INTERPRETING INDENTURES: HOW DISEQUILIBRIUM ECONOMICS AND FINANCIAL ASSET SPECIFICITY SUPPORT NARROW INTERPRETATION

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"Economists have too long ignored the study of how firms and economic systems actually operate in a dynamic, tumultuous environment."

–Paul Milgrom and John Roberts[1]

I. INTRODUCTION

The corporation is a source of both great cooperation and great conflict. Within the market as a whole, interfirm coordination produces goods and services that constitute the material base of civilization. Within a single corporation, inputs are transformed and sold, yielding an income stream that simultaneously satisfies the claims of creditors, employees, and shareholders. Yet, at the same time, the separate claims on a corporation's income creates potential conflicts of interest about precisely how these claims are to be met.

Bondholders are a group whose claims have been long recognized as potentially conflicting with the interests of the corporation as a whole. Holders of corporate bonds loan capital to corporations with the

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1. PAUL MILGROM & JOHN ROBERTS, ECONOMICS, ORGANIZATION & MANAGEMENT 594 (1992).

expectation of receiving a stream of fixed payments over a contractually-established time period. Corporate managers (who control day-to-day firm operations), however, may take actions that benefit either themselves and/or shareholders at the expense of bondholders.[2] As we shall see, such conduct has served as the basis for numerous legal claims brought against corporations by their bondholders.

Over time, bondholders or their trustees have found it preferable to negotiate for protective covenants in bond contracts (indentures) in order to prohibit management from engaging in activities that may dilute the market value of their bonds, increase the risk of the corporation defaulting on their bonds, or both. The ability of protective covenants to protect the interests of bondholders adequately has received scholarly attention, with some scholars arguing for courts and legislators to impose extra-contractual duties on corporations to their bondholders,[3] and others arguing against the fairness or efficiency of such extra-contractual duties.[4]

This Note sheds new light on the general rights of bondholders by developing two new economic tools for courts to use in interpreting indentures. These tools consist of observations of economic reality: The first properly accounts for the dynamic and uncertain nature of the market process and the second recognizes how using financial capital tends to limit the conduct of a corporation. Such tools offer novel explanations of the current narrow approach to indenture interpretation courts take, while also shedding light on how courts might be assisted in future decisions.

2. *See id.* at 494–96; Annette Poulsen, *Corporate Debt*, *in* THE FORTUNE ENCYCLOPEDIA OF ECONOMICS 558, 560–62 (David R. Henderson ed., 1993); Clifford W. Smith, Jr. & Jerold B. Warner, *On Financial Contracting: An Analysis of Bond Covenants*, 7 J. FIN. ECON. 117, 118 (1979).

3. *See generally* Morey W. McDaniel, *Bondholders and Corporate Governance*, 41 BUS. LAW. 413, 456 (1986) [hereinafter McDaniel, *Corporate Governance*] (arguing that corporate directors should have a fiduciary duty to protect bondholders); Morey W. McDaniel, *Bondholders and Stockholders*, 13 J. CORP. L. 205, 313–315 (1988) (arguing, inter alia, that courts should impose a duty of fairness on directors to bondholders); Lawrence E. Mitchell, *The Fairness Rights of Corporate Bondholders*, 65 N.Y.U. L. REV. 1165 (1990) (arguing that bondholders should be provided rights similar to those possessed by stockholders).

4. *See generally* Henry N. Butler & Larry E. Ribstein, *Opting out of Fiduciary Duties: A Response to the Anti-Contractarians*, 65 WASH. L. REV. 1 (1990) (arguing against the imposition of mandatory duties on corporate managers); Marcel Kahan, *The Qualified Case Against Mandatory Terms in Bonds*, 89 NW. U. L. REV. 565, 622 (1995) (favoring mandatory terms for indentures only if certain institutional or empirical changes take place); Steven L. Schwarcz, *Rethinking A Corporation's Obligations to Creditors*, 17 CARDOZO L. REV. 647 (1996) (arguing that a corporate debtor owes only a limited obligation of good faith to creditors); Dale B. Tauke, *Should Bonds Have More Fun? A Reexamination of the Debate over Corporate Bondholder Rights*, 1989 COLUM. BUS. L. REV. 1 (1989) (arguing against fiduciary duties of debtor corporations to bondholders and instead for the use of more flexible contractual interpretation).

In Part II these tools are borne out. I first explain the basic ideas of "disequilibrium economics," an economic theory based on the idea that the economy is best understood as an ever-changing and uncertain environment in which entrepreneurship plays a central role. Next, I develop a specificity theory of financial capital—a theory about how money raised by a corporation is limited in how it may be used. This is done by applying the analysis of the specificity of physical capital (e.g., machinery, plants, raw materials) to the specificity of financial capital. As I attempt to show, a fundamental distinction exists between financial capital obtained from borrowing (bond capital) and financial capital obtained from issuing stock (equity capital). From the perspective of managerial expectations, bond capital has a greater degree of specificity than does equity capital as the former is compatible with fewer production plans than is the latter. As such, the use of bond capital during the production process is in many respects the economic equivalent of using more specific physical capital.

Part III discusses the implications of disequilibrium economics and applies the concept of higher specificity of bond capital to guide judicial interpretation of indentures. A bond is a contract in which the corporate-promisor owes a specific duty to the bondholder-promisee while operating in a business environment of perpetual change and uncertainty. Given such an environment, I will argue that the specificity of bond-capital sufficiently restricts managerial actions. Further, I will justify why courts have adopted (and should adopt) a narrow approach to indenture interpretation.

Part IV concludes by way of summary.

II. DISEQUILIBRIUM ECONOMICS AND THE SPECIFICITY OF FINANCIAL CAPITAL

As a matter of intellectual history, economists emphasizing either the importance of disequilibrium in economic theory or the specificity (or limited uses) of physical capital have followed the fundamental insights of marginalism and subjectivism as developed by scholars working within the Austrian school of economics.[5] Since my specificity theory of financial

5. For a representative sample of Austrian economics, see, for example, CARL MENGER, PRINCIPLES OF ECONOMICS (James Dingwall & Bert F. Hoselitz trans., Libertarian Press, Inc. 1994) (1871) (founding Austrian economic theory by, among other things, discovering the principle of marginal utility and applying methodological individualism and subjectivism to economics); LUDWIG VON MISES, HUMAN ACTION: A TREATISE ON ECONOMICS (3d ed. Henry Regnery Co. 1966) (1949) [hereinafter HUMAN ACTION] (expounding the major principles of Austrian economics from the broader study of praxeology); THE ELGAR COMPANION TO AUSTRIAN ECONOMICS (Peter J. Boettke ed., 1994) (sampling Austrian perspectives on a wide range of methodological and substantive issues in economics

capital extends Austrian physical capital theory to financial capital, and since Austrian physical capital theory is based upon disequilibrium economics, I will first explain the relevant features of disequilibrium economics before turning to capital theory.

A. DISEQUILIBRIUM ECONOMICS

A fundamental feature of economic reality is that it is marked by constant change—perpetual disequilibrium—in economic phenomena. As Ludwig von Mises stated, "[t]he market is not a place, a thing, or a collective entity. The market is a *process* . . . ."[6] As millions of individuals interact to maximize their expected utility within an economic system,[7] prices, costs, and interest rates change; supply and demand fluctuate; firms expand and shrink; and new technology, information, and preferences are adopted. The dynamism of economic data through time prevents the achievement of a general or even partial equilibrium—of stasis—in the economy. New information leads to the adoption of different consumption and production plans, thereby forestalling the required balance of forces (supply and demand) for equilibrium. While the overwhelming majority of microeconomists make heavy use of the concept of equilibrium,[8] a descriptively accurate analysis of markets must proceed by acknowledging the pervasiveness of disequilibrium in virtually all aspects of the economy.[9]

The dynamism of the market process in turn creates genuine uncertainty about the future such that not only is the probability of future outcomes unknown, but so are the actual outcomes themselves.[10] Not only

and closely related disciplines); 15 GREAT AUSTRIAN ECONOMISTS (1999) (providing personal and intellectual biographies of fifteen eminent Austrian and paleo-Austrian economists).

6. HUMAN ACTION, *supra* note 5, at 257 (emphasis added).

7. Austrians employ what Korobkin and Ulen refer to as the "expected utility" version of rational choice theory. *See* Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CAL. L. REV. 1051, 1062–64 (2000). *See also* MURRAY N. ROTHBARD, MAN, ECONOMY, AND STATE 14–17 (1993) (providing an introductory discussion of utility maximizing behavior from an Austrian point of view).

8. For discussions and persuasive critiques of the use of the concept of equilibrium in modern economics, see, for example, Roger W. Garrison, *Austrian Economics as the Middle Ground*, *in* METHOD, PROCESS, AND AUSTRIAN ECONOMICS 131 (Israel M. Kirzner ed., 1982); PETER LEWIN, CAPITAL IN DISEQUILIBRIUM 13–44 (1999); FRÉDÉRIC E. SAUTET, AN ENTREPRENEURIAL THEORY OF THE FIRM 7–9 (2000); TIME, UNCERTAINTY, AND DISEQUILIBRIUM (Mario J. Rizzo ed., 1979).

9. This conclusion does not preclude the usefulness of the equilibrium concept. *See, e.g.*, Jörge Guido Hülsmann, *A Realist Approach to Equilibrium Analysis*, 3 Q. J. AUS. ECON. 3 (2000).

10. This "genuine" uncertainty is often referred to as Knightian uncertainty as developed in FRANK H. KNIGHT, RISK, UNCERTAINTY AND PROFIT (1921). *See also* NICHOLAS GEORGESCU-ROEGEN, THE ENTROPY LAW AND ECONOMIC PROCESS 122 (1971), *cited in* OLIVER E. WILLIAMSON,

are economic data in constant flux, but the magnitude and direction of their change is random and unpredictable in any short period of time.[11] This is not to imply that the economic world is characterized by complete uncertainty or that there are no (knowable) economic laws,[12] but rather, that the economic world is beyond the scope of deterministic statistical modeling. As a result, a fundamental economic problem inheres in implementing successful plans in the face such uncertainty.[13]

Fortunately, economic actors *are* constantly predicting the future with sufficient accuracy so as to implement their economic plans successfully. Thus, the phenomenon of successful economic plan coordination gives rise to the concept of entrepreneurship.[14] That is, *all* successful economic action (that is, action that yields a profit) entails the employment of scarce resources in the face of (at least some) uncertainty.[15] Entrepreneurship thus consists of employing capital in the successful prediction of economic events. Under this view, even a salaried employee is an entrepreneur since she employs human capital (having both real and opportunity costs) with the expectation of obtaining an income stream whose payment is less than completely certain.

THE ECONOMIC INSTITUTIONS OF CAPITALISM 58 n.17 (1985) (arguing that outcomes that "involve 'novelty' cannot be described by probability distributions"); Hans-Hermann Hoppe, *On Certainty and Uncertainty, Or: How Rational Can Our Expectations Be?*, 10 REV. AUS. ECON. 49 (1997); Richard Langlois, *Risk and Uncertainty*, *in* THE ELGAR COMPANION TO AUSTRIAN ECONOMICS, *supra* note 5.

11. For an application of this principle in financial markets, see BURTON G. MALKIEL, A RANDOM WALK DOWN WALL STREET: THE BEST AND LATEST INVESTMENT ADVICE MONEY CAN BUY (1996) (arguing that the prices of stocks are random in the short term). *But see* JOHN Y. CAMPBELL, ANDREW W. LO & A. CRAIG MACKINLAY, THE ECONOMETRICS OF FINANCIAL MARKETS 27–80 (1997) (arguing that financial asset prices are to some significant degree predictable); Frank Shostak, *In Defense of Fundamental Analysis: A Critique of the Efficient Market Hypothesis*, 10 REV. AUS. ECON. 27, 42–44 (1997) (arguing that asset prices are non-random and ultimately determined by entrepreneurship).

12. For modern exponents of this view, see Ludwig Lachmann, *From Mises to Shackle: An Essay on Austrian Economics and the Kaleidic Society [1976]*, *in* EXPECTATIONS AND THE MEANING OF INSTITUTIONS: ESSAYS IN ECONOMICS BY LUDWIG LACHMANN 229 (Don Lavoie ed., 1994); G. L. S. SHACKLE, DECISION ORDER AND TIME IN HUMAN AFFAIRS (2d ed. 1969) (arguing that choice introduces an element of non-distributional uncertainty into human conduct).

13. Although cast in somewhat different terms, F.A. Hayek defines *the* economic problem as "the utilization of knowledge which is not given to anyone in its totality." F.A. HAYEK, INDIVIDUALISM AND ECONOMIC ORDER 78 (1948).

14. In deriving the concept of entrepreneurship by observing its underlying facts (i.e., plan coordination) I am following the inductivist epistemological method of Ayn Rand as developed in AYN RAND, INTRODUCTION TO OBJECTIVIST EPISTEMOLOGY 10–28, 40–44 (Harry Binswanger & Leonard Peikoff eds., 2d ed. 1990).

15. If there were no uncertainty about the future, then action would be meaningless since it could not effect an already known future. On uncertainty as a universal category of action, see HUMAN ACTION, *supra* note 5, at 105–18.

Entrepreneurship is not just an important feature of the economy—entrepreneurial profit and loss is *the* fundamental driving force of economic change and growth of the market.[16] While workers may be viewed trivially as entrepreneurs, the most economically significant type of entrepreneur is, of course, the capitalist-entrepreneur, who invests financial or physical capital in an attempt to earn a rate of return above that of alternative investment opportunities. In this way, entrepreneurship—the successful "overcoming" of uncertainty, so to speak—also explains a fundamental institution of the market economy, namely, the firm.[17]

As Ronald Coase defines it, a firm is a "system of relationships which comes into existence when the direction of resources is dependent on an *entrepreneur*."[18] In order to implement a production plan successfully, an entrepreneur must have *control* of specific capital goods during the required production period. As Sautet explains, "[i]f the entrepreneur cannot secure the use of the necessary inputs for the exploitation of his/her plan, no production can take place."[19] By placing capital goods under the ownership of a *single* entity, the firm allows an entrepreneur to control the inputs required for the implementation of a production plan. Without the firm, there would exist enough uncertainty about the availability of capital goods in the price-quantity combinations required to obtain a profit so as to render production impossible.[20]

The scope of a firm is ultimately determined by a basic choice firm members make with respect to obtaining financial and physical capital: Members can either purchase capital inputs from external markets or obtain

16. *See* HUMAN ACTION, *supra* note 5, at 252–56; ISRAEL M. KIRZNER, COMPETITION AND ENTREPRENEURSHIP 1–100 (1973) (arguing that the competitive process is driven by entrepreneurial alertness to profit opportunities); Murray N. Rothbard, *Professor Hébert on Entrepreneurship*, 7 J. LIBERTARIAN STUD. 281 (1985) (arguing that entrepreneurship requires actually committing scarce resources in the face of uncertainty); SAUTET, *supra* note 8, at 55–66.

17. This entrepreneurial rationale of the firm follows the approach taken in SAUTET, *supra* note 8, at 55–83. For traditional accounts of the nature of the firm, see Armen A. Alchian & Susan Woodward, *The Firm Is Dead; Long Live the Firm: A Review of Oliver E. Williamson's* The Economic Institutions of Capitalism, 26 J. ECON. LIT. 65, 70 (1988); MILGROM & ROBERTS, *supra* note 1, at 538–84.

18. Ronald H. Coase, *The Nature of the Firm*, *in* THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT 18–33 (Oliver E. Williamson & Sidney G. Winter eds., 1991) (1937) (emphasis added).

19. SAUTET *supra* note 8, at 74.

20. Under this view, firms do not arise in response to informational transaction costs since such costs presuppose that such information already exists, whereas the uncertainty that gives rise to entrepreneurship and firms is about information that is *unknown*—genuine uncertainty. On the relationship between entrepreneurship and uncertainty, see Israel M. Kirzner, *Entrepreneurship*, *in* THE ELGAR COMPANION TO AUSTRIAN ECONOMICS 103, 108–109 (Peter J. Boettke ed., 1994).

capital inputs by transacting within the firm. With respect to physical capital, this choice manifests itself in the traditional "make or buy" decision.[21] That is, firm members may either purchase capital goods on the market, or they may use current resources to produce the input itself. With respect to financial capital in a publicly held corporation, the basic choice manifests itself in the source of capital: either through issuing bonds or by selling shares of equity. Borrowing capital from bondholders is a market-based transaction in that the firm buys current capital at the price of paying future interest and principal payments to bondholders.[22] On the other hand, obtaining capital by issuing shares of stock is the financial equivalent of organizing a transaction within a firm—the firm reorganizes its ownership structure by giving new titles to shareholders in exchange for financial capital. Selling shares does not constitute an external market transaction because equity capital is not being purchased at a market-determined price. Rather, an internal transaction takes place within the firm that produces capital by reallocating the firm's ownership among new shareholders.[23]

The dynamism of the market process necessitates firms to grow and change in response to constantly changing economic conditions. Firms change, not only in response to different prices and other economic data, but also because the capabilities of firm members change.[24] In turn, the capability of firm members depends largely on how knowledge within the firm is acquired and transmitted.[25] Entrepreneurship plays an important role in determining a firm's capabilities because firms not only learn by disseminating useful knowledge, but they also learn by discovering what was previously unrecognized as useful.[26] The discovery and successful exploitation of new information and profit opportunities change the

21. *See generally* Sanford J. Grossman & Oliver D. Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration*, 94 J. POL. ECON. 691 (1986) (defining the decision for a firm to make or buy in terms of the ownership rights of assets); Benjamin Klein, Robert G. Crawford & Armen A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J. L. & ECON. 297 (1978) (arguing that the more specific the asset, the more likely firms will tend to make rather than purchase the asset); OLIVER E. WILLIAMSON, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS 82–131 (1975).

22. Most firms issue bonds in units of $1000. KENNETH M. MORRIS & VIRGINIA B. MORRIS, THE WALL STREET JOURNAL GUIDE TO UNDERSTANDING MONEY & INVESTING 85 (1999).

23. The price of equity shares are, of course, determined by the stock market. In this case, however, it is the investors purchasing on the market, not the firm.

24. *See generally* Brian J. Loasby, *The Organisation of Capabilities*, 35 J. ECON. BEHAV. & ORG. 139 (1998) (arguing that firms are organized in accordance with firm members' capabilities); EDITH PENROSE, THE THEORY OF THE GROWTH OF THE FIRM (3d ed., Oxford Univ. Press 1995) (1959) (arguing that the growth of firms is a process driven primarily from the capabilities of managers).

25. *Cf.* SAUTET *supra* note 8, at 89–97.

26. *See id.* at 106–07.

capabilities of a firm, and in turn, shape its growth. A fundamental element for the success of a firm, therefore, is its ability to adapt and grow in response to unforeseen circumstances and new knowledge.

B. PHYSICAL CAPITAL

As the foregoing suggests, the proper use of capital plays a central role in the economy and in every firm. Depending upon the context, the term "capital" can have various meanings in law and economics.[27] At its most general, capital is anything that is *used* to produce other economic goods. Two fundamental types of capital are physical capital (or physical assets)[28] and financial capital (or financial assets).[29] Goods in the former category include factories, machinery, and computer software; goods in the latter category include money or other paper assets, such as commercial notes. At least one unit of both physical and financial capital is required for a firm to produce any product. In order to maximize profits, a firm will attempt to use every unit of capital until the value of the output produced by (or with) that unit equals its cost.[30] Taken together, the physical and financial assets of a firm constitute its *total capital structure*.[31]

Every business firm at any given point in time possesses a definite quantity of capital that it uses to produce final products. While financial capital is more or less fungible and in principle can be used to produce any good, physical capital is not a homogeneous, interchangeable collection of resources. Rather, as Ludwig Lachmann emphasized in his path breaking 1956 work *Capital and Its Structure*: "All [physical] capital resources are heterogeneous. The heterogeneity which matters is here, of course, not physical heterogeneity, but *heterogeneity in use* . . . . The real economic

27. For an historical overview of the controversies on the nature of capital, see Lewin, *supra* note 8, at 45–110.

28. Generally, an asset is "any item of use or value" to a firm. BLACK'S LAW DICTIONARY 45 (6th ed. 1996).

29. A third type of capital is the productive skills or abilities of a person, referred to as "human capital." *See, e.g.*, GARY S. BECKER, HUMAN CAPITAL: A THEORETICAL AND EMPIRICAL ANALYSIS, WITH SPECIAL REFERENCE TO EDUCATION (3d ed. 1993) (analyzing the economic importance of investments in education). *But see* GEORGE REISMAN, CAPITALISM: A TREATISE ON ECONOMICS 455–56 (1998) (arguing against the very concept of "human capital").

30. Formally, a firm should use capital until $MRP_k = r$ where MRP_k is the value of a unit of capital's output and r is the rate at which the firm pays for the capital. *See* ROBERT H. FRANK, MICROECONOMICS AND BEHAVIOR 532–33 (2000).

31. The term "capital structure" is usually meant, however, to denote a firm's particular ratio of debt to equity, also known as leverage. *See, e.g.*, Morey W. McDaniel, *Bondholders and Stockholders*, 13 J. CORP. L. 205 (1988). I am using the term "total capital structure" to clarify Lachmann's notion of "capital structure," which is the particular arrangement of physical and financial capital of the firms in an economy.

significance of the heterogeneity of capital lies in the fact that each capital good can only be used for a limited number of purposes."[32]

Physical capital thus has the quality of *multiple* specificity—it is capable of being used for several, albeit limited, production plans. Financial assets, on the other hand, are generic and thus have the potential of being used in an infinite number of production plans.[33] Money, for example, can be used to purchase any unit of equipment.

Economic complementarity exists to the extent that two or more units of capital can be combined to complete a production plan successfully.[34] Since physical capital can be combined in numerous ways to fulfill a given production plan, the question of what capital combinations are most profitable becomes of central importance to a firm. What it means to complete a production plan "successfully" is entirely dependent on the subjective expectations of the relevant economic actor (e.g., production manager, financial analyst), not on any external or objective criterion.[35] What constitutes economic complementarity is open-ended: at one end of the spectrum it may require a capital combination to yield a rate of return far above the market average; at the other, it may even include combining capital to produce at an economic loss (since producing at a loss in the short-run can be in the long-run interests of a firm).

The structure of physical capital within a firm changes over time in response to an economy's ever-changing conditions. Profitable capital combinations can increase a firm's cash balances and the market price of its securities. Conversely, unprofitable capital combinations decrease a firm's cash reserves and the value of its securities.[36] The specificity of physical assets is important in this process. When a production plan fails, firms may change their capital combinations in an attempt to produce their outputs more efficiently. The less specific the asset (the more adaptable it is), the less a failed production plan will cost a firm, since the capital will more easily fit into a different production structure. As firms grow, learn,

32. LUDWIG M. LACHMANN, CAPITAL AND ITS STRUCTURE 2 (Institute for Humane Studies 1978) (1956) (emphasis added).

33. Lewin makes a similar point in passing when he states: "In a sense, cash is the most substitutable [i.e., least specific] of the company's capital assets." LEWIN, *supra* note 8, at 126.

34. *See* LACHMANN, *supra* note 32, at 3, 12, 54; Ludwig M. Lachmann, *Complementarity and Substitution in the Theory of Capital*, *in* CAPITAL, EXPECTATIONS, AND THE MARKET PROCESS 197 (Walter E. Grinder ed., 1977); LEWIN, *supra* note 8, at 121–25. *See also* MILGROM & ROBERTS, *supra* note 1, at 135–36 (discussing the economic importance of "cospecialized assets").

35. *See* LACHMANN, *supra* note 32, at 20–34; LEWIN, *supra* note 8, at 123–25.

36. *See* LACHMANN, *supra* note 32, at 95–96; LEWIN, *supra* note 8, at 126–27.

and accumulate capital, their capital structure becomes more complex and this tends to increase the specificity of its physical capital.[37]

Additionally, physical asset specificity can give rise to opportunistic behavior such as the "hold-up" problem.[38] This risk is "the possibility that transactors may violate the intent of their contractual understanding by expropriating the quasi-rents from the specific reliance investments that have been made by the transacting parties."[39] The more specific the capital, the lower its value in being used for anything but its intended purpose.[40] If a buyer contracts to buy from a seller with highly specific assets, the buyer may hold-up the seller by changing the terms of the contract to its favor after performance begins. Given the high cost of *not* using the asset as originally intended, the seller will still accept the less favorable contract or else suffer losing the entire investment. The costs associated with attempting to minimize hold-up risks determine significant aspects of a firm's organization. Such attempts include entering into long-term contracts, purposely leaving certain contractual terms unspecified, and vertically integrating with (buying) the potentially opportunistic party.[41]

C. FINANCIAL CAPITAL

A firm can obtain financial capital either through receiving positive cash flows by selling goods at a price higher than their cost, or through (financial) capital markets via issuing securities.[42] A security is any instrument that gives the holder a claim on some aspect of a firm.[43] Securities can come in many forms, but the two fundamental ways for a firm to issue securities are to borrow money from creditors by issuing bonds, or to sell an ownership claim in the firm by issuing equity shares

37. *See* LACHMANN, *supra* note 32, at 72–85; LEWIN *supra* note 8, at 130–33.

38. *See, e.g.*, MILGROM & ROBERTS, *supra* note 1, at 136–38. Physical asset specificity is referred to as "asset specificity" in the relevant literature, a term which I consider synonymous.

39. Benjamin Klein, *Contracts and Incentives: The Role of Contract Terms in Assuring Performance*, *in* CONTRACT ECONOMICS 150 (Lars Werin & Hans Wijkander eds., 1992).

40. As Lewin states, "[a]n asset is specific when its opportunity cost is substantially below the value of its current contribution to production." LEWIN, *supra* note 8, at 144.

41. Physical asset specificity, opportunistic behavior, and transaction costs have been extensively analyzed. *See* NICHOLAS MERCURO & STEVEN G. MEDEMA, ECONOMICS AND THE LAW: FROM POSNER TO POST-MODERNISM 148–151 (1997); THE NATURE OF THE FIRM: ORIGINS, EVOLUTION, AND DEVELOPMENT (Oliver E. Williamson & Sidney G. Winter eds., 1991).

42. *See* RICHARD A. BREALY & STEWART C. MYERS, PRINCIPLES OF CORPORATE FINANCE (2001).

43. *See generally* MORRIS & MORRIS, *supra* note 22, at 34. For the legal definition of a security, see Securities Act of 1933 § 2(1), 15 U.S.C. § 77(a)(1) (2000); Securities and Exchange Act of 1934 § 3(a)(10), 15 U.S.C. § 78(c)(10); *SEC v. H. J. Howey Co.*, 328 U.S. 293, 297 (1946). *See also* ALAN R. PALMITER, SECURITIES REGULATION: EXAMPLES AND EXPLANATIONS 29–52 (1998).

(stocks). Publicly held corporations raise the largest amounts of financial capital in an economy, and such capital is traded through distinct markets devoted solely to the buying and selling of securities (the "stock market").

One of the main incentives for a firm to obtain financial capital, as opposed to just purchasing the physical capital that is required for production, stems from the basic economic purposes of money itself.[44] As a homogeneous store of monetary value, the financial assets that a firm obtains by issuing bonds or stocks can be used with any production plan it undertakes, either in the present or in the future. At this level, there is no economic distinction to be made between bond capital and equity capital. A dollar, regardless of whether it was raised by issuing bonds or equity, is still just a dollar.

Financial capital, moreover, performs two important functions for a firm—the first, direct, and the second, indirect. First, financial assets serve as a capital input into the production process and allow a firm to obtain and use the physical capital it requires to produce its goods. Second, the market price of securities (stocks and bonds) serves as a proxy to the firm of its own value because stocks are claims to the assets and productivity of a firm that are priced and traded in the external financial markets. Since combinations of financial capital are not in and of themselves productive (money is, after all, only a *medium* of exchange), they must ultimately be combined with physical assets in order to produce goods. Thus, there exists economic complementarity between physical and financial capital when the financial capital used to purchase or maintain physical capital fulfills a production plan. The second (and indirect) function of financial assets gives rise to another relationship between the physical and financial capital owned by a firm, as described by economist Peter Lewin:

> [Financial] market evaluations of the prospects of success or failure of the firm and its [physical] capital combinations are reflected in the financial assets associated with the firm. The financial assets (for example, debt and equity) form a superstructure over the [physical] capital assets of the company and constitute its *asset structure*.[45]

As I will show, this "superstructure" between financial and physical capital also consists of how the source of financial capital limits the number and type of physical capital combinations. That is, one way that financial and physical capital are related is that using either bond or equity

44. On the economic role of money, see MURRAY N. ROTHBARD, WHAT HAS GOVERNMENT DONE TO OUR MONEY? 11–54 (4th ed. 1990).

45. LEWIN, *supra* note 8, at 125. *See also* LACHMANN, *supra* note 32, at 86–99.

capital (as opposed to cash earned from profits) limits the way a corporation will use its physical assets.

D. THE SPECIFICITY OF FINANCIAL CAPITAL AND OF BOND CAPITAL IN PARTICULAR

Even though financial capital is physically homogeneous and is in principle complementary to any unit of physical capital,[46] there is an important sense in which financial capital also has the quality of specificity: financial capital obtained from issuing bonds is limited to being used only in ways consistent with the terms of its underlying indenture. This specificity also plays an important role in determining how the certain terms of bond indentures are to be interpreted. As I will argue, such capital is limited with respect to what uses it is compatible with in a way that financial capital obtained through positive cash flows is not. First, I will develop a theoretical perspective on bond and equity capital where specificity results from the legal commitments entered into by a corporation whenever it issues stocks or bonds. Second, I will use various empirical findings to lend support to my claim that bond capital is *even more* specific than equity capital.

When a corporation borrows financial capital by issuing bonds, it promises to pay a periodic interest payment and the principal back to the lender (creditor). The contract establishing the terms and conditions of the corporate lender and borrower may include covenants restricting the conduct of the corporation in order to protect the rights of bondholders.[47] When a corporation obtains capital by selling shares of equity, on the other hand, no contract to pay shareholders a specific amount is created. Corporations are, however, required to act in the interests of shareholders, as broadly established by corporate charters and court-imposed fiduciary duties.[48]

The fact that both equity and bond capital can be obtained only with corresponding legal duties to those who supply the capital (shareholders and bondholders) means that the *use* of such capital is compatible only with economic plans that do not breach such duties. For example, any use of physical capital that would entail a breach of fiduciary duties by the corporation to shareholders is incompatible with the use of equity capital.

46. *See supra* note 33.

47. *See supra* note 2 and accompanying text; *infra* Part III.A.

48. A corporation's fiduciary duties to its shareholders mainly consist of a duty of loyalty and a duty of care. *See, e.g.*, REVISED MODEL BUS. CORP. ACT § 8.30 (1998).

This limitation on the use of bond and equity capital gives them the quality of specificity. Unlike the specificity of physical capital, which arises from the *economic* compatibility of different units of physical capital, the specificity of financial capital arises from the *legal* compatibility of the use of bond or equity capital with their underlying duties.

Since bond capital carries with it a legal obligation to produce a specific, quantitative amount of revenues in order to pay bondholders, and equity capital imposes no such specific obligations, *bond capital has a higher degree of specificity than equity capital*. The legal duties that arise from an indenture delimit the range of conduct that a corporation may undertake that is legally consistent with meeting those duties. Bond capital obtains its specificity from the fact that many production plans are inconsistent with meeting the payments to which bondholders are entitled. Those plans that do not produce sufficient income for a corporation to meet its bond payments (especially plans that cause a corporation to declare bankruptcy) clearly are incompatible with the basic terms of an indenture.

For physical capital, three factors determine its specificity and the plans with which its use is compatible: inherent technological attributes, surrounding economic conditions, and the expectations of corporate managers. With bond capital, the latter two factors determine its specificity along with the terms of the indenture itself. Protective covenants also increase the specificity of bond capital by making it less compatible with particular uses—those uses that the covenant prohibits the company from undertaking. For example, a protective covenant limiting the amount of additional debt a corporation can incur may make the use of new machinery (which can be purchased only by new debt) incompatible with the use of such covenant-laden bond capital.

Equity capital does have the quality of specificity to the extent that its use is incompatible with production plans that violate the duties of a corporation to its shareholders. Since a corporation's duties to its shareholders are very broad and compatible with a potentially unlimited number of production plans, including bankruptcy, however, equity capital is generally less specific than bond capital. Indeed, the fact that fiduciary duties exist only with respect to shareholders and not bondholders suggests that such duties are a way to constrain the activities of a corporation to protect shareholders in a way that is not needed with respect to bondholders. This also may explain why courts are unwilling to recognize fiduciary duties to bondholders.

Several empirical findings are consistent with the thesis that bond capital has greater specificity than equity capital. Such findings relate to the agency problems inherent in a corporation using debt financing by issuing bonds. As is often noted, the higher a corporation's debt-to-equity ratio, the greater are the agency costs associated with the corporation acting on behalf of shareholders to the detriment of bondholders.[49] Vilasuso and Minkler find that the best conditions for reducing the agency costs of debt are the same as the best conditions for reducing transaction costs due to physical asset specificity.[50] As with physical assets, the specificity of financial assets also should give rise to opportunistic hold-up type behavior. For example, if a firm buys from a seller that is not performing well and has a significant amount of bond capital (is heavily debt-laden), the buyer might attempt to extract more favorable transaction terms, knowing that the seller is more concerned with not defaulting on its bonds, rather than obtaining the most favorable contract terms.[51] Therefore, since reducing a corporation's debt-equity ratio (that is its use of bond capital) simultaneously reduces the agency costs of debt and the transaction costs due to financial asset specificity, it seems that Vilasuso and Minkler's findings provide indirect evidence of the specificity of bond capital. Put negatively, if bond capital were not specific, then reducing its use would decrease the agency costs of debt yet *not* decrease the transaction costs due to its specificity. This result would contradict Vilasuso and Minkler's finding that a reduction in one entails a reduction in the other.

If bond capital is more specific than equity capital, then corporations should most likely employ bond capital in projects with lower variability in their returns than projects employed with equity capital. One measure of the variability of project returns (or project success) is the variability of a corporation's cash flows, which directly measure the change in money revenues proceeding from undertaking a given production plan.[52] As demonstrated by empirical findings, cash flow variability is higher in industries where more equity capital is employed and lower in industries where more bond capital is employed.[53] This relationship between debt-

49. *See* McDaniel, *Corporate Governance*, *supra* note 3, at 418; Poulsen, *supra* note 2, at 561.

50. Jon Vilasuso & Alanson Minkler, *Agency Costs, Asset Specificity, and the Capital Structure of the Firm*, 44 J. ECON. BEHAV. & ORG. 55, 55 (2001). On the transaction costs of physical capital (asset) specificity, see *supra* note 37 and accompanying text.

51. Further research on holding-up leveraged firms or the methods such firms take to protect themselves from hold-up problems might also be fruitful.

52. *See* LACHMANN, *supra* note 32, at 87 (stating that "[v]ariations in the cash balance are our primary criterion of success or failure of [an economic] plan").

53. *See* Zsuzsanna Fluck, *Optimal Financial Contracting: Debt Versus Outside Equity*, 11 REV. FIN. STUD. 383, 400–06 (1998).

equity ratios and cash flow variability strongly supports the greater specificity of bond capital over equity capital.

A final implication of bond capital having more specificity than equity capital is exemplified by the types of firms that will choose to use bond capital rather than equity capital in financing their production plans. That is, what kinds of firms will tend to be more leveraged? Presumptively, the higher a firm's rate of growth, the more varied (in terms of risk and return) their projects will tend to be, and the less specific their assets, so they may be less constrained to undertake diverse kinds of projects. Conversely, the lower and more stable the growth of a firm, the more it will be able to employ more specific assets successfully. One way of gauging the success of the degree of financial asset specificity employed by a given firm, or anything else that a firm does, is the firm's value. The fact that the values of higher growth firms are positively correlated with using more equity capital (and less bond capital), and the values of lower growth firms are positively correlated with using more bond capital (and less equity capital),[54] suggests that the specificity of financial capital is economically significant.

The fact that financial assets are in any sense specific may seem counterintuitive. Financial capital is not simply money, but rather, money to be employed in production plans with a corresponding duty to the source of the money. As such, it is part of the overall planning that takes place within a firm and incorporates the legal obligations to which financial capital is tied. Having established that the specificity of financial assets is economically significant, I will show how this result helps to explain current judicial interpretations of indentures and how it can further assist courts in deciding cases regarding the rights of bondholders.

III. INTERPRETING INDENTURES

A. BACKGROUND

When a corporation borrows financial capital, it issues securities generically called bonds. The contract that establishes the rights and duties between the bondholder[55] and the corporate debtor is called an indenture. Although there are many types of bonds, they are unified into a single category of security because in return for lending the corporation a certain

54. John J. McConnell & Henri Servaes, *Equity Ownership and the Two Faces of Debt*, 39 J. FIN. ECON. 131, 131 (1995).

55. Also referred to as a "creditor" or "lender."

amount of money (the "principal"), bonds give the creditor a right to be paid periodic interest payments, and at some point in the future (at "maturity"), the principal of their loan. Bonds that are backed only by the general credit-worthiness of a corporation are called "debentures;" otherwise they are "asset-backed" and secured by specific assets of the corporation.[56] Corporations may also issue hybrid bond-equity securities called "convertible bonds," which are bonds that can be converted into stock at the owner's discretion.[57] Bonds are fundamentally different from equity shares in that they constitute a claim whose payoff is independent of the corporation's value,[58] whereas equity shares are claims whose payoff is entirely dependent upon a corporation's value.

Over time, indentures have evolved into highly detailed yet very standardized[59] documents whose terms are negotiated by an indenture trustee.[60] With few exceptions, all indentures must comply with the Trust Indenture Act of 1939.[61] The requirements of the Indenture Act are sufficiently broad, however, that virtually all terms in an indenture are governed by the private law of contract.[62] Terms of an indenture may be amended by bondholder vote, but the Trust Indenture Act prohibits the alteration of fundamental terms, such as interest payments and maturity, without unanimous bondholder consent.[63]

The most important contractual rights of bondholders are the financial terms and protective covenants of the indenture.[64] In addition to receiving principal and interest payments, indentures may give the corporation or

56. For an excellent overview of bonds and their various manifestations, see MORRIS & MORRIS, *supra* note 22, at 82–103.

57. *See generally* George W. Dent, Jr., *The Role of Convertible Securities in Corporate Finance*, 21 J. CORP. L. 241 (1996) (giving an overall discussion of convertible securities and the theories behind them).

58. So long as the value of the corporation does not force it to declare bankruptcy.

59. McDaniel, *Corporate Governance*, *supra* note 3, at 423–24 (discussing the simplification of indentures).

60. The indenture trustee is not, however, elected by bondholders. For a critique of the role of the indenture trustee, see Yakov Amihud, Kenneth Garbade & Marcel Kahan, *A New Governance Structure for Corporate Bond*s, 51 STAN. L. REV. 447, 469–85 (1999).

61. Trust Indenture Act § 304, 15 U.S.C. § 77ddd (2000).

62. *See* AM. BAR FOUND., COMMENTARIES ON INDENTURES 2 (1971) (stating that a "fundamental characteristic of long-term debt financing [i.e., bonds] is that the rights of holders of debt securities are largely a matter of contract").

63. Marcel Kahan, Individual and Collective Rights of Bondholders 9–11 (2000) (unpublished draft on file with author); WILLIAM KLEIN, J. MARK RAMSEYER & STEPHEN M. BAINBRIDGE, BUSINESS ASSOCIATIONS: CASES AND MATERIALS ON AGENCY, PARTNERSHIPS, AND CORPORATIONS 862 (4th ed. 2000).

64. The following discussion of rights created by indentures follows closely that in Kahan, *supra* note 63, at 5–8.

bondholders, among other things, the right to call (pay off) the bond before maturity or give bondholders the option to have their claims not subordinated to those of other bondholders.[65] Protective covenants are included in indentures to limit the conduct of a corporation so as to protect the market value of the bond and to decrease the risk of default on the bonds by the corporation.[66] Such covenants include restrictions on additional debt the corporation may incur, on the payment of dividends, and on firm investment policy.[67] Beyond their contractual rights, bondholders also receive certain rights in virtue of their more general status as creditors[68] and securityholders. Such rights include those provided by fraudulent conveyance law, federal securities laws, and federal bankruptcy law.

B. THE CONTRACTUAL NATURE OF INDENTURES

The indenture is thus a contract where the corporation fills the role of the promisor, and the bondholder that of the promisee. Like all other contracts, the fundamental jurisprudential issue is how they should be interpreted when their terms allow for multiple meanings. That is, is there anything special about an indenture that merits its being interpreted differently from standard commercial contracts? From other creditor-debtor contracts? From other contracts governing relationships within corporations, such as an employment contract? My answer: yes. Once the unique nature of an indenture is understood we shall see why indentures are (and should be) interpreted strictly, and why the imposition of mandatory indenture terms probably is unjustified.

A contract is a legally enforceable agreement between two or more parties.[69] Since human language is inherently ambiguous and not all future outcomes can be contracted for, contractual enforcement often requires interpretation. How a contract is interpreted depends upon 1) the particular type of contract in question and 2) the context within which the contractual

65. *See* Smith & Warner, *supra* note 2, at 124–25 .

66. Protective covenants are also referred to as restrictive covenants, operating covenants, business covenants, safety covenants, and negative covenants. McDaniel, *Corporate Governance*, *supra* note 3, at 424.

67. S*ee* AM. BAR FOUND., *supra* note 62; Poulsen, *supra* note 2, at 561–62; Smith & Warner, *supra* note 2, at 125–39.

68. Steven L. Schwarcz, *supra* note 4, at 659–63 (1996) (deriving the rights of bondholders from the general rights of creditors).

69. *See* RESTATEMENT (SECOND) OF CONTRACTS § 1 (1981). *But see* Williamson M. Evers, *Toward a Reformulation of the Law of Contracts*, 1 J. LIBERTARIAN STUD. 3, 10 (1977) (arguing for a "title-transfer" as opposed to "expectations-oriented" approach to contract law).

performance is being made—factors external to the contract itself. For example, ambiguous terms in a boilerplate contract are given less weight by courts than are ambiguous terms in a significantly negotiated contract;[70] and whether or not ambiguous terms in a contract should be given the meaning that both parties had in mind or the meaning that only one party had in mind depends upon the knowledge of each party at the time of contracting.[71]

Interpreting an indenture should be no different. The first issue becomes identifying the particular type of contract that is an indenture. The most important and unique aspect of the indenture is that, in the commercial context, it is an extremely *invariable* type of contract. Two factors that determine the variability of a contract are the specificity of its terms and the susceptibility of its terms to amendment over the course of contractual performance. The specificity of contractual terms ranges from being relatively open-ended ("buyer agrees to purchase whatever seller decided to sell") to being precise quantitative amounts ("buyer agrees to purchase exactly 14 widgets for $5 on January 14"). The amenability of contractual terms ranges from being very amenable if a contract provides for on-going negotiations during contractual performance,[72] to being totally unamenable if a contract does not allow the terms to be renegotiated once performance begins. Since the terms in an indenture determining the principal, interest, and maturity of a bond are denominated in quantitative amounts, they place an indenture into the quantitative category of contractual terms. Additionally, since the principal, interest, and maturity of a bond can be changed only with unanimous bondholder consent (which is to say, practically never), and other provisions such as protective covenants require majority consent to be amended, indentures are extremely inflexible contracts.[73] Thus, given the quantitative delineation of the core terms in an indenture and the difficulty in amending its terms, indentures are significantly invariable contracts.

The second issue for interpretation is the context in which indentures are used. The relevant context for interpreting indentures is determined by two sources: the nature of corporations as they exist within the economic system as a whole and the specificity of bond capital. As argued above, the economic world is characterized by pervasive disequilibrium because of its

70. RESTATEMENT (SECOND) OF CONTRACTS § 203(d) (1981).
71. *Id.* § 201.
72. *Id.* § 34.
73. *See supra* note 58.

inherent dynamism and uncertainty.[74] Moreover, the smaller the unit of economic analysis, the greater is the variability and uncertainty as to a given economic outcome. For example, it is more certain that a given industry will operate in a predictable and profitable manner than it is that a *particular* firm will do so.[75] Single corporations, as a type of firm, are the smallest units of economic analysis (except for individuals themselves) and a fortiori are the most dynamic and unpredictable units of the economy. In order to operate profitably, a corporation may significantly change its production processes, organizational structure, or even the goods it produces by entering into different lines of business.[76] An industry as a whole, by contrast, is less likely to undergo significant changes to its structure and is better suited to adapt to unforeseen economic changes.

The other important contextual feature of indentures—the specificity of the capital that is obtained from bonds—arises as a result of their contractual invariability. As shown above, the specificity of bond capital places significant limitations on corporate conduct.[77] In contractual terms, the specificity of bond capital is important because it provides an internal, self-enforcing contractual mechanism. Even without protective covenants, the specificity of bond capital steers a corporation to more conservative (less risky) production plans making it more likely to fulfill its obligations to bondholders. Moreover, when financial capital *is* raised through issuing bonds containing protective covenants, then bond capital becomes even more specific. In such cases, some of the uses to which bond capital is restricted are clear and objectively determinable: the protective covenants deem certain conduct incompatible with the capital acquired by the bonds. For example, a protective covenant prohibiting a corporation from issuing additional bonds makes the financial capital acquired through such a bond specific to the extent that it precludes the corporation from incurring additional debt.

Taken together, the nature of indentures and their surrounding context helps us to understand how courts do, and should, interpret them. The invariability of their terms, the riskiness and uncertainty inherent in the corporate-promisor's performance, and the self-enforcing nature of the specificity of bond capital explain why courts interpret indentures very narrowly.

74. *See infra* Part II.A.

75. Hence, the ability to lower risk by diversifying one's investment portfolio.

76. *See generally* MILGROM & ROBERTS, *supra* note 1, at 1–54 (describing the effects of organization on a business's success).

77. *See supra* Part II.D.

C. THE NARROW INTERPRETATION OF INDENTURES

One method of indenture interpretation explicitly followed by courts is to strive to give indentures, which are largely made up of boilerplate provisions, a consistent and uniform meaning.[78] The policy rationale behind such interpretation is clear: consistent interpretation of indenture terms promotes the efficiency of bond markets. As the court in *Sharon Steel Corp. v. Chase Manhattan Bank* explained, "[w]hereas participants in the capital market can adjust their affairs according to a uniform interpretation . . . the creation of enduring uncertainties as to the meaning of boilerplate provisions would decrease the value of all debenture issues and greatly impair the efficient working of capital markets."[79]

And just as the court used an economic rationale to justify the uniform interpretation of indentures, I will use the economics of disequilibrium and financial asset specificity to justify narrow interpretation.

Before examining specific cases requiring judicial interpretation of indentures, it is important to understand at the outset why the contractual nature of indentures leads them to their relatively narrow construction. In the context of indentures, "narrow" or "strict" interpretation means construing terms so as to govern as little conduct as possible. For example, a narrow interpretation of protective covenants restricting a corporation's investment policy would construe them to limit the number of actions to be considered investments.

As scholars have convincingly demonstrated, much of the common law can be understood as an attempt by courts to produce economically efficient decisions—to maximize the sum total wealth of the parties involved to a dispute.[80] With the foregoing legal and economic considerations in mind, the same can be said about cases involving the narrow interpretation of indentures.

First, the less variable a contract, the more efficient it is to interpret its terms strictly. Contractual inflexibility is an ex ante attempt by the relevant parties to secure a very specific relationship to one another. In the case of indentures, the corporate promisor issues bonds consistent with its internal

78. *See* Sharon Steel Corp. v. Chase Manhattan Bank, N.A., 691 F.2d 1039, 1048 (2d Cir. 1982); Morgan Stanley & Co. v. Archer Daniels Midland Co., 570 F. Supp. 1529, 1540–1541 (S.D.N.Y. 1983).

79. *Sharon Steel Corp.*, 691 F.2d at 1048.

80. *See generally* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW (5th ed. 1998) (providing microeconomic analysis of virtually all aspects of American law); ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS (3d ed. 1999) (providing a textbook account of the wide range of issues and views in law and economics).

cost-benefit calculations, and bondholders purchase bonds according to their investment preferences. Broad construction of indenture terms would upset the delicate calculations made by issuers and investors. By introducing uncertainty as to the legal meaning of indenture terms, the actual value of bonds as securities would be less predictable and lead to less accurate, and hence, less efficient issuance and investment decisions.

Second, narrow interpretation of indentures is best suited for the entrepreneurship required in a successful corporation. Strictly interpreting contracts is a form of contractual incompleteness. The more narrowly the terms of an indenture that limit the conduct of the corporate-debtor are interpreted, the greater discretion the corporation will have to act. Since contractual incompleteness is a response to uncertainty about future states of the world,[81] and since entrepreneurship arises in response to similar uncertainty about the future,[82] such incompleteness is conducive to entrepreneurial behavior, and therefore, to wealth creation. On the other hand, strictly interpreting indenture terms may give too much discretion to corporations to engage in conduct that lowers a corporation's value at the expense of bondholders, which would be both inefficient and inequitable.

Contracts, however, should prima facie be interpreted narrowly if they contain a self-enforcing mechanism that sufficiently constrains the opportunism of the promisor. A self-enforcing mechanism naturally limits the opportunistic conduct of the parties to a contract, thereby making broad interpretation of the terms defining duties to either side unnecessary. As shown above, the specificity of bond capital serves such a self-enforcing role by limiting the conduct of corporations with respect to bondholders.

Of course, how the terms of an indenture are interpreted will determine the specificity of the bond capital they are used to obtain, thereby subjecting my claim that indentures contain a self-enforcing mechanism to the charge of circularity. This criticism fails for two reasons. First and foremost, strict indenture interpretation, in the sense of narrowly interpreting what conduct violates the terms of the indenture by the corporation, actually makes bond capital *less* specific because the narrower interpretation makes the bond capital compatible with *more* uses, not fewer. Second, even the most variable type of indenture—a bond with no protective covenants and a variable interest rate—still requires a corporation to produce enough revenues to be able to pay bondholders.

81. *See* MERCURO & MEDEMA, *supra* note 4, at 151–53 (stating that "[uncertainty] will often manifest itself in intentional contractual gaps").

82. *See supra* Part II.A.

Thus, bond capital necessarily has a degree of specificity over and above that of equity capital, which only increases with protective covenants. The most significant weakness in the idea that the self-enforcing nature of bond capital justifies a prima facie narrow reading of indentures is whether or not the self-enforcing nature of indentures is *sufficiently* self-enforcing so as to justify such a canon of interpretation.[83]

D. CASES INTERPRETING INDENTURES

1. Cases Interpreting Express Terms

A survey of the major cases requiring courts to interpret indentures reveals a strong disposition towards interpreting their terms narrowly, making use of the ideas and implications of economic disequilibrium, bond capital specificity, or both. In *Sharon Steel Corp. v. Chase Manhattan Bank*,[84] the issue was whether UV Industries' ("UV") sale of fifty-one percent of its assets to Sharon Steel (as part of the final stage of liquidating all of their assets) required UV to pay off their existing bonds, or whether Sharon Steel could takeover UV's debt. Resolution of the issue required the court to interpret the "successor obligor" clause in the indenture, which would not allow UV to assign its debt to Sharon Steel unless it was part of a transaction involving the sale of "all or substantially all of [UV's] assets." The two competing interpretations of "all or substantially all assets" revolved around whether or not the proceeds from earlier sales of UV's assets (the other forty-nine percent) as part of a predetermined plan of piecemeal liquidation should be included in the "all or substantially all" determination. The court interpreted the successor obligor clause to include proceeds from earlier asset sales, thereby requiring that all or substantially all of the UV's assets would have to be sold to a single purchaser in order to be able to assign their debt to Sharon Steel.

Although the court explicitly based its decision on fairness to creditors[85] and a form of wealth maximization,[86] its narrow interpretive decision also incorporated disequilibrium economics and the specificity of

83. Quantitative research as to how bond use restricts corporate conduct in general, and as to the restrictive properties of covenants in particular, would be extremely useful.

84. 691 F.2d 1039 (2d Cir. 1982).

85. "Accepting [the alternate interpretive] position . . . would severely impair the interests of lenders . . . ." *Sharon Steel Corp.*, 691 F.2d at 1051.

86. "An interpretation which sacrifices a major interest of one of the parties while furthering only a marginal interest of the other should be rejected [i.e., not Kaldor-Hicks efficient] in favor of an interpretation which sacrifices marginal interests of both parties in order to protect their major concerns." *Id.*

bond capital. First, the court's decision to include all sales within a predetermined liquidation plan in the "all or substantially all" determination was a narrow reading of the indenture in that it interpreted the "sale" to begin when the firm first begins to liquidate; it did not interpret a distinct "sale" to begin with every separate transaction that was part of an overall liquidation plan. The dynamism and uncertainty of the market process was taken into account when the court recognized that a liquidation plan can take place over time with several separate transactions being part of a single firm's liquidation. As such, the court argued that a firm may use a liquidation to take advantage of ever-changing interest rates on bonds, reflecting its understanding of the constant disequilibrium of economic reality.[87] Additionally, Sharon Steel's purchase of UV's cash (subject to UV's debt obligations) for less than its face value[88] reflects the fact that the court did not consider the units of cash to be homogeneous and interchangeable. Rather, the court considered UV's bond capital to be specific—to be tied to UV's debt obligations—and therefore lower in value than the less specific financial capital used by Sharon Steel to buy UV.

In *Morgan Stanley & Co. v. Archer Daniels Midland Co.*, the court explicitly based its decision on the narrower of two possible interpretations of the relevant indenture terms in question.[89] Archer Daniels Midland Company ("ADM") had redeemed $125 million of debentures that were paying an interest rate of 16.08%. Morgan Stanley sued, claiming that this redemption violated a provision of the indenture stating that ADM "may not redeem any of the Debentures pursuant to . . . the proceeds, or in anticipation, of the issuance of any indebtedness for money borrowed . . . if . . . the interest cost . . . shall be less than 16.08% per annum."[90] Although ADM subsequently did borrow money for less than 16.08%, it also issued common stock and used those proceeds to redeem the debentures. The plaintiff argued for a broad reading of the term "proceeds" to include the funds ADM gained from issuing stock, claiming that in light of also raising bond capital for less than 16.08%, using the equity capital to redeem the bonds is "an irrelevant 'juggling of funds' used to circumvent" the protections of the indenture.[91]

87. "Such a transaction diminishes the protection for lenders in order to facilitate deals with little functional significance other than substituting a new debtor in order to profit on a debenture's low interest rate." *Id.* A court unduly focused on the equilibrium and efficiency of capital markets may not understand the importance of this type commercial practice.

88. *Id*. at 1046.

89. 570 F. Supp. 1529, 1541 (S.D.N.Y. 1983).

90. *Id.* at 1531.

91. *Id.* at 1532.

The court rejected Morgan Stanley's interpretation, opting for a narrow interpretation of what constitutes the use of "proceeds" that would violate the indenture agreement. The court ultimately interpreted the term "proceeds" to include only funds gained directly or indirectly from issuing debt at or below 16.08% and not funds gained from a common stock offering.[92] In doing so, the court relied on the idea of financial asset specificity—refusing to consider as indistinguishable *economically* what is indistinguishable *physically*, namely, financial capital. That is, it considered ADM's bond capital distinct from its equity capital. In *Morgan Stanley*, therefore, the court's narrow interpretation of indenture terms was based upon the recognition of financial asset specificity insofar as the indenture in question limited the use of bond capital borrowed below 16.08% as incompatible with debt redemption. In rejecting the plaintiff's argument that ADM's conduct was a mere "juggling of funds," the court was implicitly rejecting the notion that all financial capital is homogenous, interchangeable, and unspecific.

The *Morgan Stanley* court's interpretation of "proceeds" also promotes economic efficiency: it allows a corporation to redeem its bonds and borrow at a lower interest rate only when doing so transfers wealth from less productive to more productive uses. The indenture provision after *Morgan Stanley* requires a corporation to redeem bonds by using financial capital gained through either an increase in cash flows or from issuing stock. Since such activities reflect value-creation by a corporation (or at least potentially, in the case of issuing new stock), using those funds to redeem bonds and simultaneously borrowing new capital at a lower interest rate results in a net increase in wealth since such productive economic activities will be able to be financed at a lower cost. On the other hand, redeeming bonds with capital raised at a lower rate distributes capital between parties but not necessarily in an efficient manner.

2. Cases Interpreting the Implied Covenant of Good Faith and Fair Dealing

Courts have often been called upon to decide what the implied covenant of good faith and fair dealing[93] ("ICGFFD") means within the context of an indenture, and whether one of the parties violated it. As a matter of first principle, whenever a court determines what the ICGFFD requires of a party to a contract, it always implies only the narrowest of

92. *Id.* at 1535–36.

93. RESTATEMENT (SECOND) OF CONTRACTS § 205 (1981). The origin of the implied covenant of good faith and fair dealing is found in *Kirke La Shelle Co. v. Paul Armstrong Co.*, 263 N.Y. 79, 85 (App. Div. 1933).

duties as being required. Courts repeatedly have stated that ICGFFD gives a party only the rights it bargained for during contract formation and absolutely no *additional* substantive rights.[94] As we will see, courts use disequilibrium economics and financial asset specificity to arrive at such a method of interpretation in the context of indentures.

One of the most important cases addressing the rights and duties arising under an indenture involved one of the largest leveraged buyouts (LBO) in American corporate history, namely, the $24 billion buyout of RJR Nabisco's (RJR) shareholders by their own management. The buyout left RJR with $19 billion of new debt, causing the value of its existing bonds to fall dramatically. Metropolitan Life Insurance ("MetLife"), holding millions in RJR bonds, sued RJR claiming that by issuing new debt for the LBO, RJR misappropriated the value of their bonds, thereby breaching an ICGFFD.

At issue in *Metropolitan Life Insurance Co. v. RJR Nabisco, Inc.*[95] was whether the indenture governing MetLife's bonds contained an implied covenant prohibiting conduct that greatly reduced the value of their bonds. The court decided in favor of the defendant-RJR, reasoning that the LBO did not deprive MetLife of a bargained-for benefit of agreement, since the indenture did not specify that MetLife was entitled to a particular market value of the bond. According to the court, the role of the ICGFFD was very narrow: it was only to give parties rights already established in the indenture and "[could not] give the holders of Debentures any rights inconsistent with those set out in the Indenture."[96]

The court justified its refusal to add any substantive rights to the indenture—its narrow interpretation—by applying insights consistent with disequilibrium economics. The court realized the economic importance of allowing companies to conduct their business free from limitations on their conduct, especially non-bargained-for limitations.[97] The dynamism of the economic world may require companies to undergo an LBO not contemplated in the minds of bondholders when they purchase bonds, and

94. *See, e.g.*, CIBC Bank & Trust Co. v. Banco Cent. do Brasil, 886 F. Supp. 1105, 1115–16 (S.D.N.Y. 1995) (denying plaintiff's claim that the ICGFFD allows an acceleration of its loan); Hartford Fire Ins. Co. v. Federated Dep't Stores, Inc., 723 F. Supp. 976, 991 (S.D.N.Y. 1989) ("Nor can a court imply a covenant to supply additional terms for which the parties did not bargain.").

95. 716 F. Supp. 1504 (S.D.N.Y. 1989). For an extensive analysis of the case, see Nancy W. Graml, *Bondholder Rights in Leveraged Buyouts in the Aftermath of* Metropolitan Life Insurance Co. v. RJR Nabisco, Inc., 29 AM. BUS. L.J. 1 (1991).

96. *Metropolitan Life Ins. Co.*, 716 F. Supp. at 1517 (quoting Gardner & Florence Call Cowles Found. v. Empire Inc., 589 F. Supp. 669, 673 (S.D.N.Y. 1984)).

97. *Id.* at 1520.

the court went so far as to suggest that the market price of the bond was discounted for such a possibility.[98] Recognition of the need for such dramatic changes in a corporation's capital structure is implied by the disequilibrium approach to economics.

Katz v. Oak Industries[99] also relied upon ideas of financial asset specificity, albeit indirectly, in interpreting the ICGFFD as it applied to an indenture. The issue was whether or not an offer made by Oak Industries to its bondholders violated an ICGFFD. The offer involved redeeming Oak Industries bonds for a cash payment certificate to bondholders in exchange for bondholder consent to amendments in the indenture removing significant protections for long-term bondholders.[100] Bondholders were faced with a choice of either exchanging their bonds and consenting to the amendments or keeping Oak Industries bonds without their former protective covenants. The plaintiff-bondholder Katz considered such an exchange-offer "coercive" and therefore in violation of an implied covenant by Oak Industries to not induce bondholders to agree to such amendments.[101]

The court in *Katz* rejected the plaintiff's claims, arguing that such an exchange offer was not prohibited by the indenture and therefore not in violation of an ICGFFD. Financial asset specificity played a role in the court's decision insofar as it realized that given its precarious financial position,[102] Oak Industries needed to become more flexible and that removing protective covenants from its indenture was a way to accomplish this, even though it came at the price of offering its bondholders a premium on the value of their bonds.[103] Although Oak Industries still retained financial capital after the exchange-offer in question, the lack of protective covenants would decrease the specificity of its financial capital and therefore give it more latitude for entrepreneurship to flourish. The removal of protective covenants therefore played an important entrepreneurial role in the firm by freeing it up to take productive action, which at the time of amendment was unknowable. Additionally, the court's strict application of the ICGFFD in *Katz* promoted efficiency. The premium made bondholders who accepted the exchange better off. The

98. *Id.*

99. 508 A.2d 873 (Del. Ch. 1986).

100. *Id.* at 877.

101. *Id.* at 878.

102. The court stated that "[e]ven a casual review of Oak's financial results over the last several years shows it unmistakably to be a company in deep trouble." *Id*. at 875.

103. *Id.* at 877 (recognizing that Oak Industries is paying its bondholders a premium over the market price).

removal of covenants made the company better off by giving it more flexibility, and the only cost was the relatively small cost of decreasing the value of the bonds for those who did not accept the exchange-offer from its already low state to an even lower one.

IV. CONCLUSION

Courts make heavy use of economics in their jurisprudence. They may not, however, have a complete or explicit understanding of the economics underlying their decisions. It is the task of the legal-economist to make explicit what courts may understand only implicitly or not at all. This can help us not only to understand the law as it is, but also provide a basis for making sounder judgments based upon a more accurate understanding of economic reality.

In this paper, I sought to point out features of economic reality that are often underemphasized (disequilibrium economics) or hitherto unknown (financial asset specificity) in order to analyze and guide courts in their decisions involving the interpretation of indentures. As we have seen, the dynamic and uncertain nature of the economic world (along with the role entrepreneurship plays in such a world) and the varying degrees of financial asset specificity help explain how courts interpret indentures and why such interpretations are efficient. Furthermore, they can help guide courts in future cases where similar issues arise. Such ideas also can be used to critique decisions that overemphasize the role of equilibrium in understanding corporate behavior, unduly treat different units of financial capital as completely interchangeable, or both.

Coming full circle, we can conclude that since narrow indenture interpretation allows corporate entrepreneurs to use capital legally in more numerous and diverse ways than would broad interpretation, narrow interpretation promotes entrepreneurship, which results ultimately in increased economic activity and growth.