of differences in pre-merger up- and downstream margins. While more intense downstream competition may, as argued above, indicate higher incentives to foreclose, we argue that it should also make an overall increase in welfare and consumer surplus more likely. This is due to the fact that the *indirect* constraints that are created by vertical integration are particularly effective if the downstream market is highly competitive.⁹ The guidelines’ procedural split into an assessment of the potential to foreclose, an assessment of the incentives and finally an assessment of competitive harm may, at least in this case, lead to a misleading “interim” result, namely high incentives to foreclose, which in practice may well bear the risk of unduly biasing the overall assessment

We offer some concluding remarks in Section 5.

2. Incentives to Foreclose

The Setting

To be specific, in what follows, we focus on the following situation. Originally, all firms in a given market are vertically separated. A fixed number of downstream firms sell potentially differentiated goods to final consumers. To produce these goods, downstream firms have to purchase inputs from one or more suppliers. As an extreme case, the input that is provided by a particular supplier could be “essential”, implying that downstream firms can not operate profitably if this input is not supplied to them. Even if the input of one firm is not essential, this firm could, however, still have a dominant position for various reasons. For instance, while other suppliers may produce (or may be in a position to produce) a functionally similar input, they may operate far less efficiently. Alternatively, to minimize their costs of operations, downstream firms may want to use a particular mix of inputs. While they could still operate profitably even without having

⁷ We can draw here also on formal results from Inderst and Valletti (2007a).

⁸ For instance, consider the case of the acquisition of Marcroft by EWS in 2006. EWS was the largest operator of retail freight haulage in Great Britain. Marcroft was in the third-party maintenance business and could thus be regarded as the respective upstream firm (though prior to the acquisition EWS relied mostly on in-house provision of maintenance services). One theory of potential harm in this case was that EWS’ competitors would suffer from increased prices and potentially lower service quality, either directly due to Marcroft’s foreclosure strategy or indirectly through less competition for other suppliers.

⁹ For a detailed discussion of direct vs. indirect constraints, particularly in view of an assessment of market power on the merchant market, see Inderst and Valletti (2007b).

access to all inputs, as offered by the various suppliers, their costs of operation may be substantially higher or their offering to final consumers substantially less attractive if one input is foreclosed. Note, in particular, that this description could also apply to retailers who rely on a particular (“must-stock”) branded good in a given product category.

We consider the case of vertical integration and ask whether the integrated firm has still (sufficient) incentives to sell its input to downstream rivals on the so-called *merchant market*. Even if the integrated firm still participates in the merchant market, its offering may become less attractive, e.g., as the price is higher or the quality lower compared to the pre-merger situation. The most clear-cut case, however, is that of full, instead of only partial, foreclosure. Here, the firm ceases to supply to its downstream rivals. In the formal analysis that underlies the present article, we therefore use as a measure for the assessment of the *incentives* to foreclose the critical incidence of full foreclosure.¹⁰

Incentives to Foreclose and the Role of Pre-Merger Margins

The European Commission’s non-vertical merger guidelines capture the integrated firm’s incentives to fully or partially foreclose downstream rivals by the following trade-off (European Commission 2007, para. 40): “[...] the merged entity faces a trade-off between the profit lost in the upstream market due to a reduction of input sales to (actual or potential) rivals and the profit gain, in the short or longer term, from expanding sales downstream or, as the case may be, being able to raise prices to consumers.”

Hence, if the integrated firm (still) sells its input to rivals, the additional profits realized in the merchant market must be traded-off against possibly lower profits that the firm realizes in the downstream market. The integrated firm operates more profitably on the downstream market if its rivals are hampered by higher input prices. Next to full foreclosure or a price increase of the input in case of partial foreclosure, rivals’ costs increase also as alternative input suppliers face less competition in the merchant market (i.e., weaker “direct constraints”) due to the partial or full withdrawal of the integrated firm.

As noted in the Introduction, the guidelines advance several theories that link incentives to foreclose to pre-merger observables. Though our principal arguments and criticism apply to these theories more generally, to be precise we focus on the role of pre-merger up- and downstream margins.

When are Pre-Merger Margins High or Low?

One of the key insights of this article is to point out the importance of asking *why* pre-merger margins are high or low in the first place. These exogenous factors must be understood to be confident that theories that link foreclosure incentives to observables, namely margins in the present case, are both valid and robust.

If firms operating in the downstream market are able to better differentiate their offerings, they should realize higher margins.¹¹ If, for reasons that are exogenous for the present

¹⁰ Precisely, if x represents some (pre-merger) observable variable such as a firm’s margin, we say that a higher realization of x indicates higher incentives to foreclose if the underlying model predicts a positive relationship between high values of x and (the likelihood of) full foreclosure.

¹¹ Of course, to differentiate their products these firms may have to incur additional (R&D or advertising) expenditures. For the sake of the present argument, these costs may be considered as being already sunk.

analysis, there are more firms in the market such that each firm's market share is lower and its residual demand thus more elastic, then this leads instead to lower margins. Holding next the degree of product differentiation and the number of competing firms constant, margins would also be affected by how fiercely firms compete. To provide an illustration, consider the case where firms compete mainly through their long-term capacity choices. Importantly, when a firm decides to compete more aggressively for (additional) market share by raising its capacity, other firms' choices of capacity may already be fixed. The firm can then only substantially raise its market share at the cost of substantive expansion in output and a corresponding reduction in the prevailing price.¹² If a firm with unused capacity can, instead, quickly adjust prices and, thereby, capture business from its rivals, i.e., if there is a large "replacement" effect, then the firm is clearly more tempted to do so. In the latter case, where the "mode" of competition is arguably more intense, the prevailing prices and thus margins should be lower.¹³

While lower differentiation of products, the presence of more firms, or a more competitive mode all reduce downstream margins, they lead to higher upstream margins. This is most easily understood when comparing the extreme case of perfect competition with that of a downstream monopoly. In the first case, perfect competition ensures that downstream firms can not charge an additional, positive margin: final prices are equal to marginal downstream cost, including marginal input prices. In the second case of a monopoly, which may arise if each downstream firm has a monopoly on its own "local" (retail) market, each downstream firm charges an additional, strictly positive margin (a so-called problem of "double marginalization"). This reduces the level of derived demand and, by making it more elastic, leads to lower upstream prices and margins.¹⁴

The impact on up- and downstream margins of variations in the *upstream* market is more immediate, compared to that of previously discussed variations in the downstream market. If the upstream market becomes more competitive, input prices decrease, resulting in lower upstream but higher downstream margins. Again, the upstream market may be more competitive as, for instance, more suppliers compete for market share, inputs are less differentiated, or the mode of interaction is itself more competitive.

Margins and Incentives to Foreclose: Changes in Downstream Competition

We consider first a comparison between two markets or industries that differ, to keep matters simple, only in the level of competition in the downstream market. As discussed

¹² An example could be the market for package tours or, clearly, competition in heavy industries.

¹³ In terms of economic theory, one captures the first mode of competition by stipulating that firms choose quantities (Cournot competition) and the second mode of competition by stipulating that firms choose prices (Bertrand competition). The method of "conjectural variations", as used particularly for applied (antitrust) work, allows to bridge these two extremes.

¹⁴ In terms of applied economic research, the following point is here of particular importance. With differentiated products and with a ("workhorse") linear demand system, though also with different and more general demand systems, a change in the degree of competition is often undertaken in a way that also changes the "size" of the total market. Holding the prices of a fixed number of firms constant, say at a symmetric level, a reduction in the level of differentiation is then typically associated with a reduction of total demand. In our view, this confounds two different effects, which is why we have applied for the underlying formal analysis a linear demand system that avoids such a change in market size (namely, that of Shubick and Levitan 1980),

previously, upstream margins should then be higher and downstream margins lower if the downstream market is more competitive. We show now that, following vertical integration, incentives to foreclose downstream rivals may be *higher* in this case.

This holds for the following reasons. If the downstream market is more competitive, the *pass-through rate* of a (common) input price increase is higher. That is, a given rise in the input price will result in a larger increase of retail prices. If the integrated firm thus still participates in the merchant market and, thereby, lowers the marginal input costs of its downstream rivals, this is to a larger extent passed through into lower prices and higher quantities at the downstream market. The negative impact on the integrated firm's downstream operations is thus larger. In addition, with more intense competition a small cost advantage of the backwards-integrated firm translates into a larger impact on market shares (i.e., there is a larger "replacement" effect).

These observations show that it is misleading to use (only) the absolute levels of up- and downstream margins to draw inferences on the incentives to foreclose. What is, instead, key is the size of the impact that continued participation in the merchant market has on the up- and downstream profits of the integrated firm. This, however, can not be learnt (only) from the levels of pre-merger margins, while "holding all else constant". As we argued, if upstream margins are high and downstream margins low as the downstream market is highly competitive (for the various reasons discussed previously), then foreclosure has a *larger* positive impact on the downstream profits of the integrated firm. Incentives to foreclose can then be strictly higher, even though the profits per unit sold in the merchant market would be strictly higher (pre- and post-merger) given the higher prevailing upstream margin.¹⁵

Margins and Incentives to Foreclose: Changes in Upstream Competition

Take next the case where two industries differ with respect to pre-merger competition in the upstream market. We further consider first the case where in one market a supplier can more easily grab market share, say by flexibly adjusting prices, while in the other market this is harder, say as the main strategic variable is the choice of long-run capacity.¹⁶ Incentives to foreclose can be lower in the first case, even though the upstream market is more competitive such that upstream margins are lower and downstream margins higher.

The intuition is again straightforward. If the integrated supplier can grab a large share of the market by only slightly undercutting rival suppliers, then through still participating in the merchant market it can earn positive profits while having only a small impact on merchant prices and thus also on final prices. Instead, if it is harder to grab market share by replacing the business of other suppliers, then the quantity that the integrated firm sells in the merchant market roughly comes "on top" of that sold by other suppliers, resulting in a larger impact on prices and quantities in the final market.

¹⁵ The formal analysis shows that the presented effects are of first-order importance and, in particular, lead for the most simple ("workhorse") case with linear demand to the respective monotonic relationship between margins and foreclosure incentives.

¹⁶ Cf. also the preceding discussion as well as footnote 13.

Again, looking only at the pre-merger levels of up- and downstream margins would be misleading. Incentives to foreclose, or likewise to still participate in the merchant market, depend on the impact that this has on up- and downstream profits. In the presently considered case, where we vary the “mode” of upstream competition, higher upstream and lower downstream margins can well go together with higher instead of lower incentives to foreclose.

Our formal analysis that underlies this article shows also that an increase in upstream competition by other means, in particular through lower differentiation of inputs, can increase incentives to foreclose. In this case, given that margins are then lower upstream and higher downstream, the findings would thus confirm the guidelines’ theory on incentives to foreclose.¹⁷

At least, taken together our findings present a warning against formulating seemingly clear-cut theories on incentives to foreclose (“holding all else constant”), as done in the guidelines. Our findings show that while at first intuitive, these theories neglect some important economic effects, which in turn can only be seen clearly once it is understood why margins are high or low in the first place. Our formal analysis could become helpful in assessing the incentives to foreclose in a particular case analysis. As briefly discussed next, the framework used therein has some conceptual advantages compared to approaches in the extant literature.

3. Economic Analysis of (Incentives of) Foreclosure

The economic literature dealing with a vertically integrated firm’s incentives to foreclose rivals originates from Salinger (1988) and Ordober, Saloner, and Salop (1990).¹⁸ Both papers, as well as much of the follow-up literature, have encountered strong criticism on a conceptual level. In this article, we will not repeat this criticism, but only note that the novel approach that we apply in our formal analysis is not subject to it.¹⁹ Some comparisons with the extant literature are, however, noteworthy.²⁰

¹⁷ One reason why our findings with respect to variations in the *downstream* market are more clear-cut is the following. To recall, in this case the argument why more competition increases incentives to foreclose was based (also) on a higher pass-through rate, which holds irrespective of why downstream competition is more intense. (This argument comes in addition to the argument that a more competitive market allows to lever a small cost differential into a larger advantage in terms of market share.)

¹⁸ See Church (2004) for a detailed account of these papers as well as the follow-up literature.

¹⁹ The literature following Salinger (1988) assumes upstream quantity (Cournot) competition. See, for instance, Schrader and Martin (1998) for a detailed critical discussion. In Ordober, Saloner, and Salop (1990) suppliers compete in prices, albeit they choose a very particular sequence of moves (cf. Reiffen 1992 for a critical discussion). In our model, upstream firms simultaneously set prices, which is followed by either price or quantity competition on the downstream market. In our analysis, there is also no problem of commitment in the case of full or partial foreclosure: The forwards-integrated firm’s incentives to participate correspond exactly to the (equilibrium) input price that prevails in the merchant market. (On commitment and the credibility of foreclosure see, for instance, Avenel and Barlet 2000, Choi and Yi 2000, or Chen 2001.)

²⁰ Ours as well as the referenced literature takes a “merchant-market” approach to the upstream market. This abstracts from (pre-merger) problems of supplier opportunism. As is shown in a large literature following Hart and Tirole (1990), when nonlinear and non-observable supply contracts are set bilaterally, a supplier can become himself “his worst competitor”, ending up supplying competing downstream firms at

Our analysis suggests that much of the extant literature has *overstated* the overall incentives for input foreclosure following forward integration. This is so for the following reason. In the strand of the literature on foreclosure that follows Salinger (1988), suppliers are thought to compete in quantities. As illustrated above, this is best understood to characterize a market where long-run capacity choices represent the key strategic variable. As we also noted above, however, in this case the forwards-integrated firm has particularly low incentives to (still) participate in the merchant market, given that its own supply of the input does not replace that of other suppliers. The opposite case is that where suppliers compete by (flexibly) adjusting prices. There, in particular if inputs are relatively undifferentiated, the integrated firm can gain market share by replacing the business of other suppliers, with potentially only a limited overall “pass-through” effect on downstream quantities and prices. In short, much of the results of the extant literature, given the particular form of competition that is stipulated there, can be thought as providing at best an *upper* boundary on incentives to foreclose.²¹

Even when ignoring the conceptual problems as well as the limitations that arise from particular specifications, the extant literature provides only very limited assistance when it comes to assessing the incentives to foreclose. There is typically no scope to consider different characteristics of the upstream market, such as differentiation of suppliers’ products, and there is only limited variation in downstream market characteristics, including product differentiation, market shares, or the mode of competition. The extant literature thus provides little guidance, let alone robust support, for particular theories on the incentives to foreclose. As we are also not aware of (strong) empirical results that relate particular observables, such as market shares or margins, to incentives to foreclose, it seems premature to formulate particular theories.

4. Assessment of Competitive Impact

In this Section, we briefly turn to the overall assessment of the competitive impact from foreclosure. Our formal analysis also provides some insights for this assessment, though for brevity we will confine ourselves to a single issue. To stay close to our previous analysis, we only consider a variation in the degree of downstream competition. While our previous analysis suggested that *incentives* to foreclose may be higher as the downstream market becomes more competitive, implying lower downstream but higher upstream margins, we argue next that nevertheless the overall assessment of the competitive impact may still be more positive than with a less competitive downstream market. As we argue, with more intense downstream competition vertical integration may exert strong *indirect effect* on the merchant market.

his own marginal cost. This view is rather extreme as prices are then brought down to marginal costs even in the absence of interbrand competition. In fact, intrabrand competition would be sufficient. By integrating forwards, the supplier can mitigate or even perfectly overcome this problem of opportunism, leading to a rise in up- and downstream prices.

²¹ Cf. Salinger (1988) or the results in Reiffen and Vita (1995) or Gilbert and Hastings (2005). Moreover, this also applies to the results on “strategic overbuying” in, for instance, Gaudet and Van Long (1996) and Higgins (1999).

Our analysis is (again) framed in a setting where the (fully or partially) foreclosed input is not essential. By pointing to conflicting results for the incentives to foreclose and for the overall assessment of foreclosure, our analysis stresses again the importance of a sound economic analysis, but it also shows that a separate analysis of incentives to foreclose, as suggested by the guidelines, may provide a misleading (“interim”) picture, which in turn may bias the overall assessment.

As discussed above in detail, in contrast to the guidelines’ assertion, there are robust economic arguments for why more competition leads to lower downstream and higher upstream margins, while also increasing incentives to foreclose. As we argue now, however, even if there is (full or partial) foreclosure, a more competitive downstream market may dampen the negative and amplify the positive effects of vertical integration. Here, we do not try to present a full discussion of the anti- and pro-competitive effects of vertical integration, as done recently in the Church report (Church 2004). One of the key pro-competitive effects that is discussed there is the following: The backwards integrated firm can procure the respective input at marginal cost instead of at a strictly higher pre-merger price. This makes the firm more competitive on the downstream market. If the input prices of its downstream rivals stayed unchanged, consumers would benefit from vertical integration. However, through fully or partially foreclosing its downstream rivals, the integrated firm pushes up their input prices and product costs. In the case of a non-essential input, downstream rivals would then still be active, albeit producing at higher costs given that they have no longer access to the integrated firm’s, potentially more efficient or otherwise more suitable, input *and* given that other suppliers face less competition.

However, the weakening of *direct* constraints on the merchant market through the (full or partial) withdrawal of the integrated firm can be more than compensated by the additional *indirect* constraints that are generated through vertical integration. These indirect constraints are particularly effective if the downstream market is highly competitive, i.e., precisely when the integrated firm’s incentives to foreclose may be high according to our previous arguments. Higher incentives to foreclose may then go together with a more positive assessment of the overall impact of vertical integration.

To further develop this argument, we must consider in more detail the working of the merchant market. Suppliers that are (still) active in this market face the *derived* demand of firms that operate in the downstream market. More precisely, derived demand is obtained by aggregating the individual demand of all downstream (or retail) firms that purchase in the merchant (or wholesale) market.²² Indirect constraints from a vertically integrated firm affect the market power of other suppliers through making derived demand more elastic.

To see this, suppose that non-integrated suppliers want to raise their prices. If there was no vertically integrated firm, all competing downstream firms would be equally affected by this cost increase. In contrast, backwards integrated firms are shielded from this cost increase to the extent that they rely on self-supply. Facing thus no or only a smaller increase in marginal cost, integrated firms take away a larger share of the market from

²² Each downstream firm’s individual demand derives from the equilibrium that is played out in the final market.

non-integrated firms following an increase of prices in the merchant market. Demand in the merchant market thus drops by more than what would be the case in the absence of an integrated firm – or, in other words, derived demand becomes more elastic. The increase in the elasticity of derived demand in the presence of a vertically integrated firm becomes more pronounced as the downstream market is more competitive, as then a backwards integrated firm with only a small cost advantage can capture a larger share of the total market. Taken together, even if the integrated firm fully forecloses downstream rivals, prices for other (more or less closely substitutable) inputs in the merchant market may not increase, which is why the benefits from vertical integration may outweigh its costs in the overall competitive assessment.²³

5. Concluding Remarks

Based on a formal economic analysis, this article derives insights on the assessment of incentives to foreclose following vertical integration, as well as on the assessment of the overall competitive impact of foreclosure. The underlying economic analysis offers a new modeling approach to vertical integration and foreclosure, which is not subject to the conceptual criticism that has been advanced against much of the extant literature. Our approach also allows deriving a rich set of results on the incentives to foreclose and the economic effect of integration and foreclosure. In our concluding remarks, we stress some of the key insights for antitrust practitioners.

Our results question the theories on incentives to foreclose as advanced in the European Commission’s new non-horizontal merger guidelines. Focusing for the purpose of this article exclusively on the role of pre-merger up- and downstream margins as predictors of subsequent foreclosure, we show that, though at first intuitive, the guidelines’ asserted relationship between margins and foreclosure incentives misses some key economic effects. In fact, we argued that high upstream and low downstream margins may be associated with high incentives to foreclose downstream rivals, in contrast to what is asserted in the guidelines. This holds, in particular, if the underlying variation due to which margins are higher or lower in the first place relates to downstream market characteristics.

The underlying formal analysis shows, moreover, that the identified economic effects that work against the guidelines’ theory in this case are of first-order importance. In particular, a more competitive downstream market, which increases upstream but decreases downstream margins, tends to increase the size of the additional profits that foreclosure generates for the integrated firm at the downstream market.

²³ In the case of Schneider/Legrand, the Commission argued instead that the highly fragmented and competitive downstream market (in this case, among wholesalers that were supplied by the two merging firms) *increased* market power for upstream firms. The Commission argued that competition would undermine buyers’ ability to exert countervailing power so as to “constrain prices in any acceptable way”. (Case C(2001)3014, para. 195). (Cf. also CFI Judgement of 22.10.2002 on case T-301/10: Schneider v. Commission.) Our analysis suggests the opposite result, namely that more competition at the retail level imposes more constraints on suppliers (at least in the presence of an integrated firm) To bridge the two perspectives, a more detailed analysis of the concepts of “buyer power” (or “countervailing power”) and that of “indirect constraints” would be warranted.

Together with the criticism of existing approaches to foreclosure (incentives), our results suggest that it is potentially premature to formulate theories that link pre-merger observables to incentives to foreclosure. We believe that such theories would have to be richer, as they have to differentiate between the various reasons for why up- and downstream margins are low in the first place, e.g., due to characteristics in the up- or downstream markets such as the respective intensity of competition.

In particular, if the potentially foreclosed input is not essential, this should require additional care before coming to a negative assessment of a vertical merger. As we showed in addition, in this case also the overall assessment of foreclosure, next to the assessment of incentives, requires a careful balancing of direct vs. indirect effects that affect the merchant market for inputs. We stressed that the same market characteristics that can lead to higher incentives to foreclose may make vertical integration more beneficial. This insight may provide a warning against a too rigid separation of the different procedural steps in the guidelines, given that a positive or negative assessment at the second screen (“incentives to foreclose”) may wrongly bias the overall assessment in the third and final step.

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