# Market, Hierarchy, and Trust: The Knowledge Economy and the Future of Capitalism

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## Abstract
Recent conceptualizations of trends in the structure of U.S. industry have focused on the relative importance of markets, hierarchies, and hybrid intermediate forms. This paper advances the discussion by distinguishing three ideal–typical forms of organization and their corresponding coordination mechanisms: market/price, hierarchy/authority, and community/trust. Different institutions combine the three forms/mechanisms in different proportions. Economic and organizational theory have shown that, compared to trust, price and authority are relatively ineffective means of dealing with knowledge-based assets. Therefore, as knowledge becomes increasingly important in our economy, we should expect high-trust institutional forms to proliferate.

A review of trends in employment relations, interdivisional relations, and interfirm relations finds evidence suggesting that the effect of growing knowledge-intensity may indeed be a trend toward greater reliance on trust. There is also reason to believe that the form of trust most effective in this context is a distinctively modern kind—''reflective trust''—as opposed to traditionalistic, ''blind'' trust. Such a trend to reflective trust appears to threaten the privileges of currently dominant social actors, and these actors' resistance, in combination with the complex interdependencies between price, authority, and trust mechanisms, imparts a halting character to the trend. But the momentum of this trend nevertheless appears to be self-reinforcing, which suggests that it may ultimately challenge the foundations of our capitalist form of society while simultaneously creating the foundations of a new, postcapitalist form.
(*Knowledge*; *Trust*; *Market*; *Hierarchy*; *Capitalism*)

## Introduction
Considerable attention has been focused recently on data suggesting that the secular trend toward larger firms and establishments has stalled and may be reversing (Brynjolfsson et al. 1994). Some observers argue that the underlying new trend is toward the disintegration of large hierarchical firms and their replacement by small entrepreneurial firms coordinated by markets (Birch 1987). This argument, however, understates the persistence of large firms, ignores transformations underway within these firms, and masks the growth of network relations among firms. How, then, should one interpret the current wave of changes in organizational forms?

Zenger and Hesterly (1997) propose that the underlying trend is a progressive swelling of the zone between hierarchy and market. They point to a proliferation of hybrid organizational forms that introduce high-powered marketlike incentives into firms and hierarchical controls into markets (Holland and Lockett 1997, make a similar argument). This proposition is more valid empirically than a one-sided characterization of current trends as a shift from hierarchy to market. The ''swelling-middle'' thesis is also a step beyond Williamson's (1991) unjustified assertion that such hybrid forms are infeasible or inefficient. However, this paper argues that Zenger and Hesterlys' thesis, too, is fundamentally flawed in that it ignores a third increasingly significant coordination mechanism: trust.

In highlighting the importance of trust, this essay adds to a burgeoning literature (e.g. *Academy of Management Review* 1998; further references below); my goal is to pull together several strands of this literature to advance a line of reflection that positions trust as a central construct in a broader argument. In outline, the argument is, first, that alongside the *market* ideal-typical form of organization which relies on the price mechanism, and the *hierarchy* form which relies on authority, there is a third form, the *community* form which relies on trust. Empirically observed arrangements typically embody a mix of the three ideal-typical organization forms and rely on a corresponding mix of price, hierarchy, and trust mechanisms. Second, based on a well-established body of economic and sociological theory, I argue that trust has uniquely

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effective properties for the coordination of knowledge-intensive activities within and between organizations. Third, given a broad consensus that modern economies are becoming increasingly knowledge intensive, the first two premises imply that trust is likely to become increasingly important in the mechanism mix. I present indices of such a knowledge-driven trend to trust within and between firms, specifically in the employment relationship, in interdivisional relations, and in interfirm relations. Fourth, I discuss the difficulties encountered by the trust mechanism in a capitalist society and the resulting mutation of trust itself. Finally, the concluding section discusses the broader effects of this intra- and interfirm trend to trust, and argues that this trend progressively undermines the legitimacy of the capitalist form of society, and simultaneously lays the foundations for a new form.

Both the theory and the data underlying these conclusions are subject to debate: I will summarize the key points of contention, and it will become obvious that we are far from theoretical or empirical consensus. In the form of an essay rather than a scientific paper, my argument will be speculative and buttressed by only suggestive rather than compelling evidence. My goal, however, is to enrich organizational research by enhancing its engagement with debates in the broader field of social theory.

## The Limits of Market and Hierarchy

Knowledge is a remarkable substance. Unlike other resources, most forms of knowledge grow rather than diminish with use. Knowledge tends, therefore, to play an increasingly central role in economic development over time. Increasing knowledge-intensity takes two forms: the rising education level of the workforce (living or subjective knowledge) and the growing scientific and technical knowledge materialized in new equipment and new products (embodied or objectified knowledge).

Recapitulating a long tradition of scholarship in economics and organization theory, this section argues that neither market nor hierarchy, nor any combination of the two, is particularly well suited to the challenges of the knowledge economy. To draw out the implications of this argument, I will assume that real institutions, notably empirically observed markets and firms, embody varying mixes of three ideal-typical organizational forms and their corresponding coordination mechanisms: (a) the hierarchy form relies on the authority mechanism, (b) the market form relies on price, and (c) the community form relies on trust. For brevity's sake, an organizational form and its corresponding mechanism will be referred to as an organizing ''mode.'' Modes typically appear in varying proportions in different institutions. For example, interfirm relations in real markets embody and rely on varying degrees of trust and hierarchical authority, even if their primary mechanism is price. Similarly, real firms' internal operations typically rely to some extent on both trust and price signals, even if their primary coordination mechanism is authority.

Hierarchy uses authority (legitimate power) to create and coordinate a horizontal and vertical division of labor. Under hierarchy, knowledge is treated as a scarce resource and is therefore concentrated, along with the corresponding decision rights, in specialized functional units and at higher levels of the organization. A large body of organizational research has shown that an institution structured by this mechanism may be efficient in the performance of routine partitioned tasks but encounters enormous difficulty in the performance of innovation tasks requiring the generation of new knowledge (e.g., Burns and Stalker 1961, Bennis and Slater 1964, Mintzberg 1979, Scott 1992, Daft 1998). When specialized units are told to cooperate in tasks that typically encounter unanticipated problems requiring novel solutions, tasks such as the development of a new product, the hierarchical form gives higher-level managers few levers with which to ensure that the participating units will collaborate. By their nonroutine nature, such tasks cannot be preprogrammed, and the creative collaboration they require cannot be simply commanded. Similarly, the vertical differentiation of hierarchy is effective for routine tasks, facilitating downward communication of explicit knowledge and commands, but less effective when tasks are nonroutine, because lower levels lack both the knowledge needed to create new knowledge and the incentives to transmit new ideas upward. Firms thus invariably supplement their primary organizational mode, hierarchy/authority, with other modes that can mitigate the hierarchy/authority mode's weaknesses.

The market form, as distinct from the actual functioning of most real markets, relies on the price mechanism to coordinate competing suppliers and anonymous buyers. With standard goods and strong property rights, marginal pricing promises to optimize production and allocation jointly. The dynamics of competition, supply, and demand lead to a price at which social welfare is Pareto optimal (that is, no one's welfare can be increased without reducing someone else's). A substantial body of modern economic theory has shown, however, that the price mechanism fails to optimize the production and allocation of knowledge (Arrow 1962, Stiglitz 1994). Knowledge is a ''public good''; that is, like radio transmission, its availability to one consumer is not diminished by its use by another. With knowledge, as with other public goods, reliance on the market/price mode forces a trade-off between production and allocation. On the one hand, production of new knowledge would be optimized by establishing strong intellectual property rights that create incentives to generate knowledge. On the other hand, not only are such rights difficult to enforce, but more fundamentally, they block socially optimal allocation. Allocation of knowledge would be optimized by allowing free access because the marginal cost of supplying another consumer with the same knowledge is close to zero.

Over several decades, discussion of this trade-off between production and allocation was framed as a debate at a macroeconomic level over the relative merits of market, hierarchy in the form of central planning, and intermediate forms such as regulated markets and market socialism (Arrow and Hurwicz 1977, Stiglitz 1994). This ''mechanism design'' literature has more recently been applied to the analysis of individual firms (Miller 1992)—with the same results. On the one hand, hierarchy could simply mandate the free availability of knowledge and thus outperform market as far as allocation is concerned. On the other hand, hierarchy would have far greater difficulty than market in creating the incentives needed to optimize the production of new knowledge. Formal modeling has shown that neither market nor hierarchy nor any intermediate form can resolve the dilemma, leaving us stuck in a ''second-best'' equilibrium (Miller 1992).

Recent research on knowledge and coordination mechanisms has highlighted the importance of tacit knowledge. The recognition of the importance of tacit knowledge does little, however, to restore confidence in the ability of the market form to assure optimal outcomes. First, tacit knowledge brings with it all the challenges of hidden knowledge in principal/agent relations. Second, notwithstanding the current scholarly interest in tacit knowledge, codified forms of knowledge continue to be an important factor in economic growth. The reasons are straightforward: The transfer of knowledge is much more costly when the knowledge is of a tacit kind, and the generation of new knowledge is usually much faster when it builds on a base of explicit rather than tacit knowledge.

As knowledge becomes increasingly important in the economic development of firms and nations, the question of whether we can improve on the second-best allowed by market and hierarchy is posed with increasing urgency. Much recent economic scholarship has, however, argued for resignation: The second-best achievable in pure or mixed markets and hierarchies is redefined as the best feasible and ''relatively efficient'' (Alchian and Demsetz 1972, Williamson 1975). This resignation is not warranted. Hierarchy and market are not the only possible organizational forms. Community is an alternative (Ouchi 1980, Dore 1983, Bradach and Eccles 1989, Powell 1990).

## The Power of Community and Trust

### Community

Community is a term with many interpretations (Kirkpatrick 1986). However, the salience of some such notion is demonstrated by what we know of both intra- and interfirm relations.

Analysis of action within real firms reveals the ubiquity and importance of ''informal'' organization—this is one of the founding insights of organization theory (see Scott 1992, ch. 3). Views differ as to how best to conceptualize the informal organization and its differentiation from the formal structures of hierarchy. Without preempting this ongoing debate, we can posit that the informal organization constitutes its members as a community.

Analysis of real market relations between firms reveals a similar dependence on informal ties (Macaulay 1963). Pure-spot market-relations between anonymous buyers and sellers is in reality rather unusual. Firms transact primarily with long-standing partners, and in the continuity of their relations, shared norms and understandings emerge that have their own efficacy in shaping interactions.

### Trust

Trust is the key coordinating mechanism in the community form. Following Gambetta (1988), one could define trust as the subjective probability with which an actor assesses that another actor or group of actors will perform a particular action, both before she or he can monitor such action (or independently of his or her capacity ever to be able to monitor it) and in a context in which it affects his or her own action. This broad definition captures many uses of the word, including the possibility of feared as well as welcomed actions. Another narrower and more benign definition is confidence in another's goodwill (Ring and Van de Ven 1992).

The difference between these definitions obliges us to make a short digression on the notion of trust. Both the generation of trust—i.e., its sources and mechanisms—and its targets—i.e., the objects and the features of those objects in which we invest our trust—are manifold.

First, we can distinguish three *sources* of trust. Familiarity through repeated interaction can lead to trust (or distrust). Interests can lead to a calculative form of trust via a sober assessment of the costs and benefits to the other party of exploiting my vulnerability. Values and norms can engender trustworthy behavior that leads to confidence (Liebeskind and Oliver 1998). (We should note that there is some confusion in the literature about precisely what it is about values and norms that creates

**Figure 1 Dimensions and Components of Trust**

| DIMENSIONS | COMPONENTS |
|---|---|
| sources | • familiarity through repeated interaction<br>• calculation based on interests<br>• norms that create predictability and trustworthiness |
| mechanisms | • direct interpersonal contact<br>• reputation<br>• institutional context |
| objects | • individuals<br>• systems<br>• collectivities |
| bases | • consistency, contractual trust<br>• competence<br>• benevolence, loyalty, concern, goodwill, fiduciary trust<br>• honesty, integrity<br>• openness |

trust. We might reasonably distinguish a spectrum running from weaker forms of trust based on the predictability imparted to other actors' behavior by their adherence to any stable norm, to stronger forms of trust based on the predicted benevolence of actors with whom we share norms that privilege trustworthiness; see Ring 1996.) Empirically, all three sources of trust are important in the real world of business (cf. Williamson 1993), and in practice, although excessive focus on the calculative form can undermine the normative form, all three tend to be intertwined complements.

Second, we can distinguish three *mechanisms* by which trust is generated. As Coleman (1990) points out, trust can be engendered by direct interpersonal contact, by reputation through a network of other trusted parties, or by our understanding of the way institutions shape the other actor's values and behavior. Like the three sources, the three mechanisms are primarily complements rather than substitutes: They tend to build on each other.

Third, we can distinguish three generic *objects* of trust: Our trust can be in a person, an impersonal system, or a collectivity. Social psychologists have focused most of their efforts on the first (Bigley and Pearce 1998), and indeed some social theorists would reserve the concept of trust for interpersonal relations and use the term ''confidence'' to refer to related assessments of abstract systems (Luhmann 1979, Seligman 1997). Notwithstanding the terminological issue, sociologists such as Barber (1983), Zucker (1986), Giddens (1990), and Shapiro (1987) highlight the importance to the functioning of contemporary society of confidence/trust in anonymous systems such as money and law. The concept of procedural justice (e.g., Brockner and Siegel 1996) is one form of system trust familiar to organizational researchers. The importance to comparative economic performance of trust in a collectivity—that is, generalized trust in others who are part of that collectivity—is foregrounded by Fukuyama (1995).

Finally, we can distinguish the features of those objects in which we feel trust, often referred to in the literature as the *bases* of trust. The list of bases invoked by various authors is long and partially overlapping, and none of the typologies has a strong theoretical foundation. They include the other party's consistency (Sako 1992, ''contractual trust''), competence, benevolence (or loyalty, concern, or Sako's ''goodwill trust''), honesty (or integrity), and openness. While much of the discussion of bases has taken interpersonal trust as its context, it is clear that system and collectivity trust also have diverse bases (see e.g., Barber 1983, on fiduciary trust—i.e., benevolence—and competence trust in government). Like sources and mechanisms, both objects and bases are primarily complements: Community, system, and interpersonal trust typically buttress each other, as do the various bases (e.g., Kurland 1996).

## Community/Trust as a Third Mode

While trust is a complex, multifaceted phenomenon, the complementarities between the components of each of its four key dimensions enable trust to function as a highly effective coordinating mechanism. Groups whose cohesion is based primarily on mutual trust are capable of extraordinary feats. Trust is therefore usefully seen as a third coordination mechanism that can be combined in varying degrees with price and authority.

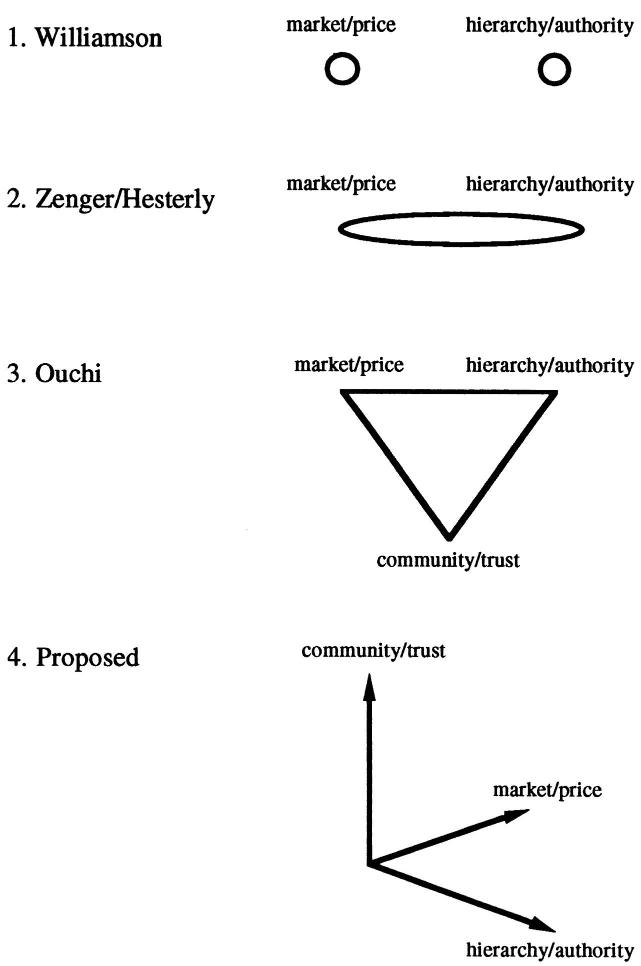
The thesis that trust constitutes a third coordination mechanism contrasts with three other views. Williamson (1991) suggests we see market and hierarchy as two discrete alternatives, and declares trust to be irrelevant to business transactions. The ''swelling middle'' thesis invites us to see a continuum between these points, but implicitly assumes a trade-off between mechanisms, and still ignores trust. Ouchi's (1980) discussion includes trust but still implies a three-way trade-off.

It is more fruitful, I submit, to map institutions in three dimensions according to the salience of community/trust, market/price, and hieararchy/authority modes (Figure 2).This three-dimensional representation has the advantage of allowing us to think of the way the various modes combine in different settings. In the absence of trust, market coordination takes the form of spot markets. However, trust can be combined with the price mechanism in the form of ''relational contracts'' (Macneil 1980), as found in long-term partnership-type supplier relations (Bradach and Eccles 1989, Sako 1992, Uzzi 1997). Hierarchy often appears in a low-trust form, as reflected in the colloquial, pejorative use of the term ''bureaucracy,'' and in cases such as those presented by Crozier (1964). However, hierarchy can be combined with trust, as in the ''representative,'' ''dynamic,'' and ''enabling'' types of bureaucracy described respectively by Gouldner (1954), Blau (1955), and Adler and Borys (1996).

Market and hierarchy too are often combined, as reflected in the mix of incentives and authority typically found in employment relations, in relations between divisions and headquarters within large multidivisional firms, and in relations between firms and their suppliers. Sometimes this market/hierarchy mix takes a low-trust form, but sometimes trust is an important third ingredient. Within firms, high-trust hybrids can be found in ''collaborative'' multidivisional corporations characterized by high levels of interdivisional and interlevel trust (Eccles 1985). Between firms, high-trust hybrids can be found in keiretsu-type configurations characterized by high-trust, hierarchically structured, market relations (Gerlach 1992, Dyer 1996). Figure 3 summarizes these alternatives, building on the framework suggested by Figure 2.

I should note that under this view, the growing importance of ''network'' forms of organization within and between firms does not so much answer the question motivating this essay as it poses a further question: Figure 2 suggests that we ask of these networks whether the content of their constituent ties is market exchange, hierarchical authority, or community trust. Korczynski (1996) and Carney (1998) contrast high-trust and low-trust network forms, and show that the low-trust form can help lower costs but performs relatively poorly in generating or sharing new knowledge.

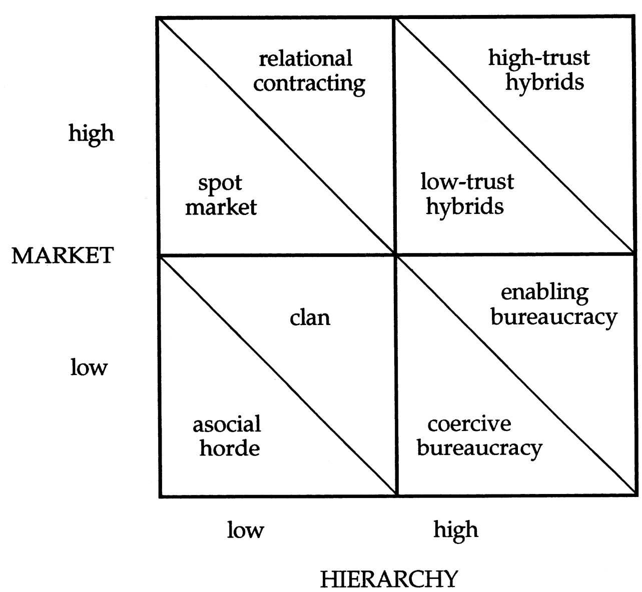
**Figure 2** **Alternative Conceptualizations of Organizational Modes and Hybrids**




## A Hypothesis: The Trend to Trust

Using these three-dimensional schemas, we can map the vector of change in the mix of organization modes associated with the increasing knowledge-intensity of the economy. Compared to pure authority and price, trust makes possible an enlarged scope of knowledge generation and sharing. Trust can dramatically reduce both transaction costs—replacing contracts with handshakes—and agency risks—replacing the fear of shirking and misrepresentation with mutual confidence. Trust can thus greatly mitigate the coordination difficulties created by

**Figure 3** **A Typology of Institutional Forms**
(low trust forms in lower left triangles, high trust forms in upper right triangles)



knowledge's public good character. Also, insofar as knowledge takes a tacit form, trust is an essential precondition for effective knowledge transfer. Therefore, as knowledge management becomes an increasingly important performance determinant, I hypothesize that trust becomes an increasingly attractive mechanism to economic agents.

In the following sections, I will adduce some evidence—suggestive, but certainly not compelling—that firms are indeed being drawn to increasing reliance on trust. A constellation of somewhat contradictory trends is developing as firms attempt to deal more effectively with the knowledge management challenge. First, firms are sharpening marketlike processes. Second, they are developing more effective hierarchical processes. And third, in apparently growing numbers, they are adopting approaches to knowledge management that rely on community and trust between employees and managers, between divisions within the corporation, and between firms and their suppliers. The evidence I present for a trend to trust is not compelling, but given the stakes, it is sufficient to warrant a preliminary assessment and an exploration of its implications.

## Employment Relations

Viewed over the longer period, the economy's growing knowledge-intensity is pushing the employment relationship in several somewhat contradictory directions. A trend to trust may nevertheless be emerging.

First, one can identify a range of efforts to strengthen the authority mechanism in the employment relation. In response to competitive pressures, firms are fine-tuning their management structures and planning processes, demanding greater accountability at every level, and enforcing more discipline in the planning and execution of operations. The most common motivation for these efforts appears to be greater efficiency and control, but firms sometimes see this refinement of hierarchy as a path to more effective knowledge management too. It is under this latter rationale that many firms are introducing more formalized procedures such as TQM and highly structured product and software development processes. Many firms are also developing more elaborate project planning and human resource planning techniques to ensure that the right mix of skills is available to support the development and launch of innovative products. They are developing more complex metrics, the ''balanced scorecard'' for example (Kaplan 1996), that go beyond market performance criteria for the assessment of these projects. Firms are attempting to identify their ''core competencies'' and nurture development of these competencies over the longer term, even when purely market-based financial assessments do not support such risky investments.

Second, alongside these refinements of hierarchy, one sees efforts designed to strengthen the market form of the employment relation. Downsizing and contingent employment are sometimes seen as ways not only to reduce labor costs and increase ''numerical'' (head-count) flexibility, but also as paths to greater flexibility in the mix of knowledge and skills available to the firm (head-content). Reliance on market-type mechanisms is also visible in the shift, albeit modest, toward contingent compensation at lower levels in the organizational hierarchy, creating higher-powered incentives for performance in general and for risky innovation and knowledge creation in particular (Lawler et al. 1998). These efforts are most often motivated by efficiency and flexibility concerns, but here again, improvements in knowledge management capability are sometimes seen as another benefit. Firms like Microsoft invoke both motives when they use market relations in the form of large pools of contingent contract employees and high-powered stock incentives for regular employees.

Third, firms are trying to improve their knowledge management capabilities by strengthening employee trust. The rationale is explicit. Effective *development* of knowledge—whether new concepts in the research lab, new products in the development department, or process refinement suggestions on the shop floor—depends on employee commitment and on collaborative teamwork for which mutual trust is a critical precondition (Bromiley and Cummings 1995). Effective *sharing* of knowledge depends equally critically on a sense of shared destiny, which in turn both depends on and engenders a sense of mutual trust (e.g., Nahapiet and Ghoshal 1998). Firms like 3M and Hewlett Packard thus attempt to create high levels of community and trust by providing material and nonmaterial expressions of commitment to their employees (Collins and Porras 1994).

Trust is a crucial ingredient both in high-commitment vertical relations between employees and management and in collaborative horizontal relations between specialist groups. Building on many decades of research on the critical role of informal organization in innovation, community—particularly in the form of ''communities of practice'' (Wenger 1998)—is increasingly recognized as the organizational principle most effective in generating and sharing new knowledge.

In the language of transaction cost economics, we would say that when the firm needs high levels of firm-specific knowledge and when metering individual output is difficult—conditions that are arguably typical in knowledge-intensive firms—the most efficient form of the employment relation is that of a ''relational team'' (Williamson 1981). Notwithstanding Williamson's own reservations regarding the use of the notion of trust in sociological research (1993), relational teams seem in practice to rely on high levels of trust. As illustration, consider a recent book on knowledge management by two particularly thoughtful observers of its practice, Thomas Davenport and Laurence Prusak (1998). They appear at first to advance a thesis contrary to mine, arguing for the need for improved ''knowledge markets'' within and between firms. But this, it turns out, is merely a metaphor, since the ''currencies'' of these markets are reciprocity, repute, and altruism, and ''mutual trust is at the heart of knowledge exchange'' (p. 35).

Note the complex three-way tensions between market/price, hierarchy/authority, and community/trust. On the one hand, in some cases the three modes function as mutually exclusive substitutes. Efforts to sharpen market forms can undercut efforts to strengthen trust. Downsizing, for example, is rarely a propitious time for a shift toward teamwork. Efforts to improve hierarchical planning processes often require that market forms be moderated, and changes in the structure of hierarchy can be hampered by the long-term stability implied by strong trust. On the other hand, these three modes can be mutually supportive if they are designed and implemented appropriately. Employee participation, for example, is one way to link community and hierarchy so that the two are complements rather than substitutes (Adler et al. 1999). While Figure 2 represents the three mechanisms as three orthogonal dimensions, it is not intended to preempt questions of substantive interdependencies. Unfortunately, these interdependencies have so far eluded compelling theorization. See e.g., Hirschman (1970) on the variable relationship between exit (read: market) and voice (read: community). For now, all we can say is that hierarchy, market, and community are sometimes complements and sometimes substitutes.

### Some Counterarguments

The hypothesis that as the knowledge-intensity of the economy increases, firms will be drawn in increasing numbers to higher-trust forms of the employment relation runs counter to a long tradition in sociology. This tradition draws on several theoretical perspectives: Here I review some that pertain directly to the employment relationship. In a subsequent section, I return to others of more general import.

A venerable line of sociological scholarship has argued that the capitalist employment relation is an essentially low-trust one. The hallmarks of the capitalist firm—scientific management and mass production—are engines of war against community: fragmenting workers' roles, separating conception and execution, and centralizing control. From this vantage point, writings in the human relations tradition and, more recently, on empowerment are seen as ideological inflation of a thin veneer of trust that managers try to overlay on the underlying reality of domination. Indeed, the concept of trust was rarely invoked in industrial sociology until Alan Fox's 1974 study—which argued that trust was systematically undermined in capitalist firms. His argument seemed so convincing that the topic essentially disappeared for another decade (Heisig and Littek 1995).

Some contributors to this sociological tradition work from the Marxist theoretical premise that the core or the employment relation is an inescapable struggle between workers and managers over work intensity (e.g., Braverman 1974, Burawoy 1979). Researchers working in this perspective highlight the deceptive nature of management efforts to inculcate a sense of trust in workers and the ''false consciousness'' of workers who take the bait.

Other contributors are grounded in Weber rather than Marx, and for these the hypothesis of a trend to trust in the employment relationship arouses skepticism rather than radical hostility. Weberians, like Marxists, remind us that a trend to trust would be likely to encounter enormous impediments in the rivalry of competing social groups. These scholars can point to a substantial body of research accumulated over many decades that documents the frequency and potency of both management and worker opposition to ''progressive'' management ideas. Enlightened self-interest does not diffuse easily in a society where so many personal, organizational, and contextual factors encourage managers, and sometimes workers, to choose hierarchy and market over community/trust.

As a result of these impediments to trust, scholars in these traditions expect to find a trendless pattern of fluctuation in the employment relation's mechanism mix. Consistent with this interpretation, Ramsay (1977) argues that trust in the employment relation has fluctuated over the century as a function of the balance of power between labor and management. Barley and Kunda (1992) and Abrahamson (1997) document cyclical swings between the rhetorics of rational control and normative commitment in management discourse over the last century.

### The Hypothesis Reaffirmed

These Marxist and Weberian objections are, however, not convincing. The radical skepticism of trust in the traditional Marxist view is justified only if one accepts that the interests of workers and managers are never even partly congruent. This assumption appears empirically implausible. Moreover, it is based on an unfortunately narrow reading of Marx (Adler 1990). It ignores Marx's insights into the role of community within the firm, expressed in his analysis of ''cooperation'' and the ''collective worker''—a collective that includes managers in their ''productive,'' as distinct from ''exploitative,'' roles (Carchedi 1977).

Once this facet of Marx's analysis is retrieved, it is no longer difficult to conceive of a progressive expansion of trust under capitalist relations of production. Trust, under this view, becomes a feature of work organization, and as such it is at the intersection of the forces of production (society's accumulated productive resources) and the relations of production (the structure of ownership and control of these resources)—embodying both structures simultaneously and subject to the dynamics of both (Adler 1997). Insofar as its trajectory is shaped by fundamentally antagonistic capitalist relations of production, the growth of trust is necessarily limited; but insofar as it is shaped by the forces of production, trust grows cumulatively with the progressive expansion of those forces. In sum, this alternative reading of Marx suggests the possibility of a trend to trust, albeit a trend that is limited in its form and extent by the persistence of capitalist relations.

The version of Weber invoked by those skeptical of a trend to trust is a somewhat truncated one too. In its insistence on the enduring conflict between competing social groups, this reading downplays the importance Weber attached to rationalization in the development of modern society. As traditional bases of domination are displaced by rational-legal ones, the authority of managers within the firm is increasingly a function of the perceived legitimacy of their claim to expertise and to functional necessity. The brute assertion of positional prerogative loses legitimacy, and some kind of trust becomes increasingly critical to the exercise of authority. (Below, I take up the question of which kind of trust.)

Nor is an expansion of trust contradicted by evidence of fluctuations in the mix of mechanisms constituting employment relations. A closer look at the data cited by Barley et al. suggests that a secular trend line underlies these cycles. In both the sequence of rational control phases—from scientific management (whose dominance Abrahamson dates from 1894 to 1921) to systems rationalism (1944–1971) and to reengineering (1990– )—and the sequence of normative commitment phases—from welfare and personnel management (1921–1944) to culture-quality (1971–1990)—we observe the growing importance of themes of employee consent and trust. In the normative approaches, for example, there is a clear shift from the earlier emphasis on paternalism, to relatively impersonal bureaucratic norms of procedural justice, to the recent emphasis on empowerment and mutual commitment.

Perhaps more striking is the trend to trust found in the sequence of control rhetorics. Within two or three years of publishing a text popularizing a rather brutally coercive method of business process reengineering (Hammer and Champy 1993), both James Champy and Michael Hammer published new volumes (Champy 1995, Hammer 1996) stressing the importance of the human factor and the need for job redesigns that afford employees greater autonomy. The undeniably autocratic character of much early reengineering rhetoric and its rapid ''softening'' compares favorably with unilateral and enduring forms of domination expressed in post-War systems rationalism. It compares even more favorably with the even more unilateral and rigid rhetoric in turn-of-the-century scientific management: scientific management only softened its relations with organized labor after nearly two decades of confrontation (Nyland 1998).

Clearly there is a gap—often a huge one, as Marxist and Weberian commentators have pointed out—between these trends in rhetoric and the reality of the employment relation. However, this long-term evolution of rhetoric both reflects and reinforces a real trend to trust. It reflects the evolving expectations of an increasingly educated (read: knowledge-intensive) workforce and the evolving needs of an increasingly advanced (ditto) economy. And it reinforces that trend because the rhetoric of trust legitimizes the idea that management authority depends on employee consent.

## Interdivisional Relations

Large multibusiness corporations are under increasing pressure to show real benefits for asserted synergies. A first result of this pressure is the trend to divest unrelated businesses in the interest of ''focus.'' Therefore, the increasingly common configuration is that of related-diversified firms, that is, firms in which divisions are neither integrated vertically as suppliers and users nor totally independent of each other. However, in related-diversified firms, if divisions seek only to meet their own divisional objectives, they will behave in ways that are detrimental to the firm's global objectives. A second result of the performance pressure on large corporations is, therefore, a cluster of innovations that appear to be pushing beyond the limits of market and hierarchy and towards greater collaboration.

The multidivisional corporation is in effect a miniature economy in which business units function as miniature firms. Such a corporation must struggle with precisely the dilemma of knowledge management articulated in the market/plan debate. Headquarters' hierarchical control over divisions might help assure the dissemination across divisions of existing knowledge, but such control undermines incentives for the divisions to create new knowledge. The more common approach gives divisions profit and loss responsibility and engenders the corresponding problems of the market form. When divisions function as autonomous profit centers and charge a market-based price for sales of intellectual assets to sister divisions, the effectiveness of the corporation as a whole suffers because the optimal allocation of knowledge assets is blocked (Kaplan 1984; for an example at TRW, see *Business Week* 1982). Because one division's use of these knowledge assets does not preclude their use by another, the corporation would benefit from a regime of free sharing among divisions.

Eccles (1985) finds that in the microeconomy of the firm there is no mix of transfer prices and hierarchical procedures that simultaneously can optimize incentives to invest in the development of new knowledge and to share the results of those development efforts. Not surprisingly, this finding supports at a micro level the prediction of Arrow's and Hurwicz's (1997) analysis of whole economies. The multidivisional form of the corporation was constructed to counterbalance the merits and limits of hierarchy, as embodied in the functional form, with those of market, as embodied in the holding-company form. In this, the M-form resembles the intermediate cases of regulated market or market socialism mentioned above. However, even this hybrid model becomes increasingly inefficient when the corporation must encourage simultaneously the creation of new knowledge within divisions and the sharing of existing knowledge across divisions (Miller 1992).

In response to these problems and to their growing urgency in an increasingly knowledge-intensive economy, multidivisional firms are actively experimenting with new ways to stimulate collaboration between profit centers within the firm. The notion of core competencies, as articulated by Prahalad and Hamel (1990), is premised on the insight that corporate competitiveness depends on bodies of expertise that are typically distributed across divisions rather than contained within them. Collaboration across divisions, therefore, is a critical, not a secondary issue (see also Porter 1985, Pt. III on ''horizontal strategy''). Collins and Porras (1994) document a whole panoply of mechanisms designed to encourage a bond of common identity and a norm of sharing. Davenport and Prusak (1998) describe a range of methods used in large firms to enhance the trust and shared identity needed for the easy flow of ideas across divisional boundaries.

These shifts in interdivisional relations are reflected in changes in corporate control systems. Eccles' (1985) research shows that the most effective transfer pricing scheme in such cases is based neither on market prices nor on internal costs but on what he calls ''rational trust.'' Under rational trust, division managers' confidence in top management's ability to evaluate and reward performance fairly is based on two measures: first, the judicious use of quantitative measures of subunit performance, and second, the enlightened use of subjective measures of the subunit managers' contributions to total company performance, even when these contributions hurt their subunits' own performance (1985, p. 279).

Consistent with Eccles' argument, empirical research finds that in firms with relatively high levels of knowledge-intensity, where collaboration between divisions is therefore at a premium, headquarters commonly use subjective judgments of how well division managers help their peers. These subjective judgments both assess and require trust, in contrast with the more traditional approaches that rely exclusively on quantitative, market performance-based formulae or hierarchical-bureaucratic criteria to determine division managers' bonuses (Gupta and Govindarajan 1986, Lorsch and Allen 1973, Salter 1973, Hill et al. 1992).

The shift to trust is not, however, unproblematic. The ethos of common destiny that underpins trust blurs the allocation of accountability and decision rights at the heart of both hierarchy and market forms. Powerful actors resist this blurring. Within hierarchies, superiors resist giving up the ease of control afforded by the principle of accountability (see, e.g., Ashkenas et al. 1993, p. 125). Unilateral control is a far simpler organizational process to manage than shared control. More fundamentally, as agents of owners, senior managers are themselves held accountable to brutally simple norms imposed by the product and financial markets. The implacable, anonymous irrationality of the market often makes a mockery of efforts to create and sustain trust. Senior executives, whose fortunes are tied to the firm's market performance, cannot, therefore, commit more than half-heartedly to trust (Hyman 1987).

Notwithstanding this resistance, increasing knowledge-intensity appears to encourage a trend to trust in interdivisional relations. This trend might help explain the proliferation of titles such as chief technology officer and chief knowledge officer. These positions have broad responsibility for building cross-division knowledge and sharing, but typically they have no formal authority—they rely on trust in their attempts to build more trust

(Adler and Ferdows 1992, Earl and Scott 1999). As firms learn how to infuse trust into the immensely complex task of coordinating action in multidivisional firms, and in particular as they learn how to combine trust with the necessary elements of hierarchy and market, Eccles' ''rational trust'' model appears to be gaining legitimacy.

## Interfirm Relations

In parallel with these trends toward trust in employment and interdivisional relations, firms are increasingly infusing trust into their relations with other firms. Alliances and other forms of interfirm networks are proliferating, and the consensus in the field is that this proliferation is driven in large measure by the challenge of growing knowledge-intensity. Here, too, firms are juggling market/price, hierarchy/authority, and community/trust modes, and scholars are debating their relative importance (e.g., *Organization Science* 1998). While some argue that trust is increasingly important in interfirm relations, others argue that firms are unlikely to suspend self-interest in alliances and that trust may often be a result rather than a cause (Koza and Lewin 1998). Whether trust plays an independent causal role is an open question; in this section, I present the case for the affirmative.

First, we should note the countertendencies. On the one hand, we see some firms imposing ever sharper market discipline on their suppliers by aggressively demanding lower prices and moving rapidly to cut off suppliers who cannot deliver (e.g., Ashkenas et al. 1993, p. 240). On the other hand, we see firms trying to force improvements in their supplier base by introducing more complex ''hierarchical contracts'' (Stinchcombe 1985) into their market relations. Such hierarchical elements control not only product specifications but also the supplier's internal processes. Korczynski (1996), for example, documents a trend toward a low-trust combination of market and hierarchical relations between management contractors and building contractors in the U.K. engineering construction industry in the 1980s and 1990s. Hancké (1997) makes a similar diagnosis of the evolution of subcontracting relations in the French automobile industry.

We also see, however, a growing number of firms building long-term, trust-based partnerships with their suppliers. A burgeoning body of research shows that when firms need innovation and knowledge inputs from suppliers rather than just standardized commodities, no combination of strong hierarchical control and market discipline can assure as high a level of performance as trust-based community (Dyer 1996, Sako 1992, Helper 1991, Bensaou and Venkatraman 1995, Ring 1996, 1997). By contrast, Korczynski's (1996) study shows how low-trust relations in the U.K. construction industry enabled schedule and cost improvements but were unable to stimulate the creation of new knowledge.

The hierarchy/authority mode of interfirm relations clearly risks impeding innovation by stifling the upward flow of new ideas from subordinate suppliers. Their narrow specialization leaves them without the technological know-how needed for innovation, and their subordination leaves them few incentives to contribute innovative ideas to customers.

The market/price mode facilitates innovation by creating incentives to generate new ideas, but this mode, too, impedes innovation because suppliers and customers of innovations have difficulty agreeing on a price for these innovative ideas. The suppliers are not sure what price would cover their costs, for two reasons. First, the main source of a firm's innovative ideas is society's total stock of knowledge rather than assets held privately by the innovating firm. Given the public-good character of much of that knowledge stock, identifying or justifying a ''raw materials'' cost for new ideas generated from this knowledge stock is difficult. Second, an innovative idea is just as likely to arise during free time as on the job, so identifying a ''transformation'' cost is difficult. Whereas competition between suppliers of most other types of goods drives prices toward their marginal costs, no comparably grounded ''supply schedule'' guides the price of knowledge.

The customer side is no easier. The potential customer for an innovation typically cannot judge the worth of the idea without having its secret revealed, and intellectual property protection is cumbersome and expensive. Moreover, intellectual property rights, compared to property rights in other kinds of assets, lack a legitimating material substratum. We have already pointed out the difficulty of determining the price of knowledge based on its production cost; the alternative basis would be rent, but rent is only a viable price-form when the asset in question is not reproducible and is rivalrous in use, whereas knowledge (at least in its codified forms) is reproducible at close to zero cost and nonrivalrous in use. Its price is therefore less grounded in any material considerations: it is purely a function of convention and relative power. Lacking a legitimating material basis, intellectual property is amongst the most contentious of forms of property. Perhaps that is why patent rights are so often bundled and bartered in dyadic trade rather than sold on open markets.

These implications of growing knowledge-intensity for the market form were identified by Marx more than a century ago (1973, p. 700). The forces of production of modern industry are progressively socialized—increasingly, they take the form of society's total knowledge stock. As a result, labor inputs and production costs become increasingly irrelevant to the formation of prices, and the price mechanism becomes an increasingly unreliable basis for economic calculation. The difficulties encountered by efforts to create ''metrics'' for knowledge management are perhaps more fundamental than commonly recognized.

Hierarchy and market are relatively more effective for the governance of low-knowledge–intensity transactions where efficiency, rather than innovation, is critical. Where knowledge management is the critical task, the more effective approaches rely on long-term partnership-style relationships based on ''goodwill'' trust, as well as competence- and contract-trust (Sako 1992, Bensaou and Venkatraman 1995, Ring 1997). Thus, trust is at the heart of effective knowledge-intensive interfirm networks (Powell 1990).

As with the employment relation, the most effective approaches to knowledge management in interfirm relations deploy a complementary mix of price, authority, and trust mechanisms. Toyota, for example, rarely allows itself to become dependent on a single supplier, and tries to maintain two sources for any noncommodity inputs. Toyota always makes these suppliers aware of the ultimate power of the market test. However, the relationships between Toyota and these suppliers are hardly composed of anonymous, arms'-length, spot-market transactions. First, these contracts embody a comprehensive set of documents specifying in detail product requirements and management processes. Second, these hierarchical documents are embedded within a long-term, high-trust, mutual-commitment relationship.

While some observers might argue that Japanese firms like Toyota put so much emphasis on trust because of the importance of this norm in the broader Japanese culture, the evidence appears strong that such a trust-heavy mix of mechanisms is productively superior in a broad range of cultures. Two indicators come from the U.S. auto industry. First, Dyer and Chu (1998) find that, compared to their U.S. counterparts, Japanese auto firms established recently in the United States were able rapidly to create higher-trust relations with their U.S.-owned suppliers. Second, in response to this Japanese challenge, U.S. auto manufacturers have shifted toward higher trust relations with their suppliers. The percentage of U.S. auto parts producers who provide sensitive, detailed information about their production process to their customers grew from 38% to 80% during the 1980s (Helper and Sako 1995). However, in the case of supplier relations, unlike that of employment relations, research has not yet assessed whether such a shift is more than a swing of the pendulum back to what may been relatively high-trust relations in interfirm relations in earlier periods of capitalism (see, e.g., Sabel and Zeitlin 1997).

Evidence for a trend to interfirm trust is stronger in the proliferation of multilateral network forms of organization for the most knowledge-intensive tasks and industries (Nelson 1988, Powell 1990, Liebeskind et al. 1996). The multiplication of such tasks and industries over time warrants the hypothesis that the proliferation of high-trust multilateral interfirm networks is not just a pendulum swing. Patent pooling and cooperative R&D consortia have multiplied in recent decades. Formal professional and technical societies and informal community ties among scientists constitute other, less direct forms of interfirm networking whose importance appears to be growing.

One should not ignore the countervailing forces. These high-trust network forms may be more productive, but because the market principle is also present, they suffer the risk of opportunistic defection. Self-interested behavior can sometimes encourage trustworthiness, particularly when the ''shadow of the future'' is long. However, self-interest does not reliably ensure the diffusion and persistence of trust-based networks, and whole regions can find themselves stuck at low-trust and poor-performing equilibria. However, when these regions are subject to competition from regions that have attained a higher-trust, higher-performing equilibrium, one sometimes observes serious, sustained, self-conscious efforts to create trust (Sabel 1992). Some of these efforts succeed. One might hypothesize that if efforts to create trust as a response to competition do not succeed, economic activity will tend to shift to higher-trust regions. In either case, the trend towards trust seems likely to emerge, if only at a more global level.

## The Difficulties of Trust

The preceding overview of changes within and between firms suggests that all three coordination mechanisms—price, authority, and trust—have a role to play in the knowledge economy, but that trust is becoming increasingly important in this mix. Relative to their respective low-trust forms, the high-trust forms of intraorganizational, interdivisional, and interfirm relations encourage more effective knowledge generation and dissemination. The objective need for trust is, to be sure, counterbalanced by the resistance of those whose prerogatives would be threatened by it, but the defense of these prerogatives is increasingly inconsistent with the interests of economic performance. I leave empirical testing of this argument to another occasion, and focus here on the theoretical obstacles. The section above on employment relations discussed several such obstacles. We must now broaden that discussion.

A first obstacle is posed by some economists and sociologists who argue that trust can never, even in principle, become a stable and dominant mechanism. Theoretical economists such as Arrow do not deny that trust would greatly improve the effectiveness of markets; and organizational economists such as Williamson add that trust would also no doubt improve the effectiveness of hierarchy. However, economic theory argues that trust, like knowledge itself, is a public good, and that the spontaneous working of the price mechanism (assumed to be the dominant one) will generate too large a free-rider problem, and consequently will fail to produce the optimal quantity of trust. In repeated games, tit-for-tat cooperation—a minimal form of community—may emerge, but the emergence of cooperation is neither necessary nor predictable. Economists therefore doubt that trust can ever become a stable, dominant mechanism.

The flaw in such reasoning is in the assumption that individuals' preferences are essentially egotistical and exogenous. If people have a propensity for altruism that coexists and competes with the propensity for egoism, and if the relative importance of these two propensities varies with the circumstances, then there is no reason to believe that trust cannot become an important, even dominant, mechanism of coordination in the right circumstances (Ring and Van de Ven 1992).

Some sociologists, too, have expressed skepticism of trust, based on the intuition that trust is far easier to destroy than to create and that its most powerful forms are those that accumulate over long periods (e.g., Putnam 1993, Hardin 1992). Evans (1996) contrasts this ''endowment'' view with a ''constructibility'' view of trust and social capital. While future empirical research might perhaps cast light on the relative merits of these views, common experience tells us that trust can be created, at least under some conditions. Sabel (1992) describes the processes by which previously distrustful actors can overcome the temptation to free-ride and deliberately create the trust they recognize as being in their common interest (see also Ring 1997).

Assuming that trust can emerge, a second obstacle arises: Trust has its own dark side. Trust can fail us because it makes betrayal more profitable (Granovetter 1985). More fundamentally, it can fail us because its success can prove dysfunctional. Trust-based institutions are often exclusivistic and elitist, particularly when the source of trust is shared norms or familiarity. These institutions are poorly equipped to deal with the knowledge management challenge. Social psychologists have shown that trust within teams can lead to complacency and poor performance in innovative tasks (Kim 1997). When trust based on familiarity or norms becomes the dominant mechanism, firms can come to look like premodern ''clans'' with the associated traditionalistic domination, and whether this domination takes an autocratic or a paternalistic form, such organizations are clearly handicapped in their knowledge management. When suppliers become trusted partners, the risk of discrimination against potential new suppliers grows correspondingly, reducing innovative potential (Uzzi 1997, Kern 1998). In the language of sociology, one would say that in settings governed by norm- or familiarity-based trust, ascribed status often replaces achieved status—which is surely not a promising move in a dynamic knowledge economy.

The most appropriate theoretical response to this challenge is to invoke the potential complementarities between price, authority, and trust. The downsides of trust and closed communities can be mitigated by the presence of market and hierarchy. Compared to traditional normative trust, the pure, low-trust market is a powerful lever for creating opportunities, especially opportunities for knowledge development. Uzzi's (1997) study of the New York women's apparel industry, for example, shows how firms combine arm's-length market relations with trust-based social relations in their supplier and customer networks. Uzzi argues that firms that balance trust and market can maintain trust's benefits while avoiding the rigidity associated with exclusive reliance on trust relations. Communitarians sensitive to the risks of closed communities make a parallel argument for the importance of hierarchy: at the level of specific organizations, the pure, low-trust bureaucratic hierarchy is a powerful lever for assuring equity and stability, and at a more macro-societal level, a healthy society needs a mutually supportive combination of community and hierarchy in the form of government and law (Walzer 1999).

A third and potentially greater obstacle is identified by several currents of social theory that argue that the overall dominance of the price mechanism in capitalist society tends over time to corrode the foundations of trust. Hirschman (1982) reviews these arguments in his discussion of ''self-destructive'' views of market-based society. Scholars inspired by both Marxist and reactionary thought and by writers such as Weber, Simmel, and Durkheim have argued that the ''cash nexus'' characteristic of the market-based capitalist form of society progressively undermines the social conditions of capitalism's effectiveness. First, the market undermines the familiarity source of trust by corroding the traditional bonds of community and extended family, leading to the anonymity of urban life. And second, the market undermines the normative source of trust by corroding traditional shared beliefs, leading to ''the dissolution of pre-capitalist bonds of loyalty and obedience'' (Schumpeter 1976). Without the buttressing effect of familiarity and traditional shared norms, self-interested calculative trust alone provides only an unreliable foundation for capitalism: ''[self-] interest is what is least constant in the world'' (Durkheim 1984 [orig. 1893]; see also Ring 1996 on ''fragile trust,'' and Barney and Hansen 1994, on ''weak form'' trust).

Hirschman (1982) points out, however, that this self-destructive view has competed with another, more benign view of the effect of the market of society. He labels this benign view the ''*doux commerce*'' (Fr: gentle commerce) thesis. Thomas Paine in *The Rights of Man* (1951 [1792], p. 215) expressed it in the proposition: ''[Commerce] is a pacific system, operating to cordialise mankind, by rendering Nations, as well as individuals, useful to each other.'' Markets may undermine the strong ties of closed community, but they weave an ever-broader web of weaker ties that draws us into ''universal interdependence'' (Marx and Engels 1959, p. 11). A host of observers (but few social theorists) argue that capitalism encourages the emergence of ''modern'' norms such as industriousness, frugality, punctuality, probity (Rosenberg 1964). Some of these modern virtues are arguably propitious for the propagation of at least some forms of trust.

In the contest of these two views, the self-destruction thesis has fared better than the *doux commerce* view. Durkheim's celebration of organic versus mechanical solidarity, for example, echoes Paine's view of the importance of functional interdependence in modern society, but Durkheim was notably pessimistic concerning the possibility of the spontaneous emergence of the requisite normative foundations. Marx's celebration of capitalism's civilizing effects were eclipsed by his denunciation of its inhumanity. Indeed, Hirschman shows that the *doux commerce* thesis all but disappeared after the eighteenth century.

## Toward Reflective Trust

My summary of the corrosive effects of the market distinguished its effects on the three sources of trust: market society seems inimical to strong forms of familiarity trust; market society encourages calculative trust, but such trust alone is unreliable; and market society dissolves the traditional foundations of normative trust. Given the ineluctable quality of the first and second of these effects, the burden of a hypothesized trend to trust must fall on normative trust. Is there any reason to believe that normative trust can be sufficiently renewed to meet the challenge of the knowledge economy? Further research is needed to test the proposition, but the available evidence suggests that alongside the apparently irresistible decline of traditional trust, we might be observing the gradual emergence of a distinctively modern form of trust.

Leadership is one domain in which some of the tensions between the old and new forms of trust seem to manifest themselves. While some leaders at both the corporate and national levels still seek to legitimize their authority by reference to tradition, a growing number appear to have accepted that if leadership is going to support effective knowledge management, then leadership's legitimacy must be based on more rational norms. The trust that leaders build must be an inclusive, open, democratic kind, or knowledge creation and sharing will falter (Bennis and Slater 1964, Bennis and Nanus 1997). Charismatic bases of leadership, as Weber predicted, still wax and wane in popularity, continually finding new pertinence, but the balance between traditional and rational bases seems to be shifting progressively in favor of rationality. Within firms, leadership seems to have shifted toward a form of trust consonant with the ethos of ''fact-based management,'' independent inquiry, and collaborative problem-solving rather than traditionalist deference to established authority.

A modern form of normative trust can be distinguished from its premodern form. The modern form is less blind and tradition bound. It is more ''studied'' (Sabel 1992), ''rational'' (Eccles 1985), and ''tentative'' (Barnes 1981). Its rationality is not of the purely calculative kind assumed by economics. Norms play a central role in modern trust, but these norms do not derive their legitimacy from affective sources such as tradition or charisma, nor from their own calculative, purposive-rational utility. Rather, the legitimacy of modern trust is derived from grounding in open dialogue among peers. Habermas (1990) has attempted to characterize this form of legitimization in terms of the ''ideal speech situation,'' and Apel (1987) in the ''ideal community of communication.''

The modern form of trust might be labeled ''reflective.'' The values at work in modern trust are those of the scientific community: ''universalism, communism, disinterestedness, organized skepticism'' (Merton 1973, p. 270). Modern trust is inclusive and open. Referring to the discussion above of the bases of trust, one could hypothesize that whereas traditional trust elevates loyalty over the other bases (Schumpeter's ''precapitalist bonds of loyalty and obedience''), modern trust ranks integrity and competence more highly (Butler and Cantrell 1984, Schindler and Thomas 1993; see Gates 1998 for a case study of the shift from loyalty to competence in the basis of trust among President's staff in the White House).

From these considerations, I tentatively conclude that the efficacy of trust for knowledge management and the likelihood of its growth over time are maximized if: (a) trust is balanced by hierarchical rules to ensure stability and equity, (b) trust is balanced by market competition to ensure flexibility and opportunity, and (c) trust is modern and reflective rather than traditionalistic and blind. Space does not permit, but a parallel argument can be made concerning traditional and modern forms of community. Much of the debate around communitarianism has been diverted into an unproductive contrast between community and individual rights. As Lakoff (1996) argues, a more fruitful and urgent debate would be over alternative forms of community.

### Trust and Universalism

Before exploring the broader implications of a trend toward reflective trust, one possible further objection should be addressed: As a norm, reflective trust appears to conflate two poles of the fundamental Weberian distinction between particularism and universalism. Is reflective trust therefore a self-contradictory notion?

Carol Heimer (1992) poses this problem nicely in her discussion of forms of organization based on interpersonal networks. Network forms of organization require a significant departure from the ''universalist'' orientation articulated by Weber and highlighted by Talcott Parsons as one of the distinguishing features of modernity. To build trust, actors must adopt a more ''particularistic'' orientation, acknowledging the obligation to reciprocity entailed by relations with specific others, rather than relying on universal norms to guide their conduct (1992). To reinforce the point, Heimer quotes a quip about Parsons (an unfair one, I am told by others) to the effect that he was ''so universalistic that he wouldn't help a friend'' (1992, p. 143). Is the idea of a modern form of trust which avoids the limitations of particularism essentially wrong-headed? If trust is necessarily particularistic, does it necessarily suffer the limitations of its traditional form? These limitations would hobble trust's ability to coordinate knowledge-intensive activity.

These questions call for a more nuanced analysis than space permits. For the present purposes, however, it is sufficient to point out that particularism and universalism need not be polarities on a one-dimensional spectrum. They might better be conceived as conceptually independent dimensions, even if broadly speaking they tend to occur in inverse correlation. Traditionalistic trust is indeed high on particularism and low on universalism, and both pure markets and pure bureaucracies are high on universalism and low on particularism, but we can easily imagine a normative orientation and an associated form of trust that is high on both dimensions. This is precisely the modern condition: The ethical dilemmas characteristic of the modern era are those engendered by simultaneous commitments to particular others and to universal principles.

It should be mentioned that under some construals, ''modernity'' would be characterized somewhat differently, as an epoch in which universalism prevailed and particularism was shunned—at least as the socially legitimate normative orientation, if not always in daily life. Under this view, the current epoch should be seen as ''post-modern'' precisely because its ethos legitimates the simultaneous and paradoxical embrace of both universalism and particularism. Maxims such as ''Think globally, act locally'' come to mind.

## Trust and Capitalism

So far, the argument has focused on the implications of an economywide trend—growing knowledge-intensity—for intra- and interfirm relations. If, however, the trend to trust prevails, one must surely expect some reciprocal effect of firm-level changes at the aggregate, economywide level. Organizational research and social theory might both be enriched if these implications could be seen more clearly. The final set of speculations in this paper leads to the hypothesis that if capitalism undermines traditional trust and fosters modern trust, a new form of society will be likely to emerge.

Schumpeter provides the starting point. Paraphrasing and extending Marx, Schumpeter wrote:

> Capitalism creates a critical frame of mind which, after having destroyed the moral authority of so many other institutions, in the end turns against its own; the bourgeois finds to his amazement that the rationalist attitude does not stop at the credentials of kings and popes but goes on to attack private property and the whole scheme of bourgeois values. [. . .] The capitalist process not only destroys its own institutional framework but it also creates the conditions for another. Destruction may not be the right word after all. Perhaps I should have spoken of transformation. The outcome of the process is not simply a void that could be filled by whatever might happen to turn up; things and souls are transformed in such a way as to become increasingly amenable to the socialist form of life. With every peg from under the capitalist structure vanishes an impossibility of the socialist plan. (1976, pp. 143, 162).

In Schumpeter's view, large corporations developed means of institutionalizing innovation and regulating competition. The firm typical of competitive capitalism—owned and led by an entrepreneur—was thus progressively displaced by the large, bureaucratic firm with dispersed ownership and professional managers. Market was progressively displaced by hierarchy. Property was, in the process, progressively socialized—but not socialized enough to eliminate capitalism's tendency to periodic crises or its other negative externalities. The earlier form of capitalism derived legitimacy from its support for the entrepreneurial function: Competitive capitalism's obvious flaws were the price to be paid for the productive energy of entrepreneurship. But capitalism's own development, and in particular the shift to large bureaucratically-organized firms, makes capitalism's dysfunctions appear increasingly unnecessary and therefore intolerable: Witness, for example, the U.S. government's bailout of Chrysler. The legitimacy of capitalism as a form of society based on private ownership of productive resources is progressively undermined. Moreover, by the same process, capitalist development ''creates the conditions for another'' institutional framework that replaces private ownership by public ownership—socialism.

The logic of the present essay argues for both the continuing pertinence of Schumpeter's thesis and the need to revise it. Schumpeter's underlying contrast was between market (externally coordinating entrepreneurial firms) and hierarchy (internally coordinating oligopolistic firms, and eventually coordinating activity across entire economies). This contrast and Schumpeter's analysis of it have continuing pertinence: Both the persistent crisis tendencies of capitalism and the incapacity of markets to cope effectively enough with the growing knowledge-intensity of modern society reinforce Schumpeter's concerns about the efficacy of market coordination. Also, the long-term trend toward larger firms and bigger government confirms his prognosis of the growing importance of hierarchy.

A critic might argue that this prediction is at variance with the real trends observed in the United States and elsewhere in the advanced industrial economies over the last couple of decades, where an intensification of global and domestic competition and a wave of deregulation have reasserted the dominance of the market. The Schumpeterian view, however, invites us to enlarge our temporal horizon: If one considers the changes witnessed over the last 50 to 100 years, Schumpeter's prediction of the replacement of market by hierarchy becomes more plausible. The last couple of decades have made little progress in ''turning back the clock.'' Even if the average size of establishments has stabilized, the weight of large firms relative to small in the economy has grown, and the weight of (federal and state) government relative to private industry has grown too.

Schumpeter's thesis, however, also needs revision. Both the continued vitality of small entrepreneurial firms in the capitalist knowledge-creation process and the demise of state socialism give us reasons to doubt the efficacy of hierarchy alone as a form capable of effectively structuring firms and societies. Schumpeter's implicit market-hierarchy model must be extended to include trust: We must add a dialect of trust to Schumpeter's market-hierarchy dialectic. On the one hand, over the longer run, the economy's increasing knowledge-intensity undermines the efficacy and therefore legitimacy of (low-trust) market and hierarchy. Market's costly fluctuations and manifest failures and hierarchy's coercive domination and alienating specialization reveal the inadequacies of these two forms relative to the knowledge-management challenge. Low-trust market thus loses legitimacy as a model of governance of interfirm and interdivisional relations, and (low-trust) hierarchy loses legitimacy as a model of governance of employment relations. On the other hand, the gradual infusion of trust into hierarchies and markets popularizes and legitimates a range of more participative and democratic notions of how firms should be run (Levine 1995, Lawler et al. 1998) and of how society and the economy as a whole should be governed (Lodge 1975, Unger 1975, Etzioni 1988).

Do these trends, however, spell the demise of capitalism? Hirschman (1982) criticizes Schumpeter and other proponents of the self-destruction thesis for ignoring capitalism's ability to adapt to pressures such as these. Hirschman argues that through a series of innovations from factory legislation to social security to countercyclical macroeconomic management, demands to socialize the economy have been accommodated within a basically capitalist framework. At a micro level of intra- and interfirm relations, one could follow Hirschman and point to the evidence that trust can indeed infuse hierarchy and market relations without provoking crisis: As argued above, the three forms are often complementary.

These complementarities should, nevertheless, not obscure the fact that in a capitalist society the varying combinations of market, hierarchy, and community operate under the overall predominance of the market. If, as I argued above, the three basic coordination modes are sometimes substitutes and only sometimes complements, then it follows that all three modes cannot peacefully coexist in any proportions. There is little doubt which of the three dominates in advanced economies today. While the functioning of a market-based economy is greatly enhanced by modest doses of hierarchy and community, the dominance of the market form places limits on the growth of hierarchy and community. Whatever hierarchy and community are created within and between firms, market pressures that are beyond any actor's control—in the form of unpredictable market fluctuations and crises—can force management to renege on its commitments (laying off employees or breaking supply relationships) or can simply force the firm out of business. In an era of globalization, intensified competitive rivalry, and international financial crisis tendencies, the dominant role of the market has been brutally brought back into focus.

It is against this backdrop that Schumpeter's thesis acquires its force. The development of greater knowledge–management capability will necessitate the displacement of the market as the dominant form. However, whereas Schumpeter saw the progressive displacement of market by hierarchy, first in large corporations, then at the societal level in the form of socialism, this essay suggests a ''friendly amendment'' to Schumpeter's thesis: The institutional framework likely to emerge from capitalism's development is not any form of socialism but a form characterized by high levels of trust. If socialism can be construed as a form of society in which hierarchy dominates market at both the firm level and the economywide level, then the form of socialism that can successfully confront the challenges of modern, knowledge-intensive industry will have to be one in which hierarchy is combined with high levels of trust.

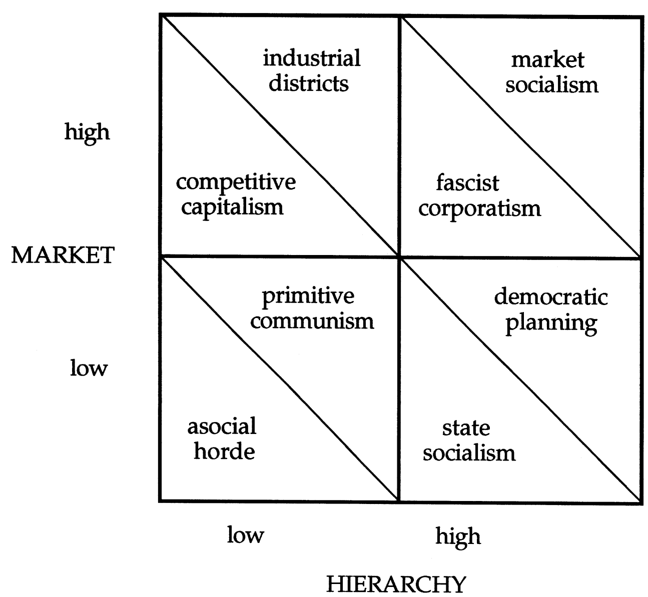
Opinions are divided as to whether the most viable form of postcapitalist society will prove to be one based on comprehensive centralized but democratic planning or a form of market socialism in which markets supplement democratic planning (Nove 1982). What seems indubitable, however, is that the planning process must be one in which citizens feel a high degree of trust. Evidence for this assertion comes first from the demise of (decidedly low-trust) state socialism. While external pressures clearly played a role in this demise, low-trust central planning was also a key factor. Evidence also comes from research on the vitality of industrial districts in regions such as Northern Italy. Whereas Putnam (1993) argues that long-standing community ties in those regions created a fabric of horizontal trust, which in turn led to high levels of civic engagement and economic prosperity, critics have shown the economic vitality of these regions stems not only from horizontal trust but also from the vertical trust earned and enjoyed by active local governments (e.g., Tarrow 1996). This is also the lesson of Evans' (1995) analysis of the importance for economic development of governments with high levels of ''embedded autonomy.''

The various configurations of capitalist and postcapitalist societal forms can be located in a typology that reflects at the macrosocietal level the typology presented earlier of institutional forms at the firm level (see Figure 4). Indeed, substitution of the three terms of Figure 3—market, hierarchy, and community—with corresponding dimensions already well established in sociological analysis—market, state, and civil society—is conceptually straightforward. (Concerns voiced by critics of this market/state/civil society trichotomy focus on the way much prior research fell prey to ''classificatory angst'' (Edwards and Foley 1988, p. 128), and degenerated into arguments over whether a given institution falls into this or that type. The approach suggested by this paper avoids that dead end by using these ideal-types to understand the hybrids in which they are typically presented.)

For trust to become the dominant mechanism for coordination *within* organizations, broadly participative governance and multistakeholder control would need to replace autocratic governance and owner control—even if hierarchy, in a high-trust form, continued to characterize large-scale enterprise. And, for trust to become the dominant mechanism for coordinating *between* organizations, comprehensive but democratic planning would need to replace market competition as the dominant form of resource allocation—even if market retained an important subsidiary role. If capitalism can be defined as a form of society characterized by (hierarchically controlled) wage labor and (market coordinated) competing firms, then such a trust-based form of society would surely qualify as postcapitalist. A host of institutional components of capitalism, notably property rights, corporate law, labor law, and even the form of government, would need to change accordingly. ''Vertical trust''—trust in government—would have to be radically increased.

This extension of Schumpeter's thesis must immediately acknowledge that we know little about what any

**Figure 4** **A Typology of Societal Forms**
(low trust forms in lower left triangles, high trust forms in upper right triangles)



postcapitalist form of society might look like. The demise of state socialism has highlighted the importance of combining hierarchy with high levels of trust and the possible value of market as a subordinate mode, but whether and how such combinations can be attained and sustained is still an open question. Indeed, the central thesis of this essay is that the trends at work today in the fabric of intra- and interfirm relations might give us valuable clues to the answer.

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