

A Property Rights Perspective on Competitive Strategy

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6 June 2000

18 December, 2000

24 April 2001

Preliminary; comments are solicited

Acknowledgments

We are grateful to Yoram Barzel, Lasse Lien and Volker Mahnke for comments on an earlier version of this paper.

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Abstract

We argue that the property rights perspective, as developed by economists such as Coase, Alchian, Demsetz and Barzel, is uniquely positioned to inform and further the understanding of competitive strategy. This is because of its consistent focus on the capture and protection of property rights as a main explanatory principle; a principle that we argue may also be usefully applied to the study of firm strategy. In our view, all firms trade resources spent on capture and protection off against value creation. Strategizing concerns changing the tradeoff to the advantage of the firm by identifying and influencing impediments to value creation. We use these insights to derive a number of refutable propositions, and argue that key insights from both industrial organization economics and the resource-based view are consistent with the property rights perspective.

Introduction

In an important approach, competitive strategy concerns positioning in an industry relative to the competitive forces of that industry and a choice of activities that can support the chosen position (Porter 1980, 1985). Competitive strategy thus concerns obtaining a competitive advantage (i.e., above-normal profits) and defending it. This approach may be called the “industrial organization view” (henceforth, the “IO view”) (also Shapiro 1989; Ghemawat 1991, 1997; Oster 1990; Besanko, Dranove, and Shanley 1996). Important contributions to the analysis of competitive advantage has also been made by scholars working within the resource-based perspective (henceforth, the “RBV”) (Lippman and Rumelt 1982; Wernerfelt 1984; Barney 1986, 1991; Dierickx and Cool 1989; Peteraf 1993). The RBV directs attention to the conditions — such as costly imitation — that must be met for firms to earn rents in equilibrium on the resources they control. It, too, builds on economics.

We develop a novel approach to competitive strategy that while in many ways consistent with the RBV and the IO view of competitive strategy is based on the microeconomics of property rights and transaction costs rather than on industrial organization economics. Thus, we shall seek for a foundation for competitive strategy in the works of economists such as Coase (1960), Alchian (1965, 1977), Cheung (1969), Demsetz (1967, 1982), Cheung (1969), and, in particular, Barzel (1982, 1994, 1997). Our property rights perspective (henceforth, the “PRP”) on competitive strategy adds more content to the IO view and the RBV, clarifies key points in these, and adds new insights into the analysis of competitive strategy.¹

We take our starting point in the notion of property rights. From an *economic* (as distinct from a legal) perspective, property rights may be defined as “... an individual’s net valuation, in expected terms, of the ability to consume the services of [an] asset, or to consume it indirectly through exchange” (Barzel 1994: 394). In other words, value and rights are directly linked. Given that rights are subject to optimization, a number of propositions follow. Thus, a basic proposition in the PRP is that secure property rights create incentives to *create* value. Another one is that in the presence of positive *transaction costs*, some property rights are insecure, creating incentives to expend resources on *capturing* and *protecting* value. Transaction costs are the resource costs “... associated with the transfer, capture, and protection of rights” (Barzel 1997: 4). By the term “capture,” reference is made to resource-consuming activities of appropriating value without compensating others on the margin. This includes, for example, monopolization by means of “predatory pricing,” as well as less aggressive forms of competition, such as non-predatory price competition as well as entry, technological and imitative competitive, etc. By the term “protection,” reference is made to resource-consuming activities of reducing others’ capture attempts.

¹ When we speak of the “PRP” in the following, we mean both the work of property rights economists and our application of insights of these economists to competitive strategy.

In our application of the PRP to competitive strategy, the core questions that are relevant are the following ones:

1. *Through which processes is value created?* In terms of the PRP, how are opportunities for mutually advantageous exchange created and how do parties share the resulting surplus?
2. *What is the nature of impediments to value creation?* In terms of the PRP, how may transaction costs caused by the capture and protection of property rights eliminate (some) exchange opportunities and reduce created value?
3. *How may strategizers gain competitive advantage by influencing the impediments to value creation?* In terms of the PRP, in which ways can strategizers influence capture and protection activities so that they increase the value they can create and appropriate?²

In our view on competitive strategy, all firms trade off resources spent on capture and protection against value creation. An optimum trade-off involves optimizing the firm's allocation of resources expended on a) identifying opportunities for value creation, b) the protection of property rights, and c) the capture of value, in such a way that the firm obtains a *competitive advantage*, that is, above normal-profits. *Strategizing* involves identifying and influencing impediments to value creation to the advantage of the firm so that a competitive advantage can be enjoyed. A *competitive strategy* is a plan of how to carry out strategizing relative to buyers, sellers, and actual as well as potential rivals. By "impediments to value creation" we refer to ignorance of opportunities for exchange (Kirzner 1997) and innovation (Schumpeter 1934), as well as the transaction costs identified in the PRP literature (Coase 1960; Barzel 1997). Influencing these impediments means investing resources in overcoming ignorance of opportunities for trade, making the firm's capture and protection activities less costly, and influencing expectations, for example, through various kinds of signaling.

These key questions and conceptualizations go beyond both the RBV and the IO view of competitive strategy. In these approaches the main emphasis is on the protection and capture of value.³ In contrast, they are less taken up with the issue of how the "size of the pie" (i.e., value created) is influenced by firms' capture and protection activities. Notably, they are not taken up with increasing created value through the reduction of inefficiencies (Williamson 1994). Whereas we stress the reduction of dissipation and deadweight welfare losses as a key source of value creation and competitive advantage, the IO view sees competitive advantage as

² See Davis and Kay (1990), Brandenburger and Stuart (1996), Nalebuff and Brandenburger (1996), and Parolini (1999: chapter 3) for informative discussions and clarifications of the multiple meanings of "value" in strategy discourse. However, none of these contributions deal with the important distinction between private and social value, which becomes crucial as soon as transaction costs are introduced, and which is key to much of our analysis. We discuss this distinction later.

³ As witnessed by their emphasis on such issues as whether resources can be imitated or substituted (Barney 1991; Peteraf 1993), entry-deterrence, monopolization, etc. (Tirole 1988).

unavoidably implying the creation of some welfare loss.⁴ We agree with Williamson (1994, 1999) and Nickerson (2000) that “economizing” has been given too little attention in the strategy field; indeed, this paper is an attempt to take the economizing perspective further than other approaches.⁵

The design of the paper is as follows. We begin by explaining the essentials of the PRP, concentrating on property rights and transaction costs, and the central explanatory insight, namely that of viewing social phenomena as reflecting the (costly) transfer, capture and protection of property rights (“*Key Insights of the Property Rights Perspective*”). We then discuss in general terms how these concepts and insights may be applied to understanding competitive strategy. In particular, the PRP is useful for clarifying what is meant by creating, capturing and protecting value. We structure our discussion so that we address and answer the three questions above *seriatim*. In order to clarify the role of transaction costs for competitive strategy, we take our starting in the setting described by the Coase theorem where transaction costs are zero (Coase 1960), and discuss the implications for firm strategy of introducing transaction costs (“*A Coasian Starting Point for Competitive Strategy*”). We then provide a number of more specific examples of how the PRP furthers the understanding of competitive strategy (“*Strategizing: Identifying and Influencing Impediments to Value Creation*,” “*Strategizing: Windows of Opportunity in Disequilibrium*”), before ending with a discussion of how PRP relates to other economic approaches to strategy (“*Relations to Other Strategy Approaches*”). We derive a number of refutable implications which serve to illustrate that novel, testable insights in competitive strategy may be derived from the PRP.

Key Insights of the Property Rights Perspective

The Property Rights Perspective: Overall

To our knowledge, the PRP has only been applied to the strategy field in a single case (Foss and Foss 2000); related approaches, such as transaction cost economics and the agency approach have been more applied here.⁶ It is therefore appropriate to state the fundamentals of the PRP, particularly as these relate to firm

⁴ In contrast, the RBV takes more of an efficiency approach so that the creation of competitive advantage does not necessarily imply a social welfare loss.

⁵ However, in contrast to Williamson’s (1994) distinction between “economizing” and “strategizing” a main point of our view is that these are close connected .

⁶ However, Poppo and Zenger (1998) adopt ideas on measurement costs, derived from the PRP, in their analysis of the make-or-buy decision. In another context PRP insights are indirectly present in the analysis of the organizational and strategic ramifications of intellectual property issues (Teece 1987). Jones (1983) develops a PRP approach to organizational culture. Transaction cost economics ideas have often been applied to corporate strategy issues (e.g., Teece 1982; Collis and Montgomery 1996), but much less often to competitive strategy issues. Three exceptions are Williamson (1999), Nickerson and van den Bergh (1999), and Nickerson (2000).

strategy issues.⁷ Before we do so, it is important to stress that the PRP is not an idiosyncratic economics perspective. In fact, it has rightly been described as “generalized microeconomics” (Eggertson 1990; De Alessi 1990). As such, it is a quite powerful perspective on account of its ability to integrate many different insights developed in various branches of microeconomics during the last three or four decades (Foss and Foss 2000). The PRP contains a set of concepts and insights that are precise and microanalytic, and which analysts have found particularly suitable for understanding the nature and consequences of particular contractual and institutional arrangements (e.g., Cheung 1983; Jones 1983; Eggertson 1990; Alston, Eggertson and North 1996; Barzel 1997).

The PRP was founded on the recognition that transactions involve the exchange of property rights, rather than the exchange of physical goods *per se* (Coase 1960). In general, the PRP may be characterized as being occupied with the analysis of all those processes by which property rights are exchanged, captured and protected — processes that may take place both within and between firms. An important assumption in the PRP is that all of these processes consume resources; an important implication of relevance for strategy is that value may be created by reducing the costs incurred as a result of these processes. This directs analytical attention to the contracts that structure the exchange of rights (Cheung 1983; Barzel 1997) and the institutions that protect or hinder such exchange (Coase 1960). Thus, the perspective is capable of addressing several levels of analysis, namely exchange between individual agents and the structuring of this exchange process in contracts, governance structures that structure and enforce contracts, and the institutions that define and enforce the rules of the game. In terms of levels of analysis, the PRP is a quite general one. The PRP is also general in the sense that it is not committed to any particular standard model, such as competitive equilibrium.

Other approaches have related *foci* and develop related explanations. For example, there is a relation between the PRP and transaction cost economics (Williamson 1996). Both focus on transaction costs, the dissipation caused by these, and on contractual means of reducing dissipation. There are also important differences. Notably, the PRP is, in some respects, more microanalytic and more general (Eggertson 1990; Foss and Foss 2000). For example, whereas transaction costs economics is very much taken up with the hold-up problem, in the PRP this is just one instance (albeit important) of a wider class of capture activities. Moreover, the approach developed here can more naturally be used for the analysis of firms’ external strategizing behavior *vis-à-vis* rival firms in their attempt to capture and protect value.

Attributes and Property Rights

The reason why property rights theorists direct attention to rights rather than to goods is fundamentally that goods typically have many *attributes*, that is,

⁷ For more encompassing presentations, see De Alessi (1990) and Eggertson (1990).

characteristics and services. For example, a brand name may be applied to different categories of goods, thus yielding many services. Property rights may be held with respect to such attributes. Refined taxonomies of property rights have been developed. A particularly influential distinction is the one between *use rights*, which define and allocate the known uses of an asset; *income rights*, that is, the rights to consume assets; *rights to exclude* non-owners from access to assets; and, finally, *rights to transfer* permanently to other parties all the above mentioned rights over assets, that is, to alienate or sell the relevant rights (Eggertson 1990). For example, in a franchise relation, the franchisee obtains the rights to the use of the brand name from the franchisor. However, his use rights over the brand name are restricted to the sale of certain products. Moreover, property rights may be held to income streams from using or selling attributes of an asset. In the case of a franchise relation, the parties typically partition the income streams so that the franchisor receives an initial fee and royalties, while the franchisee is the main residual claimant. As the example indicates an agent's valuation of an asset depends on the attributes of that asset that he holds property rights over. As a general matter, a property right — that is, the unit of analysis of the PRP — may be defined as

... an individual's net valuation, in expected terms, of the ability to directly consume the services of the asset, or to consume it indirectly through exchange. A key word is ability: The definition is concerned not with what people are legally entitled to do but with what they believe they can do; in other words, what they believe they control de facto (Barzel 1994: 394; emphasis in original).

Although this definition is logically disconnected from legal considerations, it is nevertheless implicit in it that agents' abilities to consume (directly or indirectly), the services of an asset are dependent upon their ability to exclude others from consuming the services of the same asset. Clearly, this partially depends on legal protection. However, legal protection is merely one aspect of the protection of rights from the capture attempts of other agents.

Transaction Costs and the Capture and Protection of Rights

The above definition of property rights is wide-ranging and has many important implications (e.g., Demsetz 1967, 1982; Alchian 1977; Barzel 1997). In particular, the consistent emphasis in the PRP on resources spent on the capture and protection of property rights on the part of all parties involved in economic activity allows the analyst to address and comprehend phenomena that are often left out of sight in the conventional economic analysis of firm behavior.

By "capture," we refer to the resource-consuming strategies of appropriating value without compensating others on the margin. These include such activities as theft and competition, most obviously such competitive activities as emulation, copying, reverse engineering, etc., most also price, quality and technological competition. By the term "protection," reference is made to resource-consuming strategies of reducing others' capture attempts. These include such activities as

making use of the legal system, contracting, entry deterrence, secrecy, etc. Transaction costs are then defined as the costs of capturing and protecting property rights as well as exchanging these (Barzel 1994, 1997).⁸

In order to illustrate that this focus may yield unconventional insights of relevance for competitive strategy, consider a monopolist who pursues a strategy of price discrimination. The monopolist captures property rights over the consumers' surplus when he moves from charging consumers a uniform price to charging differentiated prices (Varian 1989). This analysis is incomplete because it does not go sufficiently far with respect to accounting for the parties' maximizing behavior. In particular, consumers are implicitly assumed not to spend resources of protecting their rights, thus causing the consumers' surplus to be unprotected, that is, lie in the "public domain." The costs of protecting rights *may* be such that maximizers will place rights in the public domain; however, this should be explicitly asserted (and supported by argument) rather than being implicitly assumed. A fuller analysis would recognize that maximizing consumers may resist the monopolist's capture attempts through arbitrage (among themselves) and bargaining (with the would-be discriminating monopolist), and this may cause the monopolist's capture to be more costly than is assumed in the conventional analysis (Barzel 1994).

Another important consideration is the expectations of the parties with respect to how many resources they will spend on capturing and protecting consumers' surplus (*idem.*). Because of such expectations there is a duality between capture and protection activities. Thus, a maximizing strategizer will take into account the resources that others spend on protection when he contemplates capture. Conversely, a strategizer who contemplates protecting value will take into account the resources others plan to spend on capture. As an extreme case, if "protectors" and "capturers" hold exactly the same estimates of the costs of capturing and protecting property rights, rights will be allocated instantaneously, and in such a manner that those rights that are not perceived as being worth protecting will be placed in the public domain and captured.

A preliminary implication is that firms that wish to pursue competitive strategies that involve, for example, price discrimination (e.g., "versioning" in IT markets) must carefully consider what kind of customers they up are against in terms of what are the customers' expectations about the would-be discriminator's capture attempts and therefore how many resources the customers plan to invest in protecting their rights. Thus, bargaining with powerful customers may not lead to the hoped-for gains, for the reason that being "powerful" means expecting that one can succeed in the bargaining game and having the resources that makes this expectation come true.

⁸ Transaction costs are sometimes referred to as, for example, the costs of obtaining information (i.e., search and measurement costs) and of not having the relevant information (i.e., agency costs), and the costs of writing and enforcing agreements as well as not being able to fully enforce or commit to agreements (including the hold-up problem). However, all of these costs may be restated in a more dense way as the costs of transferring, capturing and protecting property rights.

Moreover, the dissipation of value will be strongly dependent on what the parties expect about each others expenditures on capture and protection activities. The implication here is that a monopolist may create value by introducing contractual clauses that, for example, commit him to selling at a uniform price, since this may economize on the resources spent on bargaining with consumers and thus reduce dissipation of value.

By thus stressing that contracting may be an important part of strategizing and that *all* parties engage in capture and protection activities, the PRP adds additional insights to the analysis of buyer selection (e.g., Porter 1980: chapter 6; Michael 2000). In the following sections, we develop more such insights from the PRP.

A Coasian Starting Point for Competitive Strategy

In this section, we develop some fundamentals of a property rights approach to competitive strategy. An answer to the three fundamental questions of this paper — that is, Through which processes is value created and shared? What is the nature of impediments to value creation? How may strategizers influence these impediments in order to optimize value creation? — may begin, somewhat paradoxically, from an extreme setting characterized by zero transaction cost and unrestricted bargaining. This is the setting underlying the Coase theorem. This is a useful starting point, because it allows us to understand what assumptions we have to add to the extreme setting in order to make room for strategizing, that is, understand the three fundamental questions above.

Creating and Sharing Value in a Coasian Setting: Cooperation and Competition

We begin from the basic economic notion of exchange (of property rights). This is an appropriate starting point, because exchange itself is value creating, as all parties to an exchange expect *ex ante* to increase their utility. Gains from trade are realized through exchange. This helps addressing the first fundamental question, Through which processes is value created? The Coase theorem helps to develop a first fundamental understanding of value creation through exchange, more specifically, costless exchange. The theorem asserts that in the absence of transaction costs,⁹ initial assignments of property rights or legal entitlements to assets will make no difference to efficiency in the sense that the identical Pareto-optimal allocation will be realized regardless of who holds the relevant property rights or bear legal liability (Coase 1960, 1988). In terms of the PRP, in the Coasian setting, all rights, including the rights to producers' and consumers' surpluses, will become perfectly delineated through costless bargaining.

⁹ Which also implies that unlimited transfer payments between the parties can be made. Conventionally, it is added that it is necessary that preferences do not display wealth effects. For Coase's own critical comments on this, see Coase (1988).

In this world, the creation of value may be logically disentangled from the appropriation of value. As we have defined the terms, there is no capture and protection activities. This is an implication of the zero transaction cost assumption. Another implication is that there is no distinction between social and private value creation (i.e., no externalities). Therefore, one may imagine that the parties first agree to maximize the value that can be created from the resources they control, and afterwards split this value through a costless bargaining process in which each party's property rights over a part of the surplus become delineated through the prices and side-payments that emerge from bargaining (Milgrom and Roberts 1990). In such a setting, how much value can be created and how will property rights to the surplus be delineated?

Consider first a *cooperative relation* in a vertical chain of agents, say a supplier, a producer and a customer. The zero transaction cost assumption implies that we can unambiguously define value creation in this vertical chain as the customer's reservation price (the maximum that he is willing to pay for the good) minus the supplier's opportunity cost. It also tells us that this value will, in fact, be created. However, the precise delineation of property rights to the created value is not determinate. Extending this small numbers situation to a large numbers situation with heterogeneous agents means, first, that total value creation becomes equal to the sum of the differences between opportunity costs and reservations prices. Moreover, the sharing of these surpluses becomes determinate (Ostroy and Starr 1980). With many heterogeneous agents, property rights to the created value will tend to be delineated such that all agents receive their contribution to the creation of value (*idem.*)¹⁰ However, this determinacy has been produced by implicitly changing the setting from one of cooperation between few agents to one of *competition* between many agents. This does not mean that competitive relations including *few* agents are excluded. For example, consider a competitive relation that involves only a consumer, and two competing producers. For whatever reason, the two producers are the only ones that have been endowed with a certain production technology. Moreover, the consumer is the only one who desires the product. Since bargaining is costless, the parties will implement the value maximizing allocation, which results in value creation amounting to the difference between the consumer's reservation price and (any of the producers') opportunity costs. However, the exact delineation of property rights over the created value is indeterminate. All we know is that *some* delineation of rights will be achieved and that this will be efficient in the sense that it will maximize value creation (Coase 1988).¹¹

¹⁰ The more precise formulation is that under unrestricted bargaining, a player's added-value places an upper bound on how much value that particular player can hope to capture (Brandenbruger and Stuart 1996).

¹¹ Of course, such delineation takes place with respect to attributes that are known to agents. We are not making the argument that the Coase theorem implies perfect foresight or complete contingent contracting. Thus, agents may be surprised by unforeseen contingencies. (Given the assumption of

Strategy and Competitive Advantage in a Coasian Setting

While value creation can be easily defined in a Coasian setting, will it be possible to make room for firms pursuing different (generic) strategies and realizing competitive advantage in such a setting? First, firms may indeed pursue different generic strategies. For example, firms may have different endowments that result in different costs of production (cost strategies) or different production possibilities (differentiation strategies). In principle, such endowments (e.g., production knowledge) may be imitable (cf. Reed and DeFilippi 1990; Barney 1991), but the imitability issue is simply not relevant in a Coasian setting, because protecting property rights is costless. Second, at least with many competitors, firms will still tend to receive their contribution to created value. However, some firms — namely, those who control endowments that result in higher productive efficiencies or higher perceived value-added — may realize above-normal profits, that is, have a competitive advantage. This competitive advantage will be sustainable (Barney 1991), precisely because in a Coasian setting all property rights are secure.

Although we may thus formally make room for sustained competitive advantage in the sense of earning rents in equilibrium, the effect of the assumptions underlying the Coasian setting is to virtually eliminate most of the interesting content of strategy. All competitive advantages are given from the outset, and there are no problems of protecting and splitting created value. There can be no strategizing as we have defined it, that is, identifying and influencing impediments to value creation to the benefit of the firm. So why go through the exercise? The fundamental reason is that a starting point in a Coasian setting is helpful for clarifying how value creation, capture and protection are influenced by transaction costs, and particularly how they interact in a more realistic world.

Impediments to Creating Value: Introducing Transaction Costs

As argued earlier, the zero transaction cost assumption means that we can imagine agents as, first, agreeing on a mix of activities that will maximize created value and then afterwards split it in costless fashion. However, when transaction costs are introduced and property rights become imperfectly delineated, three important closely related implications follow. First, the independence between creating and sharing value breaks down, because the protection of property rights becomes costly. This implies that the equality between social and private value creation also breaks down, so that maximizing private value creation does no longer necessarily mean that social value creation is also maximized; for example, maximizing the former may reduce the latter.¹² Second, the introduction of transaction costs implies the introduction of impediments to value creation, since

zero cost bargaining, this will not cause hold-ups under certain assumptions; see Milgrom and Roberts 1990).

¹² Note the perhaps obvious implication that, for example, Porter's (1980) framework is implicitly founded on a postulate about transaction costs.

resource-consuming capture and protection activities emerge. This provides an answer to our second fundamental question, What is the nature of impediments to value creation? Third, strategizing — that is, identifying and influencing impediments to value creation to the benefit of the firm — becomes a way of gaining competitive advantage. We elaborate on this view in the following section.

Strategizing: Identifying and Influencing Impediments to Value Creation

What remains to be discussed is our third fundamental question, How may strategizers gain competitive advantage by influencing the impediments to value creation? We treat this issue in the present section. A general principle underlying our reasoning here is that "... in anticipation of the potential of becoming the victims of monopolization, people can take protective action to avoid the associated loss" (Barzel 1994: 407); in other words, capture and protection are two sides of the same coin.¹³ This principle applies to *all* capture activities. We argue that, seen from the point of view of a strategizing firm, the success of its capture and protection activities depend on transaction costs, that is, the resources incurred by others on their capture and protection activities. This allows for an understanding of the sources of competitive advantage and the nature of strategizing that goes beyond existing approaches, because, first, it directs attention to sources of value creation that so far have not been recognized in these approaches, and, second, it points to unrecognized possibilities and limitations of strategizing. We illustrate these ideas and claims by relating to Porter's (1980) five forces framework.¹⁴ One implication of our discussion is that when the maximizing behavior of all agents are taken fully into account, these forces turn out to be strongly interconnected (and perhaps more than is usually recognized).¹⁵ We derive refutable propositions from the discussion.

Internal Rivalry: Examples of Property Rights Insights

Consider Porter's (1980) competitive force of "internal rivalry", exemplified here by a homogenous goods, perfect information duopoly which is engaged in Bertrand (price) competition. In the usual analysis, property rights to the consumers' surplus are fully appropriated by the consumers (i.e., the duopolists compete until $p = mc$). However, rivalry may be curbed if the competing duopolists

¹³ Note that this also applies to, for example, the transaction cost economics explanation of governance structures: These are chosen so as to minimize the losses caused by hold-ups and morally hazardous activities (Williamson 1996). It should be noted that although agents can take protective action against capture attempts, they are, given transaction costs, not able to fully protect themselves.

¹⁴ More precisely, to the forces of "internal rivalry" and "buyer and seller bargaining power." Our reasoning can be generalized to also relate to the forces of potential entry and threat of substitution.

¹⁵ In fairness, it should be said that Porter (1980) is not blind to this (e.g., p.21).

realize that by spending resources on merging,¹⁶ they will be able to capture parts of the consumers' surplus by restricting supply. If buyers are passive (as is normally assumed) and leave the surplus in the public domain, the merging duopolists will be successful in their capture. A deadweight welfare loss, which can be approximated by the well-known "welfare triangle," results. The story usually stops here (e.g., Williamson 1968; but see, Kreps 1990: 314 and Barzel 1994). This is because it is not recognized that consumers may spend resources on protecting "their" surplus. In other words, the competitive force of "bargaining power of buyers" may influence the value that can be obtained from a strategy that is directed at reducing internal rivalry. It can do so in two ways, namely, first, by reducing the size of the welfare loss from monopolistic pricing, and, second, by introducing a new welfare loss in the form of resources incurred on protecting rights.

For example, farsighted buyers may enter into a long-term supply agreement with one of the duopolists, so that they effectively block the merger. The duopolist will be compensated in such a way that he is marginally better off than entering into the merger. This works when the buyers' losses from the merger are larger than the merging duopolists' gain. The costs incurred by the buyers in this case are contractual costs plus the compensation paid to the duopolist with whom they sign the agreement. While the latter costs are purely distributional, the former represents dissipated wealth, that is, they diminish the amount of created value. If the duopolists in fact merge, the buyers may form a coalition and the resulting situation will be one of bilateral monopoly. The outcome will be indeterminate, but will be at least marginally better for them (taking into account the costs of forming and enforcing the coalition). Dissipation of value takes place because forming and enforcing a coalition between the consumers is costly.

As another example, consider business strategies of predatory pricing (see also Demsetz 1982). In this case, the relevant preys are the predating firm's competitors and buyers. These preys are not defenceless against a monopolizing predator. For example, the preyed-upon firm(s) can enter into long-term supply contracts with consumers that will protect them against the predator. A contract that stipulates the prevailing competitive price as the one under which future transacting will take place may be sufficient to protect the preys (Barzel 1994).

The general implication of this reasoning is that there is likely to be a close connection between the potential in an industry for monopolization, such as may be brought about by means of merger and predatory pricing, and long-term contracting between buyers and sellers in that industry. This may be further generalized, as in the following proposition.

¹⁶ We assume that horizontal price agreements are ruled out by law. By "resources incurred on merging," we have in mind such costs as salaries to corporate lawyers, as well as possible efficiency losses from the increased size of the firm.

Proposition 1: The opportunity for increasing value creation through curbing rivalry in an industry is negatively correlated with the costs of entering into long-term contracting between buyers and sellers in that industry.¹⁷

The overall strategic implication of the proposition is that it is only where the transaction costs of making long-term contracts between buyers and sellers are high that there may be a role for competitive strategies that lead to the capture of surpluses.¹⁸ By providing a necessary, but not sufficient condition for competitive advantage, this line of reasoning indicates both the limitations and possibilities of strategizing.

Strategizing that actually leads to competitive advantage consists in making it costly for victims of monopolization to enter into long-term contracts with other firms. One obvious way to thus influence impediments to the firm's creation of value is to engage in frequent product upgrading (as in the car or software industries) that makes it unattractive for preys to engage in long-term contracting with other firms. This influencing strategy only works if the strategizing firm is large, because only large firms can expect to gain from predatory pricing. An implication is that one would empirically expect the extent of product upgrading to be positively correlated with the size of firms. Also, this casts a different light over the phenomenon of switching costs. In our perspective, switching costs may be created by strategizing firms to the extent that they wish to make it costly for buyers to avoid being victims to monopolization by entering into long-term contractual relations with rival firms.

Strategizing Toward Buyers and Sellers

The competitive forces of buyer and supplier bargaining power have usually been considered without much attention being paid to the resource costs of capture and protection activities (Porter 1980: chapter 6). To be sure, the economics of the vertical boundaries of the firm (Williamson 1996; Teece 1987; Hart 1995) has directed attention to such resource costs, notably in their treatment of the hold-up problem (see Chi 1994 for applications). However, in the PRP capture and protection activities in the context of strategies toward buyers and suppliers go beyond the resource costs associated with the hold-up problem. In particular, the PRP directs attention to the strategic implications of the existence of value that buyers and sellers choose to leave unprotected, that is, in the public domain.

As an example, consider the case of a financial firm, such as a bank. Such a firm will typically offer some services that are not priced on the margin. For

¹⁷ A more directly operational version of the proposition is to say that in a cross-sectional study, variables that measure the degree of concentration and particularly entry barriers should correlate negatively with variables that measure the extent of long-term contracting. Testing this proposition will require controlling for such factors as asset specificity and price-stability, both of which tend to promote long-term contracting (Williamson 1996; Cheung 1969).

¹⁸ In principle, the possibility that some buyers may free-ride on the contracting efforts of others should be taken into account.

example, the bank may set a fixed fee for the opening of an account on the basis of the number of accounts that an average customer is expected to open, and price other services in a similar way. This effectively means that the bank has placed attributes in the public domain, and that some customers will incur resource costs in capturing these. The bank's strategy of charging a fixed fee for various services may, however, create a problem of adverse selection of customers, since those customers with low costs of capturing will capture services in excess of what they pay for, necessitating a rise in the fixed fee, leading to further adverse selection. This may harm the total value creation of the firm. However, a strategizing bank may influence impediments to its value creation by raising the costs to customers of capture or by means of reducing its own protection costs.

With respect to raising customers' costs of capture, banks may manipulate opening hours, reduce the number of bank clerks (raising queuing costs), etc. Such strategies are also relevant in many other industries, where firms can increase their created value through raising the costs of capture on the part of buyers.

With respect to reducing its own protection costs, the bank may spend resources on screening customers by means of specially designed offers, so that the prices charged match the different capture costs of different customers.¹⁹ An individual strategist undertakes an equilibrium amount of protection activity when the marginal benefits of protecting against capture equal the marginal costs of this. The equilibrium amount of protection likely differs across firms. Firms with more efficient protection technologies may create more value relative to the competition (Barney 1991). Much competitive activity in industries such as insurance and banking actually revolves around designing more efficient technologies for protecting against capture. For example, banks invest huge amounts of money in new credit scoring systems (e.g., Experian) in the hope that these (supposedly) superior technologies will not only increase created value but also that they can appropriate large parts of this extra created value — in other words, that they will gain competitive advantage. However, as in the previous section, the possibilities of gaining competitive advantage are limited by the extent of prior contracting; for example, buyers of loans may have entered into long-term contracts with the bank or its rivals which means that charging new interest rates becomes very costly.

Firms also strategize relative to sellers. Sellers may capture value through adversely selecting inferior qualities of already produced goods, reducing the quality of goods and services that are being produced below what has contractually been agreed upon (i.e., moral hazard), or hold-up (Williamson 1996). Strategizing firms may protect against these capture attempts through seller selection, posting hostages, investing more in drafting contracts, etc. This kind of strategizing results

¹⁹ Another example is provided by Michael's (2000) examination of tapered integration in franchising. Such integration is undertaken to improve the franchisor's bargaining power, because it provides him with valuable information about the costs to be used in purchasing. Such means protect value by allowing attributes to be priced in more precise ways.

in a competitive advantage when the strategizing firm possesses an efficiency advantage in raising customers' capture costs or in lowering its own protection costs. Again, prior long-term contracting may constrain such strategizing possibilities.

These considerations are particularly relevant in industries where quality variations are widespread and where the produced goods and services have many attributes (i.e., are complex), thus making it difficult to price on the margin. In fact, the reasoning suggests the following proposition:

Proposition 2: In industries that produce complex goods and services, and/or where there is a large variance in the quality of inputs and outputs, the opportunity for increasing value creation through segment strategies that curb buyers' and sellers' capture (i.e., adverse selection) is larger than in industries that produce goods of more uniform quality.

Examples of industries that may illustrate the proposition are service industries, such as the already mentioned example of financial services. For example, credit card companies often segment buyer groups by means of offering very different contract terms and services. Some of this reflects different preferences in the relevant segments, but it also reflects that segments are composed of people with different capacities for capture.²⁰ Also, food related industries may conform to the proposition. Thus, Foss (1996) shows that much of the innovative activity in the fruit and vegetable industry consists of improvements in quality control technologies. Examples of investments designed to increase protection may be Total Quality Management systems. These increase value as long as the gain from reducing the resources that buyers are willing to spend on capture activities (i.e., sorting for the high-quality products) exceeds the cost of investing in and improving the TQM system.

Equilibrium is reached when all impediments to value creation have been discovered, and all agents have optimized their capture and protection activities. In equilibrium all rights will be perfectly delineated in the sense that there will be no incentives to engage in capture, since those rights that are worth protecting will be protected.²¹ Strictly speaking, no room for further strategizing exists. Strategizing, as we have defined it, is a disequilibrium phenomenon. So far we have suppressed the equilibrium/dis-equilibrium issue. We consider this next.

Influencing Impediments to Value Creation Through Influencing Expectations

If all strategizers had precise expectations about other strategizers' capture and protection activities (i.e., the set of available capture and protection strategies and the costs and benefits associated with these), an equilibrium would be reached in which strategizers would acquire only those property rights whose value, net of the

²⁰ Credit control systems are largely designed to screen for capture propensities.

²¹ Of course, there will still be value left in the public domain.

costs of protection, are positive, and would-be capturers would not make any attempts to capture such rights (Barzel 1994: 396). In such an equilibrium, strategizers' expectations coincide. This would be the case if the relevant information on which expectations are based were costless. If instead, and more realistically, information about other strategizers' capture and protection activities is costly to obtain, strategizers need to form expectations of these. If these expectations coincide, equilibrium obtains as described above (*idem.*). However, in actuality expectations are likely to differ, which means that resources will be spent on strategizing in the form of capture and protection. Because divergence of expectations may lead to dissipation of value, competitive activities that reduce such dissipation emerge.

For example, if customers differ in their capture propensities, one firm's investment in superior protection technologies will lead to other firms assuming more customers with high capture propensities (e.g., "bad risks" in insurance). In turn, this provides incentives for these firms to invest in improved protection technologies, illustrating further the duality between protection and capture: Protection against buyers' capture leads to capture of competitors' created value. This kind of investment "disequilibrium race," which depends on strategizers holding the wrong estimates of other strategizers' investment in protection technologies (as in the Cournot model), may dissipate value.

The implication is that dissipation may be reduced by means of strategizing directed at influencing the expectations that other strategizers form with respect to the capture and protection activities that the influencing firm undertakes.²² In particular, dissipation may be reduced by signaling efforts (Porter 1980: Chapter 7; Tirole 1988) to the extent that these help to homogenize expectations. When the reduction of dissipation benefits firms, they will undertake such signaling. One would expect the extent of signaling efforts to be directly related to the divergence of agents' expectations. This suggests the following proposition:

Proposition 3: In industries that are subject to shocks to technology, market growth, regulation, etc., more signaling will be observed than in more tranquil environments.²³

Influencing Impediments Through Innovative Activity

Innovative activity is a major source of value creation. They upset equilibria and give rise to new patterns of capture and protection activities. Large literatures in innovation studies, the economics of technological change and strategic management are taken up with the link between innovation and value creation. Insights into this process can be drawn from the PRP.

²² This provides a link between our PRP approach and game theory approaches to strategy (e.g., Shapiro 1989; Ghemawat 1991, 1997).

²³ Of course, again one needs to control for, for example, asset specificity.

First, and most obviously, the PRP directs attention to the importance of innovations in protection and capture technologies (cf. also Foss 1996). Indeed, a unique feature of the PRP relative to other approaches to strategy is that it directs attention to the importance of innovations in protection and capture technologies as sources of created value. The discussion so far suggests a whole range of means of protecting and capturing value that firms may adopt and/or invest in improving or innovate, such as TQM systems, ISO certification, the use of long-term contracts to avoid monopolization, etc. Of the three economic approaches to strategy, the IO view, the RBV, and the PRP, the PRP uniquely offers an explanation of why innovations in these means may create value, because only the PRP explicitly considers the relationship between transaction costs and value creation.

Second, unconventional insights into the value-creating potential of product and process innovations may be distilled from the PRP. From the point of view of a strategizing firm, product and process innovations are potential means of value creation. It is a well-established point that the character of the appropriability regime (i.e., the technological and legal characteristics that surround an innovation) influences how much of the value from an innovation that an innovator can protect from competitive imitation. Parts of the literature also recognize, albeit implicitly, that the innovating firm is also subject to capture attempts from buyers and sellers, and not just from imitating competitors.²⁴ We argue that given the existence of buyers and sellers that actively try to capture parts of the value created by an innovation, it matters to the innovating firm whether it engages in process or product innovations and what kind of contracts it strikes with its buyers and suppliers in order to protect created value.

Information about process innovations is less costly to protect in terms of secrecy than information about product innovations, where secrecy is usually not a feasible protection mechanism. Secrecy implies that the improved cost conditions (i.e., increased value creation) that are the result of a process innovation are likely to be costly to observe. Valued created through process innovations may therefore not give rise to capture attempts from suppliers and buyers, and there is, therefore, no accompanying dissipation. To the extent that the value created as a result of the innovation does provoke capture attempts (e.g., hold-ups or bargaining tactics in connection with contract renewal), the innovating firm may try to protect this value from capture and dissipation through long-term contracts that stipulate fixed prices.

We argue that the value created by product innovations is more likely to be protected from the capture attempts of buyers and sellers and the attendant dissipation by contractual means than process innovations, precisely because protecting product innovations usually cannot take place through secrecy mechanisms. Such contracts may, for example, include clauses that stipulate how prices of product upgradings are to be determined relative to some base price,

²⁴ Teece's (1987) emphasis on the importance for the innovation process of how the services of complementary assets are sourced is an example.

clauses that exist for reasons of protecting created value and reduce dissipation. This reasoning suggests the following proposition:

Proposition 4: Firms with high rates of process innovations relative to product innovations are more likely to enter into long-term contracts that stipulate a fixed price with buyers and sellers than firms with a high rate of product to process innovations.²⁵

Summing Up

Essentially, we have argued so far that it is possible to provide answers based on the PRP to the three questions that we consider fundamental to competitive strategy. Thus, our PRP answer to the question, Through which processes is value created?, centers around 1) discovering possibilities for exchange, 2) reducing dissipation of value and reducing deadweight welfare losses), and 3) capturing value. With respect to the second question, What is the nature of impediments to value creation?, our general PRP answer is that these impediments consist of ignorance of opportunities for exchange, and, the primary focus of our analysis, the transaction costs involved in capture activities and attempts to protect against capture attempts. Finally, we have addressed the third fundamental question, How may strategizers gain competitive advantage by influencing the impediments to value creation?, in terms of contracting, the influencing of expectations, and innovations, notably in protection and capture technologies. What remains to be discussed is how these points relate to other economics-based approaches to competitive strategy, notably the RBV and the IO view.

Relations to Other Strategy Approaches

In this section, we briefly discuss how our PRP approach to competitive strategy relates to other economics-based approaches to strategy, namely the RBV and the IO view. Table 1 offers a identification of some important differences and similarities between these three approaches.

XXXXXXXXX *Insert Table 1 here* XXXXXXXXX

Although the table reveals crucial differences, in our view both the IO view and the RBV provide important insights that help to answer what have defined as the three fundamental questions in the analysis of competitive strategy. Our main point is that in none of these two approaches are processes of creation, capture and protection of value addressed in their entirety. More specifically, the most fundamental differences between our approach and the RBV and the IO view lie in 1) recognizing that *all* agents may take protective action to avoid capture or engage in capture where property rights are not sufficiently protected, 2) that such

²⁵ Of course, under "fixed price" contracts are included contracts that make provisions for changes in the general price level.

behaviors produce transaction costs which influence the *amount* of created value, and 3) that strategizers may gain by influencing the behaviors' of rivals and cooperators, thereby influencing transaction costs (i.e., dissipation and deadweight welfare losses), and, in turn, the value that they can appropriate. We discuss this in more detail below.

The Resource-based View

The RBV provides important insights into how firms may obtain sustained competitive advantage based on their valuable, rare and costly-to-imitate resources (Barney 1991). The basic RBV model (Lippman and Rumelt 1982; Barney 1991; Peteraf 1993) starts from competitive equilibrium, and then explains sustained competitive advantage by invoking imperfect mobility of input factors (e.g., imperfect imitability). The resulting sustainable rent differentials are then identified with sustained competitive advantages. Extensions of the model consider competition in terms of accumulation of asset stocks (Dierickx and Cool 1989) and the associated barriers to imitation (Reed and DeFilippi 1990). Other extensions consider the characteristics of strategic factor markets (Barney 1986) and the role of the industry (Amit and Schoemaker 1993; Foss and Eriksen 1995).

From a PRP perspective, the RBV suffers from a certain lack of generality. Consider the basic PRP model of sustainable rents in competitive equilibrium. This is a somewhat constraining starting point that vaguely corresponds to our analysis of strategizing in a Coasian setting in which capture and protection are ruled out. The RBV goes somewhat beyond this basic setting by allowing for strategizing in the form of imitative competition, that is, what we would classify as an instance of capture. The equilibrium in such imitative competitive games is defined by imitation attempts coming to a halt. This vaguely corresponds to our definition of equilibrium as a situation, where strategizing processes have come to a halt. However, the PRP view considers a much broader set of capture and protection activities than simply imitative competition. For example, the PRP directs attention to both those "internal" capture and protection activities that would be understood in RBV terms as "resources," such as well-working TQM systems, and to those of an "external" nature, such as influencing rivals' possibilities of entering into contracts with buyers and sellers. In contrast, the RBV it is not much concerned with issues of contractual structure and how contracting influences strategizing and competitive advantage — a manifestation of its general lack of a detailed analysis of the firm as a strategizer in a rivalrous environment.

In the PRP, firms face a complex optimization problem that involves optimizing the firm's allocation of resources expended on a) identifying opportunities for value creation, b) the protection of property rights, and c) the capture of value, so that the firm obtains above normal-profits. This trade-off incorporates the dissipation of value as an important component. Notably, strategizing may consist in the reduction of dissipation of value. On the one hand, this is *consistent* with the efficiency view of the RBV. For example, the PRP explains in a precise manner why, for example, an efficient TQM system or a credit control

system may be valuable (Barney 1991) resources to a firm, namely because these resources reduce dissipation. On the other hand, the RBV does not consider how capture and protection activities lead to dissipation of value. For example, Barney's (1986) treatment of strategic factor markets does not include dissipation from haggling over prices. This means that important opportunities for strategizing are not identified in the perspective.

The Industrial Organization View

IO approaches have a long history in the strategy field (Porter 1980; Shapiro 1989; Ghemawat 1991, 1997; Besanko, Dranove and Shanley 1996). These approaches are, almost per definition, concerned with other market structures than perfect competition (which is the assumed market structure in the basic RBV model; cf. Peteraf 1993). They are also taken up with bargaining processes between, for example, firms and their suppliers and customers (Porter 1980). In some versions, they also emphasize the contractual commitments and bargaining processes that we have focused on (Ghemawat 1991, 1998; Brandenbruger and Nalebuff 1996; Brandenburger and Stuart 2000). In these respects, the IO view is closer to our PRP than the RBV is. However, even the IO view(s), does (do) not consider all strategically relevant capture and protection activities and the attendant tradeoffs. Consider the basic Porter (1980) framework.

In the five forces framework most of the emphasis is on protection strategies in the form of positioning in an industry and shielding against the five competitive forces through the creation of entry and mobility barriers.²⁶ Capture is represented through the five competitive forces. Much of this is entirely consistent with the PRP. In fact, much of Porter framework has served as a valuable foundation for parts of the reasoning in the present paper. However, there is very little attention in the Porter framework to dissipation in the form of resources spent on capture and protection. For example, Porter's (1980: 24-28) discussion of the bargaining power of suppliers does not touch on the possibility of dissipation. Moreover, although the interaction between protection and capture that we have stressed is mirrored, for example, in the emphasis on positioning relative to the competitive forces, all of the ramifications of this interaction are not analyzed. Thus, as we have argued, a PRP analysis reveals that the five forces are more intimately connected than portrayed in Porter (1980). For example, the contractual structure between firms and their sellers and buyers strongly influences the possibilities of strategizing in the form of changing internal rivalry. In sum, the complex interaction in the creation of value between protection and capture activities is not fully brought out.

A General View?

²⁶ Ghemawat's (1991, 1998) explicitly game theoretic IO view of competitive extends the protection focus to commitment strategies. This is akin to our focus on contracting as a key consideration in the strategizing process.

In our view, the PRP represents a more general view of competitive strategy than the RBV and the IO. This may be seen in a number of ways. (See also Table 1).

Most notably, the PRP is dependent on much less constraining assumptions. The PRP is not committed to a specific level of analysis, such as the resource (the RBV) or the industry (the IO view). It is not committed to any particular interaction structures, such as perfect competition (the RBV) or imperfect competition (the IO view), but can subsume both. The PRP can be turned to the analysis of disequilibrium situations (although little work exists on this), whereas at least the RBV conceptualizes sustained competitive advantage as an equilibrium phenomenon solely (Barney 1991).

Second, the PRP is more general in the sense that a number of phenomena that are treated in the RBV and the IO presuppose the existence of certain transaction cost. Thus, certain strategies towards entrants, buyers, imitators, etc. will only work if certain transaction costs are present. This is straightforward in the case of imitative competition, where imitation will only succeed if the costs of establishing the relevant property rights to efficient resources are costly. However, as we have argued, strategies of rivalry and strategies towards buyers and sellers also depend on certain types of transaction costs for their success. In this connection, one may say that the PRP identifies the transaction cost conditions for the exercise of market power, and, more generally, for strategizing.

Third, the PRP can not only reformulate and extend a number of insights of the IO view and the RBV; it adds new insights of its own. We have given a number of examples of this, centering on the role of contracting and (avoiding) dissipation as key concerns in the process of strategizing.

Conclusion

The PRP adds both new research heuristics and new substantial insights to the study of competitive strategy. At the most basic level, the PRP adds new insights into strategizing, because of its consistent and thoroughgoing emphasis on "... the way individuals enhance the value of their resources and avert losses to others" (Barzel 1994: 408). An important implication of following this fundamental heuristic is that attention is directed to how contracting influences both opportunities for capture and protection of value. In the context of the strategy field, this is a novel insight. Another novel insight in that context is that an importance source if value creation, and therefore strategizing, lies in reducing deadweight welfare losses. Among other things, this has allowed us to interpret signaling in a novel way, namely as a means of reducing dissipation (and not just protecting value). Finally, the PRP directs attention to protection and capture technologies as sources of value creation. Future work on the PRP on competitive strategy will concentrate on empirically testing the theory.

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Table 1
*Differences and Similarities Between Three Economics-based
 Approaches to Competitive Strategy*

	The IO View	The RBV	The PRP
Unit of analysis	Firms	Resources	Property rights
Level of analysis	Industries	Firms	Can be applied to any level of analysis.
Assumptions about agents	Maximizing	Rent-seeking, but not necessarily maximizing	Maximizing
Power or efficiency focus	Power	Efficiency	Mostly efficiency; however, can accommodate power perspectives.
Assumptions about market structure	Oligopolistic	Base model (e.g., Lippman & Rumelt 1982): Competitive structures	Consistent with any market structure
Sources of competitive advantage	Superior positioning relative to the five competitive forces based on a generic strategy (Porter); exploiting market power and protecting a favorable position by means of entry deterrence (Tirole).	Resources that are valuable, rare, and hard to imitate (Barney)	Discovering superior ways of reducing dissipation, and capturing and protecting value by means of contracting, signaling and innovation.