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**The Strategy and Transaction Cost Nexus:
Past Debates, Central Questions, and
Future Research Possibilities**

by

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12 October 2000, 4 June 2001, 28 March 2002

The Strategy and Transaction Cost Nexus: Past Debates, Central Questions, and Future Research Possibilities

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Abstract

The role of transaction cost economics in developing research in strategy has been a hotly debated topic over the last decade. This paper presents the radical argument that transaction cost insights are more than merely useful complements to existing approaches to strategy. Rather, they are *necessary* for adequately understanding the nature of strategizing. This is because transaction costs are essential aspects of processes of creating, capturing and protecting value. If transaction costs are zero, these processes do not pose any strategic problems; strategizing is trivialized in such a world. When transaction costs are positive, on the other hand, opportunities for value creation through the reduction of inefficiencies caused by transaction costs exist, and protecting and appropriating value are costly activities that dissipate value. Also, contracting and expectations enter as central aspects of strategizing. Arguments are provided for why economizing (with transaction costs) is more fundamental than strategizing (in the sense of exploiting market power). Thus, the paper argues that models in which the fullest possible account of transaction costs is made be used as the proper foundations and benchmarks for economics-based strategy research, rather than the patched-up competitive equilibrium models that are now used, more or less implicitly, as the benchmark in important parts of strategy research, most notably in the resource-based view.

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JEL: D4, D23, L1

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I. Introduction

In the strategic management field transaction costs economics (henceforth, “TCE”) (Coase 1937, 1960; Williamson 1975, 1985, 1996; Barzel 1997)¹ attracted a great deal of sympathetic attention and influence at the beginning of the nineteen-eighties following the fundamental work of Williamson (1975) (e.g., Dundas and Richardson 1980; Rumelt 1984). At least until the mid-1990s, it seemed to be rather generally accepted that “[w]ithin strategic management, transaction cost economics is the ground where economic thinking, strategy, and organizational theory meet” (Rumelt, Schendel and Teece 1994: 28). However, during the 1990s, TCE was increasingly subject to critical discussion and even opposition.²

Existing debates have tended to concentrate on specific foundational assumptions, such as that of opportunism (Ghoshal and Moran 1996), and/or they have had a theory of the firm orientation (Conner 1991; Foss 1996a,b; Kogut and Zander 1992, 1996; Conner and Prahalad 1996). This is understandable; the theory of the firm is central in strategy research, and the assumption of opportunism (in various guises) is crucial in important theories of the firm. However, the present paper takes a different, and arguably more direct, approach. Rather than arguing — *indirectly* — that TCE insights are important for making sense out of firm organization (e.g., Foss, 1996a; Mahoney 2001), and therefore for the understanding of central strategy issues (Rumelt 1984), the present paper makes the more *direct* point that transaction costs are the fundamental stuff that problems of strategy are made of (Section II, “*The Strategy Debate on Transaction Cost Economics: Are the Right Questions Being Asked?*”).

Moreover, it is argued that taking much fuller account of transaction costs will strongly increase the number of phenomena that can be addressed, conceptualized,

¹ Note that in this paper, I interpret TCE in a broader sense than Williamson’s work to also include other parts of new institutional economics, notably property rights economics (e.g., Barzel 1997), as well as various contributions to contract theory (e.g., Holmström and Tirole 1989; Hart 1995). This may be somewhat imprecise, but may be defended by “new institutional economics” being a much less well-established term in strategic management than “transaction cost economics.” See Furubotn and Richter (1997) for a general presentation of new institutional economics.

² Two particularly representative, and already classic “counter-revolution” papers are Kogut and Zander (1992) and Ghoshal and Moran (1996).

and explained in strategy research. This is argued partly by critically examining the perhaps dominant (cf. Priem and Butler 2001a) contemporary approach to strategy, namely the resource-based view of the firm (rather, sustained competitive advantage) (Barney 1991; Peteraf 1993). At least in its “purer” versions (idem.), this view is underpinned by a patched-up version of a fundamental economic model, namely that of perfect competition (*aka* the competitive equilibrium model), which, it will be argued, rather strongly constrains the set of phenomena that can be considered within the resource-based view (Section III, “*Central Questions and Underlying Models in the Resource-based View*”).

In contrast, the present paper advocates a broader view of strategy as concerning processes of the creation, capture and protection of value considered in their entirety and without necessarily founding this in any specific constraining economic model. Neither is this approach necessarily founded on a specific view of the firm. Instead, it begins from an examination of processes of the creation and protection of value in a setting in which there are no impediments to these processes. Such a benchmark is supplied by the so-called “Coase theorem.” In this benchmark situation, strategic choice is essentially trivialized, since there are no problems of creating and protecting (including appropriating) value, and since capture (the inverse of protection) cannot take place as protection is costless. This leads naturally to considering the *impediments* to these processes (Section IV, “*Towards a Broader View of Strategy: a Coasian Starting Point*”). In accordance with the Coasian starting point, it will be argued that these impediments are largely in the nature of transaction costs, and that their presence is a necessary condition for strategic choice being real. Less abstractly, strategizing may be directed towards these impediments. For example, value may be created, and competitive advantage may be had, from firm-level actions that aim at reducing transaction costs. These are insights that are not presently made by other economics-based approaches to strategy, suggesting the possible viability of a distinct TCE programme in strategy research (Section V, “*Towards a Transaction Cost Programme in Strategy Research*”).

In sum, the overall contribution of this paper is to make a series of connected methodological arguments about ongoing debates on foundational issues in strategy

— notably about the constraining nature of certain underlying core models in those parts of strategy research that is informed by economics — and then, more substantively, argue in favor of asking broader questions, and informing the answers to these questions with transaction cost insights, exemplifying in the process how this may be done.

II. The Strategy Debate on Transaction Cost Economics: Are the Right Questions Being Asked?

The Debate(s)

An important debate, or set of connected debates, in the strategy field during the last decade or so has concerned the role of OE, particularly TCE with respect to furthering insights in firm strategy. The link between transaction costs economics and the firm strategy field has been explicit at least since Williamson's (1975) demonstration of the capacity of transaction cost reasoning to throw light on corporate strategy issues — in the guise of the issue of efficient firm boundaries —, as well as functional and organizational strategy issues, in the guise of the issue of the efficient internal organization. The Chandler-Williamson M-form hypothesis became a key insight in the strategy field, particularly after being supported in a number of influential empirical studies (e.g., Armour and Teece 1978). The classic transaction cost papers on such issues as the multinational firm, vertical supply arrangements, joint ventures, franchising, sales force organization and much else have similarly become standard references in the strategy field. It is not surprising, then, that Rumelt, Schendel and Teece (1994: 27) could introduce the proceedings from the 1990 Napa conference on "Fundamental Issues in Strategy: A Research Agenda for the 1990s" with the observation that "... [o]f all the new subfields of economics, the transaction cost branch of organizational economics has the greatest affinity with strategic management," and then go on to observe that within strategic management, TCE "... is the ground where economic thinking, strategy and organizational theory meet" (Rumelt et al. 1994: 27).

Their views echoed Rumelt's (1984) earlier argument that TCE should serve as the foundation for firm strategy research and, ultimately, managerial practice. Only TCE supplied an understanding of such foundational issues as the existence, boundaries, and, to a lesser extent, the internal organization of the firm, and a number of derived issues (e.g., the structuring of joint ventures, franchise contracting, diversification, etc.). However, the relevance of TCE seemed to be limited to corporate strategy issues; implicitly, it was acknowledged that TCE had very little to say about competitive strategy, that is, issues relating to positioning in an industry and defending such a position.

TCE was first openly challenged by attempts to frame the then relatively recent RBV as a theory of the firm (in particular, Conner 1991; Kogut and Zander 1992). These attempts were launched on a general background of critique of TCE. Critics of TCE argued that it 1) put too much emphasis on opportunism and too little on trust (Ghoshal and Moran 1996), 2) neglected "transaction benefits" and focused solely on transaction costs (Zajac and Olsen 1993), 3) was only taken up with "exchange" to the exclusion of "production" (Winter 1991), 4) could not explain firm heterogeneity (Conner 1991), and 5) was static (Langlois 1992). In contrast, it was argued that a new "strategic" theory of the firm could be built from insights in such neglected phenomena as transaction benefits, firm heterogeneity, etc., the obvious implication being that TCE was not necessary for developing a strategic theory of the firm, as Rumelt (1984) had argued earlier. This position was strongly criticized by Foss (1996a,b), and in turn defended by Kogut and Zander (1996) and Conner and Prahalad (1996). The debate continues with recent contributions from Williamson (1999), Foss and Foss (2000), Dosi and Marengo (2000), and Mahoney (2001). The debate has attracted numerous contributors and has sometimes provoked heated arguments and strong opinions. Important issues appear to be at stake.

In a review and assessment of the debate, Foss (1999) identified two distinct groupings in the debate, namely "isolationists" and "integrationists," the former arguing that either capabilities/resource-based/competence insights *or* OE constituted a sufficient foundation for a strategic theory of the firm, the latter arguing that research in strategy was best furthered by an integrative undertaking that borrowed key ideas

from both. Although taking issue with his competence-based critics in a number of ways, Williamson (1999) nevertheless joined the integrationist camp, concluding that both TCE and the competence approach are "... needed in our efforts to understand complex economic phenomena as we build towards a science of organization" (1999: 1106). Taking a more purist "isolationist" position, Foss and Foss (2000) argued that most of the central ideas of the competence-based perspective could in actuality be reduced to well established ideas in TCE and other parts of organizational economics, which to them indicated the partial redundancy of the competence approach. From the opposite isolationist position, Dosi and Marengo (2000) responded by arguing that the emphasis on problem solving and on imperfect cognition that — they argued — characterizes the competence approach has no equivalent in OE. However, to sum up, while the debate may have clarified positions, both substantive and meta-theoretical, it is questionable that it has actually provided essential new insights. As I shall argue, this is because the participants in the debate have arguably failed to ask the right questions.

Are the Right Questions Been Asked?

Most contributors to the debate have tended to focus on theory of the firm issues, and particularly on the role that opportunism plays in the theory of the firm. Arguably as a result of this, not all of the right questions pertaining to the transaction cost/strategy nexus have been asked. To illustrate, in a recent paper Mahoney (2001; *emphasis in original*) provides a fundamental reason why the transaction cost approach to the firm is important to strategy:

... asset specificity (sunk cost commitment) is a necessary conditions for isolating mechanisms that sustain rents ... Often the firm achieves sustainable competitive advantage (i.e., sustains rents) because it reduces opportunistic behavior and allows for firm-specific investment. *In the absence of opportunism the rent-generating firm need not exist.* In the absence of opportunism, contracting would be sufficient to support investments that are strategic commitments.

The approach to the TCE-strategy nexus contained in this quotation is *indirect*, in the sense that it takes a route over the theory of the firm, and argues that rent-generating firms would not (need to) exist in the absence of transaction cost-inducing opportunism. However, this route is not the only possible route. In fact, I shall argue that it is possible to take a more *direct* approach to the TCE-strategy nexus. Thus, in order to demonstrate the usefulness of TCE to strategy, it may not be necessary to ask what is the contribution of the TCE theory of the *firm* to strategy (Seth and Thomas 1994). It may be possible to ask questions that are perhaps more fundamental and does not rely on a specific theory of the firm, such as, Is it possible to strategize in a zero transaction cost world? How does the presence of transaction costs influence strategic opportunities and threats? How can strategizers reduce the transaction costs they themselves face and raise those faced by their competitors to their own advantage? Etc.

Such questions may perhaps sound esoteric; however, as will be argued they go right to heart of the matter of the central issues of strategy in their concern with the creation, protection, and capture of value, and the impediments to such processes. Rather than beginning from Rumelt's claim that "... it appears obvious that the study of business strategy must rest on the bedrock foundations of the economist's model of the firm" (1984: 557), inspiration is from Williamson's claim that "... economizing is more fundamental than strategizing" (1994: 362). However, in contrast to Williamson and Rumelt, it is explained *why* economizing is (more) fundamental and *why* the study of strategy must rest on transaction cost insights.³ More fundamentally, and perhaps provocatively, I argue that transaction costs insights are necessary to the strategy field, because only these can make sense of, not only "the deep structure of organization" (Williamson 1996), but also "the deep structure of strategy," including strategizing (both in the sense of the execution of a strategy and in the (Williamsonian) sense of earning rents from market power) and competitive advantage (i.e., the intended outcome of strategizing).

³ Williamson's argument about the primacy of economizing seems to be predominantly empirical. In contrast, this paper argues for the primacy of economizing on theoretical grounds.

This is done in the following in a slightly roundabout manner, namely by discussing how the fundamental issues of strategy are treated in what is arguably the dominant contemporary approach to strategy, the resource-based view.⁴ However, this serves as a useful foil for the ensuing arguments, because it allows me to apply a general methodological point of this paper, namely that the questions that can meaningfully be raised and framed are constrained by the underlying theories and models. Specifically, it shall be argued that 1) the RBV conceptualizes strategy in a somewhat narrow manner, 2) its reach is limited, and 3) this is ultimately caused by a constraining economic model underlying the RBV, namely a patched-up version of competitive equilibrium.⁵ It is then argued that a transaction cost approach can remedy the weaknesses of the RBV while providing, in some respects, deeper and also more encompassing explanations of the how value is created, captured, and protected, what are the impediments to these processes, and how firms can influence these impediments. The following table presents the overall argument.

XXXXXXXXX *Insert table 1 Here* XXXXXXXXX

The table is designed to convey two principal messages. First, it shows the relative narrow treatment of the fundamental issues of strategy in the RBV. Second, it shows that a broader treatment of those issues may be obtained in the context of the TCE. This is developed in the following.

III. Central Questions and Underlying Models in the Resource-Based View

Preliminary

⁴ I shall not discuss industrial organization economics approaches to strategy (Porter 1980; Ghemawat 1998), because 1) these are not as important in the strategy field as the RBV, 2) they are less vulnerable to the critique that is directed here at the RBV, and 3) TCE has often been attacked from a RBV point of view and not from an industrial organization point of view.

⁵ For general arguments that the dominance of the perfect competition model in economics has strongly constrained the questions that economists can frame and answer, see Machovec (1995) and Makowski and Ostroy (2001). The perspective of the latter paper is closely related to the approach of the present paper.

A simple and broad, yet intuitively appealing, understanding of strategy is that it is concerned with the processes through which firms, if possible, on a sustained basis, create value, protect the value they create, and try to capture value created by other firms (Foss and Foss 2002). Although these issues certainly do figure prominently in many treatments of firm strategy, in textbooks as well as in research papers, they are given disproportionate amounts of attention, and they are virtually never treated comprehensively within a single framework. In particular, the issue of value protection has been given very considerable coverage during the decade or so, whereas the basic issue of value creation is very often taken placed in a black box (cf. Bowman and Ambrosini 2000; Priem and Butler 2001a,b; Boddewyn 2001; Foss and Foss 2002; but see Makadok and Coff 2002).

The dominance during the last decade of the RBV in strategy content research of the RBV may partly explain this. Thus, the now conventional understanding of the basic issue in strategy (content) research as the understanding of the sources of sustained competitive advantage is one that has been most explicitly pressed by writers working within the RBV. Taking strategy as being first and foremost about sustained competitive advantage means that the issue of value protection in the specific sense of safeguarding against imitation takes center stage; thus, “sustainability” becomes the central issue. However, it also means that issues of value creation, value protection in the sense of actually appropriating created value, as well as how capture value (through other means than imitating rivals) step into the background. In turn, this particular, non-general understanding of strategy is caused by founding strategy research on a particular view of economic activities, namely that associated with the competitive equilibrium model in economics, as shall be argued.

Since the RBV is not only the dominant contemporary strategy perspective, and has helped to define the core issues in contemporary strategy research, but has also formed the basis for some recent strong critiques of TCE (Conner 1991; Zajac and Olsen 1993; Conner and Prahalad 1996; Madhok 1996), it is useful to begin by critically discussing this view. This discussion serves to substantiate the point that recent strategy research starts from a too narrow conceptualization of the basic issues of strategy. Instead of focusing narrowly on sustained competitive advantage, strategists

should focus more broadly on processes of creating, capturing, and protecting value. And such a focus leads naturally to consideration of the impediments to these processes, impediments that I shall argue are in the nature of transaction costs.

The Resource-based View

The dominant contemporary approach to the analysis of sustained competitive advantage is the RBV, initiated in the mid-1980s by Wernerfelt (1984), Rumelt (1984) and Barney (1986), and further developed by these and other writers. Economic equilibrium, particularly in the form of “competitive equilibrium” (i.e., equilibrium under perfectly competitive conditions), is central in this approach (Foss 2000). Indeed, it is arguable that it is not until the advent of the RBV that the key issue of strategy becomes defined as the problem of achieving sustained competitive advantage in the sense of earning (efficiency) rents in equilibrium. This is a special case of a broader view that “[t]he field of strategy is concerned with the conditions under which the microeconomic equilibrium of homogenous firms with zero profits can be overcome” (Knott 1998: 3) — a further exemplification of the foundational role that the perfect competition model plays in much economics-based strategy research.

Although the association between the work of Penrose (1959) and the RBV has often been made (e.g., Kim and Mahoney 2001), at least in its more economics-oriented incarnations (such as Lippman and Rumelt 1982; Peteraf 1993), the RBV owes much more to the Chicago approach to industrial organization (Brozen 1971; Demsetz 1973, 1974, 1982 1989; Peltzman 1977; see also Conner 1991).^{6,7} Briefly, a central aim of this approach is to explain long-lived performance differences in terms of efficiency rents existing under competitive conditions rather than in terms of monopolistic abuse of market power. To resource-based writers such as Rumelt and Barney, this approach represented an appealing way to reconcile the emphasis on the idiosyncratic and firm specific that is characteristic of the strategy field with economic equilibrium theory (Foss 2000).

⁶ *Aka* the “Chicago-UCLA approach.” Both Rumelt and Barney were part of the UCLA environment.

⁷ However, this is not true of those parts of the RBV that are taken up with the analysis of diversification (e.g., Montgomery and Wernerfelt 1988). My concern here is primarily with those parts of the RBV that concern sustained competitive advantage, what Priem and Butler (2001a) call the “single business RBV.”

The Chicago legacy is directly present in the much quoted paper by Peteraf (1993) which explicitly casts the RBV in terms of rents in competitive equilibrium, using the basic demand and supply apparatus of economics textbooks to graphically illustrate this. It is perhaps less visible in the even more influential Barney (1991) paper, but it is still there. Consider Barney's (1991) statement of the RBV. He (1991: 102; *emphasis in original*) explains that

A firm is said to have a *competitive advantage* when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors. A firm is said to have a *sustained competitive advantage* when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors *and* when these other firms are unable to duplicate the benefits of this strategy.

Thus, sustained competitive advantage is defined in terms of situations in which all attempts by competitor firms at imitating or substituting a successful firm have ceased, that is, equilibrium obtains. Barney's analysis of the conditions under which such situations obtain is entirely Chicago in its emphasis on resources being costly to copy, etc. (compare Brozen 1971; Demsetz 1973, 1974, 1982, 1989; Peltzman 1977).⁸ Barney's argument that all performance differences are explainable in terms of differential efficiencies of the resources underlying strategies, and that, therefore, superior returns are fully compatible with social welfare, is straight out of the Chicago book (e.g., Demsetz 1974). His (Barney 1986) earlier emphasis on factor market, rather than product market, imperfections as a condition of competitive advantage is also vintage Chicago (e.g., Demsetz 1973).

Recent work has argued that the RBV is beset with certain logical problems (Lewin and Phelan 2000; Priem and Butler 2001a,b; Foss and Knudsen 2001). The present critique is rather that the core of the RBV has an unnecessarily constraining

⁸ More specifically, in order to hold a "potential" of sustained competitive advantage, a resource "... must have four attributes: (a) it must be valuable ... (b) it must be rare among a firm's current and potential competition, (c) it must be imperfectly imitable, and (d) there cannot be strategically equivalent substitutes for this resource that are valuable but neither rare or imperfectly imitable" (Barney 1991: 105-6). Given these criteria, sustained competitive advantage obtains when a firm implements a unique strategy that is "backed up" by resources that conform to the four criteria above.

starting point, namely in Chicago industrial organization theory, constraining, that is, with respect to the set of strategic phenomena that can be framed within this approach. Fundamentally, the problem stems from the basic Chicago research methodology which is to cast virtually all economic phenomena in terms of competitive equilibrium — what Chicago School insider Melvin Reder (1982) characterized as the “tight prior equilibrium” assumption.⁹ The competitive equilibrium may have some spanners in the works, for example, some superior technology may be costly to imitate (Lippman and Rumelt 1982) or there may be some asymmetric information in factor markets (Barney 1986), but the basic model is one of instantaneous market clearing in markets populated by traders with no bargaining power. Here are some of the unfortunate consequences of founding research in strategy on such a model:

Market power is excluded. Since firms have no bargaining power in product markets — because of the assumption of price-taking — , competitive advantage cannot be a matter of “market power” in the sense of raising price above cost through restricting supply (as in, e.g., Porter 1980). Thus, there can be no profits from market power, only scarcity rents. However, the empirical evidence strongly suggests that firms’ returns are composed of both rents and profits (Montgomery and Wernerfelt 1988; Demsetz 1989). Moreover, bargaining in factor (input) markets is also abstracted from in some contributions (e.g., Barney 1986), although not in all (it may be represented in Peteraf 1993 by the assumption of “immobility”). Thus, the prices and present values of inputs cannot diverge because demanders and suppliers on input markets have different bargaining powers; they can only diverge for informational reasons. Since bargaining is abstracted from, dissipation of value from bargaining activities (i.e., the available “pie” is reduced as a result of haggling) cannot be treated. By the same token, creating value by means of reducing such activities (as in Foss and Foss 2002) cannot be treated either.

Disequilibrium is not considered. Since competitive phenomena are expressed in terms of equilibrium, those aspects of competition that are best understood as

⁹ The core of this approach is that “... in the absence of sufficient evidence to the contrary, one may treat observed prices and quantities as good approximations to their long-run competitive equilibrium values” (Reder 1982: 12).

disequilibrium phenomena appear out of sight. Thus, there can be no room for entrepreneurship (Kirzner 1973; Machovec 1995; Lewin and Phelan 2000). Relatedly, dynamics is reduced to performing comparative-static exercises.¹⁰

Too narrow understanding of competitive activities. Competitive activities are at best limited to protecting costly-to-imitate, rent-yielding resources. Product differentiation, price discrimination, technological competition, and all the signaling tactics described in the industrial organization literature are, at best, hard to squeeze into the straitjacket of competitive equilibrium (Makowski and Ostroy 2001).

Transaction costs are absent. The absence of transaction costs means that it is not possible to frame corporate strategy issues such as the choice of distribution channels, relations to suppliers, etc. in terms of comparative contracting (Chi 1994). Moreover, the reduction of transaction costs — for example, through choosing governance structures that are more efficiently aligned to the relevant transactional dimensions than those that were previously in place (Williamson 1996) — cannot be a source of value creation in such a world (Foss and Foss 2002). Thus, the sources of competitive advantage cannot lie in economizing with transaction costs.

Processes of creating, capturing, and protecting value are conceptualized narrowly. It emerges from the above points that with respect to the key strategy issues of value creation, capture and protection, the competitive equilibrium starting point has a number of constraining implications (see Table 1). Thus, value creation by means of product innovation or differentiation (Machovec 1995), advertising, improving contractual arrangements and internal organization (Akerlof 1970; Williamson 1994, 1996; Foss and Foss 2002) and other ways of reducing inefficiencies cannot be represented.¹¹ This is caused by the suppression of entrepreneurship,

¹⁰ Foss (1996b) speculates that the suppression of disequilibrium issues is what explains the branching of the “resource-based view,” broadly conceived, into, first, the RBV proper, and, second, various “competence-based,” “capabilities,” “dynamic capabilities,” etc. approaches which all try to highlight dynamics in various ways (e.g., Hamel and Prahalad 1994). Priem and Butler (2001a) recently also noted the lack of dynamics in the RBV.

¹¹ Note that I am not arguing that the RBV is entirely silent about value creation, as Priem and Butler (2001) seem to think; it is not, since the very focus on sustained above normal profits in, for example, Peteraf (1993) implies a concern with value creation (in fact, a concern with captured created value, Makadok and Coff 2002).

disequilibrium, and transaction costs in the competitive equilibrium model. At least in the RBV core model, value creation is represented through the stochastic draw of a technology that is more cost efficient than those controlled by competitors (Lippman and Rumelt 1982; Peteraf 1993). Value protection is then represented through those barriers at imitation that may protect the relevant rent stream in equilibrium, and capture is correspondingly represented in terms of imitative competition. Protecting rents through deterring entry cannot be represented, because the price-taking assumption and the assumption means that market-power is absent. Finally, because transaction costs are assumed to be zero and bargaining is absent, the implication is that there is full appropriation, that is, firms appropriate all created value (Makowski and Ostroy 2001), whereas in actuality sharing value is a very complicated bargaining game played between the firm's stakeholders (Coff 1997; Bowman and Ambrosini 2000; Boddewyn 2001).

Summing Up

The dominant contemporary approach to strategy content research turns out to be remarkably narrow at its analytical core. To be sure, formal room is made for the creation, capture, and protection of value by the notion of sustained competitive advantage, since earning sustainable rents in equilibrium indeed means creating more appropriable value than the competition doing so on a sustained basis. However, this does not mean that all issues of strategy are best represented by being somehow pressed into the straitjacket of efficiency rents existing in competitive equilibrium. As already suggested, there are phenomena relevant to the strategy field that either disappear out of sight because they just cannot be so pressed into this straitjacket, or are in the danger of becoming misrepresented. In the following, I argue that it is possible to take a broader view of how to address the key issues of strategy, while still keeping the efficiency perspective characteristic of the RBV. Transaction cost notions (Coase 1937, 1960; Williamson 1975, 1985, 1996; Barzel 1997) are useful for developing such a broader view.

IV. Towards a Broader View of Strategy: A Coasian Starting Point

Starting From The Coase Theorem

The core RBV model, it has been argued, is based, either explicitly (Lippman and Rumelt 1982; Peteraf 1993) or implicitly (Barney 1991), on a very specific and narrow model in economics, namely price-taking competitive equilibrium. It has been shown that this is a quite constraining starting point. The suggestion here is that the analysis of the fundamental issues of strategy should begin by asking more basic questions and ask these questions, at least as a starting point, without specific reference to any specific structure of interaction or specific behaviors (e.g., price-taking). We should let our choice of models (i.e., what we assume about interaction and behaviors) be guided by our research questions, not the other way around. To repeat, in strategy these questions should, *How is value created, captured, and protected?* Answering these questions may at some stage involve reference to a competitive equilibrium model with price taking (they need not, however), but that particular model is no longer a constraining necessary starting point (Makowski and Ostroy 2001).

Rather, an approach to these issues may begin in a more general manner with the basic economic notion of exchange through bargaining. This is an appropriate starting point for the simple reason exchange itself is value-creating (all parties to an exchange expect *ex ante* to increase their utility). Because it is founded on economics the RBV also sees exchange as an aspect of value creation, but it does not go seriously into bargaining issues (Coff 1997; Bowman and Ambrosini 2000). This has two implications: First, the impact on players' incentives to create value (e.g., undertake investments) of what they expect to get from the bargaining game (Grossman and Hart 1986; Brandenburger and Nalebuff 1996; Kim and Mahoney 2001) is not treated. Second, the dissipation of value (i.e., the reduction of created value) caused by resource-consuming bargaining (and associated phenomena, such as (excess) sorting, attempts to protect against the bargaining attempts of others, etc.) (Barzel 1997; Williamson 1996) is not treated either (Foss and Foss 2002). In turn, *value creation through the reduction of such inefficiencies is not treated.* All these issues deserve,

however, to be given more prominence in the strategy field (Williamson 1994; Kim and Mahoney 2001; Foss and Foss 2002).

Starting with the notion of exchange through bargaining takes us into a vast territory, not the least in economics.¹² In particular, there is a considerable body of work on the “*Coase theorem*” (Coase 1960), much of which is a part of the TCE literature (Furubotn and Richter 1997). Because of its centrality in the reasoning here, it is necessary to briefly state the theorem. In its conventional formulation, it says that absent transaction costs, initial assignments of property rights or legal entitlements to assets will make no difference to efficiency in the sense that the identical efficient (Pareto optimal) allocation will be realized regardless of who holds the relevant property rights or bear legal liability, since the parties will always be able to bargain their way to efficiency. Stated thus, the theorem may appear to be of interest only to economists interested in legal issues, particularly issues relating to liability. However, this is not the case: The theorem is much more general and has much richer implications, among which are implications for strategy. In essence, and to put it simpler, the theorem says that absent transaction costs,¹³ efficient outcomes — that is, situations in which resources are used so that they yield maximum value — can always be realized.¹⁴ It thus informs us that if transaction costs are zero, value creation can never be a *problem*. And the implication is, of course, that the presence of transaction costs may be important to understanding what are *then* the problems of value creation.¹⁵ We may conjecture that transaction costs also play a role for understanding the issues of value protection and appropriation. If indeed this is the

¹² Such as the game theoretical bargaining literature, which, in spite of its obvious relevance, has been under-utilized in strategy research. Thus, there is a vast literature on bargaining processes and the role played by transaction costs, outside options, time preference, etc. for the outcomes from such bargaining processes (summed up in Muthoo 1999). However, here the focus is on the tradition that began with Coase (1960). The insights and results are rather overlapping, however.

¹³ Transaction costs are costs of exchanging and enforcing property rights, or, less abstractly, costs of bargaining and costs of monitoring and enforcing agreements.

¹⁴ Although this Coasian benchmark may seem to be as extreme as the competitive equilibrium benchmark, it is not. For example, it is not dependent on any specific assumptions about market structure or by prices being given by some auctioneer.

¹⁵ Note that this does *not* amount to claiming that all “problems of value creation” are transaction cost problems. To be sure, there are, for example, problems of innovation that have nothing to do with transaction costs (but see Kirsten Foss 1996 for some cases where “problems of innovation” in fact *are* transaction cost problems).

case, we have the basis for a unified approach to the key issues of strategy, that is, one that can analytically frame issues of value creation, appropriation, and protection. Specifically, I begin from a notion of zero transaction cost exchange,¹⁶ as in the Coase theorem, and examine what this tells us about the three central issues in strategy.

Creating, Appropriating and Protecting Value in a Coasian Setting

To illustrate, consider exchange in a vertical chain of agents, say, a supplier, a producer and a customer (as in Brandenburger and Stuart 1996). How much value is created in this chain? "Value," as that term is conventionally used in strategy discourse, typically refers to either the difference between turnover and the value of purchased inputs ("value added") or the amount by which the revenue exceeds the value of *all* the inputs (thus including the opportunity costs of the suppliers of labour and capital) the firm uses ("added value") (Davis and Kay 1990). The latter measure is more satisfactory, for it captures the full economic loss that would result if the firm was broken up and "its" inputs used elsewhere in the economy. Given the latter notion of value, we can unambiguously define value creation in our vertical triad as the customer's reservation price (the maximum that he is willing to pay for the good) minus the supplier's opportunity cost. Even if this is generalized (e.g., to more customers, firms and suppliers, or more triads), the problem of defining value creation is essentially the same; the relevant measure of value creation is still the highest reservation price minus the lowest opportunity cost.

In the Coasian setting, where all agents can costlessly bargain and exchange, the agents (e.g., the parties to a contract) will in fact implement the mix of activities (i.e., the allocation of resources) that maximizes total value.¹⁷ If indeed bargaining costs are zero, the issue of value creation can furthermore be separated from that of the appropriation of value. Thus, we may imagine the parties to a contract to follow a two-step procedure in which they first agree on the mix of activities that maximize their joint surplus, and then in the next step split this surplus through the prices and side-

¹⁶ Analytically, this serves the same role as the assumption of "unrestricted bargaining" in Brandenburger and Stuart (1996).

¹⁷ Milgrom and Roberts (1992: 35) denote this "the value maximization principle." For the purposes of this paper, it is identical to the Coase theorem.

payments that emerge from bargaining. How will they split value, that is, how much value can each agent (say, in the above customer-firm-supplier triad) hope to appropriate? Game theoretic reasoning shows that there is an upper limit to what a player can appropriate, namely no more than his contribution to overall value creation (Hart 1989). Making this more determinate requires that more assumptions be added, for example, that agents can join and leave “coalitions” (e.g., the above triad) as they please, that there are “many” agents, etc. Taking this to the extreme brings us to the competitive equilibrium model, where agents will receive exactly their “marginal product value.” Although it is generally not possible to say exactly how cooperating agents will split the value they create in the absence of knowledge about the size of the transfer payments that will normally be required to sustain an efficient outcome, or in lieu of specific assumptions about the structure of interaction (e.g., competitive equilibrium), the Coase theorem suggests that the splitting of value can never be a strategic problem. There is no feedback effect from splitting value to creating value.

Finally, just as the creation and splitting of value presents no strategic problems (or problems at all) in the Coasian setting, so the protection of value cannot be a problem either. This is because there will be no problem of protecting the value created in the coalition from, for example, would-be imitators, since in a zero transaction costs setting property rights can not only be costlessly exchanged but also costlessly protected (Barzel 1997). The other side of the coin is, of course, that we may conceptualize the degree of protection of value in terms of the capture of property rights to created value and the costliness of bargaining. This, however, requires that transaction costs be explicitly introduced.

Strategy in a Zero Transaction Cost World

In an important sense, problems of strategy are, as we have seen, very much diminished in importance in the context of a zero transaction cost world. To be sure, firms¹⁸ may still come endowed with resources characterized by different efficiencies (thus conforming to the basic RBV “axiom” of heterogeneity in terms of resources), so

¹⁸ This is a bit of a misnomer since we have no reason for ascertaining whether firms would exist in a zero transaction cost setting (one governance structure is as efficient as any other). “Producer” may be a better term for the productive unit under these conditions.

“resource-based” strategies could still be carried out. However, maximum value would be created instantaneously in each time period, all rent streams would be perfectly protected, bargaining over the division of these streams would take place instantaneously and costlessly, there would be no problems of implementing strategy (since organizational costs would be zero), etc. In sum, the creation, appropriation and protection of value would pose no problems whatsoever.

Of course, this is utterly unrealistic. Most fundamentally, it seems to leave very little room for discretion with respect to strategic choices. Still, a starting point in the basic notion of exchange when bargaining costs are zero is helpful for clarifying what it means to create, appropriate and protect value, and *where* we should make adjustments to obtain a more realistic understanding of these issues. The relevant “adjustments,” I shall argue, are largely a matter of introducing transaction costs, because these influence created value, directly in the form of measurement costs and more indirectly by making the protection and appropriation of value costly activities, and thus introducing “deadweight welfare losses,” that is some transactions that would have been concluded under zero transaction costs aren’t carried through. Thus, essentially the same strategy that Coase (1937, 1960) followed is pursued in the following: Examine an extreme setting (i.e., the Coase theorem setting) to see what this tells us about the phenomenon that we are interested in understanding (i.e., the firm (Coase 1937), the law (Coase 1960) and strategy (this paper)), and then demonstrate that this understanding is furthered by the introduction of transaction costs, in fact, that transaction costs are *necessary* to make sense out of the relevant phenomenon.

V. Towards a Transaction Cost Programme in Strategy Research

Transaction Costs and the Reality of Strategic Choice

To see how extreme the setting assumed in the previous section is, observe that the Coase theorem implies that all possible uses of assets are fully known, all returns from all uses of all assets are perfectly known, all legitimate and illegitimate uses of assets are perfectly specified, and all this is perfectly enforceable (Barzel 1997). If all

rights are completely defined in this way, there cannot, by definition, arise any conflicts over the use of scarce resources or the returns from assets because individuals do not have any discretion in the use of resources — in short, there are no strategic *problems*. A special case of this is that it does not matter in this world how economic activities are organized (i.e., whether to make or buy, franchise or own sales outlets, etc.); all economic arrangements will result in the same value creation. Somewhat paradoxically, because there are no impediments to efficiency, there is also no genuine discretion, including no room for strategic choice.

In order to find a role for strategic choice, spanners have to be thrown into the works of this perfect world. This is recognized in strategic management, although somewhat indirectly. Thus, scholars have introduced the economics notion of “market failures” (e.g., Dundas and Richardson 1980), a concept that is intimately connected to transaction costs (Cowen 1988): Market failures arise as transaction costs are introduced into the perfect world underlying the Coase theorem. To relate market failures to fundamental strategic issues take form of arguments, such as “asymmetric information is a necessary condition for internal capital markets to be superior to external capital markets,” “the public goods nature of knowledge may make it more efficient to exploit excess knowledge through diversification rather than contracting,” “because of asymmetric information, knowledge transfer may efficiently take place inside firms than across firms,” etc. In fact, these are exactly the arguments underlying the Alchian-Williamson argument in favor of internal capital markets (Williamson 1975), the dominant story of diversification (Teece 1982), and the theory of the multinational enterprise, respectively, that is, theories that have been influential in the evolution of strategic management.

In the world underlying these theories, it matters in terms of efficiency which organizational arrangements are chosen, in contrast to the perfect world underlying the Coase theorem. Thus, strategic choices of organizational arrangements are real, because different arrangements have different consequences. For example, superior contractual arrangements with suppliers, internal organization, quality systems, sorting of customers, etc. may all be sources of competitive advantage for reasons identified in the TCE (and related approaches) (Milgrom and Roberts 1992; Williamson

1996; Barzel 1997); presumably what Williamson (1994) has in mind when he argues that “economizing is the best strategy.” Many strategic management scholars would be prepared to accept the importance of organizational arrangements for achieving competitive advantage and also of the pertinence of transaction cost insights into these arrangements. In other words, in a somewhat indirect manner the ultimate *relevance* of transaction cost reasoning is acknowledged in the strategic management discipline. What has not been hitherto argued, however, is that not only are transaction cost notions relevant, they are in fact *necessary* in the sense that transaction costs make strategic management real.

Now, critics of TCE may counter that not much is necessarily added with respect to understanding the nature of strategic management by patching up a timeless equilibrium model with transaction costs: In a transaction cost constrained equilibrium, strategic choice is no more real than in the competitive equilibrium of economics textbooks. Such critics would certainly have a valid point: If indeed all agents could foresee each others actions, including how many resources they would spend on creating, protecting and appropriating value, an equilibrium would be immediately established in which only those assets (property rights) worth protecting (e.g. from imitation would be protected) (Foss and Foss 2002). However, underlying transaction costs is costly information (Barzel 1994) which includes the costs of forming estimates of the resources that other agents put into creating, protecting and appropriating value. Given costly information, such estimates may be incorrect, biased, etc., which will lead to disequilibrium actions with respect to attempts to capture the value created by others, protect one’s own value, etc., that is, to strategic choices.¹⁹ In other words, disequilibrium (and therefore the reality of strategic choice) is consistent with the assumption of costly information, a key assumption in TCE.²⁰ As will be argued next, the nexus between costly information, transaction costs and

¹⁹ Of course, these actions are only disequilibrium relative to the very demanding benchmark of full expectational equilibrium just mentioned. They may well be equilibrium actions relative to less constraining equilibria, such as game theoretical ones (Tirole 1988).

²⁰ As Barzel (1997: 12, 11) argues in a slightly different context: “When equilibrium is disturbed in a positive transaction cost world, price adjustment is not expected to be instantaneous,” which is in contrast to a zero transaction cost world, where “... when equilibrium is disturbed a new equilibrium is instantaneously attained because, given zero transaction costs, the cost of adjustment is zero.”

strategic actions aiming at creating, protecting and appropriating value also suggests a distinct perspective on the competitive strategy, part of strategy that TCE theorists have hitherto have had rather little to say about.²¹

Transaction Costs, Market Power, and Competitive Strategy

Most (economics-based) work on competitive strategy has been conducted from a perspective that stresses the pursuit and maintenance of market power (Porter 1980; Tirole 1988; Shapiro 1989), in contrast to the efficiency orientation of TCE and the RBV (Williamson 1994). As has often been noted, in a market power perspective, the pursuit of competitive strategy implies welfare losses caused by firms exercising their market power; a successful competitive strategy must unavoidably impose some deadweight losses on society. In the world of the Coase theorem, there can be no such inefficiencies, since all property rights are perfectly specified and enforced and agents can make costless bargains, and can therefore trade away, as it were, all inefficiencies; therefore, there cannot be any competitive strategy in the market power sense. In order to make provision for market power-based competitive strategy, some property rights have to be less than perfectly specified and protected; thus, *some* transaction costs have to be present. The implication is that underneath the market power arguments of, for example, Porter (1980) and Tirole (1988) is a deep structure of transaction costs that, however, is not spelled out in their works, and that it is ultimately economizing with these costs that yield the outcomes described in theories based on market power. In other words, "... economizing is more fundamental than strategizing" (Williamson 1994: 362). The following elaborates on this.

²¹ Of the few TCE contributions that deal with competitive strategy, none do so in the way sketched here. Williamson (1999: 1103) argues that TCE may add to positioning issues by providing insights into the *organization* of those strengths that allow firms to position themselves. However, he does not provide details on this. Nickerson (2000) argues that the choice of efficient organization should be seen as complementary to the choice of positioning. More specifically, he argues that 1) targeting a specific set of consumers (i.e., positioning in terms of product choice), 2) choosing a technology, 3) making specific investments to support the customer transaction and 4) selecting an organizational structure constitute a "four-tuple" of complementary choices and that the firm's optimal strategy is the tuple that maximizes net receipts. Nickerson and van den Bergh (1999) integrate TCE ideas in the context of Cournot competition. And Hansen (2002) argues, drawing on Foss and Foss (2002), that governance structures may be usefully analyzed in a TCE manner with respect to their abilities to create, capture and protect value.

A convenient way to illustrate the link between TCE and market power arguments is to consider the economic analysis of monopoly. In economics, monopolies are traditionally considered harmful because they introduce so-called “deadweight welfare losses,” essentially the value of the lost supply that the monopolist’s exercise of his market power deprives society of. However, the welfare losses introduced by monopoly may well be larger. A large literature — called the “rent-seeking literature” — has been taken up with the losses (i.e. dissipation of created value) associated with the *creation* of monopoly positions, for example, through price wars, advertising, R&D, etc. Often this is cast in the language of property rights economics, so that what would-be monopolizers compete for is the right to the monopoly gain (Posner 1975). From an economic (if not 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; see also Barzel 1997). The “asset” in question here is the monopoly position. Given this, transaction costs may be then be defined as the costs of capturing and protecting such rights (Barzel 1997). The would-be monopolist who is successful in his capture attempts becomes the economic owner of the right to the monopoly gain. Waste arises in the competitive scramble for this property right, as some firms mistakenly invest resources in rent seeking in the belief that they will win the property right to the monopoly gain.

However, as Barzel (1994) points out, there are other ramifications of a would-be monopolist’s attempts to capture rights to the gains from a monopoly position that are seldom considered in conventional analysis of monopoly. The other side of the coin of a successful would-be monopolist capturing monopoly rights is, of course, that some agents other than the monopolist will have to surrender their rights to the economic surplus that is now captured by the monopolist. If in fact agents are not willing to surrender these rights but invest resources in protecting them, the would-be monopolizer’s capture attempt may be frustrated. The fundamental point 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).²² In turn, the would-be monopolizer will form estimates of this "protective action." This process of mutual expectation formation is called the "duality of capture and protection" by Foss and Foss (2002).

Consider monopolization attempts through the competitive strategy known as "predatory pricing" (i.e., temporarily setting price below marginal cost in order to drive competitors out of the market). The relevant preys here are the predating firm's competitors and its consumers who have to pay a monopoly price when the predator has driven rivals out of the market. However, preys are not completely defenceless against a would-be 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 stall all attempts at predation. An empirically testable proposition following from this is that where the threat of predatory pricing is high, buyers and sellers are likely to have entered into long-term contracts. And the other side of the coin is that in situations where the transaction costs of entering into and enforcing such contracts are high, there may be a role for the competitive strategy of predatory pricing. A managerial implication is that strategizing firms are well advised to carefully consider the contractual structure that characterizes the industry in which they wish to position and compete. Another one is that it may pay for would-be monopolizers to make it costly for preys to enter into contracts with each other. Frequent product upgradings by a technologically dominant firm may be a means to raising the costs of contracting between preys because consumers entering into these contracts in the hope of avoiding being the victims of monopolization may have to pay for this in terms of not having access to upgraded products. The latter costs may overwhelm the former cost. In this case, the technologically dominant firm may indeed exploit its market power.

The kind of reasoning exemplified here has broader applicability (for developments, see Foss and Foss 2002). Thus, all instances of market power-based

²² Note that this also applies to the TCE explanation of governance structures: These are chosen so as to minimize the losses caused by hold-ups and morally hazardous activities (Williamson 1996).

competitive advantages may ultimately be explained in terms of efficiency-enhancing contracting (“Coasian contracts,” if you like) being too costly to carry out, so that the firm that exploits its market power can have its way. The implication is that indeed economizing is more fundamental than strategizing (in a market-power sense), because it is ultimately transaction cost economizing that explains why market power may be exploited at all.

The Empirical Dimension of the Transaction Cost Research Programme in Strategy

Examples have been provided of how TCE may help understanding strategic management issues. On the most fundamental level, TCE helps to explain the nature of impediments to the creation, protection, and appropriation of value, identifying transaction costs as key impediments. In this context, TCE supplies a *benchmark* characterized by such impediments being non-existent, namely the setting underlying the Coase theorem. The contributions that TCE makes to the understanding of competitive advantage are the following two ones. First, TCE helps explaining efficiency-based sources of competitive advantages, such as superior organizational arrangements, including internal organization (Chi 1994; Williamson 1994; Argyres and Liebeskind 1999; Foss and Foss 2000; Hansen 2002), but also, for example, various arrangements for sorting products into quality classes (Kirsten Foss 1996). Second, TCE suggests that underneath market power-based explanations of competitive advantage is a deep structure of economizing with transaction costs, as just explained. This approach highlights expectations and contracting as variables that strongly influence the capture and protection activities that go on in an industry. A pertinent question is how this may be operationalized, opening up for empirical work.

Empirical application presents some immediate problems as some of the core concepts, notably transaction costs and expectations, are hard to proxy. There is, of course, a very substantial body of empirical research in transaction cost economics (Klein and Shelanski 1995). However, most of this work does not treat transaction cost issues in a strategic setting, and is therefore not directly relevant (it may still provide inspiration with respect to proxies, etc.). It is also usually centered around the notion of asset specificity, which, in the approach sketched in this paper, is just one source of

transaction costs. Thus, empirical work on the TCE as it applies to (competitive) strategy must start pretty much from scratch. With respect to quantitative work, there are two main approaches, corresponding to the two main contributions that TCE has to offer to the analysis of competitive advantage.

The first approach is to isolate practices in firms that arguably exist because they represent ways of handling transaction cost problems. For example, in a number of industries — notably, in food-related industries — sorting commodities into quality classes is, on theoretical grounds, expected to be a source of value creation. This is because there are gains to trade if customers' sorting, and therefore their measurement costs, can be reduced. Letting the producer undertake it saves resources, because the producer arguably has a comparative advantage in sorting. The reason that the producer does not *always* sort is that his cost of sorting may overwhelm (his share of) the gains from trade if he sorts. However, as Kirsten Foss (1996) explains on the basis of qualitative studies, a number of innovations in sorting technology, packaging, and much else may be understood as lowering producers' costs of sorting, thus allowing for gains for both customers and firms. Competitive advantages may be founded on such innovations in sorting technology. Ultimately, transaction costs underlie these competitive advantages. This kind of reasoning may evidently be generalized; it is also in principle testable. In principle, it applies to all sorts of "transaction technology," including, for example, monitoring technologies (see Hubbard 2000 for an empirical application). Directly testable propositions that emerge from this kind of reasoning may be of the following rather generic kind "Firms' competitive advantage is positively and significantly influenced by the size of the investments (weighted by firm size) they put into sorting technology [substitute monitoring technology, credit controls, etc]." ²³

The second approach focuses more on the firm's external environment and the interplay between capture and protection, placing contracting and expectations center stage. However, expectations and the costs of contracting are not directly observable. Thus, it is hard to directly test overall propositions of the form, "In industries where

²³ Of course, this kind of generic proposition presupposes that factor markets are imperfect; otherwise, benefits would be completely offset by investment costs.

the threat of predatory pricing [substitute other kinds of monopolization attempts] is high, buyers and sellers will hold expectations that lead them to adopt long-term contracting with other firms than the would-be predator, unless the costs of doing so are prohibitive." Also, the "threat of predatory pricing" and even the extent of "long-term contracting" may be hard to measure. Thus, testing the above hypothesis must be indirect. For example, there are various measures of, for example, the transaction costs of engaging in preemptive contracting that blockades monopolizing attempts. A relevant measure would be the percentage fraction of organized consumers/customers of the whole consumer/customer base. Another relevant measure of the above transaction costs would be industry concentration (e.g., measured as the Herfindahl/Hirschman index). Time series of these could relatively easily be constructed and regressed against some measure of monopolization attempts, for example, the number (and perhaps types) of antitrust cases in the relevant industry. 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).

Closing Comments on the RBV and the TCE

Much of the preceding attempt to lay a foundation for a TCE approach to the basic issues of strategy has taken place in the context of a critical discussion of the RBV. In particular, the RBV has been criticized for being overly narrow at its analytical core. However, there are at least two areas where a TCE approach may usefully draw on RBV insights. The first one concerns the issue of *sustainability* of competitive advantage. To the extent that imitability of critical resources is a key concern in the analysis of this issue, the TCE has relevatively to offer of its own. While sustainability may formally be placed under the rubric of (sustained) "protection of value" and would-be imitators' costs of imitation may be conceptualized as measurement costs (Barzel 1997), the TCE approach that has been sketched here has little to say *per se* about the characteristics that resources must possess for sustainability to obtain. For example, rather little effort has been devoted within the TCE to issues such as tacitness of knowledge, social complexity, path-dependence, time-compression diseconomies, asset stock interconnected, etc., all of which are

arguably critical factors in the sustainability of competitive advantage (Barney 1991; Peteraf 1993).

The question is how exactly this complements the TCE. This leads into the second issue where a TCE approach may usefully draw on RBV insights, namely with respect to differential capabilities, that is, firms' differential abilities to organize, manage, coordinate or govern sets of activities. Foss and Foss (2000) argued that because capabilities are essentially about organizational processes, they should be susceptible to analysis in terms of the TCE. However, TCE cannot adequately account for why capabilities are different across the population of firms (Dosi and Marengo 2000). Although the RBV does not present much of an analysis of exactly *why* firms differ either, at least it takes it axiomatic that for understanding performance differences, it is necessary to posit that firms' resource endowments are different. This perspective complements the TCE because it suggests that for the TCE to successfully explain performance differences, it is necessary to think of firms as controlling differential capabilities with respect to capture and protection. Some work has been done already on how path-dependence may be aligned with the TCE (Argyris and Liebeskind 1999), and this goes some way towards understanding why capabilities are asymmetrically distributed across firms. Ultimately, TCE (*and* the KBV) needs to be integrated with theories of learning in order to realize its full potential, including the dynamics of the formation and change of capabilities, and therefore the dynamics of competitive advantage.

There are reasons to think that TCE has at least the potential to become an integrating perspective in strategy research, one that can encompass key insights of industrial organization approaches (because of the emphasis on contracting, expectations and interactive processes of capture and protection of value in the TCE) and the RBV (because the TCE explains exactly why organization-based resources may be sources of value creation). However, although the TCE may be *integrating*, it is not argued here that the TCE is *overarching* in the sense that it can express other approaches as special cases *and* add something of its own. Thus, because the RBV contains ideas that are not present in the TCE (i.e., the characteristics of resources that cause sustainability), it cannot be expressed as a special case of the TCE. Also, the

TCE directs primary attention to reducing inefficiencies associated with exchange as an important source of value creation. Evidently, there are numerous sources of value creation that do not fall within this perspective. For example, in many cases, creating value through product and process innovations does not. Thus, the TCE is not an all-encompassing strategic perspective. No perspective is. However, it directs attention to phenomena that, although important, have hitherto been comparatively neglected in strategy research.

VI. Conclusions

This paper has been taken up with foundational issues in contemporary strategy research, particularly the role of transaction costs. Its methodological starting point is the quite general one that the issues that can meaningfully and informatively be conceptualized are limited by the available conceptual lens. This was exemplified by focusing on how the starting point for much RBV research, namely a patched-up version of the competitive equilibrium model, strongly constrains what can be said about strategy. In order to ask broader questions, a broader framework is needed.

The argument was then put forward that TCE is potentially such a broader framework. Thus, the understanding of the creation, appropriation and protection of value is substantially informed by considering transaction costs. First, to the extent these processes pose strategic problems, it is because transaction costs are involved (conversely, as soon as transaction costs are introduced, strategic problems are bound to arise). Second, and in a more specific vein, introducing transaction costs means introducing new sources of creating value. Thus, creating value may mean reducing transaction costs, and the deadweight losses implied by their presence. Third, a transaction cost perspective directs attention to the important role of contracting and expectations in the competitive process.

As noted, others have made related, if perhaps less expansive, claims on behalf of TCE, notably Rumelt (1984), Williamson (1994, 1999), Rumelt, Schendel and Teece (1994), and Nickerson (2000). I concur with these, but submit that proponents of TCE in the strategy field have not demonstrated the *necessity* of using (implicitly or

explicitly) transaction cost arguments for making sense out of many interesting issues of strategy. Therefore, their arguments have perhaps been less convincing than they could have been. Moreover, although the relevance of TCE arguments are acknowledged in connection with corporate strategy issues, the relevance of these arguments to *competitive* strategy has, with a few exceptions (Williamson 1999; Nickerson 2000; Hansen 2002) not been noted or developed. In contrast, this paper has tried to demonstrate the generality of TCE arguments and ultimately the necessity of invoking these arguments. The possibility of applying TCE arguments to competitive strategy issues has been noted and some ways to unfold this possibility have tentatively been sketched. Thus, there is some basis for feeling confident that future TCE-based work in strategy will prove fruitful.

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TABLE 1:
The Key Strategic Issues in TCE and RBV

	Value Creation	Value Capture	Value Protection
RBV	Usually black-boxed (e.g., Barney 1991). However, Barney (1986) addresses value creation as arising from superior information or luck.	Enters formally through imitative competition. However, the details of imitation games are never explored in great detail. A few contributions mention capture through bargaining with input factors (e.g., Peteraf 1993).	Enters mainly through "barriers to <i>ex post</i> competition" (Peteraf 1993) and barriers to resource mobility.
TCE	Value is created through reducing 1) transaction costs and 2) the deadweight welfare losses caused by transaction costs. Thus, the TCE adopts an exchange perspective on value creation.	May take numerous forms, e.g., excess sorting, moral hazard, opportunism, as well as most competitive forms. Opportunities for capture depends crucially on expectations with respect to the resources other firms put into protection and on the prior contracting in an industry.	May take numerous forms. Depends crucially on contracting and expectations. Firms may protect value-creation by means of farsighted contracting which blockades other firms' capture. Or, they may raise would-be capturers' cost of capture.

Danish Research Unit for Industrial Dynamics

The Research Programme

The DRUID-research programme is organised in 3 different research themes:

- *The firm as a learning organisation*
- *Competence building and inter-firm dynamics*
- *The learning economy and the competitiveness of systems of innovation*

In each of the three areas there is one strategic theoretical and one central empirical and policy oriented orientation.

Theme A: The firm as a learning organisation

The theoretical perspective confronts and combines the resource-based view (Penrose, 1959) with recent approaches where the focus is on learning and the dynamic capabilities of the firm (Dosi, Teece and Winter, 1992). The aim of this theoretical work is to develop an analytical understanding of the firm as a learning organisation.

The empirical and policy issues relate to the nexus technology, productivity, organisational change and human resources. More insight in the dynamic interplay between these factors at the level of the firm is crucial to understand international differences in performance at the macro level in terms of economic growth and employment.

Theme B: Competence building and inter-firm dynamics

The theoretical perspective relates to the dynamics of the inter-firm division of labour and the formation of network relationships between firms. An attempt will be made to develop evolutionary models with Schumpeterian innovations as the motor driving a Marshallian evolution of the division of labour.

The empirical and policy issues relate the formation of knowledge-intensive regional and sectoral networks of firms to competitiveness and structural change. Data on the structure of production will be combined with indicators of knowledge and learning. IO-matrixes which include flows of knowledge and new technologies will be developed and supplemented by data from case-studies and questionnaires.

Theme C: The learning economy and the competitiveness of systems of innovation.

The third theme aims at a stronger conceptual and theoretical base for new concepts such as 'systems of innovation' and 'the learning economy' and to link these concepts to the ecological dimension. The focus is on the interaction between institutional and technical change in a specified geographical space. An attempt will be made to synthesise theories of economic development emphasising the role of science based-sectors with those emphasising learning-by-producing and the growing knowledge-intensity of all economic activities.

The main empirical and policy issues are related to changes in the local dimensions of innovation and learning. What remains of the relative autonomy of national systems of innovation? Is there a tendency towards convergence or divergence in the specialisation in trade, production, innovation and in the knowledge base itself when we compare regions and nations?

The Ph.D.-programme

There are at present more than 10 Ph.D.-students working in close connection to the DRUID research programme. DRUID organises regularly specific Ph.D-activities such as workshops, seminars and courses, often in a co-operation with other Danish or international institutes. Also important is the role of DRUID as an environment which stimulates the Ph.D.-students to become creative and effective. This involves several elements:

- access to the international network in the form of visiting fellows and visits at the sister institutions
- participation in research projects
- access to supervision of theses
- access to databases

Each year DRUID welcomes a limited number of foreign Ph.D.-students who want to work on subjects and projects close to the core of the DRUID-research programme.

External projects

DRUID-members are involved in projects with external support. One major project which covers several of the elements of the research programme is DISKO; a comparative analysis of the Danish Innovation System; and there are several projects involving international co-operation within EU's 4th Framework Programme. DRUID is open to host other projects as far as they fall within its research profile. Special attention is given to the communication of research results from such projects to a wide set of social actors and policy makers.

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