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Comments on the Church Report and its Implications for Non-Horizontal Merger Guidelines

A Report to the European Commission on behalf of the International Chamber of Commerce

Prepared by the Commission on Competition

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I. Introduction

The International Chamber of Commerce (ICC) greatly appreciates the opportunity to provide comments on *The Impact of Vertical and Conglomerate Mergers on Competition* by Dr. Jeffrey Church (hereafter, the "Church Report").[1] The issuance of Non-Horizontal Merger Guidelines by the European Commission would constitute a major development in the Commission's policies and would have wide-ranging effects on business conduct and, accordingly, future economic development and welfare of the marketplace. Therefore, we are gratified that the Commission recognizes the importance of fully exploring the economic underpinnings of any such Guidelines.

The Church Report provides a detailed and in-depth survey of the theoretical economic literature on possible competitive harms that can potentially arise in vertical and conglomerate mergers. This is an important and necessary first step in the development of a useful and informative set of vertical and conglomerate merger Guidelines, and we applaud the Commission for initiating such a survey. However, to rely too heavily on a survey of the economic literature without practical guidance based on empirical evidence and prior experience could inadvertently create unnecessary uncertainty and deter potentially beneficial transactions. This report therefore attempts to assist the Commission in putting this economic survey into context and bridging the gap between economic theory and public policy considerations. The objective of this paper is to aid the Commission in designing a set of Guidelines that are useful, informative, and consistent with modern economic theory and desirable public policy.

The gap between economic theory and public policy exists because while there are a number of economic theories that could apply in a given situation—the relevant theory being dependent on the specific facts at hand—the Guidelines must be more general and applicable to all situations. In other words, the Guidelines necessarily must take a broader view that is not tied to any specific theory of the competitive harms or benefits that could result from a vertical transaction or conglomerate merger. One approach would be to focus on identifying the market factors that the Commission will consider when assessing the competitive issues. In addition, the Guidelines should recognize that the presumptions ordinarily associated with horizontal merger analysis do not apply to non-horizontal mergers generally. For example, the structural factors that create the potential for efficiencies are also the market conditions that could give rise to competitive concerns. For this reason, an efficiencies analysis is an integral part of the competitive analysis and neither a separate step nor a last step of the analysis. In particular, the Guidelines should recognize that vertical mergers are generally motivated by the parties' efforts to correct the inefficiencies that arise in arms' length transactions. Such inefficiencies cannot always be cured by means of contracts.

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[1] Jeffrey Church, "The Impact of Vertical and Conglomerate Mergers on Competition," a report written for the European Commission (Directorate General for competition and Directorate B Merger Task Force), September 2004.

This paper is based on our experience in antitrust and competition policy, our knowledge of the economic literature and how it is applied in practice, and the comments of a number of distinguished and leading economists from around the world.[2] In seeking the comments and opinions of this group of economists, we focused on the theoretical concepts and issues that are raised in the Church Report and their implications for public policy. This report is divided into four sections. First, we discuss the impact of merger Guidelines on competitive behaviour. We examine the potential impact of merger Guidelines on both transaction parties and those considering mergers. Second, we examine the role of economics in establishing merger Guidelines. Third, we review important economic considerations that may have been omitted or under-weighted in the Church Report. Many of these concepts are mentioned in the Church Report, but frequently are not distinguished in terms of their import. Fourth, we address the specific economic models that were explored in the Church Report and the limits of those models. This section focuses on the lessons that can be drawn from this economic literature for the purpose of writing a useful and informative set of Guidelines. In particular, we emphasize the market factors that should be part of the framework of analysis that the Commission will apply when assessing the competitive impact of a proposed non-horizontal merger.

As we describe below, the analysis of the economic literature is a critical step in formulating non-horizontal merger Guidelines, but we urge the Commission to draft a set of Guidelines that focuses only on those economic theories that are well established or based on substantial practical experience. In addition, after further empirical research and practical experience, particularly in assessing the efficiencies, we hope the Commission will consider the possibility of drafting safe harbors. We also urge the Commission to continue its research in this area and to ensure that the economic evaluation, as well as jurisprudential analysis, is adequately developed prior to the publication of Guidelines. At present, the knowledge base regarding the actual effects of prior vertical and conglomerate mergers and the complexity in determining the long-term dynamic effects is such that the Commission also may want to consider whether the public interest is better served by issuing Draft Guidelines at this time and whether the Commission's interests also would be served by issuing a discussion paper to further the academic and applied scholarship in this area. We would note that the latter approach would reflect the Commission's continued vigilance of these issues while preserving its ability to consider effectively various non-horizontal merger theories on a case-by-case basis.

II. The Impact of Merger Guidelines on Competitive Behaviour

Any set of Guidelines issued by the Commission will be read and interpreted closely and carefully by market participants and their counsel. As a result, they will immediately have an enormous influence on the decisions made in the marketplace. Guidelines can be useful in eliminating uncertainty about enforcement policies. Such uncertainty can stem from a patchwork of

[2] Written or oral comments were provided by a number of academic and consulting economists from around the world, including Simon Bishop, Mary Coleman, Joseph Farrell, Richard Gilbert, Gregory Leonard, Howard Marvel, Rika Mortimer, Janusz Ordover, David Scheffman, Paul Seabright, Eric van Damme, and Robert Willig.

enforcement initiatives that are at times only partially revealed to, or understood by, non-parties to a transaction. Please note, however, that Guidelines influence not only those transactions that occur, but also those transactions that are being contemplated. If one accepts that most non-horizontal mergers are likely to result in at least some measure of integrative efficiency, it becomes clear that any infirmity embodied in the merger Guidelines will have broad-ranging effects.[3] For example, uncertainty about how the Commission will assess the effects of a transaction could deter or delay transactions that benefit consumers through lower prices (due to the elimination of double marginalization), improved services, new products, and an enhanced incentive to innovate. Therefore, the critical starting point for determining whether Guidelines will be beneficial should be whether there is a sufficiently concrete understanding of the policies being espoused to ensure that there is no unintended harm from the issuance of the Guidelines. In short, only those economic and judicial concepts that are well established and well understood should form the basis of the Commission's Guidelines. Anything more (or less) may cause as much (or perhaps more) potential harm as good. As Professor Church noted in his remarks to the Association of Competition Economists on September 8, 2005, both Type I and Type II errors in the non-horizontal merger Guidelines could lead to significant "chilling effects" and unintended injury to consumers. With additional research and experience, it may even be possible to establish a few safe harbors with little risk of deterring what would otherwise be procompetitive transactions or permitting transactions that would harm competition and consumers.

We note, in particular, the need to establish a sufficient base of prosecutorial and jurisprudential experience. Even if economic theories are well developed and generally agreed upon by economists, the implications of regulating according to these theories can only be meaningfully understood through actual experience. For example, most economists would agree that, at least in some instances, a horizontal agreement to restrain trade between two insignificant competitors in an effectively competitive market is not likely to result in consumer harm because the agreement is not likely to be enforceable. Yet, through practical experience, *per se* rules against such agreements have taken shape in order to provide a deterrent against such behavior and provide judicial economy. Conversely, then, without empirical evidence and any practical experience with the application of some of the non-horizontal merger theories described in the Church Report, it is quite possible that a set of Guidelines based on these theories may prove unworkable or detrimental to consumer welfare. Thus, an established intersection of theory and practice would seem to be a prerequisite to the development of a set of Guidelines based on a particular theory.

To be useful, the Guidelines could be written in a number of ways. Three approaches—not mutually exclusive—are as follows. First, the Guidelines could be written to inform companies about the practices that could lead to competitive concerns and an enforcement action. This is

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[3] Economists have long recognized that vertical mergers are likely to lead to efficiencies. The efficiency rationale for such transactions is well accepted and can be found in many of the papers cited in the Church Report. In addition, see the report by RBB Economics, "The Efficiency-Enhancing Effects of Non-Horizontal Mergers," 2005. This is a report that was part of a project financed by the European Commission (Enterprise and Industry Directorate-General), hereafter "RBB Report."

appropriate where there is a high level of confidence in the state of knowledge regarding the competitive harms that could result from a particular practice or conduct. Second, the Guidelines could be written to inform companies about the practices that are unlikely to lead to competitive concerns and an enforcement action, *i.e.*, a "safe harbor" approach. This would be appropriate to the extent there is an equally high level of confidence in the state of knowledge regarding the efficiencies that could result from a particular practice or conduct. Third, Guidelines could be written to provide information to the public about how a particular practice or conduct will be analyzed by the Commission, without either the threat of enforcement action or the promise of inaction. This is appropriate if there is sufficient confidence in the state of knowledge regarding the conditions under which competitive harm is likely to occur as a result of a particular practice or conduct.

With respect to the first approach, we agree with the Church Report that the state of economic knowledge is not sufficiently developed to write rules that define the circumstances when a non-horizontal merger could be presumed to raise antitrust concerns.[4] Based on our review of the literature, the third approach, which is to write Guidelines that describe how the Commission will analyze a particular non-horizontal merger, is the most promising avenue in the first instance. Perhaps after some empirical and practical experience, particularly in assessing the evidence on efficiencies, the Commission will consider the second approach and draft a set of safe harbors. Thus, we agree with the general proposition in the Church Report that the most sensible approach is to write a set of Guidelines that describe a framework for analysis and the circumstances in which an antitrust analysis might be warranted.[5] In that spirit, the remainder of this paper will describe some of the analytical principles that we hope the Commission will consider when drafting a set of Guidelines.

Of course, in the face of uncertainty, we hope the Commission will continue developing a body of theoretical and practical experience (and hopefully update its public pronouncements to the extent further learning and reflection occurs). This suggests that it may be appropriate to issue a set of Draft Guidelines that are more limited in scope (*e.g.*, focused on theories of competitive harm that are well accepted by economists and supported by practical experience and empirical research) or delay its release until the Commission has had the time to accumulate the appropriate research and experience. Such an approach would allow the economic and legal communities to continue the research needed to undertake a more extensive set of Guidelines.

In summary, policies that provide useful information and guidance to the marketplace should be based on a concrete understanding of the policies being espoused to ensure that there is no unintended harm. This understanding should reflect economic and judicial concepts that are well established and well understood, and a broad base of prosecutorial and judicial experience.

[4] Church Report, p. iii.

[5] *Ibid*, p. iii.

Otherwise, the Guidelines could harm consumers and lead to significant "chilling effects" by unnecessarily discouraging or delaying efficient and procompetitive mergers, particularly to the extent that the Guidelines inadvertently send the wrong message regarding the Commission's receptivity of non-horizontal mergers.

III. The Role of Economics in Developing Merger Guidelines

Economic analysis can and should play a key role in the development of a set of merger Guidelines. As the Commission recognizes, economic analysis is useful in identifying the incentives of firms competing in the marketplace. It also helps us to understand the conditions under which a particular practice might lead to competitive harm and the conditions under which consumers are likely to benefit from a particular practice. These are useful for the purpose of drawing a set of Guidelines.

However, it is not sufficient to develop a list of economic theories that simply enumerate the possibilities of harm. For the Commission's Guidelines to be useful and informative, they must rest on economic principles that are likely to apply under many, if not all, circumstances. Because the applicability of a particular model will depend on the market facts, the critical challenge is to write a set of Guidelines that can adequately describe how the Commission will assess whether a particular theory applies or not. In other words, even though a particular theoretical model of vertical mergers may be broadly useful in describing why or how a transaction might lead to competitive harm, this is not enough as it does not by itself provide grounds for gauging whether harm to competition is likely, particularly if the propounded model does not explicitly account for the potential cost savings and efficiencies. The Guidelines should address the market factors that determine whether a particular theory is applicable or not, which is the first step in assessing what the outcome might be as a result of a particular transaction. Stated differently, even if the analyses clearly assess the consequences of the altered relationship of the transaction partners, a complete study must also consider the responses of rivals in the marketplace and the presumptive possibility that the *actual* transaction could generate cost savings and efficiencies, both of which are marketplace factors that affect the ultimate performance of the marketplace post-merger. These dynamic efficiency factors may not be formally specified as part of an economic model, but they should be part of the Commission's framework of analysis.

In addition, for competition policy purposes, economic analysis is particularly useful if it identifies the specific market facts that are likely to matter in distinguishing practices and conduct that lead to competitive harm compared to those that do not. For example, theory may help identify the facts that must be uncovered or the market conditions that must be present for a particular vertical or conglomerate merger to raise competitive concerns.

IV. Key Economic Concepts Requiring Additional Consideration in the Analysis of Non-Horizontal Mergers

There are a number of key economic principles that can be the basis for a coherent set of vertical and conglomerate merger Guidelines. Some of these are mentioned in the Church Report, but for the most part, the potential for non-horizontal mergers to lower costs or enhance competition are not emphasized or given sufficient weight. One reason for this lack of emphasis on the procompetitive benefits in the Church Report is that the objective of the survey was to review the theoretical literature on how non-horizontal mergers could lead to competitive harm. Although the Church Report was not intended to be a survey of the ways in which non-horizontal mergers could enhance competition or reduce costs, the potential for efficiencies should not be forgotten. In fact, much of the economic literature on vertical relationships starts from the presumption that these vertical relationships are driven by efficiency considerations.

A second reason is that the Church Report focuses on the "post-Chicago" literature. In general, these models focus on the potential for competitive harm rather than the potential for these mergers to improve static efficiency and enhance competition. This is not a criticism of the Church Report or of the post-Chicago literature, but a reminder that the post-Chicago literature was focused on developing and explaining theories of competitive harm, which was a research goal that stemmed in part from the recognition that the Chicago School already laid out a strong case for the procompetitive rationale for vertical mergers, albeit without grounding these results in solid game-theoretic foundations.

Although the weight of post-Chicago economic analysis may skew towards the identification of market settings in which vertical arrangements could lead to potential competitive harm, a proper Guidelines framework should fully recognize and credit the potential for non-horizontal mergers to increase economic efficiency and enhance competition. In this regard, it would be useful if the Guidelines would (a) acknowledge that the benefits of complementary product pricing and the elimination of double marginalization and other vertical inefficiencies are first-order benefits of a non-horizontal transaction; (b) recognize that the merger-related efficiencies and cost savings often arise because they resolve problems that cannot be solved practically through contractual solutions; (c) develop an empirical approach to estimating and assessing the magnitude of the efficiencies; and (d) recognize that one of the key competitive factors is the ability of rival firms to engage in counterstrategies that could further enhance competition in the marketplace. As discussed below, the analytical framework that is explicit or implicit in the Commission's proposed Guidelines should incorporate these concepts.

A. Acknowledging the First-Order Benefits of Complementary Product Pricing and the Elimination of Double Marginalization

Firms selling complementary products have an incentive jointly to set lower prices, not higher prices, as compared to the level that would arise through uncoordinated price setting. This is the flip side of the well-known and accepted proposition that guides horizontal merger analysis, *i.e.*, that firms selling substitute products have an incentive to set higher prices, not lower prices, as

compared to a level that would emerge absent coordinated price setting. Many, if not most, conglomerate mergers involve transactions that would integrate complementary products under the control of a single firm. Thus, one of the first-order benefits of a conglomerate merger is the strong likelihood that prices for two complementary goods will be lower if they are sold by the same firm. Similarly, many, if not most, vertical mergers involve transactions that would integrate complementary inputs, where the same first-order benefit would apply.

The main reason why the prices charged by a firm that sells complementary products (or inputs) may be lower than that which would have been charged by single product firms is that the single product seller would want to charge the most that the market will bear for its product alone, taking as given the price of the complement. Integration—whether through a conglomerate merger or a vertical merger—changes the dynamics by putting the pricing decision in the hands of a firm that has a different interest in mind—the profits associated with selling an entire set of products, not just one product. If the products are complementary, then the integrated firm's incentive is to charge a lower price for the package, not a higher price. This is because a reduction in the price of one of the products increases the likelihood that a customer will also want to buy the supplier's other products. In other words, while unilateral profit-maximizing prices would benefit each seller individually, such a pricing strategy could reduce the overall demand for all the products collectively. Indeed, if each of the merging parties sold their products separately and charged the unilaterally profit-maximizing price, then the total price may be so high that customers may be discouraged from buying any of the products.[6]

In addition, just as important are the benefits from resolving principal agent problems where one firm (*i.e.*, the principal) has to motivate the agent(s) to act in a manner that maximizes joint profits along the vertical supply chain. Indeed, this is the focus of much of the economic literature on vertical integration. For example, it is well established that vertically integrated firms have an incentive to eliminate the double marginalization problem. Double marginalization arises when the volume of output purchased by the ultimate customers is inefficiently reduced because the price they paid includes markups imposed by both the downstream and upstream firms. This is double marginalization in that the retail price incorporates two markups: the manufacturer adds a markup to its cost of production before selling its good to the retailer, who in turn adds its own markup before selling the good to consumers. This leads to excessive retail prices that could even exceed the monopoly price of the manufacturer's product.

When the upstream and downstream firms are not integrated, the problem of double marginalization arises because each firm (*e.g.*, the downstream firm) does not take into account the impact of adding a mark-up on the profit of the other firm (*e.g.*, the upstream firm). As a result, the unintegrated downstream firm (*e.g.*, a distributor or retailer) may be able to add a markup that exceeds the competitive costs of distribution or retailing.

[6] This result is most obvious if the two firms are the only providers of the complementary goods. However, all that is required for this condition to be satisfied is that each firm faces a downward-sloping demand curve.

A vertical merger can generate efficiencies by internalizing this externality and putting the downstream pricing decision in the hands of the upstream manufacturer (or a downstream retailer), which does not have an incentive to increase downstream prices above competitive jointly profit-maximizing levels. In other words, an integrated entity maximizes its profits by eliminating the double markup, which leads to lower prices to end users and customers. There may be non-price benefits, as well, such as improved supply chain management, product scheduling, and new product development. These are first-order benefits to consumers, and they are benefits that are more likely when the downstream distributor or retailer may have market power.

The efficiencies associated with the elimination of double marginalization are intrinsic to a vertical merger—they lower the marginal costs of selling the downstream products, thereby inducing the integrated firm to lower downstream prices and to compete and sell the downstream products more vigorously.[7] The controversy, of course, is that these efficiencies are most pronounced in the circumstances where there may be concomitant concerns about the potential for vertical foreclosure. Theories of vertical foreclosure often rest on the presence of market power in both the upstream and downstream markets, as well as economies of scale and/or scope in both markets, which imply that there may be a gap between prices and marginal costs along the vertical chain of production and distribution. However, it is this gap that sets the stage for vertical integration to align the incentives of parties along the vertical supply chain and to eliminate double marginalization and other inefficiencies, with the effect of enhancing output and competition downstream.

Moreover, the empirical evidence suggests that vertical integration (and vertical restrictions generally) tends to benefit consumers. A recent survey by James Cooper, Luke Froeb, Daniel O'Brien, and Michael Vita concluded that "most studies show that vertical restraints increase (or at worst, do not reduce) economic welfare."[8] These include studies that confirm that vertical integration (and vertical restraints) can reduce double marginalization and other costs.[9] The conclusions of this survey echo those reached by Francine LaFontaine and Margaret Slade who state that "the empirical evidence concerning the effects of vertical restraints on consumer wellbeing is surprisingly consistent. Specifically, it appears that when manufacturers choose to impose such restraints, not only do they make themselves better off, but they also typically allow consumers to benefit from higher quality products and better service provision."[10]

[7] These points (and the points that follow) have been made before by Robert Willig and B. Douglas Bernheim in presentations they have given on the economic foundations for vertical merger Guidelines in the U.S.

[8] James Cooper, Luke Froeb, Daniel O'Brien, and Michael Vita, "Vertical Restrictions and Antitrust Policy: What about the Evidence," *Competition Policy International*, Vol. 1, No. 2, Autumn 2005, p. 48.

[9] *Ibid*, p. 56-58.

[10] Francine LaFontaine and Margaret Slade, "Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy," in *Handbook of Antitrust Economics* (forthcoming 2005), p. 22.

For merger policy, the intrinsic nature of the efficiencies that arise from a vertical merger implies that an assessment of these efficiencies cannot be conducted using a "two stage" approach, as is often the case with a horizontal merger. The main reason is that it is difficult to disentangle the efficiencies from the anticompetitive effects. Put differently, the conditions that create the possibility of substantial efficiencies are also the conditions that create the potential for anticompetitive foreclosure. Thus, an explicit assessment of the potential efficiencies from the transaction is central to the entire competitive assessment. As noted in the RBB Report, "it will very often be the case that the source of efficiencies realised by the merging parties is also the source of the competition concern."[11] This is particularly true when assessing the competitive issues surrounding the potential for foreclosure, tying, and bundling.

We hope the Commission's Guidelines will recognize that the starting point for understanding the competitive implications of a vertical merger is the strong likelihood that the transaction will reduce or eliminate the inefficiencies that can arise when the incentives of vertically-related parties are not aligned. In other words, the benefits of complementary product pricing and the elimination of vertical inefficiencies (*e.g.*, double marginalization) on pricing are first order efficiencies associated with non-horizontal mergers. Of course, even if there is the prospect for efficiencies, firms may not be able to quantify the efficiency gains easily—the acquirer may not have all of the information it needs from the target to do such a calculation or the market may be evolving or sufficiently new that such a computation is not possible. We hope the Commission can develop Guidelines that explicitly recognize the efficiency-enhancing rationales for vertical transactions, without requiring the acquirer to have quantified all of the efficiencies prior to the acquisition. This is because, as the Chicago School research has shown, the extent to which vertical transactions facilitate profitable anticompetitive market conduct is much circumscribed than in the case of horizontal transactions.

B. Recognizing that Non-Horizontal Transactions Often Resolve Problems that Cannot be Solved Practically through Contractual Solutions

Many vertical and conglomerate relationships are generally motivated by efficiencies. This is particularly important in the context of vertical mergers.[12] That is because many vertical relationships are threatened by the prospect of opportunism and free riding. Opportunism occurs when one party (for instance, an upstream firm) can take advantage or "hold up" another party (such as, a downstream firm) after the downstream firm may have made investments that limit the ability of the firm to turn to alternative upstream suppliers. Free riding is another common problem that arises between upstream and downstream firms. For example, a manufacturer may be unwilling or less willing to invest the resources needed to promote the efforts of a downstream retailer if it believes that its rivals may benefit more than it will. Vertical integration or merger is one way to resolve the potential for opportunism and free riding.

[11] RBB Report, p. 121.

[12] The RBB Report describes the variety of efficiencies that are often engendered by non-horizontal mergers.

The benefits of a vertical merger are particularly important in situations where other ways to resolve the potential for opportunism or free riding are not likely to work. Consider, for example, the downstream firm above (Firm A) that is unwilling to build a manufacturing line that can only use a relatively unique input sold by a single upstream supplier. Firm A may be concerned that after it builds the manufacturing line, the upstream supplier would take advantage of the situation and raise its prices. To resolve the potential for such hold up or opportunism, Firm A may want a long term contract that provides some protection against opportunistic price increases in the future. Firm A also may want an exclusive dealing arrangement, which would give it the assurance needed that the upstream supplier will not sell its product to competing downstream purchasers in a way that would diminish the return on Firm A's investment in the manufacturing line. Thus, a possible solution is a contract that specifies that the upstream firm will supply Firm A, the downstream firm, exclusively. However, the upstream firm may be unwilling to limit itself to a single downstream purchaser because it may be costly in ways that limit its feasibility (*e.g.*, by limiting the returns to the upstream supplier). In other words, even though contracting is one way to resolve problems related to opportunism (or free riding), it may be infeasible or impractical. These are circumstances in which vertical integration can be an efficient solution. Vertical integration may align the incentives of the upstream and downstream parties in a way that encourages both parties to make the necessary commitments and investments that would benefit ultimate customers.

The discussion above highlights the importance of appreciating the rationale for a particular vertical or conglomerate merger, which often is an attempt to remedy or improve upon contractual arrangements that have failed to align the incentives or coordinate the actions of independent upstream and downstream parties. For instance, the goal of aligning the incentives of upstream and downstream parties is easy to state, but often too difficult or impractical to accomplish through contractual arrangements. Similarly, the provision of the technical information needed to assure product compatibility and interoperability is not always easy through contractual means, as it may involve the sharing of confidential or proprietary information.

Understanding the motive behind a proposed transaction will not only help in an assessment of the efficiencies, but it also will help to put the transaction into context. In this respect, the Guidelines should recognize that the choice of organizational form is often driven by the desire to achieve efficiencies or to compete more effectively in the marketplace and that there is often no one way to compete. For instance, a firm can choose to be a single-product firm or a multi-product firm. Likewise, an upstream firm can choose to contract with a downstream firm or integrate. These are competitive choices, and the Commission's Guidelines should not discourage firms from making organizational decisions that enable them to pursue strategies and efficiencies that will help them compete more efficiently in the marketplace.

C. Developing an Empirical Approach to Assessing the Magnitude of the Efficiencies

The Commission's analysis of any non-horizontal transaction should also include a discussion of the approach that the Commission will take to balance the efficiencies against the risk of competitive harm. This is particularly important because efficiencies are a main driver for most non-horizontal (and horizontal) merger transactions. To recognize this, the Commission should consider including a section of the Guidelines to explain the categories of efficiencies and the market factors that the Commission will consider when assessing and weighing the efficiencies.

The empirical literature provides a useful starting point, as there are a number of studies that attempt to estimate the cost savings and efficiencies of vertical mergers and vertical restraints. Indeed, the literature shows that there are a number of methodological approaches that can and have been used.[13] Even if quantification of the efficiencies is not possible, it may be useful for the Guidelines to describe the variety of factors that would enter into such an assessment. For instance, if reliable data are available, an assessment of the vertical efficiencies may involve an analysis of the prices, costs, and profit margins of unintegrated parties at the various levels of the vertical supply chain at issue and a comparison of these data to the actual or anticipated prices, costs, and profit margins of integrated entities in the marketplace.

As an example, it may be possible to compare the prices charged by other integrated firms in the market to the total price that customers are or would be charged by single product sellers. The difference in prices would be an estimate of the cost savings to customers from integration. In practice, the data requirements needed to perform such an analysis is high and it may not be possible to specify the data that would be needed in the Guidelines. However, providing a conceptual framework would help the public understand the Commission's approach to quantifying the benefits of complementary product pricing.

The analysis need not focus solely on prices and profits—there also may be empirical data from prior transactions that may be helpful in assessing the organizational and supply chain efficiencies. Similarly, it may be possible to show the nature of the vertical inefficiencies by analyzing the experience of two unintegrated parties who may have teamed together to produce a product or service—delays in getting a new product to market due to coordination failures, cost overruns, or the number of customer complaints may be informative. Even if these data do not quantify the efficiency itself, they can be helpful in demonstrating the rationale for the transaction or the vertical inefficiency that the transaction is intending to resolve.

[13] See, for example, Francine LaFontaine and Margaret Slade, "Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy," in *Handbook of Antitrust Economics* (forthcoming 2005); James Cooper, Luke Froeb, Daniel O'Brien, and Michael Vita, "Vertical Antitrust Policy as a Problem of Inference," Vanderbilt University Law School Law and Economics, Working Paper Number 05-12, (February 18, 2005); William S. Comanor, F.M. Scherer, and Robert L. Steiner, "Vertical Antitrust Policy as a Problem of Inference: The Response of the American Antitrust Institute," (April 18, 2005); and John Geweke, "Empirical Evidence on the Competitive Effects of Mergers in the Gasoline Industry," University of Iowa Working Paper, (July 16, 2003).

For an analysis of a conglomerate merger, the empirical analysis is likely to focus on the products to be sold by the merged entity. There are degrees of complementarity and substitutability, and the benefits of a vertical or conglomerate merger are likely to be greater if the products have a greater degree of complementarity. Thus, in situations where reliable and relevant data are available for an analysis of a conglomerate merger, an analysis of the cross-price elasticities of demand for the products at issue is likely to be useful in assessing the degree of efficiencies. If the cross-price elasticities are positive and relatively high, then the products are likely to be better substitutes for each other; however, if they are more negative, then the products are likely to be more complementary to each other.

It may be harder to assess the efficiencies resulting from the elimination of opportunistic behavior. However, by acknowledging that a firm's organizational form is a competitive choice, the Commission's framework of analysis would appropriately encompass the factors that affect both the potential for competitive harm and the potential for efficiencies and other consumer benefits. For example, an analysis of the circumstances in which opportunism and free riding may occur would be very useful. Additional evidence that the parties were not able to agree on a contractual solution or that an existing contract did not work may be helpful in shedding light on the efficiencies of integration. Furthermore, market factors, including marketplace uncertainty, the amount of the fixed and sunk investments, the magnitude of firm-specific investments, and transaction costs would be factors that may warrant mention in the new Guidelines. In other words, the Guidelines will demonstrate an appreciation of the efficiencies if it can explain and identify the circumstances in which eliminating double marginalization, and the resolution of any other inefficiencies along the vertical chain of production and distribution, is procompetitive and the circumstances in which maintaining downstream margins is procompetitive. In addition, the Commission's experience in assessing vertical and conglomerate mergers will be valuable. Perhaps a set of examples that illustrate how the Commission would approach a stylized hypothetical transaction may prove instructive.

If the Guidelines include an analysis of the market factors that contribute to opportunism and free riding, then the Commission's views on the benefits of vertical integration would be much clearer. For example, an explicit acknowledgement that a firm's business model or organizational structure—which includes vertical integration and non-horizontal contractual arrangements—is a competitive variable will be important. It suggests that the Commission will focus on competitive outcomes, rather than the presence or absence of a particular kind of vertical arrangement. It also would facilitate a discussion of counterstrategies and the responses of rivals in the marketplace, including the various ways in which rivals may be able to change or alter their business models or organizational structure to compete more effectively.

D. Accounting for the Competitive Responses and Counterstrategies of Rivals

Foreclosure is the principal theory of competitive harm for many vertical transactions. Yet most of the models discussed in the Church Report do not account for the competitive responses and counterstrategies by the potentially foreclosed competitors. Yet to assume away such a response is not realistic.

The ultimate competitive impact of a vertical or conglomerate merger involves an assessment of the market dynamics and the counterstrategies that are available to other firms in the market. For example, consider a vertical merger involving an upstream firm and a downstream firm that creates the potential for input foreclosure or the prospect that a downstream firm may face higher input prices. Whether or not rival downstream firms are likely to be foreclosed depends in large part on their ability to deploy effective counterstrategies at non-prohibitive costs. For instance, the downstream firm may be able to merge with another upstream firm to secure its supply of the input. Moreover, if such a counterstrategy were available, the ultimate market outcome could well be more competitive. Thus, despite industry consolidation with two successive mergers over time, competition may well be more intense. This is particularly important in industries characterized by systems competition.

Similarly, consider a conglomerate merger that allows the merged entity to sell a set of complementary products in a package. The competitive concern, of course, is that its single product rivals may be placed at a competitive disadvantage or foreclosed. However, the ultimate competitive impact will depend on rivals' ability to engage in counterstrategies. These counterstrategies might include alliances that would enable single product rivals to create a viable package of products or a conglomerate merger that enables single product sellers to obtain the benefits of integration.

By describing and including counterstrategies in the Commission's framework of analysis, the Guidelines would demonstrate that the Commission's analysis appreciates the potential for the merging firms' rivals to revise their market strategies (and possibly their own organizational structure) to best respond (and take advantage) of the change in market circumstances.[14] A discussion of the counterstrategies would demonstrate that the Commission will consider both the short run and long run consequences of a transaction. In some cases, a non-horizontal transaction could lead to lower prices in the short run, but higher prices in the long run. In other cases, such an acquisition could put rivals at a "disadvantage" in the short run, but not in the long run as rivals develop new strategies and competitive responses. In addition, the discussion would serve to

[14] Whether the relevant counterstrategies include alliances, contractual arrangements, and other alternatives that do not require formal integration or a merger is best determined on a case by case basis. As noted above, the nature and magnitude of the vertical efficiencies of a merger are intrinsic to the transaction itself and the parties involved. Likewise, whether there is a non-merger counterstrategy that is likely to be relevant and effective in helping rivals compete against the integrated firm will depend on the specific circumstances of the industry and the particular rivals involved in implementing such a strategy. Because the efficiencies are likely to be intrinsic to the parties involved, the mere presence of a viable non-merger counterstrategy does not imply that the efficiencies of integration are not merger-specific.

demonstrate that the Commission's analytical approach is one that appreciates and understands the dynamics of competition as well as the drivers of such competition.

In summary, if the Guidelines could elaborate on the possibility of counterstrategies, the Commission's framework of analysis would be much richer—it would provide valuable guidance on how the Commission will weigh and assess the short run costs and benefits vs. the long run costs and benefits. Such an approach also would likely have less of a chilling effect on firms' desire to obtain efficiencies, and it would not discourage rivals' willingness or ability to find and adopt effective counterstrategies.

V. The Church Report: Lessons and Limits

The Church Report recognizes that the stock of economic knowledge in the area of vertical and conglomerate mergers is not yet sufficient to draft Guidelines that would present real detailed guidance on the structural and other conditions that matter when a particular merger is likely to raise competitive concerns and when it is not. However, the economic models reviewed in the Church Report collectively describe a variety of market facts that are likely to be important to the analysis.

We begin with a discussion of the key overarching policy issues that arise from the models themselves, notwithstanding the restrictive assumptions that are made. This is followed by a discussion of the implications of the Church Report for a framework of analysis that can be used to assess the competitive impact of non-horizontal mergers.

A. From Theory to Public Policy

First, it is not clear that the knowledge base regarding the competitive impact of vertical and conglomerate mergers is sufficiently developed to provide firm guidance to the public on the specific conditions under which a particular kind of transaction would likely harm competition. As the Church Report demonstrates, and as discussed below, the conclusions that follow from many of the key models are not robust in that changes in assumptions can lead to very different conclusions. Consider, for example, the conclusions of a well-known model of vertical integration by Ordover, Saloner, and Salop. In that model, if downstream firms compete on prices of their differentiated products, then vertical mergers could be harmful to consumers; yet if the downstream competition took the form of "capacity competition" or "quantity competition" rather than price competition, then the opposite would be true. It would therefore be important for the Guidelines to specify the market factors that would be considered to assess the nature of competition among the firms in the market. This is not to suggest that the Commission categorize markets into "Bertrand markets" and "Cournot markets." Instead, if the Guidelines include a list of the market factors that will be considered by the Commission, then the public will have a much better understanding of the process by which the Commission will conduct its analysis and develop its own "model" of how a proposed transaction is likely to affect competition.

Second, there are many categories of economic models that can be used to describe the possible competitive impact of a particular transaction, but each may apply to a very small fraction of cases. Because the applicability of any particular model is likely to be dependent on the specific facts, it would be appropriate if the Guidelines could provide guidance on the facts and market factors that it would consider when assessing the applicability of a particular economic model. The Church Report does not identify which theories are more likely to apply in real world situations, yet this is the kind of information that is important in drafting Guidelines that tackle the transactions that are most likely to harm competition. Before we give a particular theory permanence in a set of Guidelines, we should either know more about the theory or have a better understanding of the factors that would determine whether the theory is likely to apply to many real world situations.

Third, many of the theories that were surveyed in the Church Report yield only a partial picture of the likely effects of an actual vertical or conglomerate merger. For example, most, if not all, of the models surveyed in the Church Report do not account for efficiencies, new product introductions, and other benefits that might stem from a particular vertical or conglomerate transaction. For example, efficiencies are particularly important as the integration may have lowered costs, including transaction costs. Similarly, most, if not all, of the models surveyed do not account for the possibility that competition could be more intense following vertical integration. The Guidelines should address all of these missing aspects of the models which aim to predict the effects of vertical and conglomerate mergers on competition.

Fourth, as described above, a vertical or conglomerate merger is likely to generate a broad array of efficiencies. Thus, nearly by definition, a competitive analysis of a vertical or conglomerate transaction is likely to involve some weighing of the efficiencies against the potential for anticompetitive harm. This is further complicated by the fact that in many of the theories described in the Church Report, the efficiencies (*e.g.*, quality assurance, mitigating a holdup problem or dynamic efficiencies) are not readily quantifiable. In addition, theories that employ variables or parameters that are not observed in real life are not particularly helpful in aiding the public in understanding how the Commission is likely to assess the efficiencies.

Fifth, given the state of economic knowledge, the Commission should focus on outlining its approach to theories that are well established in the economic literature. The Guidelines could begin by describing a framework of analysis for the theories of potential competitive harm that are most widely accepted and *least* controversial (*e.g.*, input foreclosure, customer foreclosure, tying and bundling, and portfolio effects).[15] These theories—in general and in specific formulations—are in the Church Report. However, the Church Report also describes other theories that are more tenuous in applicability and relevance. These include theories involving the effects of conglomerate mergers where there is no direct horizontal competitive overlap. Theories involving coordinated effects, financial leverage, financial predation, and the like are hypotheses that are relatively new

[15] For these theories, it is uncontroversial that the potential for competitive harm exists. However, in practice, assessing the harm to competition (or the likelihood of such harm) and balancing the procompetitive benefits against the potential harm to competition are the subjects of much debate.

compared to models of vertical foreclosure, tying and bundling. Given the state of this literature, it may be more appropriate to delay an assessment of these models to the future—after additional theoretical research and empirical study—and to focus on the basic vertical merger models.

B. Using Theory to Create a Framework of Analysis

Existing theories of vertical and conglomerate mergers may not be sufficient to determine structural rules, but they form the basis for a useful and important framework of analysis, and one that goes beyond a listing of the possible theories of competitive harm. Together, the economic models in the Church Report identify a number of factors that should be mentioned or addressed in the Guidelines as information that the Commission will consider when assessing the competitive impact of a proposed non-horizontal merger.

The analysis below focuses on four principal competitive issues. We begin with vertical mergers and a discussion of the market factors that might enter into an analysis of (a) the potential for input foreclosure and (b) the potential for customer foreclosure. We then turn to conglomerate mergers and a discussion of the market factors that might enter into an analysis of (a) tying and bundling and (b) portfolio effects.

1. Vertical Mergers and the Potential for Input Foreclosure

With respect to vertical mergers, the potential for input foreclosure is one of the principal theories of competitive harm. The Church Report describes a variety of theoretical models, but to be useful, the Guidelines should not only describe the Commission's theory of competitive harm, but develop a framework of analysis that includes an explanation of how the Commission will assess the risk of such harm or, at minimum, a list of the many market factors that would be considered in an analysis of the competitive effects. If the Guidelines describe an analytical framework, then we would suggest that the Commission include the following market facts and conditions.

First, for input foreclosure to be a viable theory, the upstream firm must be able to raise the input price to downstream rivals either directly or indirectly.[16] This is not likely if the upstream market remains sufficiently competitive and if downstream firms can substitute easily to alternative inputs. In other words, the analysis should include an assessment of market power in both the upstream market and the downstream market(s). The factors that would enter into such an analysis include a comprehensive examination of the upstream suppliers and their ability and incentive to continue selling to downstream customers. In addition, evidence that downstream customers already purchase from multiple upstream suppliers suggests that switching costs are low for downstream customers. Low switching costs would allow the downstream firms to turn to alternative suppliers if faced with a price increase from the merged entity.

[16] The upstream market typically refers to firms that supply inputs, while the downstream market typically refers to firms that produce the product or service that encompasses the input and is sold to the final customer.

Second, for input foreclosure to harm competition, an increase in the input price charged by the integrated or merged firm to downstream customers must also lead to an increase in the price charged by the downstream firms to their customers.[17] The reason is that absent an increase in the output price of the downstream firms, the incentive to increase the price of the input in order to implement a raising rival's cost strategy vanishes. As several models note, the benefit to a vertically integrated firm that engages in a strategy of input foreclosure is the higher profit margin downstream, which can only result if the price of the downstream industry's product is higher. Whether such a pass through is likely depends on a careful assessment of the product market in which the downstream firms compete. For instance, the downstream firms who purchase the merged entity's inputs could well face competition from rivals who sell products based on different technologies and inputs.

Third, even if a strategy of input foreclosure is likely to increase the merged firm's downstream profit margins, the increase in downstream profits for the merged firm must be greater than the cost of the strategy, *i.e.*, the loss in upstream profits. This cost, which stems from the vertically integrated firm's decision to forego sales of its product to downstream rivals, for example, cannot be ignored. Yet for an input foreclosure strategy to be rational, the analysis must consider the balancing of the two opposing effects: higher downstream profits at the cost of lower upstream profits. In fact, as we noted earlier, the Guidelines should explicitly note that the costs of exclusionary strategies are real and, as such, have the effect of lessening the incentives to deploy such strategies in a wide variety of realistic market scenarios. In that respect, the dangers that vertical arrangements are motivated by anticompetitive objectives are kept in check.

A fourth, but related, condition is that the vertically integrated firm must be able to commit to a post-integration strategy of foreclosure. Commitment is a critical component of the theory as it ensures the rationality of an anticompetitive input foreclosure strategy. Otherwise, the vertically integrated firm could well find it optimal to continue supplying its downstream rivals.

Fifth, for input foreclosure to have a competitive effect, counterstrategies that avoid foreclosure must not be available to the allegedly foreclosed rivals. As noted above, the ability of downstream rivals to merge with rival upstream suppliers could well stimulate competition or reverse the exclusionary strategy that was allegedly made possible by the transaction.

Sixth, the vertical merger is likely to yield efficiencies, which would include the possible elimination of double marginalization. As noted earlier, the conditions in which the efficiencies are likely to be most significant are also the conditions that are likely to create

[17] A price squeeze that attempts to force other downstream firms from the market is a variation of this theory. During the period of the squeeze, the price charged by the downstream firms to their customers may not rise. However, the theory posits a price increase following the exit of the rivals being squeezed.

the opportunity for foreclosure. In addition, vertical integration could reduce the integrated firm's costs and improve the firm's productivity. Such benefits would counter the risk of competitive harm.

2. Vertical Mergers and the Potential for Customer Foreclosure

Under the conventional customer foreclosure hypothesis, the vertically integrated downstream firm no longer purchases supply from unintegrated upstream competitors, as all of its demand for inputs would be supplied by its upstream affiliate. In theory, the reduction in demand could limit the addressable market or the sales volume available to the integrated firm's upstream rivals, thereby affecting their ability to achieve economies of scale. As a result, over time, upstream rivals may exit the market. The analysis of customer foreclosure, which focuses on an integrated firm's ability to reduce its rivals' revenues by denying them access to customers, is similar to the framework described above for input foreclosure. For instance, an analysis of both input and customer foreclosure would involve an analysis of relevant market definition, the nature of the products sold, the competition among the firms in that market, and barriers to entry.

However, there are nuances that distinguish the two theories of foreclosure. For instance, putting aside the efficiencies, input foreclosure has the potential to lead to higher prices in the short run by raising the costs of the integrated firm's downstream rivals. If this were to occur, downstream firms may be able to turn to rival upstream suppliers. However, depending on the circumstances, this could take time and require costly investments. Moreover, additional time may be required if entry into the upstream market is needed to provide the unintegrated downstream firms with competitive upstream supply. In contrast, the potential for prices to rise in the short run is arguably less with customer foreclosure. In theory, prices would not rise until after there was sufficient exit from the industry by the unintegrated rivals. Because exit may not be immediate, the potential harm to competition due to customer foreclosure may not occur until much later. Because the short run and long run effects are likely to differ, competition policy should treat and distinguish the two theories appropriately

If the Guidelines describe a framework of analysis, we hope the Commission will discuss the following market facts and conditions.

First, as noted above, for anticompetitive customer foreclosure to be credible, both the upstream and downstream markets must be conducive to the exercise of market power. In particular, the analysis should focus on the merged firm's ability to control access to the ultimate customer or end user. Factors that would enter into such an analysis include the various ways in which the ultimate end users or customers obtain the product or service they want to purchase and the extent to which they can purchase those products and services without going through the merged entity. This implies a careful assessment of the

variety of ways in which products are sold into the downstream market and the available methods of distribution.

Second, customer foreclosure is not likely if the cost of switching is relatively low. For instance, consider a theory where a first mover may be able to lock up customers, thereby denying a new entrant sufficient volume to realize economies of scale. Whether, in fact, customers are locked in to the first mover will depend on a variety of factors, such as the terms and duration of supply contracts and the dynamics of contract renegotiations.[18] Third, the analysis also should consider whether the potentially foreclosed rival firms are as efficient as the integrated entity, as harm to competition, under normal circumstances, would require, at a minimum, the elimination of unintegrated rivals who are at least as efficient as the integrated firm prior to the attempted foreclosure.

Fourth, whether harm to competition is likely will depend on the cost structure of the integrated firm's upstream rivals. This analysis would include an assessment of the economies of scale and scope of the upstream rival suppliers, as well as the relative efficiency of those firms.[19] Moreover, the analysis would consider the timing and likelihood of exit by the unintegrated rivals, as this is the first step that could allow the integrated firm to raise its prices. Together, these are factors that would affect the integrated firm's ability to place its upstream rivals at a disadvantage in a way that would lead to higher prices.

Fifth, for anticompetitive foreclosure to be a viable theory, the framework of analysis should include an assessment of the natural equilibrium that would result had there been no vertical merger or no attempted foreclosure. It is possible, for instance, that exclusive contracting is the natural equilibrium, in which case the vertical merger would not effectively change the structure of the marketplace. However, even though the structure of the market

[18] For example, the Commission addressed this issue in the context of the barriers to entry encountered in the energy sector. In its recent decision blocking the proposed acquisition by Energias de Portugal (EDP) a Spanish electricity provider, of Gas de Portugal (GDP), the Commission concluded that, after the acquisition, EDP would have the incentive to source all of its supply from its upstream integrated partner, GDP. In its analysis, the Commission determined that there would not be sufficient new gas demand from other power producers, and concluded that none of the commitments offered were sufficient to eliminate the customer foreclosure effect of the proposed concentration. (Case No COMP/M.3440 ENI/EDP/GDP, 09/12/2004; affirmed by the Court of First Instance in Case T-87/05, 21 September 2005.)

[19] The danger in not performing this type of analysis carefully was described in the recently published DG Comp *Merger Remedies Study*. The study noted, without identifying the transaction, that in "a rare instance of potential customer foreclosure, the remedy required the complete divestiture of the merging parties' activities in the (small) upstream market. That way, the merging parties' only competitor in the upstream market could not be foreclosed from its customer base, specifically, the merging parties. In this case (as in any other vertical case), the complete divestiture of the activities in one of the vertically related markets resolved the foreclosure concerns; however, the purchaser experienced considerable difficulties in attempting to establish itself in the market, and reported that its survival remains uncertain." (*Merger Remedies Study*, DG Comp Staff paper, Alex Kopke, Katharina Kraak, Damien Levie (DG ENTR), Justin Menezes, Sandra Plas, Walter Tretton, (October 2005), ¶17, p. 30.)

may be similar, a merger may change the incentives sufficiently so that prices may be lower and overall market output may be higher.

Sixth, the analysis must consider the incentives of the integrated firm to engage in customer foreclosure. This would involve an assessment of the costs and profit margins of the integrated firm's downstream unit, as well as customer demand for the downstream products. For example, if the downstream firm can make additional profits by purchasing a rival upstream firm's product and selling it to its downstream customers because, for instance, the quality of the product is higher, then customer foreclosure would not be a credible theory. That is because the integrated firm would continue to have an incentive to purchase products from rival upstream suppliers.

Seventh, the extent to which the integrated upstream firm is likely to react to downstream pricing is also an important factor. The counterstrategies available to the unintegrated firms need to be assessed. Because there are likely to be strategic reactions, the analysis will likely involve consideration of facts such as the own- and cross-price elasticities of demand for the various products in the marketplace, as well as the capacity and ability of rival firms to respond competitively.

Eighth, a vertical merger is likely to generate efficiencies and cost savings. This would include the possible elimination of double marginalization. Again, as noted earlier, the conditions in which the efficiencies are likely to be most significant are also the conditions that are likely to create the opportunity for foreclosure. In addition, vertical integration could reduce the integrated firm's costs, improve the firm's productivity, and reduce transaction costs for the ultimate customer or end user. Such benefits could counter the risk of competitive harm.

3. Conglomerate Mergers and the Potential for Tying and Bundling

The Church report discusses at length the potential for tying, bundling, and foreclosure made possible by a conglomerate merger. A conglomerate merger may involve the acquisition of complements, products in neighbouring markets, or unrelated (independent) goods. More generally, a tie differs from bundling because tying is an arrangement that explicitly specifies that the purchase of one product is conditioned on the purchase of a second product. In contrast, bundling involves the packaging of multiple products that are oftentimes not useful if sold or used separately. For instance, a tie requiring the purchase of two units of product B for every unit purchased of product A is not the same as a package consisting of four units of B and two units of A.

The mechanism by which tying and bundling can lead to competitive harm is different, but for simplicity, the discussion below will consider the broader theory of harm that encompasses both tying and bundling. If the Guidelines describe an analytical framework

that can be used to assess these theories, then the Commission will hopefully include a discussion of the following market factors.

First, the bundling and tying theories described in the Church Report indicate that the nature of competition matters. For instance, if the competition can be characterized as Bertrand competition, then tying can serve as a means to differentiate products and reduce competition between rival firms in a way that could lead to higher prices and higher profits.[20] However, a model based on a different assumption of competitive interaction—Cournot competition—leads to a totally different result—lower prices and lower profits. It may not be easy to distinguish the two types of interaction, but hopefully the Guidelines will focus its attention on the nature of competition in the marketplace.

Second, an analysis of the competitive effects should consider the merged firm's market power in at least one market (often called the "tying market" in models of tying). If the tying market is competitive, then the product tie cannot force customers to buy the tied good as they can easily switch to competing products that are offered without a tie. Therefore, a necessary but not sufficient condition for competitive harm is market power in the tying market. The higher the market power, the easier it is for the tying firm to impose the tie on its customers.

Third, the analysis must consider the integrated firm's position in the tied market, which refers to the product that is being sold (or bundled) along with the tying product. When assessing the potential for tying or bundling in the context of a vertical merger, the analysis should consider the likelihood that tying is a profitable strategy. For instance, tying may not be profitable if customers do not find the tied product attractive and can purchase the product they want—the tying product—from other suppliers. Thus, the inquiry would include, for instance, an analysis of customer preferences for the tied product, the tying product, and both products together. For instance, customers could well prefer products sold in bundles and packages, particularly if the bundled prices are lower.

Fourth, even if tying is possible, the impact on customers is not always clear. This is because in practice, it is often difficult for firms to monitor customers' purchases or to enforce a tying arrangement. Customers, for instance, may be able to buy a rival's product undetected, in which case customers can defeat an attempt at tying, thereby making the possibility of foreclosure an unlikely outcome.

Fifth, the analysis would consider whether bundling and tying could raise barriers to entry by forcing new competitors to enter two markets at the same time. A study of barriers to entry would determine whether a vertical or conglomerate merger could diminish potential competition.

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[20] See Carbajo, J., D. de-Meza, and D. J. Seidmann, "A Strategic Motivation for Commodity Bundling," *Journal of Industrial Economics,* Vol. 38 (1990), pp. 283-298.

Sixth, the analysis should consider the counterstrategies that are available to rivals. Most theories of competitive harm from bundling or tying involve competition between a firm that produces a bundle and a single product firm. However, non-integrated competitors can cooperate and sell competing bundles, too. Indeed, competition among firms that sell competing bundles, competing packages, or competing systems of products that are "tied" together may be more intense than competition among firms that sell only the components.

Seventh, bundling or tying could well give consumers a greater variety of products with no or only a limited increase in price, *e.g.*, software that is sold in a package or a bundle and bundled pay-TV offers. Other benefits include the reduction in transaction costs and the ability of a firm to ensure the quality of its products and services.[21] Thus, while bundling and tying are viable theories of potential competitive harm, there are many conditions that must be in place for there to be harm to competition. Moreover, the prospect that bundling and tying will benefit consumers is relatively high. For example, bundled discounts typically represent lower, not higher, prices. Firms also tend to sell or price complementary products in a way that makes them more attractive to consumers. These procompetitive effects must be weighed against the potential for competitive harm.

4. Conglomerate Mergers and Portfolio Effects

As the OECD stated in 2002, conglomerate mergers do not conventionally raise competition concerns contrary to horizontal or certain vertical mergers. However, there are theories that describe the potential for portfolio effects, which generally refer to the advantage that an integrated or conglomerate firm may have if it can sell a broader range of products relative to its unintegrated rivals. If the Guidelines include a framework for the analysis of portfolio effects, then we suggest they include an assessment of the following factors.

First, central to the analysis is the relationship between the products that are being acquired and combined. If the acquisition combines companies that sell substitute products in any

[21] An analysis of the vertical issues associated with product tying and bundling may be found in the Commission's merger decisions in GE/Instrumentarium (Case No COMP/M.3083 02/02/2003) and GE/Amersham (Case No COMP/M.3304 21/01/2004). In GE/Instrumentarium, the products at issue, among others, were anaesthesia machines and perioperative monitors, which are complementary products used simultaneously during patient surgery. By integrating firms that produced anaesthesia machines and patient monitors, one of the benefits of the integration was the potential to improve and ensure product compatibility and interoperability. However, the Commission found that Instrumentarium had a strong market position in the supply of anaesthesia machines, and with significant barriers to entry into that market, the Commission concluded that the combined entity would be in a position to foreclose its unintegrated rivals by withholding relevant technical information such as changes in system architecture and product upgrades. To resolve these concerns, the Commission accepted a commitment that required GE to use an open architecture approach to maximize the level of interoperability between its anaesthesia machines and other perioperative monitor suppliers' products after the merger. In the GE/Amersham decision, the Commission found that although the merger firm may be in a position to bundle its diagnostic imaging equipment with its diagnostic pharmaceuticals, competitive harm from such a strategy was unlikely. The Commission found that neither GE nor Amersham had a strong enough pre-merger market position. In both cases, the Commission recognized that it was desirable from the consumer's perspective to encourage optimal integration between the two products.

product market, then the analysis should be similar to that which is applied to assess the competitive impact of a horizontal merger. If the products to be combined are related vertically (*e.g.,* the downstream price encompasses the upstream and downstream products), then the framework for an assessment of vertical mergers would apply. If the products to be combined are complementary and can be tied or bundled, then the framework for an assessment of tying and bundling would apply. Of course, if the products are completely unrelated (*i.e.*, neither complements nor substitutes), then the prospect of competitive harm is not likely to be high.

The analysis that follows therefore concerns the situation where the products to be combined by the acquisition are "complementary" in the sense that a customer may want to purchase multiple products from the same seller. For example, a restaurant may want to purchase cleaning supplies, dinner plates, and glassware from the same distributor. From the customer's perspective, the prospect of "one stop shopping" makes the products complements. But from the distributor's perspective, it would be economies of scope that makes one stop shopping viable and attractive to customers.

Second, an analysis of the competitive effects should consider the possibility that the merged firm may have market power in at least one market. Without such market power, the prospect that the merged entity will gain any leverage is unlikely because customers would be able to turn to rivals as a substitute for purchasing products from the merged firm. Third, the analysis must consider the profitability of engaging in a strategy that reduces competition. For example, suppose the concern is that the integrated firm would reduce the variety of products that are sold in the marketplace, *e.g.*, by preventing customers from buying products from multiple sellers. Whether this strategy is likely will depend on the profit margins of the products at issue. It may not make sense to eliminate products that are commercially viable on their own.

Fourth, an important consideration should be the ability of customers to assemble their own portfolio of products without the merged entity. For instance, buyers may be able to purchase products from competing single product firms, in which case the merger would not give the merging parties any additional leverage. This analysis would include an assessment of the viability of the single product sellers and their capacity to supply the marketplace and otherwise meet customers' demands. If there is an alternative to the merged entity, then the likelihood of competitive harm is small, particularly if there are efficiencies associated with the merger.

Fifth, the ability of rival firms to create competing product portfolios will influence the ultimate competitive outcome.

Sixth, in the case of a conglomerate merger, the prospect of efficiencies and cost savings is particularly large. Customers may prefer to contract with one firm than with multiple firms. The cost savings from "one stop shopping" can be important, and an assessment of these

cost savings must be balanced against the risk of competitive harm. The potential cost savings also would stem from the economies of scope for the seller (*i.e.*, costs may be lower for sellers that offer multiple products due to common warehousing or shared distribution strategies).

Seventh, the analysis should consider barriers to entry or expansion into a marketplace and whether a non-horizontal merger raises the entry requirements in a way that harms competition.[22]

IV. Conclusion

For many vertical and conglomerate merger transactions, there is no structural change in the marketplace. Market shares in the upstream and downstream markets, for instance, often do not increase as a direct result of the transaction. Thus, the focus of the analysis should be on the potential for efficiencies as well as the potential for the merged firm to extend any market power that it may have in one market (*e.g.*, the upstream market) to another market (*e.g.*, the downstream market) or to increase leverage that it may have over customers (*e.g.*, by selling a broader array of products, the firm may have greater bargaining power when negotiating with customers).
To be most useful, we suggest and hope that the Commission will consider the following as it drafts the Guidelines that will be the basis for the Commission's policy regarding non-horizontal mergers:

1. We urge the Commission to be cautious when drafting the Guidelines to avoid chilling effects that might discourage or delay firms from pursuing strategies and organizational structures that enable them to compete more effectively.

2. Given the state of economic knowledge, we hope the Commission will consider issuing Guidelines in stages, beginning with the theories of competitive harm that are most widely accepted or the subject of much previous Commission experience (*e.g.*, input foreclosure, customer foreclosure, tying and bundling, and portfolio effects). As more information is gathered on the

[22] For a discussion on how bundling can create entry barriers, see, for example, Carlton, Dennis, Waldman, Michael, "The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries," *The RAND Journal of Economics* 33, (2002) 194-220; Choi, J., Stefanadis, C., "Investment and the Dynamic Leverage Theory," The RAND Journal of Economics 32 (2001), 52-71; Nalebuff, Barry, "Bundling as an Entry Barrier," *The Quarterly Journal of Economics* 119, (2004), 159-188; Carbajo, José, De Meza, David, Seidmann, Daniel, "A Strategic Motivation for Commodity Bundling," *The Journal of Industrial Economics* 38 (1990), pp. 283-298; and, Choi, J., "Antitrust Analysis of Mergers with Bundling in Complementary Markets: Implications for Pricing, Innovation, and Compatibility," Choice NET Institute Working Paper No. 03-02 (2003) available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=617624.

viability of other theories of competitive harm, then the Commission can add to the Guidelines in the future and consider the possibility of drafting safe harbors.

3. We hope that the Guidelines will do more than catalogue the various theories of competitive harm, which could create uncertainty in the business community. Instead, we hope the Guidelines will describe a framework of analysis that gives practical guidance as to the market factors that the Commission will consider when assessing the competitive effects.

In summary, a set of Guidelines that is cautious, informative, and flexible to include future revisions may be a valuable contribution to antitrust and competition policy, and a public policy guide that could be used as the basis for facilitating additional scholarship and policy discussion while at the same time contributing to the Commission's desire to promote and encourage competition.

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