Organization, Control and the Single Entity Defense in Antitrust

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Abstract

Since at least the 1930's economists have puzzled over how to delineate the boundaries of the firm. With the advent of antitrust legislation in 1890, courts have been pressed to consider what constitute conspiracies between corporate entities to restrain commerce. By the 1940's, courts started to characterize conspiracies by sorting out what they are not – specifically, by extending the status of "single entity" to certain types of business arrangements. Both efforts in economics and in the law to sort out what constitutes a "firm" or "single entity" have focused on "control." A difficulty is that neither the law nor economics offer an operationally significant concept of control. Even so, both law and economics contribute concepts other than control that provide a way of understanding economic organization. These concepts – control rights, adaptation, delegation, and renegotiation – suggests how one can subsume the sometimes confusing array of single entity tests proposed in the case law within a two-stage sequence of tests.

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0. Introduction

In its majority opinion in *Copperweld Corp. v. Independence Tube Corp.* (1984) 467 U.S. 752, the Supreme Court "held that a parent corporation and its wholly owned subsidiary were not legally capable of conspiring with each other under section 1 of the Sherman Act." The principal objective of this opinion and of succeeding case law was to restrict prospective litigants from imposing demands on the courts to entertain the prospect that any combination of a corporate parent and its wholly-owned subsidiaries could constitute an antitrust conspiracy (Areeda 1983, pp. 451-452; Belsley 1996, pp. 726-727). *Copperweld* and the case law following it intendedly neutralized "plaintiffs' tantalizing, if unpredictable, opportunities to paint contacts among [commonly owned] corporations as antitrust conspiracies." (Areeda 1983, pg. 451) But that is just preamble to the larger question the single entity case law poses: *Copperweld* and succeeding case law may have identified objective criteria for relieving certain types of governance structures from scrutiny, but can one identify other objective criteria for identifying other structures to which the law might yet extend single entity status?

Copperweld and succeeding case law achieve its objective by defining the combination of a parent company and its wholly-owned subsidiaries as a "single entity." Defining any one type of corporate structure as a single entity relieves it from scrutiny, because one needs more than one distinct entity to allege a conspiracy.[1] A difficulty, however, is that one can *define* anything as a single entity. Definition of itself means nothing without imposing more structure. One could, for example, define a cartel of otherwise competing corporate entities as a single entity and, in turn, extend to it the legal protections that status as a single entity implies. It is no surprise, then, that *Copperweld* and the larger body of "single entity" case law encompassing it have been occupied with imposing more structure – that is, with trying to operationalize a concept of a "single entity" that discriminates between conspiracies and agglomerations of entities joined in "legitimate business arrangements" (Prell 1986, pg. 1157). Suppose, for example, some number of (possibly competing) firms formally incorporate a new entity, share ownership of the new entity and collectively participate in the governance of the new entity. Would the agglomeration of the new entity and the firms owning it constitute a "legitimate business arrangement" to which the law might extend single entity status?

The most important efforts in the case law to impose structure on such questions have involved appealing to "ownership and control" in organizations.[2] The case law is not explicit about how ownership and control are related, but it is intuitively appealing to suggest that ownership

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[1] Single entity status does not insulate parties from all antitrust scrutiny, because Section 2 of the Sherman Act makes allowances for the prospect that a single entity might attempt to secure monopoly (*Chicago Professional Sports LP v. National Basketball Association* [1996] 95 F.3d 593 at 599; Kaiser [2004], pg. 17). The *Copperweld* court itself observed that "The conduct of a single firm is governed by § 2 alone and is unlawful only when it threatens actual monopolization" (pg. 767). Plaintiffs advanced Section 2 monopolization claims in *Iain Fraser et al. v. Major League Soccer, LLC et al.* (2002) 284 F.3d 47.

[2] See, for example, *Fouad N. Dagher et al. v. SRI et al.* (2004) 369 F.3d 1108 at 1118, *HealthAmerica Pennsylvania Inc. et al. v. Susquehanna Health System et al.* (2003) 278 F.Supp.2d 423 at 428, *City of Mt. Pleasant, Iowa v. Associated Electric Cooperative* (1988) 838 F.2d 268 at 276, *James M. Thomsen et al. v. Western Electric Co. et al.* (1981) 512 F.Supp. 128 at 133, *Murphy Tugboat Company v. Shipowners & Merchants Towboat* (1979) 467 F.Supp. 841 at 859-60, *Douglas K. Knutson et al. v. The Daily Review Inc.* (1977) 548 F.2d 795 at 801, and *Timken Roller Bearing v. United States* (1951) 341 U.S. 593 at 598.

implies control. It is also intuitively appealing to suggest that a defining characteristic of a single entity is that control is concentrated in the hands of a single party. That yet leaves open the question of extending single entity status to business arrangements that feature less than completely concentrated control. Either way, a problem is that the law does not have a crisp concept of "control" – or "authority," "fiat," or "power" – to begin with. Surprisingly, neither does economics (Demsetz 1995, pp. 35-39; Alchian and Demsetz 1972, pg. 777) nor organization theory (Williamson 1995, pg. 235). Even so, I am able to make discrete contributions in this paper that suggest how aspects of control inform analysis of the single entity question. I preview results here:

(1) Economic theory can inform analysis of the single entity question by shifting the focus from "control" to a less demanding concept of "control rights" (Hart 1995, pg. 30 and Kreps 1999, pg. 123). The appeal to control rights provides a way of understanding how "ownership" and "control" are related and lends itself to simple, objective criteria for identifying "independent centers of decision-making" (*Copperweld*, pg. 768) within the candidate single entity. A finding that a governance structure features more than one distinct center of decision-making frustrates the appeal to the single entity defense.

(2) If one takes a thirty-thousand foot view of the case law, one can distinguish a few robust ideas in it about what constitutes a single entity. The case law features an array of single entity tests. Many of these tests have prompted much confusion. It turns out, however, that one can subsume many of these tests in a two-stage sequence of tests and can dismiss the others. (See Figure 1.) The first stage, labeled here a test of "economic unity,"[3] inquires whether or not ownership, the control rights ownership implies, and remaining control rights (if any) are concentrated within the candidate single entity. Evidence that control rights are concentrated might allow a court to stop analysis and accept a single entity defense. In contrast, evidence that control rights are fragmented and are distributed across the parties that constitute the candidate single entity complicates appeals to the single entity defense. When analyzing governance structures that fail a strict test of economic unity, the law might proceed to a second stage "actual or potential competitors" test (*Mt. Pleasant* at 276). The test amounts to a test of complementarity in that it sorts out whether or not the parties that comprise the candidate single entity contribute complementary assets, complementary capabilities or other complementary inputs. Applying the test amounts to a *de facto* rule-of-reason analysis that starts with the question of whether or not restraints instituted within the governance of the candidate single entity are horizontal or vertical. A finding that restraints are horizontal is tantamount to a finding that parties are *not* contributing complementary inputs and that the parties are "actual or potential competitors." Such a finding frustrates the appeal to the single entity defense.

Note the heavy lifting the two-stage sequence of tests does. It constitutes a simple roadmap that one can use to navigate what has been a confusing tangle of ideas and instructions in the case law. Note, also, the heavy lifting the "economic unity test" does. It provides a rationale for foregoing the more costly, time-consuming analysis of the merits and demerits of a governance

[3] *Arleen Freeman et al. v. San Diego Association of Realtors* (2003) 322 F.3d 1133 at 1148

structure that something like a full-blown rule-of-reason analysis would demand.[4] Let me also suggest that the appeal to "control rights" does much heavy lifting. It provides criteria that operationalize the first-stage test of economic unity. The criteria allow one to identify whole classes of governance structures – joint ventures, long-term contracts, and "strategic alliances" – that fail the test of economic unity.

Finally, let me note that the appeal to "control rights" may not resolve all questions of "economic unity." Ideally, the appeal to control rights would identify all governance structures that fail tests of economic unity, leaving one with the powerful proposition that *all remaining* governance structures satisfy tests of economic unity and, accordingly, are single entities. A difficulty is that it is not obvious that all remaining governance structures would satisfy tests of economic unity. It might be the case, for example, that centers of decision-making overlap. One can imagine that some parties to a candidate single entity might each reserve control rights with respect to distinct decision-making processes, but some other party might maintain control rights that impinge all decision-making processes. Does the fact that one party has a hand in all decision-making processes suggest that the candidate single entity maintains only one "center of decision-making," or does the fact that different (albeit overlapping) nexuses of parties maintain control rights imply that that the candidate single entity maintains more than one "center of decision-making?" No obvious answer present itself without imposing even more structure on the question of what constitutes "control" in organizations.

How one might impose more structure on characterizing control in organizations is not obvious. As the court in *Fraser v. Major League Soccer* (2002) observed, "Once one goes beyond the classic single enterprise, including *Copperweld* situations, it is difficult to find an easy stopping point or even decide on the proper functional criteria for hybrid cases." (pg. 59) The appeal to control rights does provide operational criteria for hybrid cases – criteria that are easy to operationalize. Specifically, it provides ways to operationalize benchmarks against which degrees of control can be measured. But benchmarks are not silver bullets. Were degrees of control not an issue, one would not need to appeal to more than one benchmark. Rather, a multiplicity of benchmarks reflects the fact that degrees of control is an important, albeit inconvenient, aspect of the single entity question. Not being able to knock down questions of control with silver bullets leaves open the prospect of putting tests of economic unity aside and moving to a rule-of-reason analyses – *de facto* or *de jure* – of the efficiency-enhancing features of governance structures that feature less than completely concentrated control. That, in turn, leads to the prospect of putting the entire single entity question aside and proceeding simply to the *de jure* rule of reason analysis.

The remainder of the paper proceeds in five parts. The first part sets up the context out of which the single entity question emerged. The second part frames the paradigm question. To fix ideas, I present four Governance Scenarios, and I refer back to these scenarios at various parts of the

[4] The Court of Appeals in *Iain Fraser et al. v. Major League Soccer, LLC et al.* (2002) 284 F.3d 47 is on point: "One would expand upon *Copperweld* to develop functional tests or criteria for shielding (or refusing to shield) [hybrid governance structures] from section 1 scrutiny for intra-enterprise arrangements. This would be a complex task and add a new layer of analysis; but where the analysis shielded the arrangement it would serve to cut off similarly difficult, intrusive scrutiny of such intra enterprise activities under extremely generalized rule-of-reason standards." (pg. 58)

paper. The third part develops the concept of "control rights" and suggests how it can inform the concept of "economic unity." The fourth part presents the two-stage sequence of tests featured in the case law, and the fifth part applies the logic of the single entity tests to a selection of cases. These cases illustrate the power of the tests and illuminate pitfalls into which courts have sometimes fallen. The last part concludes.

1. Whence the Single Entity Defense in Antitrust?

A sequence of Supreme Court opinions and lower court opinions between 1941 and 1951 established the idea that commonly owned or controlled entities could conspire in ways cognizable under Section 1 of the Sherman Act. One of the earlier and "talismanic"[5] citations on this count comes from *United States v. Yellow Cab* (1947) 332 US 218 at 228: "[A] restraint [on interstate commerce] may result as readily from a conspiracy among those who are affiliated or integrated under common ownership as from a conspiracy among those who are otherwise independent. Similarly, any affiliation or integration flowing from an illegal conspiracy cannot insulate the conspirators from the sanctions which Congress has imposed. The corporate interrelationships of the conspirators, in other words, are not determinative of the applicability of the Sherman Act. That statute is aimed at substance rather than form." In *United States v. General Motors* (1941) 121 F.2d 376, General Motors attempted during the course of litigation to anticipate and neutralize reasoning of the sort applied in *Yellow Cab*. General Motors complained that jurors should have been instructed that "if they find that the defendant corporations [various General Motors subsidiaries] together constitute a single co-operative enterprise, in the course of which defendants corporations do not compete with one another, that there is and can be no unlawful agreement among them to restrain trade and commerce among the states, in automobiles" (pg. 409). The Seventh Circuit Court of Appeals disagreed, indicating that "It has been shown as a matter of law that the appellants [the General Motors entities] are separate entities, even though as a matter of economics they may constitute a single integrated enterprise, and that they are not impotent to restrain the trade and commerce of the dealers in General Motors cars. Consequently, the Court was not obliged to give such an instruction [to jurors]."

Building explicitly on *Yellow Cab*, the court in *Kiefer-Stewart Co. v. Joseph E. Seagram and Sons* (1951) 340 US 211 observed that even if commonly owned or controlled units of a firm may constitute "mere instrumentalities of a single manufacturing merchandising unit … common ownership and control does not liberate corporations from the impact of the antitrust laws" (pg. 261). Echoing its ruling in *Kiefer-Stewart*, the court in *Timken Roller Bearing v. United States* (1951) 341 U.S. 593 indicated that "The fact that there is common ownership or control of … contracting corporations does not liberate them from the impact of the antitrust laws" (pg. 598). Building, in turn, on *Kiefer-Stewart*, the Ninth Circuit Court of Appeals in *Joseph E. Seagram and Sons et al. v. Hawaiian Oke and Liquors* (1969) 416 F.2d 71 explicitly identified a tension in the case law when it observed that "It is now settled law that if a corporation chooses to conduct parts of its business through subsidiary or affiliated corporations, and conspires with them to do something that independent entities cannot conspire to do under section 1 of the Sherman Act, it is no defense that the corporations are, in reality a single economic entity. The Supreme Court

[5] Areeda (1983) pg. 458

has said that 'common ownership and control does not liberate corporations from the impact of the antitrust laws.' … [Yet] [t]he Court has never indicated what, if any, are the limits of this [intracorporate conspiracy] doctrine" (pg. 82) The *Copperweld* court severely circumscribed intracorporate conspiracy doctrine when it held that "[defendants] Copperweld and its wholly owned subsidiary Regal are incapable of conspiring with each other for purposes of § 1 of the Sherman Act. To the extent that prior decisions of this Court are to the contrary, they are disapproved and overruled" (pg. 777).

2. The Single Entity Question

Copperweld did not so much dismiss intracorporate conspiracy doctrine[6] as take certain types of objectively identifiable "business arrangements" off the table. *Copperweld* expressly limited its inquiry to the "narrow issue" of "whether a parent and its wholly owned subsidiary are capable of conspiring in violation of § 1 of the Sherman Act" (*Copperweld*, pg. 767). It explicitly left open for further consideration other types of business arrangements such as those under which "a parent may be liable for conspiring with an affiliated corporation it does not completely own." It then went on to suggest a number of formative single entity tests, the most important of which depend on ownership and control.

The suggestion in *Copperweld* and in the entire body of single entity case law is plain: "ownership" and "control" are related, and both inform analysis of the single entity question. An outstanding problem is that none of the case law makes much progress sorting out what constitutes ownership and control much less sorting out how they are related and how they inform analysis. Consider the following four examples of "business arrangements:"

Governance Scenario 1: An Electricity Marketing Contract[7]

An electricity generating firm sells to another firm, an electricity "marketer," the exclusive rights to dispatch electricity from its generators over a 20-year interval. That is, when the marketer makes demands at any time over the next 20 years for the generator to fire up and produce electricity, the generator produces electricity, and when the marketer makes demands to cease generation, the generator stops production. The marketer compensates the generator by paying it a fixed monthly fee and by covering the generator's operating expenses. Thus, even if the marketer makes no dispatch demands in a given month, the generator still receives its fixed monthly payment. The generator maintains ownership of its generating units, but it also cedes to the marketer rights to veto proposals it might make over the course of the 20-year relationship to expand, upgrade or to withdraw generation capacity at the generator's production sites.

It would be natural to label the relationship between the generator and marketer a "long-term contract," and it might seem artificial to suggest that the generator and marketer collectively

[6] Note that "intracorporate conspiracy" can mean different things in different areas of the law. It has applications in criminal matters (e.g., racketeering) and civil rights matters as well as applications in antitrust. See Smith (1996) on applications to civil rights and references to criminal and antitrust matters.
[7] See D.V. Williamson (2003) for evidence about the structure of such contracts.

constitute a "single entity." Note, however, how "ownership" does not strictly imply "control" of underlying assets. The generator may own the production capacity committed to the contractual relationship, but the contract assigns to the marketer important dimensions of control to the marketer. The marketer controls the generator's output in wholesale electricity markets – indeed, that is the marketer's job – and the veto provision constitutes a way of assigning to the marketer some, but not all, control over investment in the generator's production capacity.

The point of the veto provision is not that the marketer would, as a matter of course, veto any and all proposals by the generator to expand, upgrade, or withdraw capacity. Instead, the marketer can use the *threat* of a veto to hold-up investment and force the marketer to renegotiate terms of the contract, such as the level of the fixed monthly payment, in return for acquiescing to implement investment proposals. The marketer might also demand amendments to any one proposal. Either way, the veto provision gives the marketer influence over investment decisions by making it incumbent upon the generator to make it worth the marketer's while to go along with the its proposals.

Governance Scenario 2: Two Electricity Marketing Contracts

Suppose, now, that an energy marketer has secured long-term dispatch rights in separate contracts with each of two generators. Suppose, also, that these two generators are "actual or potential competitors"[8] in that they supply electricity to the same geographic market ("load pocket"). Finally, suppose that each contract includes a veto provision.

The suggestion that the marketer and two generators collectively constitute a single entity might, at best, seem audacious. More likely, antitrust authorities would perceive the arrangement as one that enables two competitors (the generators) to neutralize competition between each other. Indeed, the generators might separately incorporate a third party and call it the "marketer." When the antitrust authorities come knocking, the parties might trot out the single entity case law and tell the authorities to go away claiming that together they constitute a single entity.

What could constitute the basis for a claim to single entity status? There does exist a single party, the marketer, that maintains exclusive control over each generators' output. It is not obvious, however, that this one party constitutes an "independent center of decision-making" with respect to all decisions that are central to the functioning of the candidate single entity. The veto provisions enable the marketer to assume some non-trivial share of control over each generator's investment plans. Note, however, that the nexus of parties that maintains control over one generator's investment plans is different than the nexus of parties that maintains control over the other generator's investment plans. The marketer and one generator maintain control over that one generator's plans, and the marketer and the other generator maintain control over that other generator's plans. These nexuses of control intersect, but might a court use the fact that neither of these nexuses of control encapsulates the other to suggest that the business arrangement features more than one independent center of decision-making?

[8] *City of Mt. Pleasant v. Associated Electric Cooperative, Inc.* (1988) 838 F.2d 268 at 276.

Governance Scenario 3: Hospital Networks[9]

A number of hospitals form a "network" by incorporating a new entity and assigning governance of the new entity to a board of directors. Each hospital reserves the right to appoint some number of directors to the new entity's board as well as the right to replace those same directors. Each hospital also maintains ownership of all its assets, and member hospitals do not transfer title to any property that they own to the new entity. They do assign to the new entity rights to veto proposals by any one hospital to expand, upgrade or withdraw services or capacity (e.g., "hospital beds"). The new entity aggregates profits from each hospital so that it may propose and finance plans to expand, upgrade or withdraw service capacity. The new entity restores to the hospitals profits it has not earmarked for investment. Each hospital maintains a veto over proposals by the new entity to expand, upgrade or withdraw services or capacity at any of its sites.

Note that any proposal to expand, upgrade, or withdraw services or capacity at any one hospital's site requires the approval of both that member hospital and the new entity. Accordingly, the particular hospital and the new entity together constitute the nexus of parties that maintains authority over investment decisions at the one hospital. Investment decisions involving another hospital involve a different nexus – the nexus composed of that other hospital and the new entity – although the two nexuses intersect in that the new entity is party to both nexuses. Does the overlap imply that the two nexuses effectively constitute a single center of decision-making, in which case the new entity and all member hospitals might collectively constitute a single entity?

Even if one were to judge that the nexuses constitute distinctly enumerable centers of decision-making, one might suggest that they do not constitute "independent" centers. Member hospitals each maintain indirect influence over the new entity through their ability to appoint and replace directors. Does indirect influence imply the dependence rather than the independence of the various centers of decision-making, in which case the network might again be able to appeal to single entity status?

Note also that hospitals' ownership of their assets does not strictly imply control over those assets. Hospitals share "control" with the new entity, and, member hospitals indirectly influence how other hospitals' assets are disposed by virtue of their rights to appoint and replace directors.

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[9] The scenario is inspired by letters three different "hospital networks" submitted to the Premerger Notification Office of the Federal Trade Commission memorializing guidance they had received from Commission staff concerning "the potential reportability of transactions" with respect to rules and regulations implemented under the Hart Scott Rodino Antitrust Improvements Act of 1976. I reference three letters posted at http://www.ftc.gov/bc/HSR/informal/opinions/9804005.htm, 0010003.htm, and 9908002.htm. The last of these pertains to the "Network Affiliation Agreement" that laid out the structure of the governance of the Evanston Northwestern Healthcare Network. This network is interesting, because the hospitals constituting the network secured from the Commission an "informal opinion" that indicated that the merger through which the parties formed the network "would not constitute a reportable transaction under the HSR Act." In 2004, four years after formation of the network, the Commission challenged the merger, and in 2005 the Commission secured a favorable "initial decision" from Administrative Law Judge Stephen J. McGuire which is posted at http://www.ftc.gov/os/adjpro/d9315/051021idtextversion.pdf. The member hospitals argued that not having to report their merger transaction constituted evidence that together they already constituted a single entity before the merger. The judge disagreed, indicating, among other things, evidence that the parties had not constituted a single entity at the time of the formation of the Network.

Finally, note that the member hospitals pool proceeds. The pooling of proceeds is integral to the efforts of member hospitals to coordinate investment plans. Does pooling of itself indicate some degree of "economic unity," or does it simply enable anticompetitive coordination among "actual or potential competitors?"

Governance Scenario 4: Delegation and Reserved Rights in a Traditional Corporate Hierarchy

Finally, let's consider the kind of governance structure contemplated in *Copperweld*: a hierarchy of wholly-owned corporate subsidiaries and its parent. Traditional corporate hierarchy constitutes an obvious benchmark against which to contrast "economic unity" in other governance structures, and it constitutes a benchmark that *Copperweld* and succeeding case law inserted into the single entity case law. This benchmark is interesting partly because it makes allowances for the prospect that some parties to a governance structure might delegate managerial functions to other parties. Does delegation amount to abdication of control, in which case single entity status might be jeopardized, or does it reflect control, in which case single entity status remains secure? The single entity case law indicates the latter: delegating functions to other parties is consistent with single entity status.[10]

Consider a parent corporation that wholly owns some number of separately incorporated subsidiaries. Suppose also that some of these subsidiaries themselves wholly own some other separately incorporated subsidiaries. These subsidiaries constitute "indirect subsidiaries" of the parent. Thus, the parent's subsidiaries are themselves parents to the indirect subsidiaries. Suppose that a parent anywhere in the hierarchy may delegate managerial functions to any its own subsidiaries or indirect subsidiaries and that any parent reserves the right to take back functions it had previously delegated. The pattern of delegation and reserved rights will illuminate a hierarchy of corporate entities. It turns out that this hierarchy corresponds exactly to the hierarchy that the pattern of ownership illuminates.

The complete agreement of these two hierarchies constitutes the benchmark case featured in *Copperweld*, and the law has extended single entity status to this benchmark case. What happens, however, as we deviate from this benchmark? Specifically, what happens when the hierarchy indicated by the pattern of ownership deviates in small or large measure from the hierarchy indicated by the pattern of delegation?

3. Law and Economics of Control Rights

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[10] The court of appeals in *Seagram and Sons v. Hawaiian Oke* (1969) observed that "sound management demands extensive delegation of authority within the organization." (pg. 83) In overturning the lower court, the appeals court observed that "under the trial court's ruling, the more delegation there is, the more danger there will be that the holders of such delegated authority will be found by a court to be capable of conspiring with each other in carrying on the corporation's business," the conclusion being that "the doctrine [of intra-corporate conspiracy] hands to plaintiffs, on a silver platter, an automatically self-proving conspiracy." (pp. 83-84) *Copperweld* itself identifies control with the power to "delegate" managerial functions to otherwise "autonomous units" (pg. 771) and with the power to take managerial functions back (pp. 771-772).

The ultimate question is this: Is the "single entity" a sham or does it constitute a governance structure that serves the legitimate exercise of control rights in each of the scenarios? What constitutes "legitimate" and "control rights" is not obvious. I take these up in turn.

3.1 The legitimate exercise of control

One might be tempted to identify "legitimate" purposes with efficiencies. One might inquire, for example, about what efficiencies the single entity achieves that the parties could not separately achieve.[11] The suggestion is that candidate single entities that merely join horizontally-situated parties – those arrangements in which parties are *not* contributing complementary inputs – have no business appealing to a single entity defense at all. A problem with that approach is that it provides a rationale for third parties (e.g., the court or a regulator) to abrogate property rights and, as we will see, the control rights that property rights imply. An oil company, for example, may operate two technologically identical refineries across the street from each other. A rule that afforded single entity status only to combinations of assets that generated obvious "efficiencies" might allow a third party to march in and compel the oil company to spinoff one of its two refineries.

Pre and post-*Copperweld* single entity case law is not explicit about the hazards of enabling third parties to abrogate control rights, but one of the more direct statements about the hazards derives from *Murphy Tugboat* (1979) 467 F.Supp. 841. Paraphrasing the court of appeals in *Seagram and Sons v. Hawaiian Oke* (1969), the *Murphy Tugboat* court observed that "Indiscriminate application of Section 1 to commonly owned or controlled corporations could therefore have absurd and counterproductive results, subjecting them to liability for 'an automatically self-proving conspiracy' on account of activity necessarily arising out of or inherently connected with common ownership or control." (pg. 860) *Copperweld* itself (pg. 771) suggests a complementary rationale. It imposes the presumption that intracorporate "coordinated conduct" generates "benefits" – benefits that outside parties might be poorly equipped to identify and should be circumspect about disrupting.

3.2 Control Rights

Economic theory provides not so much an affirmative theory of control but rather a body of theory about when, where and to whom to assign "control rights." One must ask, "Rights to control what?" An (admittedly abstract) answer is "assets," or, the same thing, the inputs parties contribute to the production of some good or service. Assets may include not merely the kinds of things to which it is easy to assign property rights such as plant and equipment but also intangibles such as trademarks and rights-of-way to commercialize patented technologies. Assets may also include things over which it is difficult to assign property rights such as "know-how" or other inalienable human resources or intellectual properties.

[11] The appeal to "efficiencies" amounts to an inquiry of whether or not constituent parties contribute complementary assets, complementary capabilities, or other complementary inputs, or, the same thing, amounts to an inquiry of whether or not the candidate single entity incorporates important vertical dimensions.

It is important to note that most economic theory, including the theory that is traditionally applied to antitrust, need not make contact with control. Most theory is occupied with sorting out *plans* parties implement for deploying their assets and efforts. These plans may take the form of "production plans" implemented within the firm, formal contracts between firms, tacit agreements and so on. Insofar as a plan is nothing more than a set of scripted instructions, it is not obvious that it makes a difference whether parties implement a plan within the firm or between firms.[12] It makes no difference (yet) how parties organize production. Rather, parties contribute inputs, implement plans, and that is that. Questions about what governance structures constitute single entities are not cognizable within the framework. The key point is that nothing needs to be controlled so long as there is no demand to deviate from the plan. But why deviate? What would induce demand to deviate? Control, it turns out, becomes a concern once demands for deviations arise – that is, when contingencies arise for which parties have not made allowances in their plans.

Questions about why parties would not have made allowances for certain contingencies point up deep issues about how they adapt business arrangements to changing circumstances (Williamson 1971, 1974, 1985, 2005a, 2005b). Why would parties have failed to explicitly account for certain contingencies in their plans? Does the prospect that such contingencies arise motivate parties to find economical ways to adapt their plans?[13] Can it be economical to selectively leave plans incomplete in some ways? Finally, the control question: Given demands for adaptation arise, who crafts the adaptations to be made and who implements the adaptations? In short, who gets to assume and exercise control?

The answer suggested in Grossman and Hart (1986), Hart and Moore (1990), Moore (1992) and Hart (1995) is the parties who own the assets get to assume and exercise control. "Given a contract will not specify all aspects of asset usage in every contingency, who has the right to decide about missing usages? … [I]t is the owner of the asset in question who has this right. That is, the owner of an asset has *residual control rights* over that asset: the right to decide all usages of the asset in any way not inconsistent with a prior contract, custom, or law" (Hart 1995, pg. 30).

This line of research imposes structure on the single entity question in three ways. First, and most importantly, it suggests a way of understanding how "ownership" and "control" are related. Ownership implies control rights, which are the rights to decide how to redeploy assets in the event uncontracted-for contingencies arise. Ownership does not imply *all* control rights. Parties could (and often do) allocate control rights to non-owners. Three of the Governance Scenarios discussed above featured veto provisions. Veto provisions constitute one way parties assign to non-owners some say over how certain assets are redeployed – hence the qualification in Hart (1995) that ownership implies control rights that are "residual" in that other parties may have

[12] In the language of game theory, a plan is a "strategy" – a script indicating actions a party is to take at any contingency that might arise. The writer of the script could just as well seal it in an envelope, hand it to a manager to implement, and walk away.

[13] Research on adaptation in economic relationships is well established. Usual suspects include Masten and Crocker (1985), Crocker and Masten (1988, 1991), Crocker and Reynolds (1993), Joskow (1987, 1988), and Goldberg and Erickson (1987). More recent contributors include Saussier (2000), Bajari and Tadelis (2000), Tadelis (2002), Zhu (1999, 2003) and Zhang and Zhu (2000).

reserved some rights by "prior contract, custom, or law." Second, the appeal to residual control rights suggests a benchmark against which to judge "economic unity:" It is plausible to suggest that a candidate single entity may secure single entity status on the basis of economic unity by demonstrating that it maintains all residual control rights. Maintaining all residual control rights amounts to owning all of the assets engaged in production. Finally, the appeal to residual control rights suggests a simple way of identifying single entities that satisfy this benchmark of economic unity. One can delineate the single entities that satisfy the test of economic unity simply by identifying the nexus of parties that collectively own the assets engaged in production. Thus, if two parties separately or collectively own assets engaged in production, one includes those two parties in the single entity.

One should note that the appeal to residual control rights implies a concept of "economic unity" that is much more parochial than the concept the single entity case law anticipates. *Copperweld* and succeeding case law anticipate a concept of economic unity that depends on "centers of decision-making" not on "centers of *residual* decision-making." Residual control rights, as opposed to control rights, may mean very little if the candidate single entity has signed away the most important control rights. Thus, one might want to include in any effort to delineate a single entity those parties that do maintain those most important control rights *even if they own no assets* and maintain no residual control rights. Instead, appealing to residual control rights alone might lead one to extend single entity status to a party that is really no more than a component of a larger entity. In the first Governance Scenario, for example, the appeal to residual control rights would suggest that the long-term contractual relationship between the marketer and generator fail the test of economic unity. In contrast, a concept of economic unity that depends on how parties allocate all control rights might provide a rationale for extending single entity status to the relationship.

3.3 Nexuses of Control

The advantage of a test of economic unity that depends only on residual control rights is that there is a unique and simple way to operationalize it: just sort out who owns the assets that the candidate single entity uses. Evidence that ownership is concentrated in the hands of a single party is consistent with single entity status. In contrast, operationalizing a concept of economic unity that depends on control rights may require more structure. Identifying assets and ownership of assets may not be enough, because the most important aspects of control might reside with control rights that non-owners secure, not with the residual control rights that asset ownership implies. Thus, one must also sort out the control rights that parties assume by "contract, custom, or law."

The point of this section is to suggest how the broader concept of control rights can operationalize "economic unity." The suggestion is that control rights provide a simple way of identifying "nexuses of control," one nexus for each of the assets parties engage in production wherein each nexus is composed of those parties who reserve control rights specific to that asset. In the first Governance Scenario, the marketer and generator might argue that they each bring important assets to their collaboration. At the very least, the generator contributes generating assets (generators). Assume, for the sake of argument, that the marketer contributes physical

assets and intangible assets (e.g., "know-how" and "capabilities") that collectively amount to "marketing services." The generator maintains no control rights with respect to the assets that the marketer owns, in which case the nexus of parties that maintain all control rights with respect to the marketer's assets is composed exclusively by the marketer. In contrast, the nexus of parties that maintains all control rights with respect to the generating assets is composed by the generator and marketer.[14] (See Figure 2.1.)

The appeal to nexuses of control lends itself to a surprisingly broad array of criteria against which to measure economic unity. I indicate a sequence of six benchmark criteria here ordered from strongest to weakest:

Criterion 1 – All nexuses of control are identical[15]: More than one party may belong to different nexuses of control. Evidence that some party belongs to one nexus but not another indicates that not all nexuses are the same. In contrast, evidence that all nexuses are the same constitutes a criterion through which to suggest that the candidate single entity maintains a single, independent center of decision-making.

Counter example: Two parties, A and B, contribute two assets to production. Party A constitutes the nexus of control with respect to one asset, and parties A and B constitute the nexus of control with respect to another asset. The second nexus encapsulates the first, but, nonetheless, the two nexuses are distinguishable. The candidate single entity fails the implied test of economic unity. (See Figure 2.1.)

Criterion 2 – Encapsulated nexuses of control[16]: One can characterize all nexuses of control as a sequence of nexuses that encapsulate each other. In contrast, consider nexuses of control that may intersect but do not encapsulate each other. One might decide that nexuses of control not encapsulated by some other nexus of control constitute independent centers of decision-making. Thus, evidence that a candidate single entity features more than one non-encapsulated nexus of control frustrates appeal to single entity status.

Example: This example satisfies the test of economic unity implied by Criterion 2 but fails the test implied by Criterion 1. Suppose three parties, A, B, and C, engage three assets in production. Party A constitutes a nexus of control with respect to one asset, parties A and B constitute a second nexus of control with respect to a second asset, and parties A, B, and C constitute a third nexus with respect to the third and last asset. These three nexuses of control constitute a sequence of nested nexuses in that the third nexus encapsulates the

[14] One should note that the nexus of the marketer and generator maintains control rights with respect to many, but not all, of the assets the two parties engage in production. Third parties, for example, may own the wires that transmit the generator's electricity to the transmission grid and across the transmission grid. Accordingly, the nexus of parties that maintain control rights with respect to transmission assets excludes the generator and marketer. Thus, one can identify the boundaries between nexuses of control. There is the nexus composed of the marketer and generator, and there is the nexus of parties who maintain control rights over transmission assets. These two nexuses of control are mutually exclusive.

[15] In set-theoretic terms, the criterion amounts to indicating that the set of parties composed of the union of all nexuses of control is identical to the set of parties composed of the intersection of all nexuses.

[16] The criterion amounts to indicating that the set of parties indicated by the intersection of any two nexuses of control is itself a nexus of control with respect to some asset.

second which, in turn, encapsulates the first. (See Figure 2.2.) Note also that the governance structure featured in Figure 2.1 also satisfies Criterion 2.

Criterion 3 – A unique nexus of control belongs to all other nexuses of control[17]: For each asset parties engage in production, one identifies the nexus of parties that maintain control rights with respect to that asset. Evidence that one nexus of control is encapsulated within all other nexuses of control constitutes a way of suggesting that control is concentrated in that one nexus and, in turn, that one can identify the single entity with the collection of assets over which that nexus maintains some control rights.

Example: This example satisfies the test of economic unity implied by Criterion 3 but fails the tests implied by Criteria 1 and 2. Suppose, again, that three parties engage three assets in production. Party A constitutes one nexus, parties A and B constitute a second nexus, and parties A and C the third nexus. (See Figure 2.3.) The nexus composed of party A is belongs to all three nexuses of control.

Criterion 4 – A unique cluster of parties belongs to all nexuses of control[18]: Evidence that one cluster of parties belongs to all nexuses of control constitutes a way of suggesting that control is concentrated in that cluster of parties and, in turn, that one can identify the single entity with the collection of assets over which that cluster of parties maintains some control rights.

Example: This example satisfies the test of economic unity implied by Criterion 4 but fails the tests implied by Criteria 1, 2 and 3. Suppose that three parties engage two assets in production. Parties A and B constitute one nexus, and parties A and C constitute the second nexus. (See Figure 2.4.) Party A belongs to both nexuses of control.

Criterion 5 – The agglomeration of intersecting nexuses of control: Suppose some nexuses of control overlap but do not encapsulate each other as in the second Governance Scenario. (In that scenario, the marketer was party to two different nexuses of control.) One could suggest that the union of all overlapping nexuses indicates the extent of economic unity and, in turn, indicates the boundaries of the single entity.

Example: This example satisfies the test of economic unity implied by Criterion 5 but fails the tests implied by Criteria 1, 2 , 3 and 4. Suppose that three parties engage four assets in production. Parties A and B constitute one nexus, and parties A and C constitute a second nexus, and parties A and B each separately constitute the remaining two nexuses of control. (See Figure 2.5.) The agglomeration of all four intersecting nexuses encapsulates all three parties.

Criterion 6 – The agglomeration of all nexuses of control: For each asset parties engage in production, one identifies the nexus of parties that maintain control rights with respect to that asset. One identifies the single entity with the agglomeration of all nexuses of control whether or not any of the nexuses intersect.

[17] There exists some nexus of control that is identical to the intersection of all nexuses.
[18] There exists at least one party that is encapsulated by the intersection of all nexuses.

Example: This example satisfies the test of economic unity implied by Criterion 6 but fails the tests implied by Criteria 1, 2 , 3, 4 and 5. Suppose that three parties engage two assets in production. Parties A and B constitute one nexus, and party C constitute the second nexus. (See Figure 2.6.) The two nexus are entirely disjoint but satisfy the criterion.

Criterion 1 indicates an intendedly strong test, whereas Criterion 6 constitutes an intendedly weak test. One may observe that Criterion 1 is "nested" within Criterion 2 in that any candidate single entity that satisfies Criterion 1 will also satisfy Criterion 2. That is, Criterion 1 constitutes a more demanding test of economic unity than Criterion 2. Similarly, Criterion 2 is nested within Criterion 3, Criterion 3 is nested within Criterion 4, and so on. If we define ">" as the relation "is more demanding than," then one can order the six criteria as follows:

Criterion 1 > Criterion 2 > Criterion 3 > Criterion 4 > Criterion 5 > Criterion 6

Note that the governance structure featured in Governance Scenario 1 (a marketer and a generator) would fail the test of economic unity implied by Criterion 1 and would satisfy the tests of economic unity implied by Criteria 2, 3, 4, 5 and 6.[19] In contrast, Scenario 2 (a marketer and two unaffiliated generators) would fail the tests of economic unity implied by Criteria 1 and 2 and would satisfy the tests of economic unity implied by Criteria 3, 4, 5, and 6.[20] Scenario 3 (the hospital network) would fail the test of economic unity implied by Criteria 1, 2, and 3 and would satisfy the test of economic unity implied by Criteria 4, 5, and 6. Finally, Scenario 4 (the traditional corporate hierarchy) satisfies the test of economic unity implied by all six criteria. All control rights ultimately reside with the ultimate parent thus indicating that the only nexus of control consists exclusively of the ultimate parent. (See Figure 2.7.)

3.4 Observations, caveats and extensions

While the Governance Scenarios do not exhaust the range of governance structures one might consider, the results leave open questions about what action is left out that should not be left out and, no less importantly, what action is left out that should remain left out. I elaborate six points here:

(1) All assets are treated symmetrically: The appeal to control rights alone does not distinguish between bottleneck assets and assets that feature lesser degrees of complementarity. Some assets may contribute little to the commercial potential of production whereas the exclusion of other assets might completely frustrate production. One might want to impose more structure on the analysis of economic unity by assigning greater weight to control rights that pertain to bottleneck assets and less weight to control

[19] If we assume that the marketer does not contribute any assets to production but only reserves control rights with respect to the generator's assets, then the governance structure satisfies the test of economic unity implied by all six criteria.

[20] If we assume that the marketer does not contribute any assets to production but only reserves control rights with respect to the two generators' assets, then the governance structure no longer satisfies the test of economic unity implied by Criterion 3.

rights that pertain to less important assets. No uniquely obvious way to assign weights presents itself.

(2) **Weak property rights yield few control rights:** "Ownership" confers residual control rights only to the extent that property rights can be defined and enforced. More generally, property rights yield control rights only to the extent that they can be defined and enforced. Property rights may be uncertain (Merges 2005, D.V. Williamson 2005, Arora and Merges 2004, Majewski and Williamson 2004, Anand and Galetovic 2000), in which case they may confer few, if any, effective rights. Assets such as intellectual properties, for example, may be hard to define in the first place. A line in the sand may go far toward defining beachfront properties, but parties might not be able to distinguish fine lines between intellectual properties. The upshot is that parties might not be in much of a position to assign control rights much less to exclude others from using the asset.

(3) **All control rights are treated symmetrically:** One can imagine enriching the framework by distinguishing the residual control rights that attend ownership from all other control rights. Again, no uniquely obvious way of weighing residual control rights presents itself, but one could, for example, go so far as to accord the bundle of residual control rights that attend ownership of an asset the status of an asset itself. This amounts to making each individual owner of an asset a nexus of control with respect to that asset. In Governance Scenario 1 (a marketer and a generator), treating the generator's residual control rights as an asset would change the analysis. The governance structure would not no longer satisfy the test of economic unity implied by Criterion 2 and would fail the tests implied by Criteria 1, 2, 3 and 4. Similarly, the example of the hospital network featured in Governance Scenario 3 would no longer satisfy Criterion 4 and would fail the tests of economic unity implied by Criteria 1, 2, 3, and 4.

(4) **Control rights do not illuminate influence parties exert through board participation:** The appeal to control rights says nothing about influence parties may exert through their ability to appoint or withdraw board members or to control votes. That leaves open the question of how board participation informs analysis of "economic unity." The case law has no definite answers to this question, but in *Fraser* (2002), the court suggested that parties' board participation *complicates* the appeal to single entity status on the basis of economic unity, because parties "are not mere servants" of the candidate single entity (pg. 57).

(5) **Profit-sharing does not inform "economic unity:"** The appeal to control rights says nothing about profit-sharing or, the same thing, risk-sharing. The important point, however, is the converse – that profit-sharing does not inform economic unity. The licensee of a patent, for example, may generate profits by commercializing the patent, but that licensee may yet yield licensing fees to the patent holder. The licensing fees constitute a scheme by which the licensee and patent holder share profits. The fact that the parties commit to a schedule of licensing fees does not imply that the patent holder or licensor have secured control rights beyond those they already maintained. Rather, profit-sharing is integral to the effort to commercialize the patent. Similarly, the fixed monthly mortgage fees a homeowner pays to the bank can be understood as a profit-sharing scheme, but it

would be hard to suggest that the scheme implies that the homeowner and bank constitute a single entity. The homeowner yields a stream of services from the asset (the dwelling), and the homeowner bears the risk that housing prices may go down.

As a matter of economic theory, profit-sharing schemes matter insofar as parties can use them to align each others' incentives.[21] But incentive alignment alone says nothing about control. Specifically, incentive alignment says nothing about how parties adapt plans to uncontracted-for contingencies.

(6) Renegotiation illuminates the allocation of control rights: An easy way to determine how control rights are allocated among parties to a governance structure is to look for mechanisms that allow one party to impose renegotiation on another. We have already noted the role of *veto provisions* in enabling one party to hold-up another party and impose renegotiation. Veto provisions indicate that more than one party constitute the nexus of control with respect to a particular asset. A researcher seeking to inform a single entity inquiry should also look for *exit provisions* in the contracts, by-laws or other structures governing the workings of the candidate single entity. Provisions that enable some party to exit a relationship enable that same party to impose renegotiation over the terms of exchange between the parties in that relationship. Such provisions indicate that some party reserves control rights with respect to a particular asset. A naïve interpretation of exit provisions is that they constitute tripwires that automatically induce exit when those provisions get tripped. A more sophisticated interpretation is that exit provisions constitute *options* for some party to impose renegotiation by threatening to exit. (See Crocker and Masten 1988, 1991 on options and renegotiation processes.)

4. A Two-stage Sequence of Single Entity tests

The single entity case law proposes a number of single entity tests, some of which have proven to be more robust than others.[22] Some of these candidate tests stumble around "control" and could be subsumed in a larger test of economic unity. Other tests focus on efficiencies and can be subsumed within a larger efficiencies test or "actual or potential competitors" test. I will take these up in turn, but first I want to put to rest a third "unity of interest" test upon which the case law has periodically stubbed its toe.

Some of the case law seems to suggest that a defining feature of a single entity is a "unity of interest" between its constituent entities.[23] The law has been shy about defining what constitutes a "unity of interest," but, even if we take it at face value, we can identify at least three immediate problems with the test. First, both economics and some of the single entity case law recognize that conflict *as well as* mutual interests may characterize much of what goes on within single entities. In *Chicago Professional Sports LP v. National Basketball Association* (1996) 95 F.3d 593, for example, Judge Easterbrook observes that "Even a single firm contains many competing

[21] See chapter 2 in Laffont and Martimort (2002).
[22] Various single entity tests are catalogued in Belsley (1996) and Kaiser (2004).
[23] *Copperweld* (1984) at 769, *Mt. Pleasant* (1988) at 276, *Iain Fraser et al. v. Major League Soccer, LLC et al.* (2002) 284 F.3d 47 at 58.

interests... *Copperweld* does not hold that only conflict-free enterprises may be treated as single entities." (pg. 598) Indeed, the prospect of conflict leads inexorably to the governance question that John R. Commons had posed: Can the parties craft a governance structure that allows them to manage or even neutralize conflict and, in turn, to realize mutual gain that conflict had jeopardized?[24]

Second, even members of cartels may perceive both the prospect of mutual gain and conflict. Thus, we stumble upon John R. Commons's governance question again. Even cartel members may choose to design a governance structure that allows them to remedy conflict so that they may achieve mutual gains. The problem with cartels, of course, is that society's losses (from higher prices, restricted output, underinvestment and whatnot) outweigh cartel members' collective gains.

The third problem with the appeal to a "unity of interest" is that the case law sometimes conflates it with tests pertaining to "actual or potential competition." (See, for example, *Mt. Pleasant* at 276.) The upshot is that "unity of interest" tests are a distraction from the real action. I now turn to that action.

4.1 Test 1: The "economic unity" test

The case law offers a sequence of two tests. (See the decision tree featured in Figure 1.) The first test creates a safe harbor for commercial institutions that the authorities, including the antitrust authorities, have no business poking their noses into. The second test amounts to a *de facto* rule-of-reason analysis for institutions that might yet merit single entity status but which could also serve as cover for cartels. Courts have appealed to the second test when candidate single entities have failed the first test.

The first test, an "economic unity" test, inquires whether or not parties are already effectively integrated within a single entity.[25] This is effectively a test of how concentrated control rights are. Evidence that control rights are fragmented and distributed across constituent entities frustrates the appeal to single entity status.

Pairing "economic unity" with "delegation" provides a way of operationalizing "control rights" that is consistent with the case law. A single party within a single entity may not actively manage mechanical affairs such as setting prices but rather may delegate management functions

[24] This is an old, robust and important idea in economics. Oliver Williamson has paraphrased John R. Commons many times on this count: "Commons ... recognized that economic organization is not merely a response to technological features – economies of scale; economies of scope; other physical and technical aspects – but often has the purpose of harmonizing relations between parties who are otherwise in actual or potential conflict (Commons, 1934, p. 6). The proposition that economic organization has the purpose of promoting the continuity of relationships by devising specialized governance structures, rather than permitting relationships to fracture under the hammer of unassisted market contracting, was thus an insight that could have been gleaned from Commons." See Oliver E. Williamson, *The Economic Institutions of Capitalism* (1985), pg. 3 and John R. Commons, *Institutional Economics* (1989[1934]).

[25] *Copperweld* (1984) at 770, *Arleen Freeman et al. v. San Diego Association of Realtors* (2003) 322 F.3d 1133 at 1148, *Jack Russell Terrier Network v. American Kennel Club* (2005) 407 F.3d 1027 at 1034.

to other parties. These other parties may in turn delegate functions to other units. In a traditional corporate hierarchy, the pattern of delegation will trace out a hierarchical tree. That tree will have three features: (1) Parties higher up the hierarchy may delegate functions to parties lower on the hierarchy; (2) Parties lower down will not delegate functions to parties higher up; (3) Parties lower down will not reserve control rights that the some party higher up could not abrogate. In contrast, one can distinguish unintegrated agglomerations of single entities by distinguishing patterns of delegation that deviate from a hierarchical tree structure. Specifically, unintegrated single entities may delegate no functions to each other. (They may be entirely independent.) Alternatively, they may delegate functions to each other or may share control of certain functions. They might, for example, each reserve vetoes over decisions to liquidate assets, to spin other parties off, or to be spun off.

The law is disposed to identify "economic unity" with top-down, one-way, hierarchical control. The law accepts as single entities agglomerations that satisfy "economic unity," and it may stop analysis of the single entity issue there rather than bother to proceed to other tests, but observe what is and is not going on. "Economic unity" says nothing about the welfare-enhancing, efficiency-generating features of such agglomerations. Rather the test provides a safe harbor against the courts marching in and abrogating established property rights and control rights. Even so, the law does not limit single entity status to agglomerations exhibiting purely top-down, hierarchical control. Rather, it may extend single entity status to agglomerations that feature less but enough "economic unity."

Both pre and post-*Copperweld* single entity case law features examples of single entity defenses that failed some version of "economic unity" tests. Single entity defenses failed such tests in *Freeman* (2003), *New York v. Saint Francis Hospital, Vassar Brothers Hospital and Mid-Hudson Health* (2000) 94 F.Supp.2d 399, *Robert M. Bogan v. Northwestern Mutual Life Insurance Company* (1997) 953 F.Supp. 532, *Malcolm Weiss v. York Hospital et al.* (1984) 745 F.2d 786, *SMMS v. United States* (1982) 1 Cl.Ct. 188 and *National Society of Professional Engineers v. United States* (1978) 435 U.S. 679. The court accepted a single entity defense on the basis of economic unity in *Seagram and Sons v. Hawaiian Oke* (1969) at 83.

4.2 Test 2: The "actual or potential competitors" test

The law does not indicate a fine line between enough and not enough "economic unity," but it does appeal to a second test in instances in which the degree of "economic unity" remains in question. Consider, for example, how the law might view a patent licensing agreement. A patent holder and a licensee might each reserve certain control rights, thus deviating from a strict model of top-down, hierarchical control. They might even be members of distinct corporate families. Even so, the law might accept the relationship between the patent holder and licensee as a single entity for the purpose of analyzing competition in certain markets.[26]

[26] "Certain markets" is an important qualification. The law might extend single entity status to parties collaborating in the production of goods or services sold in one market but might deny single entity status to the same parties were they actual or potential competitors in another market.

There are many ways a licensing agreement may fail a strict "economic unity" test. A patent holder could not, for example, bar a licensee from liquidating its own assets. A patent license might include important exit provisions that might go some way toward channeling the disposition of parties' assets in the event of liquidation, but it is not obvious that one party could compel the other to remain in business. Even so, for the purpose of commercializing a patent, a patent holder and licensee might institute a governance structure that features much "economic unity." Specifically, a patent holder might delegate to a licensee all types of functions – functions that only the patent holder would be in a position to delegate.

Courts have not, in general, explicitly distinguished exit provisions as important ways to identify how parties allocate control rights, but in *Chicago Professional Sports* Judge Easterbrook did observe in passing that "the 29 [NBA] clubs, unlike GM's plants, have the right to secede (wouldn't a plant manager relish that!), and rearrange into two or three leagues." (Pg. 599) In yet other cases evidence of the absence of exit provisions enabled parties to satisfy an "economic unity" test. Lack of exit provisions indicates that one party (e.g., the "parent") can compel another party (a "subsidiary") to stay in business. In *HealthAmerica* the court accepted a particular hospital "Alliance" as a single entity, partly because the parent exclusively reserved the right to spin member hospitals off. This right was partly codified in the form of a veto provision.[27]

Control rights in the patent licensing example may not be entirely concentrated, but both pre and post-*Copperweld* single entity case law make allowances for extending single entity status to some hybrid arrangements. It does this by extending the analysis to a *de facto* rule-of-reason analysis. It inquires whether or not parties to the candidate single entity constitute "actual or potential competitors." The point of the test is to distinguish whether or not the candidate single entity joins complementary assets, capabilities or other complementary inputs together.[28] The alternative is that the parties constitute "actual or potential competitors," in which case it becomes much less obvious that the candidate single entity is anything but a sham institution.

Courts have appealed to complementarity to extend single entity status to hybrid arrangements like franchising (*Don Williams v. I.B. Fischer Nevada* [1993] 999 F.2d 445), patent licenses (*Levi Case Company v. ATS Products* [1992] 788 F.Supp. 428), exclusive contracts (*Calculators Hawaii Inc. v. Brandt Inc.*[1983] 724 F.2d 1332; *Superior Models v. Tolkien Enterprises* [1981] 1981 WL 2103; *Discon Inc. v. NYNEX Corp.* [1996] 93 F.3d 1055), certification authorities (*Jack Russell* [2005]), and networks (*Mt. Pleasant* [1988], *Broadcast Music Inc. v. Columbia Broadcasting System, Inc.* [1979] 441 U.S. 1). As Lehn and Sykuta (1997) observe, courts have also extended single entity status on the basis of complementarity to the National Hockey League (*San Francisco Seals, Ltd. v. National Hockey League et al.* [1974] 379 F.Supp. 966) but not

[27] *HealthAmerica* 428: "An Affiliate must seek approval of Susquehanna Alliance before it acquires, purchases, sells, leases or otherwise transfers any property. Id. at 42. No Affiliate may incur any capital indebtedness unless expressly authorized by the Alliance. Id. at 43. Absent express authorization, [the constituent parties] NCPHS and PHS may not merge, consolidate, reorganize or enter into any joint venture, management or alliance agreement that would affect autonomy or governance with any entity not a party to the Alliance Agreement. Id. at 44. Under the Alliance Agreement, no party may terminate any program or service or initiate any program or service without the prior approval of the Chief Executive Officer or the Board of Directors of Susquehanna Alliance."

[28] See, for example, *Arizona v. Maricopa County Medical Society* (1982) 457 U.S. 332 at 355-356, the various sports league rulings, and others.

uniformly to the other leagues including the National Football League. In each case parties contributed complementary inputs, although courts were not always explicit about this. In franchising, for example, a franchiser contributes a valuable asset, the brand name. Franchisees contribute labor and other complementary inputs.

The appeal to complementarity has enabled courts to fill in one potential pitfall. A court might observe that parties are not "actual competitors," and it would be tempting to then accept a single entity defense. A problem is that parties could constitute a cartel of "potential competitors." The potential for competition sets up the prospect of conflict, and that motivates a role for the governance of the cartel: to neutralize the prospect of cartel members actually competing with each other. Thus, absence of actual competition may merely mask the reality of competition that would obtain but for the horizontal restraints instituted in the governance of the cartel. A way to distinguish whether or not parties are potential competitors is to distinguish whether or not they contribute complementary inputs.

The *Freeman* court is not explicit on complementarity, but it provides the best statement on this count and picks up on the governance question. The court observed "[I]n the absence of economic unity, the fact that firms are not actual competitors is also usually not enough, by itself, to render them a single entity. Absence of actual competition may simply be a manifestation of the anticompetitive agreement itself, as where firms conspire to divide the market. See *Maricopa County Med. Soc'y*, 457 U.S. at 344 n. 15, 102 S.Ct. 2466 (division of markets is *per se* illegal). Cases have required instead that the constituent entities be neither actual nor potential competitors, *City of Mt. Pleasant*, 838 F.2d at 276, cf. *Williams*, 794 F.Supp. at 1031" (*Freeman* at 1148-49).

Single entity defenses have failed some version of an "actual or potential competitors" test in *Freeman* (realtor associations), *Maricopa County* (medical associations), *Professional Engineers* (another professional association), and *Citizen Publishing Company v. United States* (1969) 394 U.S. 131 (a joint operating agreement).

5. Applying the single entity tests

5.1 Sports leagues and network effects

A casual survey of the single entity case law will reveal a preponderance of cases involving sports leagues. This is no accident. Sports leagues have coordinated much of the business of constituent teams. Coordination has often involved the imposition of restraints such as restrictions on the geographic assignment of teams or restrictions on the hiring of players and coaches. The fact that leagues do not obviously constitute single entities on the basis of economic unity has enabled parties seeking relief from restraints to press conspiracy claims under section 1 of the Sherman Act. Team owners have, for example, pressed antitrust claims in order to secure relief from restrictions on relocating teams (e.g. *Seals* [1974], *Los Angeles Memorial Coliseum Commission v. National Football League et al. v. Oakland Raiders, Ltd.* [1984] 726 F.2d 1381). Even so, sports leagues have posed single entity defenses, and courts have, for the most part, seriously entertained such defenses not on the basis of economic unity

but on the grounds that teams themselves constitute complementary inputs to the production of "games."[29] Courts have further entertained single entity defenses on the grounds that the entities representing the leagues (e.g., the NFL, NBA and NHL) have themselves contributed inputs that are complementary to the production of games (e.g., *Fraser* [2002] at 56, *Chicago Professional Sports* [1996] at 599, *Los Angeles Memorial Coliseum* [1984] at 1390, *James McCoy Smith v. Pro Football Inc. and the National Football League* [1979] 593 F.2d 1173 at 1195.).

The appeal to complementarity has allowed courts to appeal to versions of the "actual or potential competitors" test of single entity status. Courts have recognized at least two types of complementarity that drive the economics of sports leagues. One can analogize one type of complementarity to demand-side "network effects," and one can analogize the other type to supply-side "network effects" (Tirole 1991, pp. 404-408). The demand-side reflects the fact that the production of goods or services requires the input of more than one entity. Phone networks constitute an extreme example. Just as a phone network that includes only one phone is useless, so too a network that includes only one team is useless. Phones in a telephone network are complements when it comes to the "production" of telephone services insofar as users perceive greater value to having access to a larger, rather than smaller, network of other users. The music licensing arrangement examined in *Broadcast Music* (1979) constitutes a less extreme example. The Supreme Court suggested that parties to the licensing arrangement collectively contribute complementary "raw material" (songs) without which each party would be "inherently unable to compete fully effectively" (pp. 22-23). Similarly, teams can be understood as contributors of complementary inputs when it comes down to the "production" of games.[30] Consumers perceive value to having at least two teams in a network and may perceive greater value to having more, if not unboundedly more, teams in the network.

The appeal to demand-side network effects alone provides a rationale for suggesting that teams constitute complements rather than "actual or potential competitors," but it does not provide a rationale for assembling them in governance structures called "leagues." Not belonging to a league does not, of itself, preclude parties from independently organizing teams and producing "games" (*Los Angeles Memorial Coliseum* [1984] at 1390). Note, however, what the court in *Chicago Professional Sports* slips in to the analysis when it makes reference not to the production of generic "professional basketball games" but to the production of "'NBA Basketball' games" (pg. 599). The court is implying that the entity governing the league (the NBA) contributes complementary inputs to the production of games. Among other things, the league contributes its "NBA" brand to the marketing of games. Leagues also contribute to the production of league-branded games by imposing standards in rule-making and by organizing competition, including "playoff" competition, between member teams.[31]

[29] *Fraser* (2002) is an exception in that the court also enumerated aspects of the governance of Major League Soccer that might enable it to secure single entity status on the basis of economic unity (*Fraser* pg 56).

[30] See, for example, *Fraser* (2002) at 56, *Chicago Professional Sports* (1996) at 599, *William H. Sullivan II v. National Football League* (1994) 34 F.3d 1091 at 1102, *Los Angeles Memorial Coliseum* (1984) at 1390, *North American Soccer League v. National Football League* (1982) 459 U.S. 1074 at 1077 and (1980) 505 F. Supp. 659 at 676 and 687, *John Mackey et al. v. National Football League et al.* (1976) 543 F.2d 606 at 619, and *Seals* (1974) at 969-970.

[31] Note, for example, diseconomies that lack of standards and lack of organized "playoffs" may achieve in contexts such as professional boxing. A surprising array of entities govern professional boxing, but the four preeminent

League-sanctioned standards and the promotion of league-sanctioned competition enable constituent teams to achieve economies analogous to supply-side network effects. These economies provide a rationale for forming a league and for suggesting that league governance is designed not to police a cartel of "actual or potential competitors" but to promote the commercialization of league-branded products. Supply-side network effects suggest a way of interpreting league-imposed restraints: the restraints are "vertical," rather than "horizontal," insofar as the league is contributing complementary inputs. Note, however, that *NCAA v. Board of Regents* (1984) 468 U.S. 85 confuses the role vertical restraints with horizontal restraints when it states "[W]hat is critical is that this case involves an industry in which horizontal restraints on competition are essential if the product is to be available at all" (pg. 101). If the inputs are "critical" (thus, complementary) in the production of the "product," then the restraints are vertical, not horizontal, which is the same thing as saying that parties are contributing complementary inputs.

While courts have suggested that sports leagues could secure single entity status on the basis of complementarity, they have sometimes rejected single entity defenses in contexts in which they have acknowledged that teams constitute complementary inputs. The key point is that courts have effectively judged teams to be "actual or potential competitors" in some markets if not in all markets. Complementarity might enable leagues to secure single entity status when it comes to the production of league-branded games, but courts have sometimes accepted market definitions under which teams could be understood as "actual or potential competitors." Most notably single entity defenses have failed in contexts involving competition between teams in labor markets – that is, in markets for players and coaches (e.g., *Smith* 1979, *Mackey* 1976). The professional soccer league Major League Soccer has had some success thwarting challenges under Section 1 of the Sherman to teams' hiring practices by explicitly organizing teams within a tightly structured "single entity." In *Fraser* (2002), the district court dismissed plaintiffs' Section 1 challenge on summary judgment by effectively accepting the single entity status of the league on the basis of economic unity (*Fraser* [2002] at 55). Since economic unity trumps considerations of complementarity, the court did not bother proceed to the second-stage test of "actual or potential competitors."

The structure of Major League Soccer would arguably satisfy Criteria 1 through 6 for economic unity. The league owns the teams in the league, delegates management to the parties who formed the league, and reserves all control rights. Even so, the court of appeals in *Fraser* was reluctant to extend single entity status to the league given the fact that the parties who formed the league operated much like team owners but also participated in the governance of the league. The court suggest that "the analogy to a single entity is weakened, and the resemblance to a collaborative venture strengthened, by the fact that the operator/investors are not mere servants of [Major League Soccer]; effectively, they control it, having the majority of votes on the managing board" (pg. 57). What the Fraser court declined to do, however, was suggest how board participation informs "control." Interestingly, however, the court effectively implied that board participation *diminishes rather than strengthens* the appeal to single entity status on the basis of economic unity.

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entities seem to be the World Boxing Association, the International Boxing Federation, the World Boxing Council, and the World Boxing Organization.

5.2 Exclusive service contracts

The court of appeals in *Tafford E. Oltz v. St. Peter's Community Hospital* (1988) 861 F.2d 1440 implied that anesthesia services complemented surgeries conducted at the hospital[32] but then turned around and implied that anesthesia did not complement surgeries. The court then proceeded to reject the single entity defense that St. Peter's and a group of anesthesiologists advanced. The courts reasoning seemed to contemplate a market defined as "stand-alone anesthesia services"[33] as opposed to, say, "anesthesia services provided in support surgeries conducted in hospital operating rooms." Note that the court's market would include "morphine sold and administered on street corners" – which is to say that the court's market definition precludes consideration of the prospect that anesthesia services complement surgeries.

St. Peter's had a contract with Tafford Oltz for anesthesia services. The contract would renew each month until either party opted to exit the relationship. The hospital also contracted with a number of MD anesthesiologists. St. Peter's changed its contracting by soliciting an exclusive contract for anesthesia services. Three of the four MD anesthesiologists who worked at St Peter's formed a group and secured the exclusive contract. St. Peter's proceeded to exercise its right to terminate the contract with Oltz.

Oltz sued, claiming that the hospital and MD anesthesiologists group conspired in a manner actionable under Section 1 of the Sherman Act. The hospital trotted out a single entity defense. The court rejected the defense on the grounds that the anesthesiologists' group and the hospital were not effectively integrated, and the court proceeded to rule in favor of Oltz.

The court effectively applied the test of economic unity to the exclusive contract and proceeded to reject the single entity defense, The court neglected to apply the "actual or potential competitors test" that might have allowed it to accept single entity status on the basis of complementarity. The important point is that the court accepted a market definition that precluded consideration of complementarity. In turn, it effectively judged that the anesthesiologists themselves constituted "actual or potential competitors" and that the exclusive contract constituted a horizontal restraint on the provision of anesthesia services.

Arguably, the exclusive contract between the anesthesiology group and the hospital fails Criteria 1, 2, 3, 4, and 5 and only satisfies Criterion 6. The anesthesiologists contribute important assets such as anesthesiology "know how" and credentials to the production of surgeries supported by anesthesia services. The hospital contributes intangible assets such as surgical "know how" as well as physical assets such as operating facilities. It is not obvious that either party reserves control rights with respect to the assets owned by the other party. Thus, the contractual arrangement appears to join to distinct nexuses of control. The fact that these two nexuses are

[32] "St. Peter's enjoyed the overwhelming majority of the market for general surgery [in Helena, Montana]. As a result, an anesthesia service provider desiring to serve that market had to work at St. Peter's" (pp. 1446-1447). That is, demand for anesthesia services derives from demand for surgeries. Anesthesia services complement surgeries!

[33] "[The court] conclude[s] that anesthesia services and the Helena [Montana] area framed the appropriate product and geographic components of a relevant market in which the jury could assess injury to competition" (pg. 1447).

distinct provides a rationale for suggesting that they each represent independent centers of decision-making. Were one to then reject single entity status on the basis of economic unity, one could proceed to the "actual or potential competitors" test, which constitutes a *de facto* rule-of-reason analysis of the harm and efficiencies (if any) the exclusive contract induces. The court itself proceeded to a *de jure* rule-of-reason analysis under which it accepted a particular market definition. The market definition lent itself to a characterization of harm to competition but not to a characterization of efficiencies that might outweigh the perceived harm.

I suggest that the market definition the court used, "anesthesia services" in Helena Montana, is problematic and should have been replaced with a definition such as "anesthesia performed in support of surgeries conducted in Helena Montana." The alternative market definition lends itself to a finding that the hospital and anesthesiologists contribute complementary inputs. While the court might yet have declined to accept the parties single entity defense, the court would have had to amend its characterization of harm and efficiencies and would have provided itself a rationale for overturning the district court's orders.

5.3 Licensing contracts

Intellectual properties, such as patents and trademarks, constitute good examples of bottleneck assets in that anyone seeking to commercialize a patent or a trademark must either own the asset or secure a license to deploy the asset. Bottleneck status, however, does not imply value. Anyone could register the trademark "Victoria" (indicating the Roman goddess of victory), license the trademark to a shoe manufacturer and sell athletic shoes in competition with brands like Nike (named after the Greek goddess of victory). Without investing heavily in the marketing of the Victoria brand, it is not obvious that any Victoria-brand shoes would be sold or even that any manufacturer would seek a license to produce them. Valuable or not, the case law provides a basis for suggesting that the combination of a trademark owner and a manufacturer in a licensing agreements could secure the status of a single entity. The parties might not secure single entity status on the basis of economic unity. Indeed, if both parties are contributing assets to the production of Victoria-brand shoes, then it is not obvious that the licensing agreement would not fail at least five of the six benchmark criteria for economic unity. Even so, the parties might secure single entity status for the narrow purpose of analyzing competition in markets for athletic shoes on the basis of complementarity. Similarly, patents may or may not be valuable, but a patent holder and licensee could conceivably secure single entity status on the basis of complementarity.

The court has accepted single entity status of parties joined in an exclusive patent license in *Levi Case Company* (1992). The court observed that the licensee did not maintain "independent decisionmaking authority regarding the exploitation of the patent" (pg. 432). This is an oblique way of indicating that the patent holder already maintained a monopoly over a bottleneck input (rights-of-way) to the commercialization of the patent. The licensee reserved no control rights with respect to the patent but rights-of-way constituted a complement to the licensee's inputs (manufacturing capabilities).

While a single entity defense might neutralize challenges to exclusive contracting mounted under Section 1 of the Sherman Act, one can imagine finessing the single entity defense by mounting a "monopolization" challenge under Section 2. Alternatively, one might challenge a single entity defense directly by suggesting that while the parties to the licensing agreement might be contributing inputs that are complementary to the commercialization of the patent, the licensing agreement were designed to insulate the bottleneck from competition from, say, the licensee itself. The licensee may, for example, have been developing substitute technologies, in which case one might deem the licensee and the patent holder as "actual or potential competitors" not in manufacturing but in an upstream technology market.

6. Conclusion

Since at least the 1930's, economists have puzzled over how to delineate the boundaries of the firm, and, indeed, "the boundaries of the firm" remains an active topic of research to this day. Since the advent of antitrust legislation, courts have been pressed to consider what should constitute "conspiracies." Courts have sometimes characterized conspiracies by negation – by sorting out what they are not – specifically, by extending the status of "single entity" to certain types of business arrangements that join otherwise independent corporate entities.

Both efforts in economics to sort out what constitutes a "firm" and efforts in the law to sort out what constitutes a "single entity" have focused on "control." A difficulty is that neither the law nor economics – nor any other field – offer a concept of control that can enable analysis. Just posing hierarchical relationships, for example, between "bosses" and "employees" or between "parent companies" and "subsidiaries" offers little guidance. There is nothing about the relationship *per se* that suggests that one party can induce some other party to undertake some type of costly activity. Thus "control" has remained nothing more than an intuitively appealing idea. It has never been an operationally significant idea.

Fortunately, more recent developments in both economics and the single entity case law provide provide concepts other than control that provide ways of understanding economic organization. Economics provides concepts such as adaptation and control rights that together motivate why control matters at all. The appeal to control rights also provides a way of understanding how ownership and control are related. At the same time, the law contributes a concept of delegation that allows one to distinguish day-to-day management from control. Finally, problems of economic adaptation suggest a role for renegotiation in the governance of economic relations. Renegotiation itself provides ways of distinguishing how parties allocate control rights in organizations. Knowing how parties allocate control rights can help analysts evaluate single entity defenses.

These four concepts – adaptation, control rights, delegation, and renegotiation – provide a way of operationalizing benchmarks against which to measure the degree to which parties exhibit economic unity in organizations. Economic unity constitutes the basis for an array of single entity tests proposed in the case law. But the law goes further. It sometimes finesses the full-blown analysis of harm and efficiencies that a rule-of-reason analysis would demand by

extending single entity status to parties that contribute complementary assets, complementary capabilities or other complementary inputs to the production of selected goods and services.

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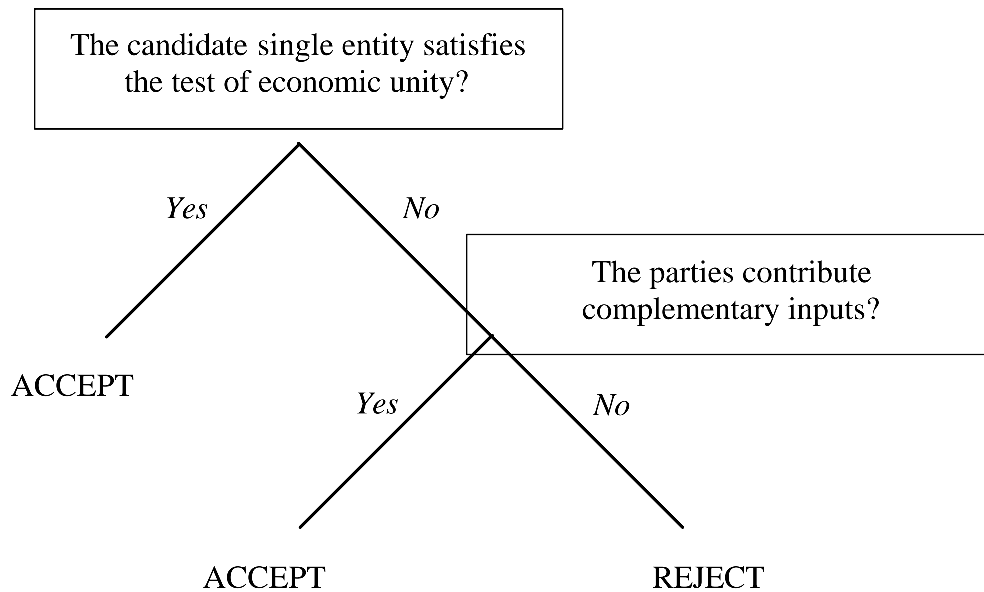
Figure 1

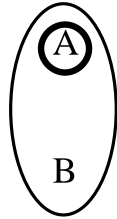
A Two-stage Sequence of Single Entity tests

When would the court accept or reject a single entity defense?



The first test sorts out whether or not control rights within the candidate single entity are concentrated. Evidence that control rights are concentrated allows the court to accept the single entity defense. Evidence that control rights are fragmented (not concentrated) advances decision-making to a second test. The second test sorts out whether not parties to the candidate single entity contribute complementary inputs. If they contribute complementary inputs, the court will be disposed to accept the single entity defense. Absence of complementarity leaves the court with the conclusion that the parties are "actual or potential competitors," and the court will reject the single entity defense.

Figure 2.1



Circled items constitute nexuses of control. Thus, party A constitutes one nexus and parties A and B together constitute a second nexus. One nexus encapsulates the other.

Figure 2.2

A sequence of three nested nexuses

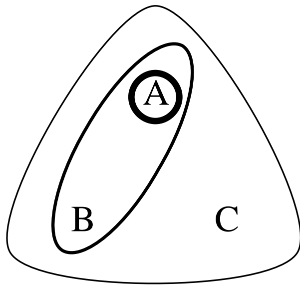


Figure 2.3

One nexus is common to all nexuses.

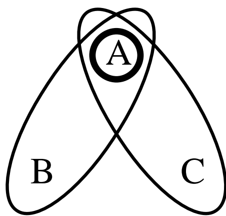


Figure 2.4

Party A is common to all nexuses.

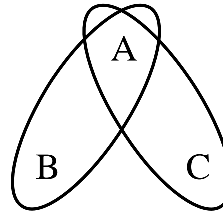


Figure 2.5

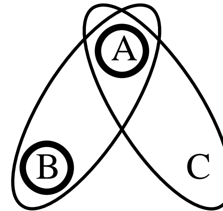


Figure 2.6

Two disjoint nexuses

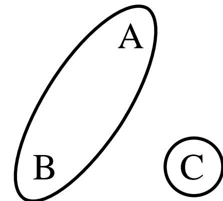
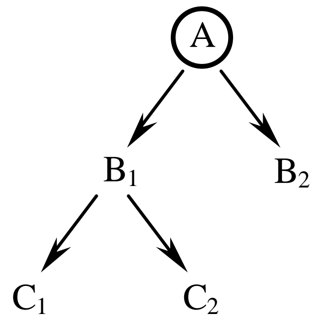


Figure 2.7

A Traditional Corporate Hierarchy



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