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The Corporation as an Evolved Organizational Design

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ABSTRACT

Legal institutionalists correctly emphasize that corporations are constituted by law rather than merely by private contract, but many wrongly conclude that shareholders do not own corporations and that corporations themselves cannot be objects of ownership. This paper argues instead that the Hansmann-Kraakman conception of the corporation – centered on legal personality, asset partitioning, transferable shares, delegated management, and investor ownership – is both compatible with legal institutionalism and superior as an account of the corporation's economic role. The paper reconceptualizes the corporation as a modular legal architecture designed to cope with complexity, arguing that incorporation functions as a system of encapsulation and information hiding. By legally partitioning assets and defining organizational boundaries, the corporation creates a protected module within which rich, complex, and difficult-to-price interactions can occur. Corporate law thus operates as a set of abstract design rules that reduce the knowledge burdens associated with large-scale cooperation. This modular organizational form evolved gradually from medieval ecclesiastical corporations and chartered trading companies into the modern public corporation through the emergence of increasingly abstract and general legal rules of incorporation. The paper concludes that stakeholder and managerial theories ultimately rest on epistemic assumptions incompatible with a world of uncertainty and decentralized learning. The shareholder-owned corporation, embedded in external capital markets and disciplined by transferable ownership claims, evolved precisely because it is an effective institutional response to complexity, experimentation, and economic change.

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In a recent manifesto, Deakin *et al*. (2017) advance what they call *legal institutionalism*, "a legally grounded approach to the institutional and economic analysis of capitalism." This worldview rests on two claims. The first is that law necessarily involves both the state and private or customary arrangements; it cannot be reduced to only one of these. The second is that law is *constitutive* – that it accounts for many of the rules and structures of modern capitalist society. This second proposition can be understood as an assertion of the importance of de jure arrangements as against merely de facto ones. Among the important arrangements of a capitalist society is the organization of business. The business *firm* is a de facto institutional structure, but the *corporation* is a particular kind of firm that is instantiated in law. And corporate law is constitutive: it is important in determining what a corporation is and how it works.

In their authoritative treatment of corporate law, Henry Hansmann, Reinier Kraakman, and a number of coauthors delineate what they hold to be the essential features of the corporation: legal personality, limited liability, transferable shares, delegated management under a board structure, and investor ownership (Armour, Hansmann, Kraakman and Pargendler 2017, p. 1). They argue that despite many differences in legal regimes around the world, these five features are found everywhere.[1]

Yet there are others who dispute at least one of these features. For one identifiable group of scholars, shareholders in public corporations are not owners: the only thing shareholders own are their shares (Ciepley 2020; Deakin 2012; Ireland 1999; Robé 2011).

[1] What we are discussing here as "the corporation" is the fully fledged large public corporation. In fact, there were and are many different kinds of corporations (Guinnane, Harris, Lamoreaux and Rosenthal 2007) as well as many other organizational forms, and we will encounter some of these in due course.

Moreover, these scholars hold, because the corporation is itself a legal person, it is not something that can be owned. In many if not most formulations, these two propositions are put forward in the service of some version of a "stakeholder" theory of the firm, the idea that directors and managers should (or perhaps should be compelled to) somehow take into account not merely the interests of shareholders but also the interest of many parties potentially affected by the activities of the firm, sometimes including parties with no legal relationship to the firm whatever.

In articulating the idea of legal institutionalism, and in discussing the corporation as an example of a legal institution, Deakin *et al*. find it necessary to embrace the two propositions mentioned above: that shareholders do not own the corporation and that the corporation is not a *res* that can be owned. I will argue that this is wrong. Specifically, I will argue (1) that nothing in legal institutionalism (as understood from its two premises) demands these two propositions; (2) that the Hansmann-Kraakman understanding of the corporation is perfectly compatible with legal institutionalism; and (3) that the two propositions mentioned above are wrong.[2]

Beyond this, I hope to show that the Hansmann-Kraakman (H-K) corporation evolved, both in practice and in law, as a response to the inevitable complexity and uncertainty of the business world. As a response to complexity, the corporation instantiated

[2] This works both ways. Just as legal institutionalism is not *sufficient* to imply the two propositions, neither is it *necessary*. Harold Demsetz, whom Hodgson (2015) rightly accuses of collapsing property into mere possession, also believed that shareholders "are essentially lenders of equity capital and not owners, although they do participate in such infrequent decisions as those involving mergers. What shareholders really own are their shares and not the corporation" (Demsetz 1967, pp. 358-359). Indeed, Demsetz came to this conclusion precisely because he understood the firm's managers as de facto owners. As we will see presently, this is in stark contrast to the Hansmann-Kraakman view.

the modular design concepts of encapsulation and information hiding. And the ownership of the corporation – defined as the possession of both residual rights of control and claims to (some) residual income – evolved as a response to Knightian uncertainty and the resulting incompleteness of contracts. This understanding of the nature and evolution of the corporation stands in sharp contrast to essentially all stakeholder accounts, which are fundamentally variants of corporatist and managerial theories of the firm, and which thus rest on epistemic premises that are in the end incompatible with a world of complexity and uncertainty.

From the nexus of contracts to legal institutionalism.

Although most discussions of the nature of the corporation begin with a nod to (and, I will suggest, usually a misunderstanding of) the famous work of Berle and Means (1932), those discussions invariably turn to a seminal paper by Michael Jensen and William Meckling (1976). Jensen and Meckling saw themselves as explicitly extending ideas that Milton Friedman (1970) had articulated in an op-ed in the *New York Times Magazine* (Gindis 2020). The op-ed argued that business executives do not have some vaguely defined "social responsibility." Their only responsibility is to manage the business in accordance with the desires of the owners, which, Friedman thought, would usually but by no means always be to make as much money as possible, "while conforming to the basic rules of the society, both those embodied in law and those embodied in ethical custom." An owner may pursue whatever goal he or she wishes, but managers, like all other employees, are agents not principals, and thus they may not spend other people's money on their own goals, whether noble or mercenary. Moreover, Friedman argued, only people can have goals, and the corporation is only "an artificial person."

Set against the then-dominant neoclassical theory of the firm as a production function, Jensen and Meckling also saw themselves as opening up the "black box" of the firm. Drawing on the blossoming field of the economics of organization that was then emerging from a long-dormant paper by Ronald Coase (1937), especially the work of Armen Alchian and Harold Demsetz (1972), they seized on two key ideas from Friedman. The relationship between owners and managers is a principal-agent problem. And the firm is nothing but a legal fiction, "an artificial construct under the law which allows certain organizations to be treated as individuals" (Jensen and Meckling 1976, p. 311n12). Their elaboration of this second idea is worth quoting in full.

> The private corporation or firm is simply one form of *legal fiction which serves as a nexus for contracting relationships and which is also characterized by the existence of divisible residual claims on the assets and cash flows of the organization which can generally be sold without permission of the other contracting individuals*. While this definition of the firm has little substantive content, emphasizing the essential contractual nature of firms and other organizations focuses attention on a crucial set of questions – why particular sets of contractual relations arise for various types of organizations, what the consequences of these contractual relations are, and how they are affected by changes exogenous to the organization. Viewed this way, it makes little or no sense to try to distinguish those things which are "inside" the firm (or any other organization) from those things that are "outside" of it. There is in a very real sense only a multitude of complex relationships (i.e., contracts) between the legal fiction (the firm) and the owners of labor, material and capital inputs and the consumers of output (Jensen and Meckling 1976, p. 311, emphasis original).

The effect of this fully nominalist conception was to explode the corporation (a term that they use interchangeably with the "firm") and thus to render nonsensical any idea that the corporation is something that could itself have a purpose let alone a "social" purpose. The firm is nothing but a nexus of contracts.

Note that Jensen and Meckling explicitly mention the alienable residual claims of shareholders, though they describe these only as claims on income not on control. Significantly, a paper often touted as a touchstone for the shareholder-ownership account of the corporation is actually agnostic about – and indeed in the end arguably hostile to – any strong concept of ownership. As Eugene Fama put it, "in this 'nexus of contracts' perspective, ownership of the firm is an irrelevant concept" (Fama 1980, p. 290).

The Jensen-and-Meckling understanding of the nature of the firm, and of the centrality of the agency relationship, quickly became wildly influential both in the economics of organization and in the economics of corporate law, especially within the network of the University of Chicago and its offshoots, including the University of Rochester (home of Jensen and Meckling) and UCLA (home of Alchian and Demsetz).[3] Jensen and Meckling became important contributors to the growing field of transaction-cost economics, which, inspired by Ronald Coase's other iconic paper (Coase 1960), applied economic reasoning to a wide range of contracting practices and even to the law itself. Legal scholars like Frank Easterbrook and Daniel Fischel soon constructed an account in which the law of corporations appeared as little more than a helping hand to voluntary contractual arrangements, lowering transaction costs by providing standard-form contracts that could provide an off-the-rack template for the nexus (Easterbrook and Fischel 1991, p. 34).

3 I am not primarily concerned with careful history of economic thought here, but to be sure there were influential precursors to the nominalist contractual account of the corporation, notably Manne (1967), that antedate Jensen and Meckling. For a thorough treatment, see Gindis (2020). That the corporation is merely an association of cooperating individuals was already one of the conceptions under discussion in the nineteenth century, though this idea had a somewhat different valence before widespread concern about the separation of ownership and control (Cheffins 2004).

By the mid-1970s, however, the economics of organization was beginning to shift its emphasis away from a concern with transaction costs as understood by Coase and his followers toward a fascination with the problems that arise when agents have to commit specialized assets to a transaction (including intangible assets like specialized knowledge).[4] Once those specialized assets are committed, other contracting parties can threaten a holdup – can threaten to behave in ways that would reduce the value of the committed assets unless rents are handed over. Because of this problem, contracting in the face of transaction-specific assets would become difficult, as parties would demand costly safeguards or even refuse altogether to cooperate. If we understand the firm to be nothing but a set of contracts among many cooperating factors of production, none of which can be singled out as the "owner," then, as Margaret Blair and Lynn Stout (1999) argued, the threat of holdup is a problem that could make *all* contracts costly.[5] Blair and Stout go so far as to suggest that the only solution is for all the contracting parties to commit to the authority of an impartial court-like outside party – a board of directors – that, far from doing the bidding of one owner or of many "stakeholders," is an authority unto itself.[6]

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4 This approach was already visible in the early work of Oliver Williamson (1975), but it became almost canonical after the publication of an important paper by Benjamin Klein, Armen Alchian, and Robert Crawford (1978). For a more careful account of the various strands in the economics of organization, see Langlois (2025a).

5 Although Blair and Stout emphasize the problems of asset specificity, they are aware that the same problems arise in any situation of team production when monitoring costs are high. In the formulation of Alchian and Demsetz (1972), team production means that it is costly to distinguish the individual marginal products of team members. The result is essentially a tragedy of the effort commons ("effort" broadly understood): all participants reap the full benefits of their own subgoal pursuit but can transfer some of the costs of their behavior onto the other team members, and this leads to an inefficiently low level of total effort.

6 Bainbridge (2025) takes a similar view, which he explicitly associates with the nexus-of-contracts account of the firm. In his story, all the firm's constituencies effectively delegate decision-making power to the board through contract.

Yet already in Easterbrook and Fischel we can find an argument for why one of the cooperating parties – the holders of common stock – are in a fundamentally different position from all the others. Since they care only about maximizing the value of their residual claims, shareholders are the only constituency that has no subgoal to pursue. They are therefore the only constituency whose incentives are fully aligned with decisions that would maximize the value of the firm. For Easterbrook and Fischel, this is why the shareholders do and should possess voting rights, not just residual claims to income. "The right to vote (that is, the right to exercise discretion) follows the residual claim" (Easterbrook and Fischel 1991, p. 69).

Oliver Williamson made an even stronger argument for why shareholders should not be seen as merely another set of contracting parties. Although an individual shareholder may have an easy exit option and a thus perhaps a tenuous association with the corporation, "stockholders as a group bear a unique relation to the firm" (Williamson 1985, pp. 304). To evaluate the position of stockholders as a group from the perspective of any individual investor is to commit a fallacy-of-composition error. Shareholders as a group provide general-purpose purchasing power that can all too easily be appropriated in service of the subgoals of other constituencies. More significantly, shareholders as a group face the highest costs of contracting. In Williamson's account, this is because they do not own particular assets and thus cannot craft the kinds of contractual safeguards against expropriation available to other groups. The only safeguard available to suppliers of equity as a group is a governance structure consisting of a board of directors that ultimately answers to shareholders.

The asset-specificity approach to the economics of organization did not represent a fundamental break from the nexus-of-contracts account of the firm.[7] But another strand of thought emerged that took seriously the concept of ownership.[8] Sometimes called the New Property Rights approach (to distinguish it from the "old" property rights approach of Coase, Alchian, and Demsetz), this strand burrowed in on an idea that had always pervaded the economics of organization: that contracts are always necessarily incomplete (Hart 1995). In a world of complexity, change, and fundamental uncertainty, it is impossible to foresee all possible contingencies and thus impossible to specify contracts in adequate detail to respond to the future. This means that there must always be one party that retains the right to make decisions (typically decisions over the disposition of assets) in the future after uncertainty is resolved. That party is the owner. And ownership is fundamentally non-contractual.

In my view, this strand of thought finds its true roots in the work of Frank Knight (Langlois 2026). In his much-cited (and much-misunderstood) classic *Risk, Uncertainty, and Profit* (1921), Knight considers the implications for organization of a world of uncertainty, meaning a world in which economic agents are not merely unable to assign probabilities to events but often do not even know the menu of alternatives available (or know them in meaningful detail). In such a world – which is, of course, the world we live in – some economic agents must exercise the human cognitive faculty of *judgment*. And

7 Indeed, Benjamin Klein, one of the godfathers of asset specificity, remained an ardent proponent of the nexus view. "The question what is the essential characteristic of a firm now appears to be unimportant. Thinking of all organizations as groups of explicit and implicit contracts among owners of factors of production represents a fundamental advance" (Klein 1983, p. 372).

8 For a clear and cogent discussion of how incomplete-contract models differ from models of asset specificity, see Gibbons (2005).

those with comparative advantage in the faculty of judgment do and should possess decision rights. Although it may be logically possible for an individual exercising judgment – an entrepreneur – to own no assets, in reality the exercise of judgment, and thus the (residual) right of control, is closely associated with ownership of factors of production, especially capital. "Since it is capital which is especially at risk in operations based on opinions and estimates, the form of organization centers around the provisions relating to capital" (Knight 1921, p. 252).

A world of uncertainty means *ownership* not just contract, and ownership means not just a claim to residual income but also residual rights of control. Combining this Knightian insight with a Williamsonian account of the relative costs of contracting among the constituents of the organization, Henry Hansmann (1996) developed a unified theory of the ownership of enterprise. He considered various classes of what he called patrons, groups of potential owners or counterparties of the organization. For Knightian reasons, one set of patrons necessarily holds the formal rights of control and the residual claims; all other patrons receive limited rights and duties specified by contract. The analytical exercise is then a matter of understanding when and why one set of patrons is the owner and other patrons are contractual partners. This in turn is a matter of toting up and comparing, for each possible assignment of ownership, the costs of ownership and the costs of contracting. For although we most often think of, and most often find, enterprises owned by the suppliers of capital, the world is actually full of enterprises owned by other patrons, including workers, customers, or suppliers. In the end, all enterprises are really *co-ops*.

The ordinary business firm is a *capital cooperative*. Although some capital is typically supplied through contract, as through bonds or bank loans, it is ultimately suppliers of capital – the shareholders as a group – who hold the residual claim and the residual rights of control. This is because, for reasons we have seen, the suppliers of capital typically suffer from the most intractable principal-agent problem and thus typically (though not necessarily always) face the highest costs of being contractors. "Ownership of the firm by contributors of capital … largely removes this problem by putting the contributors of capital on both sides of the transaction, in the form of equity investors (*i. e*., shareholders) who are both lenders to, and owners of, the firm" (Hansmann 2014, p. 3).

But what about the infamous separation of ownership from control? Isn't it absurd to give ownership rights to a set of patrons who have high costs of exercising those rights? Shouldn't the owners be those with a large scope of de facto control over the organization, like managers or directors? It is precisely *because* managers have so much control – precisely *because* they have a certain degree of de facto ownership – that manager must not possess the de jure rights of ownership, for to assign them those de jure rights would be to license and give free rein to subgoal pursuit. Shareholder ownership is the best alternative because it is the least-bad alternative (Hansmann 1996, pp. 61-62).

It is crucial to notice here that what I mean by ownership – the possession of the residual rights of control as well as some residual-income claims – is a matter of de jure right not de facto possession. What the economics of organization (properly understood) tells us is not that the corporation must be a nexus of contracts but that it *cannot be* merely a nexus of contracts.

Most accounts of the corporation usually stress the provision of limited liability, which makes the private assets of owners safe from the creditors of the corporation. Critics portray this feature, often implicitly, as an unfair advantage that the law confers on capital. In fact, however, to the extent that the feature has benefits, the value of those benefits would be reflected in the price of shares: financial markets would see to it that limited liability is "priced in."[9] Limited liability as a standard feature of the corporation was in fact a recent invention, and "this attribute was not essential for the spread of widely-held and publicly-traded corporations, or for the unfolding of the industrial revolution and the sustained economic growth that followed" (Harris 2020b, p. 645).

Hansmann and Kraakman (2000a, b) argue that it is a very different kind of limited liability that is the essential feature of the corporation. By creating the firm as a "legal person," the law partitions assets into a private sphere and a corporate sphere. It does so not to protect the assets of the private owners from the creditors of the corporation but to protect the assets of the corporation from the creditors of the private owners. This kind of asset partitioning cannot be accomplished through contract, since the costs of identifying and bargaining with all the creditors of the capital suppliers, including unknown future ones, would be prohibitive. Asset partitioning must be established in corporate law. By partitioning assets, the law of corporations – like the law of trusts and even landlord-tenant law – creates what Henry Smith (2013) calls *entity property*, a platform that allows specialists in managing, monitoring, and other functions to concentrate on what they know the most about and what they do best.

9 Limiting the liability of known voluntary creditors could in principle be handled entirely through contract. The same is not true for limited tort liability – liability against "involuntary creditors." Limiting that kind of liability would always require corporate law. Hansmann and Kraakman (1991) have argued for doing away with limited liability for torts.

After inevitably devoting considerable effort to attacking the nexus-of-contracts view of the firm, critics of the shareholder-ownership idea typically either ignore or stumble over this asset-partitioning story, sometimes lumping Hansmann and Kraakman in with the contractual view on the grounds that they use the tools and language of the economics of organization. In reality, this argument represents a sea change away from nexus of contracts. Because contracts will not suffice to create the most effective organizational design, law becomes constitutive of the corporation. Hansmann and Kraakman implicitly affirm the view of the legal institutionalists that "the glue binding the corporation together is the power of corporate law, the adoption of its principles by the shareholders, and the agreement between them" (Deakin *et al*. 2017, p. 195).

I would go further and suggest that the corporate law necessary for asset partitioning and the creation of a legal person is *law* in F. A. Hayek's sense, that is, it is not *legislation*. Deakin *et al*. (2017, p. 189) claim that Hayek's distinction between law and legislation is a distinction between customary law and state-enforced law. This is not so. It is true that Hayek sees law as "found" in some sense rather than consciously invented by legislators, but he is clear that law is most often enforced by the state, especially through courts (Hayek 1973, p. 94). He also makes clear that law must sometimes be adjusted by legislation. What distinguishes law from legislation is not its enforcement mechanism but its abstract character: it is general, predictable, and independent of ends. In the context of the corporation, for example, a general right of incorporation would be law, whereas a specific company charter, as envisaged in the long-discredited concession theory of the corporation, would count as legislation.[10]

In what follows, I want to think about the (H-K) corporation as an organizational structure and to consider it as an evolved – and in this sense arguably "found" – legal institution.

Abstraction and encapsulation.

The Hansmann-Kraakman account of asset partitioning is sufficient to establish that the corporation requires law and cannot be created solely through contract. But legal incorporation has other benefits as well. Unlike a partnership, the corporate form makes it unnecessary for any investors (or their heirs) to dissolve the organization in order to recover their assets (Blair 2003; Demsetz 1997). Because potential counterparties need not fear dissolution, costs of contracting are reduced. Thus, unlike a human legal person (a private individual), the corporation does not have a fixed lifespan. The ability to create perpetually lived organizations is a key feature of the liberal open-access orders that have been crucial for modern economic growth (North, Wallis and Weingast 2009, p. 23). Even from a nexus-of-contracts perspective, as Jensen and Meckling suggested, entity status is generally beneficial because it avoids the transaction costs of many individual contracting parties writing contracts directly with one another.

The corporation is an entity. But is it a *legal person*? As David Gindis (2016) rightly points out, legal personhood is a pragmatic device; there are many kind of legal persons,

10 "It has been over half-a-century since corporate legal theory, of any political or economic stripe, took the concession theory seriously" (Bainbridge and Henderson 2016, pp. 68-69).

and they need not all function in exactly the same way. I claim that one important way in which the corporate legal person differs from the human one is that the corporate entity is indeed a *res* – a thing – than can itself be owned.[11] The unwillingness to see this reflects (possibly among other things) a failure of imagination[12] (Iwai 1999; Lambsdorff 2024; Langlois 2019). It is true that human legal persons cannot nowadays be owned. When humans were owned as chattels in the context of American slavery, someone who became a *res* most certainly ceased to be a full legal person. Yet even in the antebellum American South, judge-made law had to grapple with the fact that slaves were not inanimate but had agency; and in some contexts, notably but not exclusively criminal law, slaves *were* effectively treated as legal persons as well as possessions[13] (Morris 1996). In Ancient Rome, some slaves were both owned and – as we will see – also provided the mechanism of legal personhood for the Roman corporation (Malmendier 2009).

But there is a much deeper source of error than a failure of imagination. The proposition that the corporation is not a *res* owned by shareholders is informed by the

[11] Some critics claim that British law understands shareholders not to be owners. For example, John Kay (2024, pp. 166-168) cites language in *Short v Treasury Commissioners* ([1948] 1 KB 116, 122 (Evershed LJ), aff'd [1948]) that "shareholders are not, in the eyes of the law, part owners of the company." This language was later quoted by the House of Lords in *Commissioners of Inland Revenue v Laird Group plc* ([2003] UKHL 54, para 35), although, as Kay admits, Lord Millet immediately declared as well that "the company is at one and the same time a juridical person with rights and duties of its own, and a *res* owned by its shareholders." All these comments are arguably dicta not holding. More importantly, the idea that "all shareholders own are their shares" was never meant to deny that shareholders own the residual rights of control – that is, was never meant to cast shareholders, as many critics wish to do, as merely *rentiers* – but rather to make the noncontroversial claim that shareholders do not directly own a share of the capital owned by the corporate entity. In reality, British corporation law is on the extreme end of friendliness toward the idea of shareholder ownership (Armour, Enriques, Hansmann and Kraakman 2017, pp. 72-73).

[12] As the philosopher Daniel Dennett observed, philosophers and scientists often "mistake a failure of imagination for an insight into necessity" (Dennett 2023, p. 381).

[13] Aristotle (in the *Politics*, Book I, chapter 4) struggled with this problem as well, concluding that slaves were "living instruments." We can say the same thing about business corporations.

extremely thin conception of ownership inherited from the legal realists of the twentieth century. A movement often traced to Oliver Wendell Holmes (Posner 1992), legal realism sought to dethrone older rule-oriented conceptions of law and to insist that legal decisions should be determined importantly by their consequentialist outcomes. It is controversial the extent to which, in many hands, this program largely sought to enable and to justify a program of activist Progressive policy (Fried 1998). What is clear is that the proponents of legal realism abandoned strong conceptions of property and ownership, which they saw as too closely associated with the idea of natural rights.

The result, which came to dominate legal thinking, was a conception of property rights as a set of *in personam* social relations, a nexus of contract-like entitlements that could be picked apart like a bundle of sticks (Merrill and Smith 2001; Penner 1996). In one of the most famous formulation, A. M. Honoré (1961) detected exactly eleven "leading incidents" of ownership. These include the classic entitlements of use, income, and alienation but also highly specific entitlements like the "right to manage" as distinct from the right to use.[14] Ownership rights in this formulation are weak, partial, easily separable, and not interrelated in any important ways.

In effect, the bundle-of-sticks account explodes the corporation in a manner not unlike the nexus-of-contracts account. And this is no coincidence. Although the modern

14 In attacking the idea that shareholders own public corporations, John Kay explicitly invokes these incidents. "Of the eleven tests put forward by Honoré," he asserts, "the relationship between Amazon and its shareholders satisfied only two, and these are rather minor; three are satisfied in part; and six are not met at all" (Kay 2024, p. 176). But Kay does believe that the corporation is a *res* – albeit one that must always "exist without being owned by anyone" (p. 177). As we will see, some corporations – not-for-profit ones – are in fact unowned, but these are a small subset of all corporations, and it is precisely the ones that *are* owned that are best designed for dealing with the radical uncertainty that Kay himself feels is so pervasive in the economic world.

Law and Economics movement differs from the original legal realism in its political judgments, it is nonetheless in the end a form of legal realism, one in which economic efficiency becomes the criterion of good public policy.[15] Proponents very much included Coase, who tended to portray rights as particularized entitlements – like the right to make noise (or be free of noise) in a particular place or the right to use certain frequencies of the electromagnetic spectrum at certain times in certain places – all very much in the spirit of the bundle-of-sticks view (Merrill and Smith 2011).

The alternative to the bundle-of-sticks characterization of property rights would be to return to an older view in which property was seen as a kind of minisovereignty: an owner has complete dominion over the thing owned. The ownership of property is a right *in rem*. Rather than having only some or all of a collection of pre-specified entitlements that have effect only in particular circumstances and are good only against specific individuals, the owner in this view has an unspecified (and perhaps unspecifiable) set of rights against the world. Courts and legislatures can and do strip away some "sticks." And owners themselves can sell off *in personam* rights – which "attach to specific individuals and are paired with duties in other specific individuals" (Merrill and Smith 2011, p. S81) – through contract. But the sticks are not limited in number or pre-specified in form. And even after some sticks are removed, a core of ownership *in rem* remains.

15 "Economic analysis of law resembles legal realism primarily in claiming that legal rules and institutions have functional, social, explanations and not just an internal, lawyer's, logic; in this it is profoundly antiformalist. But in its emphasis on law's functionality the law and economics movement is closer to the father of legal realism, Holmes, than to the legal realists themselves with their emphasis on liberal meliorism" (Posner 1990, p. 442).

At a deep level, this view is not in the end inconsistent with the spirit of Coasean law and economics. In a world of complexity and change, a right of ownership *in rem* economizes on knowledge. Non-owners do not have to know any of the details of how or why a piece of property is owned or how that property is being used. They need know only that as non-owners, they are excluded from interfering with the use of the property unless they receive permission to do so. No one need keep track of a tangle of *in personam* or otherwise idiosyncratic entitlements. Although governance solutions – those particularized *in personam* arrangements – are sometimes necessary, ownership of property ought to be understood as fundamentally a low-transaction-cost rule of exclusion (Smith 2002).

As Henry Smith (2012) has argued, we should think about property and ownership in terms of architectural systems design. Innumerable authors have pointed out that human society is a complex system and that it is a central – perhaps *the* central – function of institutions to deal with the problems that complexity implies. Herbert Simon (1962) long ago insisted that both biological organisms and human artifacts, including social artifacts like institutions, deal with complexity by imprisoning it in what we would now called modules (Langlois 2002, 2025b). Modularization is about more than merely slicing the system into parts. The problem of complexity is ultimately a knowledge problem, the often-intractable difficulty of tracing out how a change in one part of the system will ramify to other, often distant, parts of the system. Modularization means cutting the system into pieces in a way that efficiently minimizes the interconnections among the parts. It does this by allowing elements within modules to communicate mostly or exclusively with other in-module elements, not often with elements within other modules.

In software engineering, this is called *encapsulation* (Parnas 1972). It is crucial to notice that this is a structure of exclusion: elements in one module may not intrude on the inner workings of other modules, lest they complexify the system and threaten to unleash unforeseen consequences. Ideally, the elements of a module should not even be able to know what is going on in other modules, a design feature called *information hiding*. Baldwin and Clark (2000) distinguish between a system's *visible design rules* and its *hidden design parameters*. In Smith's view, this is how we should think about the law of property. The "minisovereignties" – the *res* – of the classical conception of property are really encapsulated modules.

It is my contention that we can extend this analysis of property in general to the specific case of the corporation as a *res* that can be owned. Just as we can understand the law of property as a modular system, so too can we reconsider the firm, and thence the corporation, as a modular system (Baldwin 2008; Langlois 2002). Incorporation is encapsulation.

Coase (1937) had famously argued that firms emerge because of the costs of using the price system. Carliss Baldwin (2008) reformulates those costs as the *mundane transaction costs* of defining, counting or measuring, and paying for the materials, services, or information transferred between elements of the system.[16] When mundane transaction costs are low, which means when it is relatively cheap to clearly define, count, and price what is being transferred between elements of the system, transactions can take place at *thin crossing points*. We can associate such transactions with the price system as Hayek

[16] Mundane transaction costs as against the "opportunistic" transaction costs favored in the literature of asset specificity.

(1945) described it. But very frequently, especially at moments of change and innovation, agents need to transmit rich and complex information, which is costly to define, count, and price. In such cases it is often cheaper to create *transaction-free zones* that eliminate mundane transaction costs.[17] These zones are modules, and modules are firms.

This is not to say that elements of the in-module system can never engage in inter-firm transfers outside of thin crossing points (outside of the more-or-less anonymous price system). But transfers involving rich information and other complexities will be more costly, even if often worth the cost; and they will typically be facilitated by relational contracts (Baker, Gibbons and Murphy 2002) and other forms of *in personam* governance strategies. The most inchoate, complex, and costly transfers will remain within the boundaries of the module. As they will not need to be defined, counted, and priced, these in-module transfers – or the knowledge associated with them – will effectively be thrown into the public domain, albeit the private "public domain" of the firm.

In this narrow sense, the firm is indeed, as many have claimed, a "knowledge commons." In the Coasean tradition, the solution to the problem of a common-pool resource – of the tragedy of the commons – is to create an exclusion right, which generates an incentive for the owner of the right to manage the resource optimally (Demsetz 1967). Ostrom (1990) showed that in many real-world situations involving small groups with relatively low knowledge costs, effective resource management could be achieved instead by various kinds of local, concrete, highly context-specific governance arrangements,

[17] Baldwin considers a transfer to be a transaction only when it can be defined, counted, and paid for. Thus transfers *within* the firm are not "transactions." This usage is at variance with that of others, including Williamson, who call both intra-firm and inter-firm interactions "transactions."

perhaps within a system with multiple loci of authority. By contrast, the corporation, instantiated in law not in custom, is a flexible, abstract system of exclusion.

Within the legal boundaries of the corporation – *within* the module – there may well be rules to govern how the corporation's assets, effectively owned "in common" internally, are used and in general to specify how the task-and-transfer network is managed. This might well look like an Ostromian polycentric order, especially in modern-day firms of the so-called knowledge economy. But the rules might also look very different. Notably, firms have often been, and in many cases still are, hierarchical in structure. There are in fact many ways we can conceptualize what goes on inside the firm. I am partial to the perspective that sees firms as bundles of capabilities (Nelson and Winter 1982; Richardson 1972) or resources (Penrose 1959). James March (1962) famously argued for seeing the firm as a political coalition. Many, including Alfred P. Sloan (1964) and Oliver Williamson (1975), have seen firms as court-like systems for internal dispute resolution. Relatedly, some have seen firms as "mini-governments," an idea to which I will return. Although all of these are interesting and valuable conceptions, what goes on inside the legal boundaries of the corporation does not determine the nature of the corporation. The nature of the corporation lies in the architecture of its organization as instantiated in law.

The evolution of the corporation.

A genuinely modular system is inherently law-like in Hayek's sense. The visible design rules, specifying what constitute the modules and interfaces, are an abstract constitutional structure (Baldwin and Clark 2000, p. 73). Like a political constitution, a modular system is about constraints; and, like constitutional design, modular design in general is about the choice among constraints (Buchanan 1990). Which elements should be in which modules?

Which elements should be permitted to communicate between modules? Which should be constrained to communicate only within their own modules? What is the nature and structure of the interfaces? These questions imply that a modular system imposes upfront design costs. In the case of artifactual systems like computers or software programs, human designers literally pay these costs when they choose to expend resources in the process of thinking through the interconnections in the system rather than letting the artifact grow like topsy. But what about social institutions like the law that constitutes the corporation?

On the one hand, we might wonder whether an evolutionary process is likely to pay these upfront costs. Biological systems are typically less modular than similar artifactual systems.[18] Social organizations that arise spontaneously to solve economic problems are also typically complex and interconnected. For example, the famed water-temple irrigation system of Bali, which Elinor Ostrom saw as a prototypical polycentric order for governing the commons (Ostrom and Janssen 2004), evolved spontaneously over generations, and the great subtlety of its design, shrouded behind religious symbolism and ritual, was famously misunderstood by Dutch colonial authorities (Lansing 1991; Lansing, Kremer and Smuts 1998). It was a complex system with multiple overlapping interdependencies, relying on a tangle of detailed rules and water-sharing agreements among groups of water-using landholders.

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18 For example, the aerodynamics of the flight of a bird is a system with far more non-linear interactions than the aerodynamics of the flight of an airplane (Holland 2012, pp. 22-23). Unlike many precursors who had tried to pattern mechanical flight on the flapping of bird wings, the Wright brothers succeeded because they made their plane more modular than evolved birds by decoupling the system of propulsion from the system of control. The Wrights did control the lateral stability of the plane by twisting the wing, an idea they got from watching buzzards fly (Bittlingmayer 1988, pp. 230-232). Soon, however, others, including Alexander Graham Bell, further decoupled mechanical from biological design by introducing the concept of the aileron to control lateral stability.

On the other hand, however, abstract systems of modular design rules – what we can think of as meta-rules – *can* evolve, though perhaps not always smoothly and reliably. Even in the case of human-designed artifactual systems, "perfectly modular designs do not spring fully formed from the minds of architects" (Baldwin and Clark 2000, p. 76). It takes time for designers to begin to understand the interdependencies in a system. In evolved social systems, participants may, as Hayek suggested, slowly stumble upon (what are really) underlying principles of modular design. This is true even if the participants mostly understand *that* the principles work, not *how* they work. I argue that the evolution of the abstract (Hayekian) law that came to underpin the H-K corporation is an example of such a process.

As Joseph Schumpeter (1934, p. 76) observed, the social phenomena of earlier epochs are often less instructive than more recent versions of those same phenomena, since growth and the division of labor tend to make essential characteristics stand out today that had been bundled and hidden in earlier forms. Yet in the early history of western social organization, we can already see clearly that the abstract feature of encapsulation was at the heart of the idea of the corporation.

Scholars have recently begun to emphasize that post-Roman Europe adopted a mechanism for governing complex social organization quite different from what is found in other parts of the world, notably China and the Middle East (Henrich 2020). Many parts of the world are organized into familial clans, understood as patriarchal hierarchies of blood relatives. By contrast, Europe organized around units like cities, universities, guilds, and monasteries that were populated by unrelated individuals. These units were corporations in a broad sense (Greif 2006).

At the heart of the European model was the Roman Catholic Church. In the year 1075, Pope Gregory VII asserted papal supremacy over the Western Church and declared its complete independence from secular authority (Berman 1983, p. 50). This Papal Revolution led to decades of bloody strife, which would eventually be decided in favor of the Church. One result of Church victory was the disappearance of older tribal (clan-based) law in favor of more abstract legal systems, some parts of which would be crafted by the Church itself. Another result was a great flowering of corporate entities like cities, universities, guilds, and monasteries. The Church itself was a corporation. The most striking and important manifestation of the emerging corporate paradigm was perhaps the Cluniac order, whose monasteries – tightly encapsulated social organizations of unrelated individuals – proliferated throughout Europe in a modular hierarchical structure not unlike modern-day franchising. Europe's organizational path would have significant consequences for economic growth, including the Great Divergence between Europe and China (Greif, Mokyr and Tabellini 2025).

It is crucial to notice that the efflorescence of the corporation in the High Middle Ages was about encapsulation and exclusion, especially exclusion of the state (and in some cases the papacy as well). The "state" in this era was a coalition of warlords, made up of kings and self-proclaimed emperors as well as numerous lesser lords who, while owing obligations to the monarchs, retained their own military capabilities (Desierto and Koyama 2025). Corporations emerged not as adjuncts to these "states" but in opposition to them. Because free cities and other corporations had to live in such a dangerous environment, however, many of them – but not, of course, the Church itself – had to treat with monarchs for explicit charters.[19] Yet the essential feature of the charter was its function as a protection, in abstract law widely enough recognized to be at least partially binding, against the demands of the warlords.

Medieval corporations were not business enterprises. Even guilds were associations of individual proprietors not a unified commercial entity. In practice, medieval corporations were "collegial" in the sense that they operated for the benefit of the participants, who were "members" not owners. But this says very little about the fully developed modern public business corporation. The medieval corporations were solving a different economic problem: they were essentially what we would now call not-for-profit corporations. Sometimes a constellation of agency problems makes it optimal that no one be the owner, in the sense that residual income is not distributed and residual rights of control are vested in a board of directors (Hansmann 1996). Of course, in the modern context, non-profit boards are often stuffed with major donors who are effectively capital suppliers, albeit capital suppliers who do not expect a positive return. There are countless not-for-profit firms in existence today, and that most certainly does not imply that all corporations are or should be not-for-profits.

Many writers have observed that corporations often function as "mini-governments," with both internal judicial functions and internal political structures. Some conclude from this that the corporation thus cannot be an entity owned by its shareholders. In fact, seeing corporations as governments – and vice versa – makes precisely the opposite

[19] But not all cities had or needed charters. "In England, many corporations, especially municipalities (including London) lacked formal charters of any sort and instead claimed privileges by custom or prescription" (Stern 2017, p. 24).

case: because citizens (voters) are the owners of governments. That is arguably what "democracy" really means.

Especially in free cities, people in medieval Europe joined together, often through their guilds, in associational governments to provide defense and other public goods (Kohn 2005). In Hansmann's terms, these governments – these corporations – were citizen co-ops. Citizens "owned" these co-ops in that they possessed the residual rights of control through voting and received the residual income, even if, as in the case of the non-profit donors, their residual income was negative: they had to pay taxes (Hansmann 2014). This is no less true of the governments of modern liberal democracies, which are a (sometimes awkward) marriage of an associational government with a Weberian territorial monopoly in the use of force.[20] Unlike shareholders in a public business corporation, of course, citizens cannot alienate their voting rights, and they face high costs of voting with their feet.

Indeed, because of the benefits of their architectural structure, corporations can often provide more effective organizational services than can governments, especially when the latter have low "state capacity." Philip Stern has shown, for example, that, even before it became a Weberian territorial state in the aftermath of the Battle of Plassey in 1757, the British East India Company provided government services to the residents of its coastal factories in India, taxing inhabitants to pay for walls, sanitation, defense, and other

[20] David Cieply (2017) is right in arguing that the American founders understood the constitutional project as at least in part the construction of a corporation.

public goods, and even importing English common law for use by company judges[21] (Stern 2011).

More to the point, Stern has also shown that a low-state-capacity British government employed chartered corporations to undertake almost the whole of the colonial exploration and exploitation of what would become the British Empire[22] (Stern 2023). What is striking about Stern's account is the extent to which the early modern British state – a regime that did not lack confidence in its prerogative powers – felt itself constrained by the abstract law of corporations that had developed in England. In order to challenge the validity of a corporation's charter or the rights of the particular charter holders, the Crown was required to prosecute ancient writs of *scire facias* and *quo warranto* before the Court of King's Bench[23] (Stern 2023, pp. 73-75). Only as the British state gained (bureaucratic) capacity did it begin to nationalize corporations, including the East India Company. Many colonial corporations themselves became states, as in parts of what became the United States.[24]

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21 Once the Company became a Weberian territorial state after Plassey, it was still owned by investors in London not by local citizens. But this was no different from the previous and adjacent jurisdictions of indigenous warlords, who were the residual claimants of their domains. The local warlords were family firms, not corporations.

22 Low state capacity in this case means low relative to what would have been required for internal (vertically integrated) colonialism, not low capacity relative to other states in existence at the time.

23 In addition, "law and custom required that to annul a charter, the physical document itself needed to be repossessed and literally canceled, ceremoniously tearing or striking it through" (Stern 2023, p. 73). This is illustrated in a founding legend of my home state of Connecticut – the Charter Oak. In 1687, a representative of James II appeared in Hartford with a brief to reorganize the New England colonies. Alarmed colonists grabbed the state charter, which had been granted by Charles II a quarter century earlier, and hid it in an oak tree so it could not be canceled.

24 Williamson (1975) understands bureaucracy as a hierarchical mode of organization. Although firms and corporations need not be organized as bureaucracies, those we think of as states typically are.

For most of recorded human history, business activity was carried out in unincorporated sole proprietorships and partnerships not corporations. The corporation in its modern form as a container for business enterprise began to emerge only in the early modern period, and the East India Company would be an important landmark in that process. But there were precursors.

The *societas publicanorum*, which arose during the Roman republic, possessed many of the characteristics we now associate with the corporation, notably including versions of corporate personhood or entity status. The enterprise did not cease to exist on the death of a partner, and it could file legal claims and own property. In addition, investors could own limited-liability shares without being partners, and these shares traded on a market. Although the function of the *publicani* was to undertake contract work for the republic, the form was not created through concession. As Ulrike Malmendier has shown, enterprising merchants cobbled the form together within what was a somewhat underdeveloped yet relatively flexible Roman legal system. Astonishingly, this was accomplished through quirks in the law of slavery, which permitted a "company slave" to act in effect as a trustee (Malmendier 2009, p. 1084).

There are medieval precursors as well. As early as 1373, two grain-milling enterprises on the Garonne had effectively incorporated and displayed most of the attributes of the modern corporate form, including limited liability, asset partitioning, alienable shares, and corporate governance (Le Bris, Goetzmann and Pouget 2015). Under the Carolingian legal system, property rights were generated as grants or fiefs from a lord in return for compensation (military service or, increasingly, simple usufruct). In the twelfth century, the Count of Toulouse and the priory of Daurade held the rights to the use of the waters of the Garonne, which they enfeoffed to separate sets of mill investors, who then technically became their vassals. Over time, the payments to the feudal lords diminished with inflation, and feudal obligations became attenuated to the point that the feudal entitlement transformed into ordinary shareholding. Le Bris, Goetzmann, and Pouget (2026) argue that this is but one of many examples in which organizational forms very much like the modern corporation emerged in history through a process of convergent evolution – underlain by the same set of abstract design principles.

Ultimately, however, the evolution of the modern business corporation unfolded in the early modern period, largely if not exclusively to solve the problems of long-distance trade in a globalizing world. Here Ron Harris (2020a) provides the deepest and most comprehensive account. Like most scholars, Harris argues that medieval ecclesiastical institutions played a foundational role in the evolution of the corporation. The Church had developed durable forms of collective organization (like the Cluniac order) that could hold property, survive the death of individual members, and act as legally continuous entities. These ecclesiastical corporations established key organizational principles later adopted in secular contexts, including perpetual succession, collective governance, and legal personality. Medieval commercial practices subsequently expanded these organizational possibilities through contractual forms such as the *commenda* and similar partnership arrangements, which enabled investors and entrepreneurs to pool capital while allocating risk across geographically dispersed ventures. These intermediary forms facilitated increasingly complex long-distance trade and gradually separated ownership from direct managerial participation.

In Harris's view, the decisive transition toward the modern business corporation occurred with the chartered trading companies of the early modern period, especially the Dutch and English (later British) East India Companies. These organizations combined features of earlier ecclesiastical and mercantile institutions with new forms of transferable shares, centralized management, and state-granted monopoly privileges. In doing so, they created mechanisms for mobilizing large amounts of capital from numerous investors while stabilizing organizational continuity across time and distance. Over the eighteenth and nineteenth centuries, these arrangements evolved further as incorporation became progressively standardized and detached from special sovereign privilege.

This was not a smooth process. In England, the Glorious Revolution of 1688-89 ushered in a period of growth, including a thickening of financial markets (Hodgson 2023). The system of Crown charters and parliamentary acts of incorporation came increasingly under pressure, to the extent that companies (most significantly, two marine insurance outfits) began buying and reusing the charters of existing businesses originally operating in distant lines of enterprise. At the same time, the South Sea Company, a chartered monopoly of trade with South America, had come to rival the East India Company and the Bank of England as a destination for investor funds. In 1720, Parliament passed a bill to endorse the charters of the marine insurance companies, to which, at the behest of the South Sea Company, was added a last-minute clause prohibiting any association "acting or presuming to act as a corporate Body or Bodies" without legal authority from the Crown or Parliament (Stern 2023, p. 138). This was in fact a ham-handed, and ultimately futile, attempt by the South Sea Company to disadvantage other enterprises that were competing with it for investor capital. Contrary to popular belief, the Bubble Act, as it came to be called in the nineteenth century, was passed before the South Sea Bubble not in response to it, and it was passed in the perceived interests of the South Sea Company not to regulate it (Harris 1994).

As a result, access to royal charters or acts of Parliament became extremely costly. But businesses nonetheless operated without formal incorporation, and there existed a multitude of "unincorporated corporations" that enjoyed most of the benefits of incorporation without a government-granted charter (Anderson and Tollison 1983). These enterprises used existing pieces of law to create "a pre-incorporation system that offered many of the effects of separate personality, asset partitioning and limited liability" (Getzler and Macnair 2005, p. 272). In order to create entity status and asset partitioning, the corporations turned to the law of trusts: "The organization's real and personal property would be placed in the names of trustees, and trustees selected by the subscribers to the organization would be authorized in certain instances to act in the society's behalf" (DuBois 1938, p. 217).

This patched-together system of corporate law would survive the early Industrial Revolution, including the building of canals and the rise of ironworking and cotton. But eventually strains began to show. In 1825, Parliament repealed the Bubble Act, and in 1844 it passed what became the General Incorporation Act. Two acts for limited liability followed in 1855 and 1856. None of this reflected a *laissez faire* ideology. Rather, it resulted from hard-headed political bargains among industrialists and their representatives in Parliament, who were largely given free rein by the landed gentry, who considered the matter no business of theirs (Harris 1997).

In America, the road to general incorporation laws was a more twisted one. After the Revolution, state governments inherited the former Crown prerogative of chartering, which they exercised with enthusiasm (Maier 1993). In contrast to incorporation in England (Harris 1994), business charters in the U. S. – especially for banks – were an important source of state revenue and patronage (Wallis 2005). By the early nineteenth century states began offering more general incorporation, though the charters under even these more liberal statutes continued to be larded with restrictions of rent-seeking origin (Lamoreaux 2014). Contrary to what is often claimed, the bulk of nineteenth-century American corporations were not chartered for "public purposes," especially with the rise of manufacturing enterprises after 1809 (Hilt 2024).

Restricted state-level charters proved especially unsuited to the large multi-unit enterprises that began to arise in the late nineteenth century (Chandler 1977), enterprises that needed not only to raise large amounts of capital but also to operate across state lines. To solve this problem, S. C. T. Dodd, general counsel to the largest of these enterprises – Standard Oil – resurrected the eighteenth-century English solution: a stock-transfer trust (Hovenkamp 1991, p. 291). Under this arrangement, a set of trustees, prominently including John D. Rockefeller, would in essence provide a legal persona that could operate across state lines.

The trust form might well have developed into a genuine bottom-up structure of corporate personality. In the event, however, the state of Ohio would not give up its authority easily, and it sued successfully to have the trust declared to have been *ultra vires*, outside the powers of the company's original Ohio charter. Standard was forced to recede back to a congeries of state-chartered units. Within a few years, however, the rise of the large inter-state enterprise had begun to change the rent-seeking dynamic, and states suddenly began competing to offer increasingly open and liberal incorporation as a way of attracting revenue (Butler 1985; Grandy 1989). By the turn of the twentieth century, incorporation in New Jersey (later Delaware) became available as a simple method of achieving what Dodd had set out to do.

The epistemics of ownership.

The modern public business corporation is constituted in law as what is in effect an encapsulated zone of exclusion. Its modular architectural structure is a response to the complexity of the economic world. One central implication of complexity is the inevitability of fundamental uncertainty, perhaps even unknowability. "It is a world of change in which we live, and a world of uncertainty" (Knight 1921, p. 199). And it is because of (Knightian) uncertainty that the corporation is and must be owned by residual claimants who can trade their claims on a market.

In significant part, the importance of shareholder ownership has long been obscured by the dominant influence of rationalist accounts of the corporation, including corporatist and managerial accounts, that have endowed managers and other planners with powers of prediction and control far beyond what they possess in reality. From a humbler epistemic perspective, it becomes clear that managerial behavior reflects a series of conjectures about the future. Business policy is not (always, or even mostly) about solving well-defined problems correctly. It is about launching experiments. The outcomes of those experiments will be ultimately judged by a selection environment of some kind. And the most effective selection environment will be one that makes good use of the most knowledge available. By allowing tradeable ownership shares – tradeable shares of the residual rights of control and income – the modern corporation facilitates the gathering and use of knowledge by a specialized and well-incentivized sector of the economy.

Economists in the field somewhat misleadingly called Industrial Organization like to insist that *The Modern Corporation and Private Property* (Berle and Means 1932) is the *fons et origo* of the managerial agency approach to corporate governance. Nobel Laureate Jean Tirole is representative. “In 1932, Berle and Means wrote a pathbreaking book documenting the separation of ownership and control in the United States. They showed that shareholder dispersion creates substantial managerial discretion. This was the starting point for the subsequent academic thinking on corporate governance and finance” (Tirole 2006, p. 15). Both claims are wrong. The Berle and Means book was certainly an important milestone in a longstanding conversation about the corporation, but it was by no means the beginning of that conservation. More importantly, Berle and Means were not primarily concerned about managerial discretion (Lipartito and Morii 2010; Wells 2010).

For Berle and Means, the real issue was not the separation of ownership from management but the separation of ownership from *control* – those who appointed the directors and officers. “Control lies in the individual or group who have the actual power to select the board of directors” (Berle and Means 1930, p. 69). In the early 1930s, stockholding was widely diffused only in a handful of firms like AT&T, RCA, or the Pennsylvania Railroad (Holderness, Kroszner and Sheehan 1999). Much more typically, control resided in a majority shareholder; in substantial minority shareholders, notably family groups; or even in financial intermediaries like the House of Morgan, whose services were valuable in large part precisely because of the ability to exercise control (DeLong 1991). In the Berle-and-Means account of corporate governance, the problem was that those who held control could potentially enrich themselves at the expense of increasingly powerless minority shareholders.[25] In this sense, the problem was too much *owner* control not too much manager control.

From the beginnings of the relatively unrestricted corporate form in the nineteenth century, minority shareholders had routinely sued to claim misappropriation and self-enrichment by controlling interests. It was Berle's position that such plaintiffs were entitled to redress in equity, under the theory that directors held the corporation in trust for the shareholders (Lee 1990, p. 680). American courts had long thought otherwise. Courts were – and are – reluctant to become involved in the internal disputes of corporations except in extreme cases, and they placed the burden of proof on the plaintiffs (Lamoreaux and Rosenthal 2006). This is called the business judgment rule, and it arguably has its roots in complexity and the knowledge problem: external judges are in a poor position to understand the inner working of corporations and thus to decide, except perhaps in egregious cases, whether board actions were made in good faith (Gold 2007).

The Modern Corporation and Private Property can be understood only in the context of the Great Depression and of the changing views of the authors, especially Adolf Berle. Because of his famous debate in print with the Harvard law professor E. Merrick Dodd, who has been viewed as a precursor if not exactly an exemplar of modern stakeholder theory, Berle is sometimes read as having taken the side of shareholder rights. In fact, that was never Berle's position; and as he moved into politics as the leader of

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[25] The threat of expropriation of minority shareholders – notably through a process called "tunneling" – was well known to investors and thus already priced in. There is evidence that, in the early twentieth century, minority stockholders received a considerable discount on their shares to compensate for the threat of internal self-dealing (Kroszner and Rajan 1994).

Franklin Roosevelt's "Brains Trust," he deepened what had always been a corporatist view (Bratton and Wachter 2008). Rather than seeing public policy as about satisfying the preferences of individuals in society, corporatism advocates cooperation among identifiable major groups to achieve an objectively discoverable "public interest." As Nicholas Lemann puts it, Berle was "a believer in a highly structured society in which big business would dance to a tune called by government – forced to provide economic benefits to the rest of society as the price of its extraordinary prosperity and stability. In a sense he wanted to use the power of the corporation as a pretext for a great expansion of the power of the government" (Lemann 2019, pp. 40-41). Corporatism of this sort would define the policy of the early (or "first") New Deal.

For Berle as for other Progressive thinkers of the early twentieth century, the mean, nasty competition of laissez-faire could be done away with because post-Darwinian science had solved the problem of economic knowledge. According to John Dewey, arguably the central figure of American Progressive thought, the new world of the twentieth century "demands the substitution of the intelligence that is exemplified by scientific procedure" (Dewey 1935, p. 72). Berle and Means agreed. Far from worrying about the bad incentives of managers in a competitive environment, Berle and Means conceptualized management as dispassionate and omnicompetent scientific planning. "No better principle in carrying out business has yet been worked out," they wrote, "than to find able men and give them the completest latitude possible in handling the enterprise" (Berle and Means 1930, p. 60).

The New Deal would quickly learn that corporatism in practice was far less about cooperation among groups than about strident political competition between groups, and enthusiasm for corporatism would abate – and largely transform into a regime of industry-specific regulatory barriers – with the nullification of the ultra-corporatist National Industrial Recovery Act in 1935. After World War II, with the Depression in the rear-view mirror and the Cold War on the horizon, enthusiasm for rational scientific planning would take a new form, as the best and the brightest armed themselves with techniques from statistics, neoclassical economics, and the new field of game theory. It is in this environment that the argument of Berle and Means would transmogrify into a managerial agency problem – and become a meme.

The Great Depression and the mobilization demands of World War II had strengthened the position of large managerial enterprises, which could offer a substitute source of institutions at times when market-supporting institutions in the larger society were hampered or destroyed (Langlois 2023). During the war, government relied heavily on large integrated firms because such organizations possessed the administrative capacity to coordinate complex production at scale, while the Depression had already undermined decentralized market coordination. In the decades immediately following the war, these corporations remained dominant, benefiting from relatively stable mass markets, economies of scale, and the regulatory and financial barriers the New Deal had thrown up. The postwar economy appeared to vindicate Alfred Chandler's vision of the modern corporation as the central institution of industrial capitalism, with professional managers coordinating production through the "visible hand" of hierarchy rather than through decentralized market exchange (Chandler 1977).

It is thus not surprising that theorists of the corporation would focus in on the role of managers. This included the so-called managerial theory of the firm (Baumol 1959; Marris 1966; Williamson 1964), in which the objective function of managers took center stage. In many of these models, pecuniary returns to the shareholder – profit – became a constraint on the managerial utility function rather than an argument in it. This neoclassical framing fit well with post-war rationalism: the problem that management faced was stable and knowable; the only question was how the manager solved the problem. Very soon, of course, the problem would come to seem far less stable and knowable.

Already by the early twentieth century, large managerial corporations had availed themselves of modular design by encapsulating subunits into more-or-less self-contained wholly owned divisions that could potentially operate independently, an architecture Alfred Chandler called the multidivisional or M-form structure (Chandler 1962). Flushed with success in the 1960s, entrepreneurs began buying business units, including erstwhile divisions, in wholly unrelated lines of business and assembling them into conglomerates. As Mark Roe put it, "managers learned that they could move subsidiaries and divisions around like pieces on a chessboard" (Roe 1996, p. 113).

Significantly, conglomerates are in a sense a manifestation of both managerialism and "financialization": managerialism because the managers not the market were making decisions about capital allocation; financialization because managers acquired assets in financial transactions rather than developing them internally. There are at least two main problems with allocating capital resources by means of internal capital markets of this sort. One is the problem of diversification. Conglomerates create a portfolio that is diversified from the perspective of the conglomerate itself – this was always part of the rhetoric of the entrepreneurs building the conglomerates – but not terribly diversified from the perspective of investors, who could have diversified more thoroughly by owning the modular units directly. Conglomerates thus suffered a "diversification discount." The other problem is that managers are often less well placed to evaluate investments, especially unrelated ones, than a financial market capable of bringing to bear the knowledge of a large investor community and a specialized financial industry.

Conglomerates turned out to be as inefficient in practice as in theory, and entrepreneurs arose to unbundle the conglomerate by buying up stock and attempting to unseat the incumbent management, often forcing the selloff of the unrelated divisions. Thus was born the era of the takeover, both hostile and otherwise. The assault on the conglomerate initiated and benefited from the rapid development of external financial markets, which had been a sleepy, clubby sector in the middle of the century.

As economists from Adam Smith to Alfred Marshall to Allyn Young (1928) and beyond have noticed, with economic growth and the increasing division of labor, tasks that had once been bundled into a single industry inevitably spin off and become their own separate specialties. Publishing houses long ago stopped owning their own printing presses.[26] "Financialization" is simply a manifestation of this same process. One need not be a proponent of the hardest-nosed versions of the efficient-markets hypothesis to believe that in a complex and uncertain world, it is likely to be beneficial to take advantage of knowledge and information from a wide array of participants, some of them highly specialized, in the allocation of capital. And this is quite apart from the ability of a specialized market sector to diversify away risk more effectively than a system of managerial allocation.

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[26] Even though those houses are still called "presses."

In energizing the principal-agent account of the firm, Jensen and Meckling were arguably working within the bounds of managerialism: the behavior of managers determines in significant part the outcomes of the firm, so it is crucial that those managers have the incentive to behave efficiently. Yet even in the 1976 paper, they also stressed the importance of specialization. The separation of ownership from control allowed investors to abandon day-to-day monitoring and to specialize in capital supply, thereby dramatically shifting out the supply of capital and fueling economic growth. By the 1990s, in what is arguably his second-most-influential paper, Jensen (1993) had begun casting the problem in terms of the "failure of internal control systems." The managerial model had been wholly unable to cope with the radical technological and institutional changes of the late twentieth century, and the solution was to rely to a far greater extent on the external control mechanisms embodied in a specialized financial sector.

In what was arguably a shift of emphasis away from incentives toward problems of knowledge, Jensen increasingly expressed skepticism about the ability of managers to know ex ante how to maximize shareholder value. Even if managers do wish to maximize shareholder value, there is inevitably a complex chain of causation that snakes from their actions to that goal, and managers may often fail to understand the links. "Value maximizing or value seeking says nothing about how to create a superior vision or strategy. Nor does it tell employees or managers how to find or establish initiatives or ventures that create value" (Jensen 2001, p. 47). Jensen came to denounce the use of shallow heuristics like paying attention to short-term stock-price fluctuations and earnings reports. Instead, he advocated "enlightened" value maximization, which he also viewed as an enlightened stakeholder theory.[27] Although he rightly saw the conscious attempt to balance stakeholder interests as falling prey even more dramatically to the knowledge problem, he believed that the types of strategies that markets will ultimately judge favorably are unlikely to be ones that run roughshod over important constituencies or ignore political considerations.

One might object that not-for-profit entities and other forms of organization also confront change and uncertainty. Those of us laboring in universities are certainly coming to feel this way. Yet some universities have existed for a millennium. The difference, again, is that non-for-profit entities are designed to solve specific problems of club goods. And, as such – and as those of us in universities also clearly realize – not-for-profit entities have to rely solely on internal mechanisms of control that function slowly and often ineffectively. By contrast, the economic problem that ordinary competitive businesses must solve is the problem of change and uncertainty itself. Competition, as Hayek put it, is always "a voyage of exploration into the unknown, an attempt to discover new ways of doing things better than they have been done before" (Hayek 1948, p. 101). In such competition, the external control mechanisms of an independent financial sector are far more effective at promoting rapid trial-and-error learning than are internal corporate control mechanisms by themselves.

The "financializaton" of the economy, meaning the increasing transfer of the business of capital allocation out of the care of corporate managers and into the hands of an independent financial sector, has, of course, been widely denounced by critics, who blame financialization, often without plausibility let alone evidence, for whichever litany

[27] For a more careful discussion of Jensen's thought on this and other issues, see Chew (2025).

of social problems they find troubling. Almost all critics imply that financialization caused the financial crisis of 2007-2008, even though similar crises have occurred since the mid-nineteenth century[28] (Bordo 2008). The most substantive criticism has been that managers, wielding the dispassionate rationality and competence long assigned them by Progressive thought, are surely more patient than short-sighted markets and thus more inclined to invest for the long term (Lazonick and O'Sullivan 2000). The empirical evidence suggests that this is not so (Davis, Haltiwanger, Handley, Jarmin, Lerner and Miranda 2014; Palepu 1990). Indeed, at a time when the United States, the most financialized economy in human history, is dramatically outpacing its less-financialized counterparts around the world not only in innovation, productivity, and market capitalization but also in the living standards of ordinary citizens (Rabinovitch and Curr 2024), the burden of proof surely falls on the critics.

[28] Even though rapid financial innovation – in the housing-finance market not the S&P 500 – was part of the story, the ultimate causes of the 2007-2008 crisis are best sought in massive government intervention in the mortgage market and extremely low policy interest rates set by the Federal Reserve (Calomiris and Haber 2014).

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