YOU KEEP ON KNOCKING BUT YOU CAN’T COME IN:
EVALUATING RESTRICTIONS ON ACCESS
TO INPUT JOINT VENTURES

Dennis W. Carlton
Steven C. Salop

TABLE OF CONTENTS

I. INTRODUCTION ........................................ 320

II. ECONOMIC ANALYSIS OF EXCLUSIONARY ACCESS RULES ... 323

A. Potential Efficiency Benefits of Joint Venture Rules .... 323
   1. Sources of Joint Venture Efficiency .............. 323
   2. Access Rules and Joint Venture Efficiency ...... 325
   3. Evaluating Efficiency Justifications for Exclusionary
      Access Rules ..................................... 326

B. Potential Competitive Harms from Exclusionary Joint
   Venture Access Rules in Input Joint Ventures .......... 328
   1. The Competitive Harm of Output Market Exclusion:
      Disadvantaging Output Market Competitors ....... 330
   2. The Competitive Harm of Input Market Exclusion:
      Disadvantaging Input Market Competitors ......... 333
   3. The Competitive Harm of Supporting Pricing
      Coordination ..................................... 334
   4. Evaluating Competitive Harm Allegations .......... 335

C. Protecting Competition as a Justification for
   Exclusionary Access Rules .................................. 336

D. SCFC ILC, Inc. v. Visa USA, Inc.: An Illustration of Our
   Economic Framework ........................................ 337
   1. Dean Witter’s Theories of Competitive Harm ...... 338

* Professor of Economics, University of Chicago; Research Associate, National
  Bureau of Economic Research.

** Professor of Economics and Law, Georgetown University Law Center. Support
  for the authors’ research was provided by Dean Witter Discover & Co. (“Dean Witter”).
  The authors consulted with Dean Witter in its antitrust suit against Visa USA. However,
  the opinions expressed here are our own and do not necessarily express the views of Dean
  Witter. Mr. Carlton’s research was conducted through Lexecon, Inc.; while Mr. Salop’s
  was conducted through Charles River Associates. The authors would like to thank Rick
  Beckner, Jeffrey Cashdan, Alan Frankel, Thomas Krattenmaker, Gary Roberts, and James
  Sonda for helpful conversations and comments on an earlier draft.
I. INTRODUCTION

Current antitrust analysis of rules governing access to joint ventures is both confused and controversial. Confusion arises over the theoretical and factual circumstances in which a denial of access injures competition. This confusion leads to controversy over choice of the proper antitrust standards to govern restrictions on access — exclusionary access. This controversy is not new, and neither scholarly commentary nor judicial analysis have eliminated it.¹ Within ten years after the Supreme Court moved to clarify the rule of per se illegality in *Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co.*,² courts and commentators began proposing new standards of per se legality to replace the rules set down in that case.³ Indeed, in his recent paper, Phillip Areeda treats the essential facilities doctrine, which courts

¹. For example, in *The Antitrust Paradox*, Robert Bork heaps intense criticism on *Associated Press*, the classic joint venture access case, questioning the failure to carry out "the factual investigation required by the issues pleaded." ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 339-42 (discussing Associated Press v. United States, 326 U.S. 1 (1945)).


sometimes use to compel access, as mere epithet rather than as a carefully formulated legal standard.\textsuperscript{4}

A number of recent articles concerning joint venture formation and ancillary restraints have discussed the confusion in current legal analysis of joint ventures.\textsuperscript{5} In this paper, we attempt to eliminate this confusion by taking a strictly economic approach to the design of access rules and the legal standards governing those rules. We formulate an economic framework for analyzing joint venture access rules and use it to design and evaluate legal standards that will serve the economic interests of consumers and competition.

Joint venture access rules cover two main issues: (1) who can have access to the joint venture, and (2) at what price. Disputes over access rules often arise in situations where joint ventures facilitate vertical integration by their members. Such ventures provide products or services to their members that the members use in providing products or services of their own. That is, ventures provide inputs that their members use in independently producing outputs that the members then sell in the market, often in competition with other members of the ventures. In this situation, joint ventures may wish to restrict the access of firms that compete with their members in the output market.

When joint ventures provide inputs to members who then compete in the same output market, exclusionary access rules raise issues similar to those involved in the analysis of vertical integration or restricted distribution. On one hand, exclusionary access rules may increase economic efficiency by improving coordination (thereby reducing the input costs of members), and deterring free riding (thereby maintaining investment incentives). Exclusionary access rules may also protect competition by preventing a venture from becoming too large. On the other hand, exclusionary access rules may raise competitive concerns. Such rules may harm consumers by disadvantaging rivals so much that competition in the input or output markets is adversely affected. They also may harm competition by facilitating pricing coordination.

Since exclusionary access rules may have both positive and negative effects, evaluation of the net competitive impact involves balancing competitive concerns against efficiency and other competitive benefits. While most joint ventures raise no anticompetitive issues under the


antitrust laws insofar as they represent efficient organizational responses to consumer demand, tension between cooperation for efficiency and cooperation to restrict competition can arise, particularly when joint ventures become large and encompass a large fraction of industry members. These joint ventures raise the most interesting and difficult antitrust concerns and are the focus of this article.

This paper evaluates access rules by carrying out an economic analysis of both input joint ventures and alternative legal standards. In Part II, we present a rigorous economic analysis of input joint venture access rules. We analyze both the potential contribution of joint venture access rules to efficiency and the potential competitive harm such rules can cause. We then illustrate our framework with issues raised in SCFC ILC, Inc. v. Visa USA, Inc., where Dean Witter, the Discover charge card issuer, challenged its exclusion from the Visa joint venture.

In Part III, we discuss various legal standards that courts apply to joint venture access rules. After analyzing the benefits and costs of per se standards in general, we analyze and evaluate a number of potential rules of per se illegality and per se legality, focusing particular attention on the standards proposed in Northwest Wholesale Stationers, Rothery Storage & Van v. Atlas Van Lines, Inc., and Visa. In particular, we discuss the proper role in the legal process of findings regarding the market power of joint ventures and their members, and the essentiality or importance of inputs provided by joint ventures. We also propose a new test of market power based on the likely impact of a hypothetical merger of members of a venture and excluded firms. While we favor administratively simple tests, based on our economic analysis we recognize that the application of per se standards in many cases will be neither simple nor error free; in those cases, we recommend using our economic framework to apply a structured rule of reason standard. Part IV summarizes and sets out our conclusions regarding the proper use of per se rules and the structured rule of reason.

6. 36 F.3d 958 (10th Cir. 1994).
7. Id. at 960-61.
II. ECONOMIC ANALYSIS OF EXCLUSIONARY ACCESS RULES

Joint venture access rules can improve consumer welfare by increasing the economic efficiency of the production, distribution and transaction processes. Conversely, access rules can reduce consumer welfare by reducing competition in the markets in which the joint ventures and their members operate. Thus, in order to analyze the economic implications of these rules, we first need to understand the potential efficiency benefits and competitive benefits and harms that may be created by access rules. Only by understanding the general results of a full economic analysis can legal rules be designed that reduce legal process costs without introducing large errors into the legal process.

This part sets out a framework for analyzing the net competitive impact of access rule provisions. We begin by examining the efficiency benefits created by the existence of joint ventures in general and joint venture access rules in particular. We then analyze theories of competitive harm flowing from access rules and competitive justifications for them. Finally, we illustrate our framework with claims raised in the recent Visa case.

A. Potential Efficiency Benefits of Joint Venture Rules

There is a key distinction between a venture's efficiency and an access rule's contribution to that efficiency. A venture can be highly efficient, and yet a particular access rule might contribute little or nothing to the venture's efficiency.

1. Sources of Joint Venture Efficiency

Collaboration in the provision of inputs is often efficient. Cooperation can lead to increased output, lower prices, and the creation of new or better products. Two underlying sources of these joint venture

---

efficiencies are reduced costs and increased investment incentives. Joint ventures can reduce production and distribution costs by realizing potential scale and scope economies and by eliminating duplicative activities. For example, joint ventures can coordinate research and development activities and speed development of new products at lower cost, or achieve scale economies through joint ownership of a single large production facility. Joint ventures also can reduce the transaction costs that influence the ability of firms to deal efficiently with interfirm coordination issues such as those relating to standardization, network externalities,10 skill and locational complementarities, and free riding. For example, it may be more efficient to develop a product and produce it through an input joint venture via a common product standard than through interfirm negotiations.

Another possible source of joint venture efficiency is the generation of increased investment incentives. For example, a joint venture might efficiently increase incentives for firms to invest by restricting competition among the members of the joint venture, just as the patent system increases incentives to invest in innovation. Of course, limiting competition in order to increase investment returns may not be efficient because it may overstimulate investment, and the benefits of increased investment incentives may be outweighed by the costs of reduced competition. This potential for anticompetitive harms as well as efficiency benefits can make the analysis of investment incentives difficult.

10. Network externalities occur when the benefits created by a product to one user increase as the number of other users grows. See Carlton & Klamr, supra note 9; Michael L. Katz & Carl Shapiro, Systems Competition & Network Effects, J. ECON. PERSP., Spring 1994, at 93; Joseph Farrell & Garth Saloner, Coordination Through Committees and Markets, 19 RAND J. ECON., 235 (1988); S.J. Liebowitz & Stephen E. Margolis, Network Externality: An Uncommon Tragedy, J. ECON. PERSP., Spring 1994, at 133; S.J. Liebowitz & Stephen E. Margolis, Should Technology Choice Be a Concern of Antitrust Policy?, 9 HARV. J. L. & TECH. 283 (1996); Stanley M. Besen & Garth Saloner, The Economics of Telecommunications Standards, in Changing the Rules: Technological Changes, International Competition, and Regulation in Communication 177 (Robert W. Crandall & Kenneth Flamm eds., 1989). Network externalities are not unusual in joint ventures, especially those involving open entry. For example, credit card associations like Visa and MasterCard, ATM networks, and real estate multiple listing services each are joint ventures in industries where there may be network externalities. For ATM networks, an increase in the number of ATM card holders raises the value to banks of providing more ATMs, which benefits all ATM users. Steven C. Salop, Deregulating Self-Regulated Shared ATM Networks, 1 ECON. INNOVATION & NEW TECH. 85 (1990). Where the potential for positive network externalities is significant, it is expected that joint ventures would tend to have a general open entry policy.
2. Access Rules and Joint Venture Efficiency

Access rules can contribute directly to the efficiency of joint ventures in the input and output markets. This raises the fundamental question of whether access rules should ever be questioned by the courts. In general, joint ventures are not given the same leeway as single firms under the antitrust laws. If a private firm develops a new product or is simply successful, it rarely is forced to share its assets with (i.e., provide access to) its rivals. For example, General Motors is under no general obligation to allow Ford to use its manufacturing facilities, even if Ford claims that it is efficient to do so. In contrast, a joint venture more commonly can be compelled to provide access to a firm that will compete against its members. Members of joint ventures do not have an unlimited property right to capture the profits that might arise from a collective restriction of output. The main reason for the distinction in antitrust treatment between single firms and joint ventures is that a joint venture involves coordination among competing firms and can be used as a vehicle to suppress competition in ways unrelated to or unnecessary for the efficient provision of the product, as cartels do when they engage in naked price fixing (coordinated pricing that lacks an efficiency justification). Even if a venture is efficient, that does not necessarily imply that the access rules it uses are necessary for or contribute positively to its efficiency — inefficient access rules might be selected for their anticompetitive benefits. Another reason for the distinction is that the very existence of the joint venture shows that the shared use of the joint venture’s assets is feasible and hence likely to be less disruptive (i.e., costly) than would Ford’s use of General Motors’ manufacturing plant. For these reasons, joint venture access rules are not and should not be immune from antitrust scrutiny.

The efficiency of any given access rule can only be determined in light of the nature of the joint venture. Access rules vary greatly and may affect the size of the joint venture, the timing of member entry, the identity of members, or with whom the members may deal. For example, there is no single efficient size for all ventures. A venture may need to

---

11. In addition, joint ventures sometimes threaten denial of access as a means of enforcing compliance with other rules. The efficiency of such threats depends on the efficiency of the access rules and their utility as an enforcement mechanism.

12. As discussed in this article, output could be restricted because if the joint venture restricts access to the input it produces or if it restricts the ability of other input suppliers to sell inputs to members, it restricts members’ outputs.

produce a large volume of its product or service in order to take advantage of scale economies. Standardization efficiencies might increase with the percentage of output market transactions that use the input produced by the venture. Positive network externalities also may increase with the number of firms that are attached to a venture network or the extent to which the network actually is used. In contrast, a smaller number of members might incur smaller coordination costs, as is the case for many research joint ventures. Regulation of new membership entry may lead to efficiency benefits. Concerns that later applicants will free ride on large and risky investments made by the founding members might lead a joint venture to close its membership or increase application fees to new members after such investments have been made. In contrast, free riding issues are less likely to be as important for joint ventures that do not have large and risky investments and whose primary function is to take advantage of network or standardization externalities. Indeed, early members of these joint ventures benefit from the addition of new members later on. The identity of members also can affect venture efficiency in some cases. For example, coordination costs can be affected by divergent economic interests, and differences among members with respect to location, skills, or market position can affect the degree to which potential complementary efficiencies are realized.

3. Evaluating Efficiency Justifications for Exclusionary Access Rules

If the access rules of a joint venture restrict competition, one must still consider the potential efficiency rationales for the rules before one can decide whether the rules are on balance anticompetitive. It often can be difficult for outsiders to evaluate the efficiency that results from internal rules of operation, so courts should exercise care in intervening in the operations of joint ventures. However, this does not mean that every efficiency claim should be blindly accepted. Some efficiency justifications are not cognizable under the antitrust laws, some will not be plausible or logical, and some plausible justifications may conflict with the evidence. For a justification to be valid, the efficiency benefits must result from the access restraints, not simply from the existence of the joint venture. The fact that it is efficient to permit a joint venture does not imply that every possible access restraint also is efficient. For example, the efficiency benefits of copyright collectives like ASCAP and BMI do not by themselves imply that it would be efficient to fix the price

of music licenses or exclude composers that either write too many songs or sometimes negotiate independently with users outside the blanket license. In short, there must be a reasonable connection between the exclusionary conduct and the claimed efficiency benefits.

Consider the broad claim that access restraints are necessary in order to maintain adequate investment incentives for members of the joint venture. This is generally the most difficult efficiency claim to evaluate because it raises the tension between market power and incentives to invest. Sometimes investment incentive claims lack credibility due to the type of venture, its past membership policies, or other evidence. The history of the venture may be relevant to this analysis. After a joint venture is formed, its members subsequently may gain an incentive to use the venture structure to limit competition in ways that were not necessary for formation of the venture and do not increase its efficiency. For example, facilitating collusion among members might only become profitable after the venture gains a large collective market share. Thus, established ventures should not be immune from antitrust scrutiny, especially if they seek to impose restrictions subsequent to their formation. In such situations, the past behavior of the joint venture can assist in the evaluation of the efficiency justifications. If, however, efficiency justifications are accepted merely on the basis of general plausibility, there is the potential that they may be used as a justification for a broad array of anticompetitive restraints. The antitrust laws should not permit joint ventures to use the "adequate investment incentives" argument in order to restrict competition solely to generate supra-competitive profits — the sweep of this defense increases the importance of carefully scrutinizing such claims.

There are a number of approaches to evaluating efficiency claims for access rules. For example, the structure of a joint venture is often instructive. If a successful venture has an open access structure, then there already has been little or no protection of the right to exercise market power through exclusion. This evidence would be relevant to evaluating a claim that such protection has not been essential for the success of the venture. Alternatively, consider a venture structured as a non-profit input supplier whose many members compete in the output market based on an input price that yields competitive profits to the members of the venture. This evidence would be relevant to evaluating

16. A difficult and subtle problem arises when an open access joint venture sets a fee to join the venture and an applicant complains that the fee is too high. The reason that pricing of access can raise vexing antitrust questions is because some joint ventures that raise access concerns have elements of natural monopoly. The venture will be concerned with its profits when setting up its access fees. Policy makers may be concerned with measures of welfare. The two do not necessarily coincide.
a claim that additional protection of property rights, specifically, the right to further restrict competition in order to earn supra-competitive returns, is essential to the venture’s existence. In short, closed ventures with few members are more likely than open ventures to have a valid efficiency justification for access restraints based on the need to generate profits by restricting competition.\(^7\)

B. Potential Competitive Harms from Exclusionary Joint Venture Access Rules in Input Joint Ventures

In this section, we analyze the ways in which access restrictions can harm consumers and competition. Access rule issues often arise in situations in which the joint ventures are entities that facilitate vertical integration by their members. Such ventures provide a product or service to their members which the members use in providing some product or service of their own. That is, the venture provides an input that the members use in producing outputs that they sell in the market. For example, consider a production joint venture among computer firms to manufacture semiconductors (the “input”) for use in computers independently manufactured and marketed by the venturers (the “output”).\(^8\)

Figure 1 (following page) is a shorthand way to illustrate the structure and relationship of input and output market competition. In Figure 1, competitors in the input market (semiconductors) are shown at the top of the diagram. The joint venture and its unintegrated competitors supply the input to firms that compete in the output market (computers), as shown in the middle. The output market competitors sell to consumers, as shown at the bottom. The venture facilitates vertical integration. That is, each member in the semiconductor joint venture also is a manufacturer of computers, as indicated by the dotted outline. As drawn, none of the members of the venture produces semiconductors independently of the venture or purchases them from other semiconductor suppliers. Nor does the venture supply inputs to unintegrated firms.

---

17. Antitrust authorities should not permit ventures to form as closed entities where anticompetitive harm results and there is no valid efficiency justification. However, for a discussion of overinclusiveness, see infra part II(C).

18. Similarly, a research joint venture among pharmaceutical companies might create the formula for a new drug (the “input”) so that each member of the venture individually then could manufacture and market a version of the drug (the “output”). A joint venture among residential real estate brokers might provide listing information (the “input”) for use by the members in brokering houses (the “output”). In the credit card industry, a network joint venture provides standard interfaces, communications protocols and an interchange mechanism (the “input”) and members then compete in issuing credit cards and dealing with merchants (the “outputs”).
Exclusionary joint venture access rules can harm competition by facilitating the exercise of collective market power. We discuss three possible sources of competitive harm: (1) output market exclusion; (2) input market exclusion; and (3) supporting pricing coordination. All of these sources of competitive harm can raise the price paid by consumers for output and thereby reduce consumer welfare. However, the exact factual circumstances under which each is likely to reduce consumer welfare differ, and so it is important that litigants and courts distinguish among them. We now focus on these three sources of consumer harm.

19. In addition, even if output prices do not rise, exclusion or an increase in input prices may reduce production efficiency. Further, an increase in input market share could lead to monopsony of factors of production for the input, or could affect ancillary markets.
1. The Competitive Harm of Output Market Exclusion: Disadvantaging Output Market Competitors

A joint venture access rule can harm competition by raising the costs or otherwise disadvantaging the rivals of its members in the output market. This can reduce competition and lead to higher prices than would otherwise occur. For example, denying access to low cost firms in the output market can keep prices higher than they would otherwise be.\(^20\)

It is important to emphasize that competitive harm is not limited solely to those increases in output prices that can occur from the expulsion of current members. Exclusionary conduct may also involve preventing output prices from falling by rejecting new applicants. For example, suppose that output market competitors are not all equally efficient or aggressive. If the excluded applicants are especially low cost or aggressive competitors, then preventing these applicants from purchasing the input supplied by the venture may lead to output prices that are higher than they would otherwise be.\(^21\) If, conversely, the excluded firms were to gain equal access to the input, prices would fall to a lower level. Thus, excluding these new applicants represents the exercise of market power.\(^22\)

20. Numerous cases have raised issues of output market exclusion. See Radiant Burners, Inc. v. Peoples Gas Light & Coke Co., 364 U.S. 656 (1961) (the input Radiant was unable to obtain was the AGA certification that it needed to market its burner); Fashion Originators' Guild of America, Inc. v. FTC, 312 U.S. 457 (1941) (demonstrating how various characterizations of input and output markets may be relevant to the analysis); Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co., 472 U.S. 284 (1985) (the plaintiff apparently was complaining that exclusion from the wholesale cooperative would raise its costs of supplying stationary to retail consumers, although in fact it is not at all clear that this alleged cost disadvantage was very significant); Associated Press v. United States, 326 U.S. 1 (1945) (the government essentially complained that the members of the association were denying rival newspapers access to non-local news that would disadvantage or raise barriers to entry to these competitors).

21. The excluded competitors need not be more efficient than the remaining competitors for their exclusion to matter. However, their entry into the joint venture is likely to have a more significant impact on competition and prices in the output market the lower are their costs, relative to established competitors. Of course, these lower costs also would translate into higher post-entry market shares if the excluded applicants gained entry into the joint venture.

22. Even if the joint venture has no power to raise prices (as reflected perhaps by a low collective market share), it may be incorrect to conclude that the joint venture lacks the ability to exercise market power by excluding rivals, and thereby prevent prices from falling. This error is simply a variant of the Cellophane fallacy: there may be many substitutes at the higher price, but few at the lower price. See DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 740 (1990) (discussing United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377 (1956)); Thomas G. Krattenmaker et al., MONOPOLY POWER AND MARKET POWER IN ANTITRUST LAW, 76 GEO. L.J. 241, 256 n.75 (1987).
To analyze when such access rules will harm consumers, consider an access rule by the hypothetical semiconductor joint venture. Suppose that the semiconductor joint venture refuses to sell its products to non-members who compete with its members in the computer market. This exclusion could only be a profitable and anticompetitive strategy under certain conditions in the input (semiconductor) and output (computer) markets.\(^{23}\)

In the input market, the strategy would fail to harm output market competitors if other actual and potential semiconductor producers could supply the input to these competitors at the same price and quality as provided by the venture to its members. Similarly, if the excluded competitors were to efficiently vertically integrate themselves or form an equally efficient competing input joint venture, no anticompetitive effects would be possible; in fact, competition could be enhanced by the additional input market competition. However, competition and consumers would be harmed in the output market if, as a result of the access rules, the input costs of certain actual and potential competitors were increased and as a result output prices remained higher than otherwise. Harm to excluded firms will occur only if these excluded firms' costs are increased by the exclusion. In evaluating this issue, the mere fact that inputs are available elsewhere does not mean that the excluded competitors are not disadvantaged by the exclusion. Harm to

---

Market power is usually defined as the ability of a firm (or group of firms acting collectively) to restrict total market output so as to set price profitably above competitive levels. In the context of a joint venture, restrictions in market output can arise either because the joint venture members under scrutiny restrict their own outputs or because the joint venture causes competitors outside the venture to have lower outputs than they would otherwise have. We can label this power exclusionary market power. Thus, it is possible to distinguish two ways in which market power can be exercised through an output restriction — classical market power, and exclusionary market power. See Thomas G. Krattenmaker et al., *Monopoly Power and Market Power in Antitrust Law*, 76 GEO. L. J. 241 (1987).

Classical market power by a group of firms is the power to set price profitably at a supra-competitive level by restricting the outputs of members of the group. Classical market power is the main focus of analysis of price-fixing cartels. Exclusionary market power by a group of firms is the power profitably to set price at a supra-competitive level by disadvantaging competitors and causing those competitors to restrict their output. Exclusionary market power can exist independently of or in conjunction with classical market power. *Id.* at 249-50.

excluded competitors can occur if alternative input suppliers are less efficient, if the input provided by the joint venture is differentiated from those of other suppliers, or if the exclusion facilitates coordinated pricing by the remaining input suppliers.

Of course, it is now well recognized that harm to those competitors who are excluded is not the same as harm to competition and consumers. Consumers are not harmed significantly unless the exclusion also leads to an impact on price in the output market. Thus, proper evaluation of the competitive impact of exclusion involves analysis of the effect on the output market.24

In the output market, even assuming that certain competitors' costs were raised by the strategy, consumers may not be harmed. In particular, competition among members of the joint venture and the firms who are not disadvantaged by exclusion from the joint venture may prevent any upward price effect from occurring. In that case, there may be harm to competitors but not to competition.25 Similarly, if members of the joint venture face no barriers to expansion in the output market, or if membership is unconcentrated, competition may prevent prices from rising. However, exclusion may result in a reduction in total market output compared to what it would have been without the exclusion. Thus, even if the excluded firms who are disadvantaged by denial of access continue to compete in the market, higher prices and consumer harm nonetheless can result. If, by excluding a group of competitors, the joint venture can cause the output of these excluded firms to decline, and if the output of its own members does not expand to fully offset this decline, then total market output will fall and the joint venture will have exercised market power.

This analysis suggests that expulsion of a member from a joint venture with a low market share in the input and output markets is unlikely to create any competitive harm. If the joint venture has a small share of the input market or if its members have a small share of the output market, competition may not suffer if some firms are excluded from the joint venture. More importantly, if members of the venture have a low collective market share in the output market, the potential for expansion by non-members is likely to prevent significant output price increases whatever the venture's access rules are. However, while the members of a joint venture individually may lack market power, the joint venture nonetheless may have market power if the members can act collectively to restrict total market output. Even if the remaining

24. See Krattenmaker & Salop, supra note 23, for a more detailed discussion of this standard.

25. This point abstracts from the issue of efficiency losses or monopsony. See supra note 19.
members of the joint venture continue to compete against each other, as long as they face either higher costs than the excluded firms or rising supply curves, their output expansion cannot be expected to replace the lost output from excluded firms. Therefore, the lack of unilateral market power by individual venture members does not prevent the exercise of collective market power through exclusion by the joint venture. Accordingly, a joint venture can exercise market power even if the individual market shares of each of its members are low. This market power arises from the exclusionary conduct of the joint venture. 26

2. The Competitive Harm of Input Market Exclusion: Disadvantaging Input Market Competitors

Joint venture access rules can harm competition by disadvantaging competitors in the input market. These disadvantages could lead those competitors to forgo entry or reduce their output which in turn can lead to higher input and output prices. Joint venture access rules can also disadvantage input market competitors by imposing exclusivity requirements on members. 27

Exclusivity requirements force members of the venture to make all-or-nothing choices between obtaining their inputs from the venture or

---

26. It is well known that market share can provide an unreliable guide to market power. See, e.g., 1992 Horizontal Merger Guidelines, 57 Fed. Reg. 41,552 (1992). The same is true in joint ventures. For instance, in the semiconductor joint venture illustrated in Figure 1, the link between the collective market share of the venture and market power is sometimes unreliable. In that example, suppose the joint venture had admitted the new, low-cost members and those new members caused market output to expand. If these new members increase total output in the market, that increase in output would lower output prices and benefit consumers. Even though the collective market share of the joint venture would rise, it would be erroneous to condemn this procompetitive admission of new members.

27. This theory apparently formed the basis for one of the allegations in Northwest Wholesale Stationers. Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co., 472 U.S. 284, 296 n.7 (1985) ("According to Pacific, Northwest’s motive in the expulsion was to place Pacific at a competitive disadvantage to retaliate for Pacific’s decision to engage in an independent wholesale operation."). This theory also was alleged in a single firm context in Reazin, where it was alleged that Blue Cross terminated its participation contract with Wesley hospital because Wesley’s owner announced its intention to open an HMO in competition with Blue Cross and its HMO. Reazin v. Blue Cross & Blue Shield of Kansas, Inc., 899 F.2d 951 (10th Cir. 1990), cert. denied, 497 U.S. 1005 (1990).

See also BMI v. CBS, Inc., 441 U.S. 1 (1979) (noting that if ASCAP and BMI had exclusivity rules that prevented members from purchasing negotiation services from outsiders or negotiating with users themselves, the Court more likely would have invalidated the blanket license); HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE 236 (1994) (noting the importance of non-exclusivity to the BMI decision).
from alternative input market competitors. This can make obtaining inputs from alternative sources more costly, thereby decreasing demand for the inputs supplied by these alternative competitors and potentially raising rival input suppliers' costs or deterring entry of competitors into the input market. If the members of the venture are important customers of input market rivals, then the exclusivity requirement could reduce the potential market available to the input market competitors. Where scale economies are important, this could raise the costs of the foreclosed input market competitors or deter new input market entry. Thus, the input prices charged by the venture and input market competitors could rise, placing cost pressure on output prices. Indeed, output prices may rise, even if the output market is unconcentrated.

3. The Competitive Harm of Supporting Pricing Coordination

Joint ventures can directly limit member competition in the output market in order to raise prices and reduce output. A venture might directly control member output prices or output levels and set them at non-competitive levels. A venture also could influence output market prices indirectly by raising input prices or restricting input usage. To illustrate, suppose the semiconductor joint venture illustrated in Figure 1 sets a very high price for its semiconductors. In this case, the high input price will push up the price of the computers sold by the members.

28. See Lorain Journal Co. v. United States, 342 U.S. 143 (1951) (the use of an all-or-nothing contract to deter entry formed the basis of the allegations; however, concerted action and vertical integration were not issues). For one economic analysis of the unilateral conduct case, see Eric Rasmusen et al., Naked Exclusion, 81 AM. ECON. REV. 1137 (1991).

29. This also can deter two-tier entry of vertically integrated competitors and entry of unintegrated output market competitors.

30. For a detailed analysis of the conditions under which this harm is likely, see Rasmusen et al., supra note 28; Krattenmaker & Salop, supra note 23; Riordan & Salop, supra note 9.

31. This is because even perfectly competitive firms raise prices when their costs increase.

32. For other discussions, see Piraino, supra note 5; Brodley, supra note 5; Pitofsky, supra note 5.

33. See NCAA v. Board of Regents of the Univ. of Oklahoma, 468 U.S. 85 (1984); see also Fashion Originators' Guild of America, Inc. v. FTC, 312 U.S. 457, 462-63 (1941) (the FOGA adopted a variety of restraints on competition, including prohibitions on advertising, price discounts, and special sales, and these restraints were supported by rules that imposed substantial fines on members who violated the FOGA's requirements).

34. In this case, the profits are taken upstream in the input market rather than in the output market. Of course, the profits must not be distributed in proportion to input purchases, otherwise members will realize that their marginal input costs have not really increased. See Carl Shapiro & Robert D. Willig, On the Antitrust Treatment of Production
There are three ways that joint venture access rules can play a key role in supporting pricing coordination. First, the venture can enforce anticompetitive rules by threatening to discipline or even terminate the membership of those members who fail to obey its anticompetitive rules. If the input is provided to members by the venture at lower effective cost than by other input suppliers, or if membership in the venture is important for other reasons, then threats to discipline or even terminate the membership of firms that deviate from the venture’s restraints on competitive conduct could succeed in deterring such attempts to compete.

Second, where the venture’s controls on members’ output prices or outputs are indirect, an exclusionary access rule requiring that members exclusively use the inputs produced by the venture also may facilitate pricing coordination. Such a rule would, for example, eliminate members’ ability to achieve lower costs by purchasing inputs from outside the venture instead of purchasing the high cost inputs sold by the venture.

Third, exclusivity rules could contribute to the magnitude of the competitive harm by preventing venture members from competing independently in the output market. Such a rule could prevent members from offering other products that compete with the output produced by the joint venture, even if they do not embody the inputs produced by the venture.

4. Evaluating Competitive Harm Allegations

General allegations of boycott and exclusion often confuse injury to a competitor with injury to competition. Therefore it is important to require the excluded applicant to carefully specify the mechanism by which the access rules are alleged to reduce competition, as well as to separately demonstrate harm to both competition and the excluded competitor. Several different types of evidence may be used to show
consumer harm. For example, the structure of the venture can be probative of the incentive to inflict competitive harm. Where a venture is structured so that the similarly situated firms comprising the venture compete away all profits in both the output and input markets, there may be less incentive to exercise exclusionary market power. In these cases, the incentive to exclude is reduced or eliminated compared to the case in which the exclusion would allow the members of the venture to earn greater profits with the exclusion than without it. Similarly, a non-profit structure sometimes can reduce the incentive to exercise market power by constraining the additional profits to be earned from exclusion.

As another example of how structure can be probative, consider the following two joint ventures. In one, the members can purchase unlimited amounts of input at a price equal to constant marginal cost, while in the other, member output levels or input purchases are directly limited by the venture. The first venture should raise fewer antitrust problems than the second because the ability to restrict output (and thereby raise output price) is likely to be more limited.

The conduct of competitors and performance in the input and output markets can be probative of the effect of the access rule on competitors and consumers. The analysis in the previous parts has indicated how evidence regarding the costs of excluded firms, their ability to substitute, the degree of competition in the output market, and other factors can be used to evaluate the likely competitive impact of the access rule.

C. Protecting Competition as a Justification for Exclusionary Access Rules

Joint ventures sometimes can reduce competition by becoming overly inclusive if they combine firms that otherwise would compete more vigorously. Therefore, exclusionary access rules can create a competitive benefit by preventing joint ventures from becoming too large.

Inclusionary joint venture access practices can play a key role in facilitating anticompetitive collective conduct by increasing membership in the joint venture. By increasing membership to a larger percentage of

37. Such a case is more likely for open access joint ventures or closed joint ventures with many similar members than it is for closed joint ventures with few members. In cases where firms are not similarly situated, even though competition may eliminate any gains to the marginal firm from the exercise of the joint venture’s market power, there nonetheless would be gains to inframarginal firms who earn rents. In cases where there are fixed and sunk costs, exclusion of more efficient rivals can protect the profits on those sunk costs.

38. These competitive benefits accrue to society, not to the joint venture. In fact, the venture and its members typically would gain from overinclusiveness that reduces competition.
the input or output market, anticompetitive price and quantity restrictions are more likely to be profitable in the face of potential competition from non-members. An exclusionary access rule could prevent this harm by restricting the size of the joint venture.

Such a rule would not be in the economic interest of the members. Therefore, the "protection of competition" justification for exclusionary access rules raises related issues of credibility. If increasing membership would reduce competition by facilitating pricing coordination, that reduction in competition normally will benefit the venture and its members. In that case, a claim by the venture that it adopted the exclusionary rule with the purpose of protecting competition lacks credibility. Of course, claims by applicants that they desire membership in order to compete and drive down prices and profits also may be false. The applicants may truly desire membership in order to collude; the joint venture may prefer to face increased competition from an excluded rival to cutting that rival in on the profits.

The situation is somewhat different when the venture claims that it adopted the exclusionary access rule for the purpose of achieving legitimate efficiency benefits rather than to protect competition. Under these circumstances, the benefits from the protection of competition can be logically consistent with the venture's own actions.

D. SCFC ILC, Inc. v. Visa USA, Inc.: An Illustration of Our Economic Framework

The litigation between Dean Witter and Visa illustrates many of the issues raised by our economic analysis. By applying our framework to the allegations and facts in that case, the framework can be made more concrete. In addition, the court's own approach to the case is confusing, if not confused. Thus, by using our framework to clarify the economic and legal issues in that case, the value of our framework can be demonstrated.

39. 819 F. Supp. 956 (D. Utah 1993), rev'd, 36 F.3d 958 (10th Cir. 1994). A jury in 1992 reached a rule of reason verdict for Dean Witter. The jury was instructed to use a rule of reason that required Dean Witter to prove substantial harm to competition from Visa's rule. The district court judge denied Visa's motions for judgment as a matter of law, rejecting Visa's argument for a legal standard that would have immunized its bylaw from rule of reason scrutiny. In 1994, the Tenth Circuit reversed, holding that Visa did not have market power evaluated at the issuer level and that Visa's justifications should be accepted as a matter of law. See SCFC ILC, Inc. v. Visa USA, Inc., 36 F.3d 958 (10th Cir. 1994).

40. See Carlton & Frankel, The Antitrust Economics of Credit Card Networks, 63 ANTITRUST L.J. 643, 650-55, 661-68 (1995), for a more detailed economic analysis of this case using an economic framework similar to the one described in this paper.
The litigation revolved around a Visa rule that prevented Dean Witter from issuing Visa cards because of Dean Witter's ownership of the Discover Card, a credit card that competes with the Visa cards issued by other Visa members. Visa's credit card operations can be viewed as an input joint venture that provides network transaction interchange services as inputs to its member banks, which then compete among themselves and with non-members in two output markets: the issuing of credit cards and the servicing of the merchants that accept the cards. These services provided by the network create contractual and communication links between each card issuer and merchant servicer. The Visa case focused on the impact on consumers in the credit card issuing output market. The issues raised by both parties illustrate the analytic approach in this article.

1. Dean Witter's Theories of Competitive Harm

Dean Witter alleged two of the three theories of competitive harm discussed in this article. First, Dean Witter alleged that the Visa rule disadvantaged Dean Witter and thereby reduced competition in the market for issuing credit cards. Dean Witter did not argue that its viability would be impaired if it were denied access to Visa membership. Instead, Dean Witter claimed that, notwithstanding the fact that the Discover Card already competes in issuing credit cards, denying Dean Witter the ability to issue a Visa card would reduce competition and prevent credit card prices from falling.

Second, Dean Witter alleged that Visa's exclusionary access rule deterred the entry and growth of new proprietary networks and cards, reducing competition in both the network transaction services and card

41. The Visa rule is set out in bylaw 2.06. That Bylaw states that Visa membership is unavailable to any bank that issues a card "deemed competitive" by the Visa Board. The Visa Board named American Express and Discover as competitive cards, although it continued to permit members to issue MasterCards, Diners Club and Carte Blanche cards. See Visa, 819 F. Supp. at 963-66.

42. The parties stipulated that general purpose credit cards were the relevant output market. Id. at 966.

43. Id. There were three main elements to Dean Witter's first theory. First, it argued that Visa members have collective market power in the market for issuing credit cards, see id. at 970, implying that exclusion of competitors could lead to higher prices in the output market. Second, it claimed that Dean Witter would be a low cost, aggressive competitor with its Visa card that would enter on a large scale with national promotion, and its competition would cause credit card fees to fall, benefitting consumers. See id. at 972, 986-87. Third, it argued that expansion of the Discover Card would not be equivalent to expansion by issuing a Dean Witter brand of Visa card. This is because credit cards are a differentiated product characterized by economies of scale and scope, as reflected by the fact that most Visa issuers also issue Mastercards. See id. at 988.
issuing markets. According to Dean Witter, the rule deterred current Visa members from issuing new rival proprietary cards or starting or joining new networks, because of the expectation that Visa would terminate their membership and deprive them of access to Visa’s network services.

2. Visa’s Justifications

Visa raised three justifications for its rule — two efficiency justifications and a protection of competition justification. Visa’s first efficiency justification was that denying membership to Dean Witter protected its property and was necessary to create incentives for Visa and its members to invest. This justification was based on the premise that Dean Witter’s entry into the Visa joint venture would increase competition among Visa card issuers, causing price to fall and allowing Dean Witter to capture customers of other Visa members. Visa argued, however, that long-run economic welfare would fall because forcing Visa to admit Dean Witter would alter Visa’s and other joint ventures’ incentives to organize or invest in the future.

Visa’s second efficiency justification was that Dean Witter would use confidential information created by the Visa network to enhance Discover’s competitive position, gaining an unfair advantage in the market.

Visa also raised the protection of competition justification that granting access to Dean Witter would lead to an overinclusive network, thereby reducing competition in network services between Discover Card and Visa and exposing Visa to possible government regulation or antitrust attack. In this regard, Visa argued that permitting member non-exclusivity with MasterCard reduced competition between the systems.

44. See id. at 966.
45. The jury instructions required Dean Witter to prove that the harm to competition from the exclusion did not outweigh competitive benefits. Id. at 967.
46. In denying Dean Witter’s allegations of consumer harm, Visa also made the contradictory argument that Dean Witter’s entry would have no effect on competition. Id. at 970.
47. Id. at 991. Although almost all Visa members also issue Mastercards, and each Visa member has access to confidential information about other Visa members, it does not appear that Visa alleged any widespread free riding on the part of Mastercard issuing members.
48. See Carlton & Frankel, supra note 40, at 661-68, for an explanation of why the benefits of admitting Dean Witter exceed the costs.
III. ECONOMIC ANALYSIS OF ALTERNATIVE LEGAL STANDARDS

Only unreasonable restraints are condemned by § 1 of the Sherman Act.49 Some restraints are evaluated under a fact-based, rule of reason analysis, while other restraints are condemned per se without this full balancing analysis.50 Under the per se standard of illegality, plaintiffs do not need to demonstrate anticompetitive effect, and defendants cannot rebut plaintiffs' allegations by showing that the restraints fail to lead to measurable anticompetitive effects.51

Legality can also be determined on the basis of a per se standard. For example, according to the 1992 Horizontal Merger Guidelines, a finding that the market is unconcentrated generally precludes a finding of fact that the competitive harm from a merger exceeds the efficiency benefits.52 The "safe harbor" designed into the Guidelines assumes that net economic harm is so unlikely that the merger can safely be permitted per se, that is, without even allowing the government to try to show an anticompetitive impact through a fact-based, competitive analysis of the merger.53 Therefore, this safe harbor constitutes, in effect, a rule of per se legality.

A rule of per se illegality involves an irrebuttable presumption that when certain conditions occur, an anticompetitive effect is very likely to


50. Antitrust defendants may not justify their conduct as furthering certain social welfare goals that are viewed as being in direct conflict with the Sherman Act. However, the view that certain social welfare goals are not cognizable efficiency benefits goes beyond the per se rule. Such justifications would be impermissible under a rule of reason inquiry, too. See National Soc'y of Professional Eng'rs v. United States, 435 U.S. 679, 685 (1978) ("Contrary to its name, the Rule [of Reason] does not open the field of antitrust inquiry to any argument in favor of a challenged restraint that may fall within the realm of reason. Instead, it focuses directly on the challenged restraint's impact on competitive conditions."). Non-profit entities may constitute an exception under certain circumstances. See United States v. Brown Univ., 5 F.3d 658 (3d Cir. 1993).

51. See United States v. Socony-Vacuum Oil Co., 310 U.S. 150 (1940); NCAA v. Board of Regents of the Univ. of Oklahoma, 468 U.S. 85, 103-04 (1984) ("Per se rules are invoked when surrounding circumstances make the likelihood of anticompetitive conduct so great as to render unjustified further examination of the challenged conduct."). As cogently explained by Krattenmaker, a standard that defines certain conduct as a per se offense actually rules out particular defenses (e.g., that the conduct does not lead to a measurable anticompetitive impact). See Thomas G. Krattenmaker, Per Se Violations in Antitrust Law: Confusing Offenses with Defenses, 77 Geo. L.J. 165, 172-73 (1988).


53. See id. at 41,554.
result. A rule of per se legality creates an irrebuttable presumption that when certain conditions occur, an anticompetitive effect is very unlikely to result.

A. The Benefits and Costs of Per Se Standards

If accurate calculations of actual net economic impact could be performed costlessly, there would be little reason to consider alternative legal standards. The antitrust laws could simply forbid any joint venture access rule that produced a negative net economic impact. This would be a fully-specified and unconditional decision-making standard. Since low-cost, perfectly reliable calculations of net economic impact are not generally available, the choice among legal standards becomes an important and complex issue. This complexity is reflected in the tension and confusion regarding the choice and application of per se rules and the rule of reason.

The benefit of a per se rule involves the reduction in legal process costs relative to the potential for error introduced by truncating the analysis. By eliminating the need to prove (or disprove) certain allegations with factual evidence, a per se rule reduces the legal process costs of the court and the litigants, relative to a rule of reason standard. However, assuming that more information improves accuracy, per se rules should lead to more error — error that is costly to society. In economic terms, per se rules are appropriate when the likelihood and social cost of erroneous outcomes are low relative to the difficulty and cost of gathering further information and then making a decision.

54. See Krattenmaker, supra note 51, at 166, 170-72.
55. Some commentators argue that per se rules are necessary because courts make frequent errors applying the rule of reason. See, e.g., Frank H. Easterbrook, Vertical Arrangements and the Rule of Reason, 53 ANTITRUST L.J. 135, 167 (1984). If courts are unable to apply the rule of reason accurately, then per se rules become more attractive.
56. See Warren F. Schwartz, An Overview of the Economics of Antitrust Enforcement, 63 GEO. L.J. 1075, 1087-90 (1980); Isaac Ehrlich & Richard A. Posner, An Economic Analysis of Legal Rulemaking, 3 J. LEGAL STUD. 257, 272-74 (1974); William M. Landes, Sequential Versus Unitary Trials: An Economic Analysis, 22 J. LEGAL STUD. 99, 100-01 (1993); C. Frederick Beckner, III & Steven C. Salop, Issue Sequencing and Summary Disposition in an Efficient Legal Process 27-32 (1994) (unpublished manuscript, on file with authors). Consider, for example, the case of the per se rule condemning naked price fixing (joint pricing that lacks an efficiency justification). The economic rationale for denying the defendant the ability to demonstrate lack of anticompetitive effect is the belief that the likely benefit from joint price setting is small or nonexistent when compared to the likely harm to consumers. See FTC v. Superior Court Trial Lawyers Ass'n, 493 U.S. 411, 423-25 (1990). The decision calculus changes significantly when there are plausible (and cognizable) efficiency justifications for joint pricing. In this situation, the presumption that consumer welfare will be harmed is weakened or eliminated and the potential harm from false decisions rises accordingly. See NCAA v. Board of Regents of the Univ. of
Therefore, it is not surprising that one hallmark of per se rules is that they typically cover situations in which the Court feels it has great experience.\textsuperscript{57}

The distinction between the rule of reason and per se rules is not as sharp as might first appear. At a minimum, the basic facts of a case must be determined before one can decide which standard to apply. The proper mix of presumption and case-specific fact gathering lies along a continuum and varies among cases.\textsuperscript{58} As courts have come to appreciate this point, the operational distinction between rule of reason and per se antitrust decisions has become less clear over time.\textsuperscript{59}

In designing the optimal legal standard, one key question is whether the legal process can be productively shortened by focusing on certain issues that are most significant in gauging the likelihood that a restraint will have a positive or negative net economic impact.\textsuperscript{60} For example, the finding in \textit{BMI v. CBS, Inc.} that significant efficiency benefits likely would flow from joint pricing reduced the likelihood of negative net economic impact.\textsuperscript{61} Thus, it was inappropriate to shorten the decision-making process by condemning the blanket license per se, that is, without actually requiring the plaintiff to prove anticompetitive effect.

---


\textsuperscript{57} This basic economic approach is reflected in a number of judicial decisions regarding per se standards of illegality. See, e.g., Jefferson Parish Hospital No. 2 v. Hyde, 466 U.S. 2, 15 n.25 (1984) ("The rationale for per se rules in part is to avoid a burdensome inquiry into actual market conditions in situations where the likelihood of anticompetitive conduct is so great as to render unjustified the costs of determining whether the particular case at bar involves anticompetitive conduct."); Continental T.V., 433 U.S. at 50 n.16 ("Per se rules thus require the Court to make broad generalizations about the social utility of particular commercial practices. . . . Cases that do not fit the generalization may arise, but a per se rule reflects the judgment that such cases are not sufficiently common or important to justify the time and expense necessary to identify them.").


\textsuperscript{59} The issues considered under the rule of reason are also considered in deciding whether to apply a per se rule. As Justice Stevens wrote in introducing the quick look approach in \textit{NCAA}: "Per se rules may require considerable inquiry into market conditions before the evidence justifies a presumption of anticompetitive conduct." 468 U.S. at 104 n.26. See also Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 451, 469 n.15 (1992) (noting that market definition, a central issue in assessing market power, sometimes involves an understanding of likely anticompetitive effects); \textit{Superior Court Trial Lawyers Ass'n}, 493 U.S. at 434-35 & n.17; FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 460-61 (1986) (holding direct evidence of harmful competitive effect "can obviate the need for an inquiry into market power, which is but a surrogate for detrimental effects"); \textit{NCAA}, 468 U.S. at 109; \textit{Jefferson Parish}, 466 U.S. at 12-14 (holding that market power in tying product is an element of per se tying claim).


\textsuperscript{61} 441 U.S. 1, 20-21 (1979).
In *United States v. Socony-Vacuum Oil Co.*, in contrast, the process was appropriately shortened in light of the absence of a showing of significant efficiency benefits.⁶²

**B. Alternative Per Se Standards for Joint Venture Access Restraints**

The economic rationale for per se rules can be applied to the issue of joint venture access rules. While joint venture access restraints can be evaluated factually under a rule of reason inquiry, the inquiry can be foreshortened either by a standard of per se illegality or by a standard of per se legality. Courts have proposed a number of potential per se standards to govern exclusionary access rules, most notably in *Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co.*⁶³ and the recent *SCFC ILC, Inc. v. Visa USA, Inc.*⁶⁴ decision by the Tenth Circuit. We critique these various per se standards and set forth our recommendations for per se standards and a structured rule of reason analysis when per se standards are inappropriate.

1. Criticism of Essential Input and Competitor Viability Standards

*Northwest Wholesale Stationers* promulgates a per se standard based on the essentiality of an input, while *Visa* promulgates a per se standard based on the viability of competitors. Both standards involve the same economic issue: the importance of the input to the competitive effectiveness of the excluded applicants. These two standards are imprecise proxies for market power and they ignore the direct impact of exclusion on the effectiveness of competition.

a. The *Northwest Wholesale Stationers* Essential Input Rule of Per Se Illegality

According to *Northwest Wholesale Stationers*, exclusion is illegal per se if the input is "essential to effective competition."⁶⁵ This rule is problematic in four key ways. First, it is not apparent that this rule is a short cut because essentiality is not defined. If the excluded applicant can demonstrate that the effectiveness of competition is reduced by denial of access, that showing on its face demonstrates anticompetitive effect. Demonstrating anticompetitive effect is, of course, the rule of reason standard. Second, this rule is overinclusive. If it is taken to mean

---

⁶². 310 U.S. 150, 212-13 (1940).
⁶⁴. 36 F.3d 958 (10th Cir. 1994).
⁶⁵. 472 U.S. at 296-97.
that the input is essential to the excluded applicant, then the rule appears
to ignore the potential for output market competition from firms other
than the excluded applicants. Just because the input is essential for one
applicant does not mean that it is essential for all. Third, the rule may be
inappropriate for allegations of competitive harm other than the output
market exclusion apparently alleged in Northwest Wholesale Stationers.
Indeed, this limitation seems to have been recognized by the Court. 66
Fourth, there is no clear provision for an efficiency defense in the
Court’s statement of the rule. 67

b. The Competitor Viability Rule of Per Se Legality

The Visa court took the position that if an excluded firm can survive
outside the joint venture, the access restriction should be legal. 68 This
“competitor viability” standard of per se legality would immunize the
access restraints from the rule of reason inquiry. This rule of per se
legality is problematic in three ways. First, as already discussed, the fact
that the excluded applicant can survive in the market does not mean that
the competition will be unaffected by the access restraint or that the joint
venture lacks market power. Mere survival does not imply effective
competition. 69 Thus, the rule permits access rules that harm competition.
Second, the rule is backward-looking in its focus. The proposed rule
focuses on the viability and success of the excluded applicant in the past,
not on the likely impact of the access rule on prices and market competi-
tion in the future. Third, this rule of per se legality largely ignores the

66. In discussing the theory that Northwest’s intent was to punish Pacific for
competing in the input market, the Court stated that this allegation should be evaluated
under the rule of reason. Id. at 296 n.7. Although recognized by the Court, this limitation
may be ignored by others.

67. Although the Court is ambiguous in its statement of the rule regarding the role of
efficiency considerations, it seems doubtful that many joint venture access rules would be
found illegal per se under the Court’s overall approach in Northwest Wholesale Stationers.
This is because access restraints often raise efficiency rationales and such justifications
likely would trigger a rule of reason inquiry. Id. at 296 (“Wholesale purchasing coopera-
tives must establish and enforce reasonable rules in order to function effectively. Disclosure
rules, such as the one on which Northwest relies, may well provide the cooperative with a
needed means for monitoring the creditworthiness of its members.”). This approach is not
surprising. After all, if efficiency rationales for joint pricing (such as those considered in
BMI v. CBS, Inc., 441 U.S. 1, 23-24 (1979)) create the need for a rule of reason treatment,
there is no reason why concerted refusals to deal by a joint venture should be treated more
harshly.

68. Visa, 36 F.3d at 971.

69. Even if access to the input is not absolutely necessary for survival in the output
market, denial of access may contribute significantly to competitive harm by disadvantaging
an output market competitor. As discussed earlier, supra part II(A), the excluded
applicant’s alternative sources of inputs may be less efficient or more costly.
fact that there are theories of competitive harm other than disadvantaging output market competitors.

2. Criticism of Market Power Per Se Rules

_Northwest Wholesale Stationers_ states a rule of per se illegality when a joint venture has market power or, as already discussed, the venture has "exclusive access to an element essential to effective competition."\(^{70}\) Some commentators and courts, including the _Visa_ court, have suggested a rule of per se legality when a joint venture lacks market power. To determine whether a joint venture has market power, the commentators recommend using a test based on an analysis of certain hypothetical mergers. The _Visa_ court evaluated the market power of the joint venture by measuring the concentration of the individual members of the joint venture in the output market. We critique these different approaches in turn.

a. The _Northwest Wholesale Stationers_ Collective Market Rule of Per Se Illegality

The _Northwest Wholesale Stationers_ rule of per se illegality for exclusionary access rules enforced by ventures with collective market power is flawed in a number of ways. First, it does not state whether the relevant market power concept refers to the collective market power of the venture and its members in the input market, the output market or both.\(^{71}\) Second, it does not distinguish the relevant market power concept from the essentiality of the input. Consequently, it might be thought that essentiality and market power in the input market are equivalent. Third, this per se rule may not even be a significant short cut. If market power is taken to mean that by excluding applicants the venture profitably can set output prices above the level that would otherwise prevail, then showing market power is equivalent to demonstrating competitive harm in the output market under the rule of reason. Fourth, as already discussed, _Northwest Wholesale Stationers_ never

---

70. 472 U.S. at 296-97. The Court actually stated these conditions in the negative, that per se treatment would not be warranted unless one of these conditions were found.

71. By collective market power in the output market, we mean that the members of the venture could exercise market power by collective conduct through the venture. For example, expulsion of current members could allow prices to rise above current levels. Similarly, exclusion of new applicants could prevent prices from falling. As discussed earlier, _supra_ part II(A), in this latter case, the joint venture may have no power to raise prices above the current level because of current competition, yet still have the power to prevent prices from falling to a lower level. This is a variant of the _Cellophane_ fallacy. See _supra_ note 22.
makes it clear that the per se rule is inapplicable when the access restraint has valid efficiency justifications.

b. Merger Tests of Collective Market Power and Per Se Legality

Some commentators and courts have suggested a standard of per se legality when ventures and their members lack collective market power. Others have suggested merger-based variants of this rule. The relationship between collective market power and competitive harm from exclusionary conduct is virtually tautological. If a group of firms acting collectively can restrict access to their joint venture, and that exclusion leads to higher output prices than would occur absent the exclusion, then the group of firms collectively has (exclusionary) market power.

The measurement of collective market power raises a number of subtle issues. First, a rule based only on the collective market share of members at current prices in the output market is flawed. Market share can overestimate or underestimate market power. For example, a market share standard ignores that ventures may be able to raise prices with conduct that facilitates pricing coordination with non-members. To account for these problems, the relevant standard cannot be limited to the collective market power of the members of the venture examined in isolation. Rather, at the least, it must focus also on the likely competitive impact of a hypothetical merger of venture members.

Second, even a merger-based standard can lead to erroneous conclusions if one ignores the distinction between exclusionary and classical market power. For example, the "usual" merger test would evaluate the potential upward effect on output prices of a hypothetical merger of the venture members in good standing. If the venture passes this test (i.e., if there is no predicted price increase above the current level), then it is argued that the venture has no collective market power and, as a result, the venture should be permitted to restrict access.


73. See, e.g., Jorde & Teece, supra note 3, at 602-06; Carlton & Frankel, supra note 40, at 643-44. These authors' tests are not equivalent and we discuss important distinctions between them shortly.

74. This involves the distinction between the unilateral market power of a newly merged firm and the impact of a merger on the likelihood of pricing coordination. See 1992 Horizontal Merger Guidelines, 57 Fed. Reg. 41,552, 41,558-61 (1992); supra note 26.

75. See, e.g., Jorde & Teece, supra note 3, at 603-06.
This reasoning is not correct. Even if the members in good standing cannot profitably raise prices by restricting their own outputs (i.e., even if they lack classical market power), that does not mean they cannot profit by exclusionary conduct. In particular, consider the case of exclusion of new applicants for membership. If one simply asks whether a merger of existing venture members in good standing would raise prices, that standard would be irrelevant in evaluating allegations that the exclusionary access rule will disadvantage more efficient competitors and thereby prevent the output price from falling. Current competition may prevent prices from rising, but it obviously would be unable to force prices down below the current level.\(^7\)

In order to evaluate exclusionary market power, one can use a hypothetical merger test that differs from the usual merger test. Our test gauges the impact of a hypothetical merger of an expanded group of competitors, consisting of both members in good standing and those applicants excluded by the restrictive access rule.\(^7\) If this hypothetical merger fails to increase prices, relative to maintaining competition among this expanded group of competitors, one can then predict that the exclusion of low cost potential members will not increase price.

To see the difference between our merger test and the usual one, consider a joint venture with five members that refuses membership to a sixth firm. In this case, our merger test would calculate the price that results from a hypothetical merger of the six competitors and would compare that price to the price that results when all six firms compete as members of the joint venture. In contrast, the usual merger test calculates the price that results from a merger only of the five original venturers, assuming that the sixth firm is not a member, and compares that price to the initial price (i.e., the one that results when the five firms compete as members of the joint venture with the sixth firm outside the joint venture). The usual merger test is flawed because it ignores the potential competitive impact of the membership of the sixth firm.

To see the flaw, consider the following. Suppose the entry of the sixth firm into the venture causes price to fall from $5 to $4. Suppose further that a merger of all six firms would lead to a price of $10, but that a merger of the five firms, with the sixth firm outside the venture, would leave the price unchanged at $5. This could occur if, for example, the sixth firm's cost plummets when it enters the joint venture, but remains

\(^7\) Exclusionary market power permits the venture to maintain prices at the current elevated level, even if the venture lacks the classical market power to raise prices above that level. See supra note 22.

\(^7\) There are other possible merger tests that also avoid the flaw associated with the usual merger test. See Carlton & Frankel, supra note 40 at 643-44. We discuss their test infra note 78.
close to $5 when it is outside the venture. Then, the venture would pass the usual merger test (comparing $5 to $5), but fail our merger test (comparing $10 to $4). 

**c. Visa's Membership Concentration Rule of Per Se Legality**

The *Visa* court adopted a rule of per se legality based on the market shares of the individual members of the venture in the output market. It held, in effect, that a venture cannot have collective market power if the membership is unconcentrated. This rule is inconsistent with economic logic and current case law.

The logical error of this standard is easy to spot. Access restrictions are adopted collectively by the venture. As a result, the venture can utilize its collective market power in promulgating and enforcing an anticompetitive access rule even if individual members of the venture

---

78. One can state these tests and their relationships in symbolic terms as follows. Define situation A as the six firms competing as joint venture members, situation A' as the six firms merging, situation B as the five firms competing as joint venture members with the sixth excluded firm competing outside the joint venture, and situation B' as the five firms merging while the sixth firm competes outside the joint venture. Denote the predicted market price in situation A as P(A), the predicted price in situation A' as P(A'), and so forth. Given these definitions, the rule of reason would compare P(A) and P(B); exclusion would be anticompetitive if P(B) > P(A). The usual merger test is flawed because it ignores P(A). This is why the usual merger test is insufficient for gauging exclusionary market power.

Failing our proposed merger test involves a showing that P(A') > P(A), whereas failing the usual merger test involves a showing that P(B') > P(B). The relationships among the tests are as follows: If a joint venture passes our proposed merger test, it also will pass the usual merger test under the following assumptions: P(A') ≥ P(A), P(B') ≥ P(B), P(B) ≥ P(A), P(A') ≥ P(B'). However, a venture may pass the usual merger test but fail our merger test. Passing our test implies that the access restriction is not anticompetitive (i.e. P(B) ≤ P(A)). Passing the usual merger test does not imply this, which is why that test is flawed.

Carlton and Frankel propose a merger test that gives results similar to this test. Their test compares a hypothetical merger of the five firms to competition among all six firms. See Carlton & Frankel, *supra* note 40, at 643-44. Failing the Carlton-Frankel test involves a showing that P(B') > P(A). Passing the Carlton-Frankel test implies that the access restriction is not anticompetitive. If a joint venture passes our proposed merger test, it also will pass the Carlton-Frankel test under reasonable assumptions. However, passing the Carlton-Frankel test does not imply that our test will be passed. Therefore, our merger test is less permissive than the Carlton-Frankel test and would fail to identify certain transactions as untroubling even though the Carlton-Frankel test would correctly identify such transactions as untroubling. However, our test may be somewhat easier to implement than the Carlton-Frankel test in certain cases.

79. See *SCFC ILC, Inc. v. Visa USA, Inc.*, 36 F.3d 958, 968-69 (10th Cir. 1994).

each have no market power and the membership is unconcentrated. Evaluation of collective market power therefore is relevant. As discussed earlier, even if the joint venture membership is unconcentrated, so that individual members lack unilateral market power, expulsion of current members may harm consumers by raising output prices and exclusion of new competitors may harm consumers by preventing these prices from falling.81

C. Per Se Standards and the Structured Rule of Reason

The advantage of per se rules is that they can lead to swift and relatively error-free decisions in many cases.82 We are generally sympathetic to the goals of per se rules and so per se standards based on collective market power have some appeal. For example, a per se standard of legality based on our merger test for lack of collective market power appears reasonable. Consider a hypothetical semiconductor input joint venture of three small computer companies that collectively have a 3% share of an unconcentrated computer market and of semiconductor production. If this joint venture were to expel one member with a 1% market share of the computer market, the loss of output is likely to be met with offsetting expansion of other computer competitors, with no significant increase in price.83 Similarly, if the venture and its members have collective market power in both the input and output markets and if there are no efficiency or competitive justifications for the denial of access, little would be lost by enjoining the denial of access through a standard of per se illegality.84

However, the application of per se rules in many cases will be neither simple nor error-free, for three main reasons. First, some per se rules of illegality will apply to few, if any, cases. Many cases of access restrictions that raise anticompetitive concerns will also raise efficiency justifications that are at least plausible. Where valid efficiency claims are made, it is necessary to balance benefits against harms in order to reduce the likelihood of error. Since this balancing requires rule of reason evaluation, few joint venture access cases could be decided via

81. See supra part II(B)(I). There we also show that low market concentration in the overall output market can be probative of the absence of probable anticompetitive effect in certain cases.

82. In this section, we focus on the legal analysis of output market exclusion. Analogous reasoning would apply to the evaluation of legal standards dealing with allegations of input market exclusion or allegations of supporting pricing coordination.

83. In addition, on these facts, the expelled member likely would be able to find other cost-effective sources of semiconductors. A similar result would obtain if the joint venture were to exclude a new applicant that predictably would garner a market share of only 1%.

84. Proof of antitrust injury suffered by the plaintiff should also be required.
the per se standard of illegality. Second, some proposed per se rules may not really involve much of a reduction in the needed amount of analysis. For example, determining that a hypothetical merger would not harm competition can be quite complicated. Although one could label our merger test as a per se rule, that label would not be particularly informative if considerable detailed analysis is required by the test. Third, other per se rules such as those proposed by some courts could entail significant error costs. For example, we see no role for per se rules based on essentiality or viability. Depending on their exact definitions, these concepts may be probative for establishing (or rebutting) claims that the venture has market power in the input or output markets. However, these are at best imperfect proxies for market power and in any event are not necessarily good indicators of anticompetitive effect. Thus, they should not by themselves form the basis of a per se rule.

Similarly, as we have discussed in detail, per se rules that use a measure of concentration based on the market shares of individual members of a joint venture can fail to identify collective market power and can lead to error in many cases. For example, the test may not be relevant for evaluating allegations that the exclusion will prevent price decreases.

When our proposed per se rules cannot be applied without risking significant error, we recommend using our economic framework to apply a structured rule of reason standard that contains three elements. First, the plaintiff must state a logically consistent and plausible claim of anticompetitive harm and antitrust injury. Second, the court should determine whether the alleged anticompetitive harm is likely to be significant. Third, the court should evaluate the magnitude of any efficiency or other competitive benefits claimed for the access restrictions and balance them against the magnitude of any anticompetitive harm.

The decision on how to perform the balancing in a complicated rule of reason case should depend on how error-prone a decision is likely to be and the welfare consequences of potential errors. In this regard, the cost of error includes the precedential effect of the decision on the operation of other ventures, as well as the decision's effect on the venture at issue. It also includes the likelihood that market entry will

85. Applying the rule of reason can also lead to erroneous decisions. See Easterbrook, supra note 55, at 153-55. Our analytic approach should lower the error costs for both types of rules. However, if courts are unable to apply our structured rule of reason without committing serious errors, then expanded use of per se standards may be appropriate.
quickly correct erroneous decisions. As a result, courts may choose to tip the balance in close cases.

Analysis under this structured rule of reason should not mean that every joint venture access matter will involve endless fact finding, as might be imagined from the exhaustive and unstructured list of factors set out in Chicago Board of Trade. Instead, the inquiry should be focused and structured around the specific theories of competitive harm and efficiency benefits set out in this article. Moreover, balancing often will be unnecessary — in many cases, the structured rule of reason can be carried out in the now-proverbial “twinkling of an eye.” In such cases, as we have already discussed, there is no practical difference between a per se rule and a structured rule of reason.

For example, in some cases in which there is evidence of a significant anticompetitive harm, the claimed efficiency and protection of competition benefits of the access rule provisions will turn out to be pretextual or clearly achievable by other access provisions that would not lead to anticompetitive harms. In other cases, analysis will indicate that there is no competitive harm from exclusionary access rules, even ignoring any efficiency or other competitive benefits.

IV. CONCLUSION

This article provides an analytic framework for evaluating the competitive impact of exclusionary access rules adopted by input joint ventures. This framework involves the identification and evaluation of potential efficiency and other competitive benefits of such rules, as well as the potential competitive harms that exclusionary access rules can create.

There are two main efficiency benefits — reducing costs and creating investment incentives to develop products — and a protection of competition benefit, that may result from the use of exclusionary access rules. These rules may also cause three types of competitive

86. A particular concern with the network joint ventures that are one focus of this article is that many have economies of scale and sunk costs that reduce the likelihood of entry by rival networks.

87. For example, Carlton and Frankel argue that courts face inevitable difficulties in understanding how particular rules affect the operating efficiency of joint ventures. See Carlton & Frankel, supra note 14, at 909-10. In light of this, they conclude that courts should be wary of intervening and therefore should give the benefit of the doubt to efficiency justifications in close cases. Id.

88. Board of Trade v. United States, 246 U.S. 231, 238 (1918).

89. See supra part II.

harm: exclusion from the output market; exclusion from the input market; and support of collusive activity. Finally, this Article has specified evidence that can be used to evaluate both the benefits and the harms.

We distinguish between two legal procedures for evaluating the net competitive impact of particular access standards. In applying the structured rule of reason courts would carry out the investigation of the competitive benefits and harms using the analytic framework and concepts formulated here. Per se standards, however, sometimes may be appropriate in order to decrease the cost of the legal decision-making process without leading to excessively erroneous outcomes. In the many cases where per se standards are not appropriate, courts should use our analysis and the key factual issues we identify as part of a more focused and structured rule of reason calculus.

In applying our framework, it is imperative that plaintiffs state their claims of anticompetitive effect with specificity in order to identify the proof needed. For courts to streamline litigation, deter cases that lack consumer injury, and carry out a proper and focused analysis, they must have knowledge of the particular anticompetitive theory relied upon.

This approach should not lead to a flood of litigation with endless fact finding. The likelihood of litigation and the amount of fact-finding will not depend upon the label one attaches to the analysis, but upon how consistently courts strike the balance between harms and benefits of intervention in deciding cases, and the economic framework they use to determine whether (and how) to evaluate the relevant evidence. However that balance is struck, the economic framework we have proposed is the right one to use.