ON ENTITYNESS AND TAKEOVERS: ACQUISITION VALUATION, THEORY OF THE FIRM, AND COASE'S ERROR

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Abstract

This Article advances a theory of entityness that theorizes the firm and its relationship to the acquisition premium. This theory is the first scholarly analysis to construct a general model of takeover valuation by integrating the modern finance theory of asset value and a corrected Coasean theory of the firm. The acquisition premium is an enigma. Acquirers must pay it. But why?—if the market price is tethered to fundamental value through an efficient market. This enigma reveals a key insight about firms. The theory of entityness postulates that the acquisition premium is compensation for a capitalized asset intrinsic in the firm structure. This Article's core idea is that Coasean transaction cost incurred in firm creation is not really a "cost" as Coase and economists assert and have long believed as axiomatic. They are wrong. Coasean "transaction cost" begets entityness, the state of high, durable order and organization of factors of production within the legal boundary of the firm.

Coasean "transaction cost" converts into a form of capitalized asset that impounds the value of entityness. If an acquirer seeks a corporate asset, it must unavoidably invest resources to organize factors of production since these things do not self-order in a world of free resources. This Article constructs a formal arbitrage argument that proves an acquirer cannot arbitrage away the need for this investment through an election of the form of acquisition (*i.e.*, strategic "buy" or "build" decision) and the law of one price must hold under both choices. The acquisition premium is payment for the precondition of a firm structure that is necessary to venture in a firm, *i.e.*, the firm's entityness. The value of this capitalized asset is monetized not in the capital market among traders of individual shares valued only on expectation of discounted cash flow under the modern theory of asset value, but in the market for corporate control by acquirers of whole corporate

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assets who must give value to entityness. The theory of entityness has major implications on merger law.

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INTRODUCTION

There is an immutable market reality: If an acquirer wants to buy a firm, it must pay target shareholders an acquisition premium to the market price as they exit. We intuit that an acquirer *should* pay a premium since it *must*, but we do not have a cogent economic theory as to why. The fact that an acquirer must pay (because shareholders won't sell otherwise) is no answer; absent an equivalent exchange of value between buyer and sellers and a conception of post-acquisition deal value, the premium would make

no sense. Would any rational actor pay a price simply because the seller demands it? Since antiquity, when confronted with an enigma, we tell tales and construct myths to calm the urge for rationality. In the case of the market for corporate control,[1] investment bankers, corporate lawyers, Delaware courts, and legal scholars broadly believe in the lore of "control premium" and "minority discount." These concepts, like fables of fairies and phantoms, are figments of our fecund imagination. They don't exist—and can't under close scrutiny of economic theory. They are benign white lies in service of rationality when our observation of reality seeks cause.

A cogent analysis of the acquisition premium must solve a riddle. The cornerstone of modern finance is a fundamental theory of asset value: The value of an asset, such as a firm, is the sum of the expected free cash flow discounted by a rate of return commensurate with its riskiness.[2] This conception of a cash flow-centric fundamental value and the market price of stock are tethered by market efficiency, the hypothesis that an efficient capital market incorporates all publicly disclosed information into the stock price.[3] When stocks trade in the capital market, we have a well-established theory of value and generally rely on one market price, representing an exchange of cash flows among buyers and sellers. All's well and good.

When, however, the market for corporate control comes into play, this standard framework of asset value and market efficiency becomes unstable. At the convergence of two markets, we find not one but three distinct value propositions: (1) the unaffected market price trading in the capital market, (2) the deal price given to target shareholders that must be higher than the market price, and (3) the deal value to the acquirer that should be still higher than the deal price. A deal price higher than the market price is a hard reality because target shareholders will not sell otherwise. The acquirer should expect a deal value greater than the deal price paid because if not, why bother?—when a minority stake at the lower market price would have accomplished just the same and without the need to assume post-acquisition risks. Thus, an acquisition inequality governs all takeovers: Market Price < Deal Price < Deal Value. The first inequality (Market Price <

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[1]   This common term is borrowed from Henry G. Manne, *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110 (1965). This Article uses this term in the limited way to refer to the M&A market because the idea of "control" is key in the notions a control premium and a minority discount.

[2]   RICHARD A. BREALEY, STEWART C. MYERS & FRANKLIN ALLEN, PRINCIPLES OF CORPORATE FINANCE 2 (13th ed. 2020).

[3]   *See infra* notes 36-38 & 83 and accompanying text.

Deal) is universal and thus a matter of empirical reality. The second inequality (Deal Price < Deal Value) is the *raison d'être* of acquirer's motivation in M&A deals, and thus a matter of normative aspiration.

We have three value propositions for the same corporate asset. What did theory and market efficiency miss? Nothing, if one is trading in the capital market. Clearly something, if one is transacting in the market for corporate control. An acquirer is said to pay more because it expects post-acquisition value accretion from synergies and agency cost mitigation. This expected value from post-acquisition control is not rationality's savior. It merely raises another conundrum: Why should an acquirer pay target shareholders the expected value of its post-acquisition input as they *exit* the venture? It shouldn't because this value of control is a rightful claim of the acquirer's shareholders who are making the investment and assuming the risks therein. Scholars have long wrangled with this gnarly knot.[4] Courts too, in assessing the "fair value" of dissenting shares, have long dealt with this prickly puzzle.[5]

To explain the acquisition premium, received wisdom tells a palliative story of conjoined twins. An acquirer pays a "control premium" that is said to correct a "minority discount" embedded in the market price of individual shares.[6] This tale connects two observed realities—control passes and

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[4]   *E.g.,* Robert T. Miller, *Stock Market Value and Deal Value in Appraisal Proceedings*, 96 NOTRE DAME L. REV. 1403 (2021); Jonathan Macey & Joshua Mitts, *Asking the Right Question: The Statutory Right of Appraisal and Efficient Markets*, 74 BUS. LAW. 1015 (2019); Aswath Damodaran, *The Value of Control: Implications for Control Premiums, Minority Discounts and Voting Share Differentials*, 8 N.Y.U. J.L. & BUS. 487, 488 (2012); William J. Carney & Mark Heimendinger, *Appraising the Nonexistent: The Delaware Courts' Struggle with Control Premiums*, 152 U. PA. L. REV. 845 (2003); Richard A. Booth, *Minority Discounts and Control Premiums in Appraisal Proceedings*, 57 BUS. LAW. 127, 145 (2001); John C. Coates IV, *"Fair Value" as an Avoidable Rule of Corporate Law: Minority Discounts in Conflict Transactions*, 147 U. PA. L. REV. 1251 (1999); Lynn A. Stout, *Are Takeover Premiums Really Premiums? Market Price, Fair Value, and Corporate Law*, 99 YALE L.J. 1235 (1990); Reinier Kraakman, *Taking Discounts Seriously: The Implications of "Discounted" Share Prices as an Acquisition Motive*, 88 COLUM. L. REV. 891 (1988).

[5]   *E.g.,* Fir Tree Value Master Fund, LP v. Jarden Corp., 236 A.3d 313 (Del. 2020); Brigade Leveraged Capital Structures Ltd. v. Stillwater Mining Co., 240 A.3d 3 (Del. 2020); Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., 210 A.3d 128 (Del. 2018); Dell, Inc. v. Magnetar Glob. Event Driven Master Fund Ltd., 177 A.3d 1 (Del. 2017); DFC Glob. Corp. v. Muirfield Value Partners, L.P., 172 A.3d 346 (Del. 2017); Rapid Am. Corp. v. Harris, 603 A.2d 796 (Del. 1992); Cavalier Oil Corp. v. Harnett, 564 A.2d 1137 (Del. 1989); Weinberger v. UOP, Inc., 457 A.2d 701 (Del. 1983).

[6]   *See infra* Sections I.B. and III.C.

premium is paid.[7] Two correlative facts are linked in the causal knot of value exchange, *i.e.*, the premium must be paying for control. This nice narrative is quite convenient because takeovers transfer control and require a premium, and theory just gets in the way of this immutable reality. The M&A market has long existed, and its valuation framework cannot be systemically irrational. However, if we call out nonsense for what it is and demand logic, the pat story of a yin yang of premium and discount has an obvious incongruity. Control does not have an intrinsic value, some innate utility of being a corporate monarch. Control has value only because an acquirer uses it post-acquisition to accrete wealth. [8] We correctly conceptualize this value of control as inuring from post-acquisition synergies or agency cost mitigation. Conventional orthodoxy says that this expected control value justifies a premium for "control."[9] This idea is facile incoherence, bad economics, and wrong law.

The value of control is instrumental. Post-acquisition control value is the fruit of the acquirer's unique effort, investment, and risk assumption. Under market lore, however, the control premium passes this expected gains to target shareholders as they *exit* the venture. Quite obviously, a premium as such would cannibalize the acquirer's deal value. Having paid for the acquisition and borne its risk, the acquirer's shareholders should be entitled to all expected value of control, every last penny. Merger law, in its good sense, reflects this correct idea.[10] Upon critical scrutiny, the payment of a "control premium" is nonsensical. By transferring the value of control, an acquirer gives exiting shareholders a windfall and effectively takes their place in the capital market while paying a premium to the market price — why bother? For years this obvious non sequitur has been glossed over, ignored like the *faux pas* of a dignitary. "Control premium" and "minority discount" do not exist; they are stasis in emptiness. The lack of a coherent theory is a shard in the rational mind. Surprisingly, after more than a century of the corporate M&A market, we lack a coherent intellectual

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[7] Carney & Heimendinger, *supra* note 4, at 859.

[8] *See* Miller, *supra* note 4, at 1410 (noting that control "is not valuable in and of itself, but only if it can be monetized in some way or other"). *See also* BREALEY, MYERS & ALLEN, *supra* note 2, at 372 (noting that where shares with different control rights but with "identical cash-flow rights, all shareholders benefit equally" and a premium in the price of control shares is only plausible due to "private benefits"); JEAN TIROLE, THE THEORY OF CORPORATE FINANCE 403-04 (2006) (discussing "private benefits" of large blocks of shares).

[9] *See infra* note 69; *infra* Sections I.A. and III.C.

[10] *See* DEL. CODE ANN. tit. 8, § 262(h); *infra* note 167 and accompanying text.

framework on acquisition valuation.[11] We have palliative tales instead, and this will not do.

An economic theory of valuation is important *per se* for our intellectual understanding of the M&A market. In terms of legal and public policy, we may not care so much how actors allocate value in private contracts. We trust that contracts create value. Of course, a sound economic theory may inform business, finance, and legal practitioners. Economic theory, however, is critical to merger law, particularly the rules governing "fair value" of dissenting shares.[12] This Article explains the economic and legal theory why shareholders must receive a deal price that includes a premium to the market price, and why the acquirer should expect a deal value that is still higher than the deal price. The first is an immutable fact, the second an undisputable motive. This Article advances a theory of entityness that theorizes the firm and its relationship to the acquisition premium.

The enigma of the acquisition premium reveals a fundament insight about the theory and nature of the firm, and this idea resolves incongruities and contradictions concerning the acquisition premium. This Article is the first scholarly analysis in both economic and legal literatures to integrate pieces of two well-established economic theories into a whole model. One is obviously the modern finance theory of asset value and the hypothesis of market efficiency, which govern the way we think about fundamental asset value and market price when shares trade in the capital market.[13] The second has escaped notice by scholars when they theorize acquisition valuation—that is the Coasean theory of the firm.[14] These two theories have stood apart, seemingly without kin or connection, but no longer. Their integration into theory resolves critical problems in theorizing the firm and its relationship to acquisition valuation.

This Article explains why acquirers must rationally pay premiums, *with* the dual assumptions of market efficiency and the correctness of the theory of asset value in the capital market, thus affirming general principles in financial economics, and *without* the fatally flawed idea that an acquirer funds the payment of the acquisition premium by transferring the value of post-merger control it expects to accrete to target shareholders as they exit the venture. The key idea is that two markets have different kinds of buyers

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[11]   *See infra* Section I.C.

[12]   *See infra* Section V.

[13]   *See generally* ROBERT J. RHEE, CORPORATE FINANCE 45-49, 68-75, 148-50 (2d ed. 2023).

[14]   R.H. Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937). *See infra* Section II.

and thus different value propositions: *In the market for corporate control, acquirers rationally pay for a capitalized asset held by target shareholders, which is rightly not a factor of value under the theory of asset value and thus not reflected in the market price in the capital market, but nonetheless represents a real asset that impounds the value of a prior investment.*[15]

To construct this theory, this Article reconceptualizes Coasean theory of the firm and transaction cost. Coase's idea is that firms exist because they minimize the transaction cost of price discovery when factors of production seek to venture through a firm as compared to substitute market transactions.[16] As a result of this revelatory awareness, we conceptualize transaction cost incurred in firm creation as a *cost*—an economic loss, a sacrifice of resources to be minimized. Coase was wrong on this point. He theorized the firm as a standalone venture and did not consider transaction cost in the context of value exchange in the market for corporate control and the modern finance theory of asset value and market efficiency.[17] His idea about transaction cost in firms is incomplete and wrong in parts.

This Article advances an alternative theory of Coase's inquiry and explains why firms are more efficient than substitute market transactions. Firms are efficient because they conserve more assets comparatively, much more than Coase thought, and they direct more assets toward cash flow generation. While Coasean transaction cost associated with firm organization certainly exhibits an apparent cost-like attribute in standalone firms in the capital market and is accounted as such,[18] it is not a real economic cost as Coase argued and economists believe today. Its true nature is revealed in the market for corporate control. There, an acquirer

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[15]   *See infra* Sections III.A. and IV.B.

[16]   *Id.* at 390-91. *See infra* Section II.

[17]   Coase published *The Nature of the Firm* in 1937. At the time, mergers and acquisition was a relatively new phenomenon in the modern liberal era of corporation law. *See generally* CLAIRE A. HILL, BRIAN JM QUINN & STEVEN DAVIDOFF SOLOMON, MERGERS AND ACQUISITIONS: LAW, THEORY, AND PRACTICE 1-15 (3d ed. 2023) (stating that mergers first became prominent during late 19th and early 20th centuries). Arguably, modern finance theory began in 1952 with the publication of Harry Markowitz, *Portfolio Selection*, 7 J. FIN. 77 (1952). *See* Robert J. Rhee, *The Application of Finance Theory to Increased Risk Harms in Toxic Tort Litigation*, 23 VA. ENVTL. L.J. 111, 121 n.43 (2004) ("The revolution in financial thought arguably began in 1952 when Harry Markowitz showed the quantitative relationship between risk and reward."). *See also infra* note 49.

[18]   *See infra* Section III.D.

who seek to purchase a whole corporate asset should and must give it value. A thing of value is always an asset.

Coase and economists have wrongly believed over the years that transaction cost associated with organization of the firm is a sunk, incurred cost. Their error lies in recognizing only one side of the transaction ledger. Every transaction, however, has a dual entry. Resources expended have not been sacrificed, but instead have been converted into another form of asset that preserves value. The expenditure of transaction cost begets entityness, defined here in this Article as the state of high, durable order and organization of factors of production that is intrinsic in a firm structure. This state of order and organization is a form of asset onto itself, independent of the discrete assets therein, and impounds the value of entityness. The value of this state has not been sacrificed because, as Coase rightly explained, the firm structure of order and organization continues to provide benefits for the venture. The expenditure of resources to bring about this condition converts the form of asset from the initial expenditure of resources (such as cash, effort, and other "transaction costs") to a capitalized asset that is entityness. Value is not sacrificed, but is conserved.

By theorizing the firm, the theory of entityness solves the acquisition riddle. "Control premium" and "minority discount" are ciphers, seemingly substantive due to their nice descriptions of correlative observations, but they are really blank placeholders in search of a coherent theory. A premium is not compensation for control, and the market price is not systematically discounted for minority status. These unfounded ideas are nothing more than oft-repeated market fiction, and they irreconcilably contradict economic logic of takeovers and well-established theories in finance. [19] This Article shows instead that the acquisition premium impounds the value of entityness. A critical implication for both economic theory and merger law follows: *In the market for corporate control, the target firm has value beyond its standalone value (i.e., cash flow-centric fundamental value under the theory of asset value as reflected in the unaffected market price in the capital market), and instead the correct compensation for a target firm, excluding post-acquisition value of control such as synergy gains, is a proper deal price that should be and is the sum of the market price reflecting fundamental value as a standalone firm plus a premium impounding the value of entityness.*[20]

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[19]   *See infra* notes 49-54 and accompanying text.

[20]   *See infra* Section V.A.

This theory has a critical implication on merger law. Contra current orthodoxy and longstanding Delaware law, the "fair value" should be more than the standalone value,[21] and that, consistent with the instrumental effects of recent developments in Delaware takeover law, a reliable deal price correctly conceptualizes the rational compensation that must be paid to shareholders.[22] The legal implication is that, upon a reliable deal price, appraisal arbitrage, from judicial valuation of "fair value" that exceeds the deal price, should not exist, and thus a legal presumption can attach that a reliable deal price constitutes a fair value.[23] The theory of entityness also better explains other merger rules dealing with fair value in minority squeeze outs and premiums received in controlling stake sales.[24] Although the theoretical basis of Delaware law grounded in M&A orthodoxy is wrong, Delaware courts have, by and large, achieved the right results in terms of legal rules.

While valorization is an abstract exercise, this Article more concretely demonstrates the logic of exchange values through a formal arbitrage analysis.[25] This analysis shows that, irrespective of the "buy" or the "build" strategic option to acquire a whole corporate asset, an acquirer must always invest in the firm structure. Transaction costs in firm creation, as Coase observed, are unavoidable in a world of scarcity; acquirers can reduce them through a cost-benefit analysis of the best strategic option, but cannot arbitrage their elimination through the mere election of the form of acquisition. The market for corporate control intermediates the value exchange between an acquirer and target shareholders. Conceptually, a double-entry ledger of value exchange governs: An acquirer must unavoidably invest in a firm structure, and target shareholders own an asset that represents such investment. The acquisition premium is payment for the precondition of a firm structure necessary to venture in a firm, *i.e.*, the firm's entityness. This Article demonstrates the validity of this arbitrage framework with a simplified discounted cash flow analysis that approximates the actual range of premiums seen in the market.

The project of this Article is to rationalize the M&A market and the general structure of acquisition valuation by connecting it to a proper

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[21]   *See infra* note 187 and accompanying text.

[22]   *See infra* Section V.A.

[23]   *Id.*

[24]   *See infra* Section V.B.

[25]   *See infra* Sections III.A. and III.B.

theory of the firm. The framework of acquisition valuation as practiced today is generally right, meaning that market actors have been rational, as one would expect. But we do not know why. Although we presume that terms in private contracts are rational and create value, a theory of valorization is important *per se* as knowledge, and it is critically important to merger law and policy. The pricing schema of profit maximizing actors could not have been wrong for so long. The structure of valuation in the M&A market is rational writ large, but we need a sound positive economic and legal theory. The theory of entityness brushes away the elisions and fictions that have been necessary because the M&A market has, we intuit, served a legitimate social function and cannot be irrational. The capitalized asset that is entityness has dual value propositions. It is correctly assigned no value in the market price in the capital market, but acquirers should and must give it value, and thus the asset is ultimately monetized in the market for corporate control consistent with a corrected theory of the firm that attributes value to entityness.

The theory of entityness advances a coherent model of acquisition valuation that exactly matches the reality we see.[26] The *deal price* should compensate for *all* that is taken from target shareholders, which are: (1) the *market price* approximating the fundamental value of the corporate asset under the theory of asset value per semi-strong form of market efficiency in the capital market, plus (2) the *acquisition premium* reflecting firstly the value of private information, if any, so as to mimic strong form market efficiency and secondly, more principally, the value of the firm's capitalized asset, which monetizes the investment in the precondition of entityness. A value of control exists, but should not be theorized as a part of the compensation paid to target shareholders as they exit. The *deal value* to an acquirer should be still greater than the deal price paid, and is achieved through the instrumental value of control that an acquirer expects to accrete for its shareholders, such as synergies and agency cost mitigation, and this control value is an exclusive claim of the acquirer's shareholders. The acquisition inequality governs: Market Price < Deal Price < Deal Value. Thus, three values can rationally coexist when two markets converge under the assumption of market efficiency.[27] The analysis below provides a detailed explanation of the theory of entityness and the model of acquisition valuation.

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[26]   *See infra* Section IV.A.

[27]   *See* Miller, *supra* note 4, at 1403 (noting the existence of two markets).

I. THE PROBLEM OF ACQUISITION VALUATION

A.   Valorization Generally

There is no ontological concept of a fixed intrinsic value of things. Gold is worthless to Robinson Crusoe, but has value in London.[28] Valuation is an intellectual construct based on the nature of the market, the composition of buyers and sellers, and the different value propositions they hold. We construct theories of value exchange. For instance, consider the fundamental accounting equation: assets equal liabilities plus equity.[29] This equation reflects the reality that firms need assets to generate cash flow, and these assets must be funded by creditors and equityholders who together claim all assets. Because accounting conventions have well-known limitations, the book values of assets, liabilities, and equity in financial statements do not always reflect their market or fair values.[30] Value can also be seen in terms of atomized, alienable assets and liabilities at market values, which disregards the firm as such, and this method yields the liquidation value.[31] Accounting (book) and breakup values are less relevant to the conception of a going firm value.

The valorization of going firm value also has intellectual constructs. After revelatory work in financial economics, we have a generally accepted theory of asset value. The basic idea is now simple: The fundamental value of a firm, thus its securities, is conceptualized as the sum of the stream of future free cash flow, constituting expected returns to investors, discounted by a risk-adjusted rate of return.[32] This value is at the corporate level, and

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[28]   Would Crusoe choose a bar of gold or a sharp steel knife?

[29]   JOHN J. WILD & KEN W. SHAW, FUNDAMENTAL ACCOUNTING PRINCIPLES 17 (24th ed. 2019); PAUL D. KIMMEL ET AL., ACCOUNTING: TOOLS FOR BUSINESS DECISION MAKING 14 (3d ed. 2009).

[30]   *See* RHEE, *supra* note 13 at 13-14, 88-89. *E.g.,* Klang v. Smith's Food & Drug Ctrs., Inc., 702 A.2d 150, 154 (Del. 1997).

[31]   ASWATH DAMODARAN, DAMODARAN ON VALUATION: SECURITY ANALYSIS FOR INVESTMENT AND CORPORATE FINANCE 11 (2d ed. 2006).

[32]   "To carry on business, a corporation needs an almost endless variety of real assets. These do not drop free from a blue sky; they need to be paid for. The corporation pays for its real assets by selling claims on them and on the cash flow that they will generate."

thus does not discount individual shares for lack of control, *i.e.*, the value derived does not incorporate a "minority discount."[33] The market price is grounded in the theory of asset value, but the fundamental value therefrom cannot be known with epistemological certainty.[34] Price and value are not perfectly aligned but are tethered, and the length of that umbilical cord fluctuates with the efficiency and vagaries of the market process.

This brief anodyne account of some conceptions of value is made to press a broader point: The idea of value depends on an intellectual framework of the value proposition of the specific transaction. In the market for corporate control, that conception is opaque, thick with misconceptions, myths, and mystery.

In the capital market, the theory of asset value provides the well-conceived, generally accepted conception of value, and market efficiency works and churns out one price.[35] All's well and good. But when shares are subject to the special circumstance of an acquisition of the whole corporate asset, they are at the junction of the capital market and the market for corporate control. Three value propositions coexist there: (1) the unaffected *market price* reflecting the capital market's assessment of fundamental value under market efficiency; (2) the *deal price* to target shareholders that must be higher than the market price, which is an immutable market reality; and (3) the *deal value* to the acquirer that should be still higher than the deal price, which is an inescapable economic rationality. Thus, we have a fundamental acquisition inequality that does and should govern: Market Price < Deal Price < Deal Value. Under current M&A orthodoxy, valorization in the market for corporate control is theoretically unstable.

B.   Standard Justifications for Acquisition Premium

Scholars have advanced several justifications for the acquisition premium: (1) value of private information; (2) minority discount and

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BREALEY, MYERS & ALLEN, *supra* note 2, at 2. *See id.* at 95-100; DAMODARAN, *supra* note 31, at 25; RHEE, *supra* note 13 at 75-76, 94-97; TIM KOLLER, MAC GOEDHART & DAVID WESSELS, VALUATION: MEASURING AND MANAGING THE VALUE OF COMPANIES 17 (6th ed. 2015).

33   SHANNON P. PRATT, THE LAWYER'S BUSINESS VALUATION HANDBOOK 359 (2000); Barry M. Wertheimer, *The Shareholders' Appraisal Remedy and How Courts Determine Fair Value*, 47 DUKE L.J. 613, 650 (1998).

34   Fischer Black, *Noise*, 41 J. FIN. 529, 533 (1986); Miller, *supra* note 4, at 1413.

35   *See infra* note 49 and accompanying text.

control premium; (3) instrumental and holdup values of control; and (4) downward sloping demand curve of shareholders. None of these reasons provide a cogent theory of the premium.

1. Value of Private Information—The hypothesis of efficient capital markets, which this Article generally accepts, easily answers how private information should be treated. The market incorporates information into the stock price.[36] At the most general level, and perhaps trivially obvious, this hypothesis must be true.[37] Market efficiency comes in semi-strong and strong forms. The strong form states that the market price has incorporated all public and private information, and it is empirically wrong because the market does not have a systemic way to extract private information locked in firms, a systemic method of corporate espionage.[38] Semi-strong efficiency means that only public information is incorporated into market price. Since private information is not incorporated, the acquisition price should adjust for its value or disvalue so as to mimic strong form market efficiency.[39]

There may be no systematic direction of hidden value or disvalue. It is not uncommon that parties renegotiate the deal price to reflect disclosed or discovered negative information in the deal process.[40] Or, drawing back the curtain of corporate privacy may reveal nothing much more than what was publicly known. One wonders why managers would suppress information when disclosure could result in so much value recognition. Good reasons for information suppression may exist,[41] but managers, incentivized by pay

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[36] *See* Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. Fin. 383 (1970).

[37] *See* Halliburton Co. v. Erica P. John Fund, Inc., 573 U.S. 258, 272 (2014) ("Even the foremost critics of the efficient-capital-markets hypothesis acknowledge that public information generally affects stock prices."); Robert J. Shiller, *We'll Share the Honors, and Agree to Disagree*, N.Y. Times, Oct. 27, 2013, at BU6 ("I have argued that the theory makes little sense, except in fairly trivial ways. Of course, prices reflect available information. But they are far from perfect.").

[38] *See* West v. Prudential Sec., Inc., 282 F.3d 935, 938 (7th Cir. 2002) (Easterbrook, J.) (noting that strong form efficiency "is empirically false"); Arthur J. Keown & John M. Pinkerton, *Merger Announcements and Insider Trading Activity: An Empirical Investigation*, 36 J. Fin. 855, 855 (1981) (showing rapid rise of stock price upon acquisition disclosure).

[39] *See infra* note 160; Miller, *supra* note 4, at 1408.

[40] *See* Cleveland, *supra* note 52, at 939 ("Material nonpublic information could be negative or favorable."). *E.g.,* In re FLS Hldgs. Inc. S'holder Litig., 1993 WL 104562 (Del. Ch. 1993) (negative information leading to downward adjustment in deal price).

[41] *E.g.,* Cleveland, *supra* note 52, at 939-40 (noting competition issues in nondisclosure of private information); 15 U.S.C. § 78u-5 (addressing forward-looking statements).

tied to stock price, have structural incentives to reveal positive information and conversely to secrete negative information to the limit of law. Private information is a component of the premium, and it can contribute positive, negative, or zero value. It explains why acquirers may pay unique amounts, but is not a general theory of the acquisition premium.[42]

2. "Control Premium" and "Minority Discount"—A longstanding belief in the M&A market is that the market price, tethered to fundamental value, is *not* the best estimate of proper value in a rational value exchange. This belief must be true insofar as we see evidence of universal takeover premiums. This incongruity needs a story to explain reality. Investment bankers, corporate lawyers, Delaware courts, and many legal scholars widely embrace the orthodoxy that individual shares incorporate a "minority discount" reflecting a lack of control in individual shares.[43] Absent a controlling shareholder, control is an abstraction, said to lie in the "fluid aggregation of unaffiliated stockholders."[44] Control is assumed to have intrinsic value, and so the lack of it discounts individual minority shares in the capital market. Why add this wrinkle to the simple, generally agreeable finance theory of asset value based on cash flow and one market price churned out by market efficiency?

The "control premium" neatly solves a troublesome question of a rational value exchange. It is said to be merely an inverse function of the "minority discount"; as such, it reverses the discount existing at the level of individual shares and thus compensates shareholders for their pro rata share of control in the aggregate at the corporate level.[45] The two are said to be inverses of each other, standing in a precise mathematical

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42   *See* Cleveland, *supra* note 52, at 941; Macey & Mitts, *supra* note 4, at 1016-17; Kraakman, *supra* note 4, at 909.

43   *See* SHANNON P. PRATT, BUSINESS VALUATION DISCOUNTS AND PREMIUMS 16 (2d ed. 2009); ROBERT F. BRUNER, APPLIED MERGERS & ACQUISITIONS 455 (2004); DAMODARAN, *supra* note 31, at 480; Booth, *supra* note 4, at 131; Coates, *supra* note 4, at 1278; *supra* note 48 (citing Delaware cases).

44   Paramount Communications, Inc. v. QVC Network, Inc., 637 A.2d 34, 43 (Del. 1994). *See* Arnold v. Soc'y for Sav. Bancorp, Inc., 650 A.2d 1270, 1290 (Del. 1994) (same).

45   Merger law clearly embraces this relationship. *See* 2 ALI PRINCIPLES OF CORP. GOV. § 7.22 (1994); MODEL BUS. CORP. ACT § 13.01 (2020); DFC, 172 A.3d at 367-68; Verition Partners, 210 A.3d at 134; Agranoff v. Miller, 791 A.2d 880, 888 (Del. Ch. 2001); QVC Network, 637 A.2d at 43; Christopher Vaeth, *Annotation, Propriety of Applying Minority Discount to Value of Shares Purchased by Corporation or its Shareholders from Minority Shareholders*, 13 A.L.R.5th 840, 850 (1993).

relationship.[46] For example, if an unaffected market price of $75 per share is believed to incorporate a 25% "minority discount," then a payment of a 33% "control premium" ($25 based on the $75 market price) trues up the share price to its intrinsic value of $100.[47] Delaware courts have also long embraced the concept of a control premium that reverses the depressive effect of a minority discount in the market price of individual shares.[48] Like the titan Atlas, the concept of "minority discount" and "control premium" heroically holds up the entire edifice of rationality in acquisition valuation.

Tidy as the "minority discount" may seem, it only raises another troubling enigma. The theory of asset value states that a calculus of return and risk determines asset value, and it has no concept of a control premium or a minority discount.[49] The theory does not attribute more or less value to the same dollar just because the stock is held by controlling or minority hands. It correctly assumes that cash is cash.[50] The market price should not vary depending on whose hands generated the cash flow. The idea of a control premium is nonsensical if a dollar is a dollar and control does not provide private cash flow benefit.[51] The concept of a minority discount

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[46]   *See* Coates, *supra* note 4, at 1278 (recognizing that a "minority discount" and a "control premium" are "simply the inverse of one another"). The inverse relationship is stated as this: $D = 1 - [1 / (1 + P)] \Rightarrow P = D / (1 - D)$, where D = minority discount and P = control premium. PRATT, *supra* note 43, at 17; BRUNER, *supra* note 43, at 458. This Article does not reject the validity of this mathematical formula as such. Rather, the thrust of the criticism rejects the ideas of a "minority discount" and "control premium." This Article uses this mathematical formula to demonstrate an important empirical point about the range of acquisition premiums. *See infra* notes 142-144 and accompanying paragraph.

[47]   We apply the formula: $D = 1 - [1 / (1 + P)] \Rightarrow 25\% = 1 - [1 / (1 + 33\%)]$. *See supra* note 46.

[48]   *E.g.,* In re GGP, Inc. S'holder Litig., 282 A.3d 37, 56 (Del. 2022); DFC, 172 A.3d at 367-68; Agranoff, 791 A.2d at 888; Rapid Am., 603 A.2d at 806; Cavalier Oil, 564 A.2d at 1145; Van Gorkom, 488 A.2d at 876.

[49]   *See supra* note 2 and accompanying text. The capital asset pricing model contains no variable to adjust for a minority stake. *See* BREALEY, MYERS & ALLEN, *supra* note 2, at 206-17; RHEE, *supra* note 13, at 68-75. The academic work supporting this theory garnered Nobel Prize awards to Harry Markowitz (1990) and William Sharpe (1990). Additionally, Eugene Fama (2013) and Robert Shiller (2013) were awarded the Nobel Prize for their work on market efficiency. *See notes 36-*37.

[50]   *See supra* note 8.

[51]   A controlling shareholder's extraction of private benefits or opportunism, such as self-dealing, would run afoul of its fiduciary duty to minority shareholders under well-established legal doctrine. *See* Sinclair Oil Corp. v. Levien, 280 A.2d 717, 720 (Del. 1971); Weinberger, 457 A.2d at 710-11.

contradicts the modern finance theory of asset value and market efficiency. To embrace it, proponents must also believe that the capital market does not incorporate the core tenets of financial economics. A central orthodoxy today contains fundamental contradictions.

Indeed, if the mathematical relationship between minority discount and control premium were really true, and given premiums in the range of 30% to 50%,[52] the minority discount embedded in share prices would be—quite astonishingly—in the range of 23% to 33% from the values dictated by the finance theory of asset value and market efficiency.[53] Really? One cannot stare at these numbers and not be just dumbstruck by their fantastical claim. Given that the minority discount depresses market prices, tethered to fundamental value, by such stupendous amounts, one would think that finance textbooks, surveying the academic research in financial economics and at least one written by a Nobel Prize winner, would give it thorough treatment, explaining why the theory of asset value is so patently inadequate, why market efficiency discounts stock price so spectacularly, and why the capital market is nevertheless correct in doing so. But there is scarcely a peep, suggesting that financial economists do not take the minority discount in market prices seriously.[54] Consider also that bonds too have claims on the firm's cash flow and obviously lack control, but no one

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[52]   *See* Miller, *supra* note 4, at 1403 & n.1 (range of 30% to 50%) (citing BUS. VALUATION RES., CONTROL PREMIUM STUDY: 2ND QUARTER 2020, at 8 (2020)); Steven J. Cleveland, *Appraisal Rights and "Fair Value"*, 43 CARDOZO L. REV. 921, 941 (2022) (range of 30% to 60%); Kraakman, *supra* note 4, at 908 (average 50% in 1988); Stout, *supra* note 4, at 1259 (average 50%); Macey & Mitts, *supra* note 4, at 1042-43 (average 30%).

[53]   *See infra* note 52. A premium of 30% implies a minority discount in the market price of: $D = 1 - [1 / (1 + 30\%)] \Rightarrow 23\%$. A premium of 50% implies a minority discount of: $D = 1 - [1 / (1 + 50\%)] \Rightarrow 33\%$.

[54]   Corporate finance textbooks give short shrift to the idea of a minority discount. *See* BREALEY, MYERS & ALLEN, *supra* note 2, at 372 (not discussing minority discount and stating that with no expropriation of "private benefit" shares with differing control rights should be valued the same); TIROLE, *supra* note 8, at 403-04 (same); ASWATH DAMODARAN, CORPORATE FINANCE: THEORY AND PRACTICE 846-53 (2d ed. 2001) (not discussing minority discount, but stating that value of control constitutes acquirer's potential post-acquisition improvements including synergies); STEPHEN A. ROSS ET AL., CORPORATE FINANCE: CORE PRINCIPLES & APPLICATIONS (3d ed. 2011) (not discussing minority discount); ENRIQUE R. ARZAC, VALUATION FOR MERGERS, BUYOUTS, AND RESTRUCTURING (2d ed. 2008) (same). Jean Tirole was awarded the Nobel Prize in 2014.

claims that they are systematically embedded with a minority discount.[55] When we stop and think about the minority discount and its enormity as a factor of value, the idea is fantastically implausible. Like myths in antiquity, the prevailing market orthodoxy of a "control premium" and a "minority discount" is not a serious idea.

Due to these contradictions and incongruities, some scholars argue that fundamental value hews closely to market price and question the existence of a minority discount.[56] Interestingly, both advocates and critics of market efficiency reject the notion of a minority discount, though for difference reasons.[57] Delaware is also confused on the point. It has long embraced the idea of a control premium that reverses a minority discount, but has also stated that the market price hews closely to fundamental value.[58] Delaware's confusion produces inconsistent holdings on whether fair value of dissenting shares should reverse a minority discount in the market price or whether the market price sufficiently reflects fair value.[59]

The acquisition premium is grounded in an immutable reality: (1) no shareholder will sell for less than the market price; (2) had the market price incentivized shareholders to sell, most would have sold already; (3) thus only a higher deal price will incentivize them to sell. A control premium that offsets a minority discount is a most convenient story. The lack of a semblance of rationality for an immutable reality would otherwise discredit the M&A market that, in the course of its long history, should not be systemically irrational. The story lays a veneer of plausibility, just enough

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[55] It is true that they have higher priority and contractual protections, but in light of the enormous discounts in stocks, we should see some modicum of a minority discount since creditors clearly lack de jure control, thus cannot even claim to have abstract control. Nor is there a theory that higher priority and contractual protections exactly offset a bond's "minority discount."

[56] *See* Macey & Mitts, *supra* note 4, at 1936 n.88, 1043; Carney & Heimendinger, *supra* note 4, at 861; Booth, *supra* note 4, at 131-32; Stout, *supra* note 4, at 1265.

[57] *Compare* Stout, *supra* note 4, at 1265 (rejecting the idea because market efficiency is wrong); *with* Macey & Mitts, *supra* note 4, at 1936 n.88 (rejecting the idea because market efficiency is correct).

[58] *Compare supra* notes 45 & 48 (citing cases embracing a minority discount); *with* DFC, 172 A.3d at 370 (stating that "the relationship between market valuation and fundamental valuation has been strong historically").

[59] *Compare* Fir Tree, 236 A.3d at 315-16 (affirming an award of the market price); *with* Verition Partners, 210 A.3d at 129-30, 135 (reversing an award of the market price because "the deal price [including a 'substantial premium'] is a strong indicator of fair value").

reasoning for cover. All's well and good and there's nothing to see here—so the market, courts, and scholars tell us.

If rational explanation is the goal, the control premium and minority discount fall far short. These terms are not self-explanatory or self-theorizing. They are blank labels. The standard account glosses over disjunctions in the storyline writ large. For what economic value does the acquirer pay a premium? What is the acquirer's value proposition? The conventional story conflates these two questions into the concept of control, but they are not two sides of the same coin. They invoke different ideas.

The value of control has been attributed to a litany of possibilities.[60] The hodge-podge of anecdotal explanations seems to cover for a lack of a coherent theory. Certainly, an acquirer becomes a monarch and can operate the firm differently. The changes can be as frivolous as new paint in hallways or as fundamental as a new corporate strategy. Several starter points can be said. Firstly, control has no intrinsic value derived from personal utility. Operated by managers under market and legal constraints, firms do not have the human desire to be a monarch. Minor benefits are no reason, something more than a new corporate logo but less than a new business model, *e.g.*, changes in payout policy or other instrumental operational changes.[61] Modest "I can do it better" betterments in most instances are not a valid reason for paying a substantial price tag and risking an acquisition.[62] In many friendly deals, target managers are not apparently exercising control in a seriously deficient way.

3. Instrumental Value of Control—Of course, control *does* have value. But who has the proper claim on the value of control? An acquisition should be based on an expectation of value creation. To this end, the value of control is not intrinsic in shares, but is instrumental based on who owns those shares and, importantly, what an owner can do with control.[63] Control should be used to create economic value that is not already reflected in the market price. If this value of control is already incorporated

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[60]   *E.g.,* Carney & Heimendinger, *supra* note 4, at 868; Booth, *supra* note 4, at 145; Damodaran, *supra* note 4, at 488; Coates, *supra* note 4, at 1277; DFC, 172 A.3d at 369 n.117.

[61]   Some express skepticism of an acquirer's belief in its ability to manage the target better. *E.g.,* Agranoff, 791 A.2d at 889 (noting acquisition motive "perhaps as a result of hubris"); Damodaran, *supra* note 4, 488 (noting "subjective judgment (and a bit of an ego)").

[62]   *See* Stout, *supra* note 4, at 1263; Booth, *supra* note 4, at 141. Among other risks, an acquirer could have miscalculated the deal value and assumes post-acquisition integration risks.

[63]   *See supra* note 8 and accompanying text.

in the market price, why bother with an acquisition?—when a minority stake in the capital market would be just the same.

Acquirers should expect to create more value post-acquisition, *i.e.*, the proverbial $(1 + 1 \Rightarrow 3)$. The benefits of control are well known and require little comment. An acquisition may create synergies.[64] It can yield revenue synergies, typical in horizontal mergers: *e.g.*, expansion of markets or customer base or cross-selling of products.[65] It can create cost synergies, typical in many kinds of mergers: *i.e.*, reduction of redundancies and rationization of cost structures.[66] Control can also reduce agency cost by installing new, better, or properly incentivized managers.[67] Thus, control can inure *acquirer created value* (ACV), principally gotten from post-acquisition expected value of synergies and agency cost mitigation.[68]

This agreeable concept of control value does not resolve the essential question of the reason to pay a premium. In answering, one could embrace a "big pie" theory, which goes like this: (1) shareholders will not sell unless they are paid a premium; (2) the acquirer expects to extract ACV; (3) it can fund the acquisition premium by sharing some, but not all, ACV with exiting target shareholders; (4) it can still earn a post-merger value accretion through the residual ACV. In short, the pie is big enough for all. This reasoning may also be proffered to explain why acquisitions are special deals—there must be an opportunity where the pie is big enough. The "big pie" theory is commonly seen in literature and prevalent in practice.[69] This theory is misguided, and thus regrettably many actual acquisitions have been built on a foundation of sand. While the myths of a minority discount and a control premium are benign white lies, the "big pie" theory is not a harmless misconception.

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[64]   *Id.* at 1408; Cleveland, *supra* note 52, at 951-52.

[65]   BREALEY, MYERS & ALLEN, *supra* note 2, at 833-36.

[66]   *Id.*

[67]   Miller, *supra* note 4, at 1409; Kraakman, *supra* note 4, at 892, 897-98. Agency cost is a prominent aspect of theorizing the market for corporate control. *See generally* Manne, *supra* note 1.

[68]   *See* Kraakman, *supra* note 4, at 894; Stout, *supra* note 4, at 1260-61; Verition Partners, A.3d at 134.

[69]   *E.g.,* Damodaran, *supra* note 4, at 502-03; Carney & Heimendinger, *supra* note 4, at 860; Booth, *supra* note 4, at 129 & n.9; Verition Partners, 210 A.3d at 133; BRUNER, *supra* note 43, at 457.

Given the hefty size of acquisition premiums, any residual gain would likely be crumbs in many deals, making the risk-return calculus unfavorable, sadly for acquirer's shareholders. This is an empirical point, more for financial economists to sort out. More importantly, if a premium cannot be theoretically justified, it is just a gift. Rational markets do not give away freebies. Irrespective of the size of the pie, as a normative matter of rational economic value exchange, an acquirer should not gift away value to exiting target shareholders—not one penny.

One could argue that the premium is not a gift because shareholders have a holdup value and must be paid off. This reasoning too is flawed. It is firstly a tautology. The pedantry of logic aside, we must ask why the holdup is there in the first place. If shareholders have a legal entitlement to demand it (*i.e.*, their "control" right), it is a theory of rent-seeking. The concept of "control" in this context is not the same applicable to a controlling shareholder who actually wields the levers of power and decisionmaking. The "control" of aggregate shareholders really means the power to extract a holdup through the corporate franchise.[70] A payoff for assent would be rent from takeover law that gives shareholders the legal entitlement to vote on the merger.[71] Of course, shareholders have voting rights under corporation law,[72] but this legal fact is also not a self-evident answer to why they should be so entitled. The premium as a holdup payment would be disconnected from valorization based on an exchange of economic value, risk assumption, and mutual trade of cash flows or equivalent assets. The value proposition reduces to a pay-for-vote exchange. There are two problems with this unearned rent.[73]

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[70]   The Delaware Supreme Court has affirmed this conception of "control" as part and parcel with the corporate franchise when they equate the surrender of control with the receipt of a control premium. *See* Arnold, 650 A.2d at 1290 (Del. 1994) ("As a continuing [] stockholder, plaintiff's opportunity to receive a control premium is not foreclosed."); QVC Network, 637 A.2d at 43 (noting that a control premium "compensates the minority shareholders for their resulting loss of voting power").

[71]   DEL. CODE ANN. tit. 8, § 251(c). Attempts to extract holdup value by common stockholders are seen in M&A deals. *E.g.,* Orban v. Field, 1997 WL 153831, at *6 (Del. Ch. 1997); Goldman v. Postal Telegraph, 52 F.Supp. 763, 771 (D. Del. 1943). *See* Eliasen v. Itel Corp., 82 F.3d 731, 735-36 (7th Cir. 1996) (Posner, J.).

[72]   Shareholders in the aggregate have unlimited voting control. DEL. CODE ANN. tit. 8, § 151(b); MOD. BUS. CORP. ACT § 6.01(b) (2020).

[73]   Nor do shareholders pay for this rent when they purchase shares. The market price does not generally anticipate a takeover with accompanying premium, which means that shareholders do not give value for this rent when they purchase shares.

Firstly, a holdup value raises an important policy question: Does a holdup value inuring from a legal entitlement disincentivize the M&A market, which we presume creates social value writ large? If shareholder vote induces an extortion payment and resulting deadweight loss, [74] perhaps it would be better to give target boards the exclusive approval power and all shareholders an appraisal remedy if they disagree, or conversely neutralize the board by requiring it to pass on all offers to shareholders so that they can transact on their unique holdup values as opposed to a board's determination of the right price. To be clear, this Article does not advocate these propositions, but such rules would be a policy implication of a theory that conceptualizes shareholder "control" as pay-for-vote divorced from an economic value exchange.

If not rent, what is the purpose of shareholder vote in mergers? We can think of two important reasons unrelated to entitling a holdup value. Shareholders play an essential role in error correction of the board's decision on proper valuation, particularly since they have the most direct economic incentives.[75] A proper price promotes the principle that capital should be put to its most efficient use. Relatedly, they can check any potential agency cost from misalignment of interests or allocation of economic benefits between themselves and management occurring through the sale, since litigation is imperfect and since certain facts may be probable but not really provable in corporate litigation. [76] Thus, we can better conceptualize the important instrumental function of the shareholder vote in mergers as independent of a tautological holdup where shareholders can demand an unearned payoff because they are legally entitled so.

Secondly, the conceptual problem of a holdup runs deeper than just pay-for-vote unearned rent. By paying a holdup value, an acquirer would be transferring the unique post-acquisition value of control to target shareholders as they exit the venture. The acquisition would be tantamount to investing in the stock as a minority shareholder in the capital market

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[74]	*See infra* note 89.

[75]	*See generally* Robert B. Thompson & Paul H. Edelman, *Corporate Voting*, 62 Vand. L. Rev. 129 (2009).

[76]	*See* Robert J. Rhee, *Intrafirm Monitoring of Executive Compensation*, 69 Vand. L. Rev. 695, 744 n.231 (2016) (noting "the divide between the probable and the provable" in corporate litigation where the procedural and substantive aspects of challenging managerial decisions are high). *See generally* L. Jonathan Cohen, The Probable and the Provable (1977).

except at a higher deal price than the market price—why bother?[77] The acquirer creates the value of control only after the close of acquisition. This value from synergies and agency cost mitigation (ACV), which only the acquirer can extract post-acquisition, should not be conceptualized as a part of deal price gifted to shareholders as they exit. Economic theory and merger law make this clear. Risk and return are inextricably entangled. The acquirer's shareholders pay the deal price, assume the deal risk, and fund the additional inputs required to extract expected post-acquisition value. An acquirer should not pay a holdup for expected value that only it can extract through additional effort and investment, not one penny. As a standalone firm, the target could never have extracted this value even assuming perfect management, and thus target shareholders should not be afforded any portion of post-acquisition control value. Merger law sensibly agrees with this economic logic. The "fair value" awarded to dissenting shareholders must exclude any post-merger effects.[78] Thus, it should compensate target shareholder for only what is taken away in the merger, but should not transfer any expected post-merger gains.[79]

The role of control is clear. Control is the *reason* for an acquisition, but cannot justify the *payment* of an acquisition premium. Therefore, the idea of a "control premium" is nonsensical. As its conjoined twin, the "minority discount" is likewise nonexistent. We are still left with a riddle of why an acquirer should pay a premium.

4. Downward Sloping Demand Curve—Because the prevailing market lore does not withstand close scrutiny, some scholars have proposed more radical theories. The most prominent, advanced by Lynn Stout, is a downward sloping demand curve for stock. If true, the idea would neatly solve the riddle of the acquisition premium. While persistently seen in scholarship,[80] it is controversial because it rejects basic economic ideas

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[77]   *See* Stout, *supra* note 4, at 1262-63 ("If premiums reflect the bidding firm's ability to improve the target's earnings, there seems to be no reason why bidders should voluntarily pass those gains on to target shareholders.").

[78]   DEL. CODE ANN. tit. 8, § 262(h). *See infra* notes 79 & 167; Weinberger, 457 A.2d at 713; CAL. CORP. CODE § 1300; TEX. BUS. ORGS. CODE ANN. § 10.362(a); MOD. BUS. CORP. L. § 13.01 (2020).

[79]   Verition Partners, 210 A.3d at 128; DFC, 172 A.3d at 368; Cavalier Oil, 564 A.2d at 1144; Miller, *supra* note 4, at 1404; Hamermesh & Wachter, *supra* note 32, at 148, 154.

[80]   *See, e.g.*, Stout, *supra* note 4, at 1236, 1247, 1250 & n.75; Miller, *supra* note 4, at 1411-13; Booth, *supra* note 4, at 148-49.

developed over many years and garnering several Nobel Prize awards.[81] The argument starts from the premise that foundational ideas in modern finance are wrong. That's the rub.

The key proposition of market efficiency is that stock has one price reflecting the best estimate of value given the available information. The semi-strong form of market efficiency states that the market price has incorporated all past and presently disclosed information, and does so expeditiously upon disclosure.[82] In this sense, the market price is said to be "correct." One price means that, unlike most commodities, the demand curve of stock is horizontal and there is perfect demand elasticity.[83]

In one fell swoop, the argument of a sloping demand curve contradicts the ideas of portfolio theory, market efficiency, the law of one price, the capital asset pricing model, and the theory of asset value.[84] Instead, it postulates that investors hold heterogenous beliefs in value, and the price of stocks would behave like the price of any commodity. When an acquirer purchases more stock, it diminishes supply and the clearing price would increase along the sloping demand curve. The acquisition price would be the marginal price at which the acquirer can gain at least a majority of shares necessary to acquire control. In this way, the acquirer must pay a deal price that is higher than the market price.[85]

The argument of a sloping demand curve has two problems. Most obviously, it radically rejects whole cloth fundamental tenets of modern finance. Few would go this far.[86] The argument also has an instrumental problem. In explaining the rationality of the acquisition premium, it raises a question of the rationality of the entire M&A market. The idea is a pyrrhic victory because, if true, we must accept that acquisitions are and have been systematically overpriced under typical deal structures and merger law.

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[81]   Carney & Heimendinger, *supra* note 4, at 864. *See supra* note 49.

[82]   RHEE, *supra* note 13, at 148-49.

[83]   Carney & Heimendinger, *supra* note 4, at 864; Stout, *supra* note 4, at 1238. *See* ROBERT H. FRANK & BEN S. BERNANKE, PRINCIPLES OF MICRO ECONOMICS 98 (3d ed. 2007) (explaining price elasticity).

[84]   Stout, *supra* note 4, at 1238, 1245 (describing the capital asset pricing theory and market efficiency as "pure fiction," "at odds with [] reality," and "artificial").

[85]   Stout, *supra* note 4, at 1265.

[86]   Even critics of market efficiency, such as Robert Shiller who was awarded the Nobel Prize for work showing market inefficiencies, acknowledges that market efficiency works in the trivial sense that stock prices incorporate information. *See supra* note 37.

Most acquisitions are done at one offered price.[87] Assume that, per a sloping demand curve, the deal price is struck at the higher price of the marginal share necessary for control.[88] Such deal prices would *always* constitute overpayment because at least half of all shareholders would have valued their shares less. They should be paid their unique values and should not get a free ride on the back of the marginal shareholder's unique value perception. The overpayments would be deadweight loss.[89]

Stout recognized this problem, but argued that this concern "ignores the fate of the shareholders who do *not* want to sell their shares" but are nevertheless forced to cash out under merger law.[90] This explanation is beside the point. Merger law does not guarantee a cash out at unique reservation prices. The approval required is a majority of outstanding shares, and merger law grants dissenting shareholders the remedy of a "fair value."[91] Nor is an acquirer entitled to pay only unique reservation prices. However, policy should favor individualized price discovery, if feasible, because it would better match compensation with reservation prices and thus incentivize M&A deals that can create positive social value.

If a sloping demand curve is true, merger law should innovate a tiered-offer process as the typical acquisition schema. Target boards should be neutralized to be passive, and most acquisitions should be structured in some form of a reverse tender offer resembling a Dutch auction.[92] To be clear, this Article does not support such a scheme, but this policy implication results if stock price was really based on a sloping demand curve. The idea raises perplexing questions such as why acquirers would

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[87]   Stout, *supra* note 4, at 1266.

[88]   *Id.* at 1266-67.

[89]   *See* FRANK & BERNANKE, *supra* note 83, at 209 ("deadweight loss [is] the reduction in total economic surplus that results from the adoption of a policy").

[90]   Stout, *supra* note 4, at 1267.

[91]   DEL. CODE ANN. tit. 8, § 251(c), § 262.

[92]   In a Dutch auction, shareholders would submit sealed offers to sell based on their unique reservation prices and the acquirer would accept them until it achieves control, at which point a second-step merger would take place. Bells and whistles can be added to solve various problems, such as minimizing gaming, revealing actual values, and achieving equity consistent with fiduciary duties. Board recommendations of tiers offers would present tricky problems including managing information asymmetry. "There are basic assumptions of equality of treatment in most areas of corporate law." Carney & Heimendinger, *supra* note 4, at 871. *E.g.,* DEL. CODE ANN. tit. 8, § 251(h). Good policy reason must justify unequal treatment. *E.g.,* Unocal Corp. v. Mesa Petroleum Co., 493 A.2d 946, 957 (Del. 1985).

knowingly overpay when half of all shareholders would value their shares less than the deal price, and why the M&A market and merger law have not steered most acquisitions toward a schema where unique reservation prices, adjusted for the firm's private information (if any), are revealed and paid. Aggregate overpriced deals would impose much deadweight loss from lost opportunities. On many fronts, the argument of a sloping demand curve is problematic.

C.   In Conclusion Confusion

Taking stock of the discussion above, we see that the acquisition premium is not explained by private information, intrinsic value of control, marginal operational changes, sharing of acquirer created value (ACV), and a downward sloping demand curve. The acquisition premium is an immutable reality, but we don't really know why. We see three commonly asserted explanations.

1.   The theory of asset value encompasses all value propositions, but acquisition valuations are rational due to expected ACV that funds the premium necessary to buy out target shareholders having holdup value.

2.   The theory of asset value and market efficiency are wrong because the demand curve is downward sloping, and target shareholders holding heterogenous views of value must be paid accordingly.

3.   The theory of asset value and the market price do not impound a complete firm value, and the deal price must include a "control premium" that reverses a systematic "minority discount" in market prices.

The first explanation is embraced by many, particularly advocates of market efficiency, but is wrong because ACV should not be shared with exiting shareholders, not one penny. The second explanation rejects the prevailing theory of asset value and market efficiency, and that's the rub. The third hypothesis is today's conventional orthodoxy, but is unsound on its own terms and conflicts with the theory of asset value and market efficiency. And that's the rub. A common thread running through these explanations is an apparent conflict between theories of modern finance and acquisition valuations.

A model of acquisition valuation must incorporate the many pieces of the puzzle into a coherent whole: market price, fundamental value, deal price, acquisition premium, control value, private information, synergies, agency cost mitigation, and acquirer's deal value. A model should strive to

be consistent with the theories and ideas in modern finance because they have been empirically tested and are well accepted. Thus, let's assume that the market price, processed through market efficiency, is tethered to a fundamental value assessed under the theory of asset value and thus valued according to the terms of this theory and condition of market efficiency.[93]

This Article advances a theory of the firm and its relation to the acquisition premium: *While the theory of asset value is correct on its own terms in assessing the value proposition of traders in the capital market, it is incomplete and does not account for a particular kind of an asset that is intrinsic and indivisible in the firm and that has value only to acquirers in the market for corporate control.* Rather than accusing modern finance theory of error, the theory of this unaccounted-for asset points a corrective finger at the idea of Coasean theory of the firm and transaction cost.

II. THE COASEAN FIRM AND THE VALUE OF ENTITYNESS

Coase's theory of the firm in *The Nature of the Firm*, published in 1937, is well known. His article is the landmark progenitor of studies in transaction cost and theories of the firm.[94] He asked a basic question: Why do firms exist when venturers can always contract for the factors of production in a market system?[95] He answered: "The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism." [96] The firm has a comparative advantage over substitute market transactions because it requires less transaction cost.[97] In short, the firm is more efficient.

An initial orientation is required. This Article accepts three core ideas that Coase advanced: (1) firms exist because their structure is more efficient than substitute market transactions, (2) venturers cannot avoid Coasean transaction cost, as he defined it; and (3) firms incur less transaction cost than substitute market transactions. This Article also accepts his contention that transaction cost should be minimized, but for a very different reason

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[93]   *See supra* note 37 and accompanying text.

[94]   *E.g., infra* note 104; OLIVER E. WILLIAMSON, THE TRANSACTION COST ECONOMICS PROJECT (2013).

[95]   Coase, *supra* note 14, at 390.

[96]   *Id.*

[97]   "For this series of contracts is substituted one." *Id.* at 390-91.

than the one he advanced.[98] This Article contests Coase's account of the firm on the nature of transaction cost. It shows that firms incur *expenditure* of resources in firm creation but do not incur real transaction cost.

A plain point is made explicit. Economists consider transaction cost to be a *cost*.[99] All agree that a cost imposes a disvalue, detriment, loss, or sacrifice of resources, thus reducing the value of a transaction, firm, or thing. The lesson of transaction cost economics is clear. To increase the value of transactions, firms, or things, Coase argued that transaction cost should be avoided or minimized. This basic concept of cost is so obvious that it hardly merits explication. However, this explicit statement establishes a common understanding of the nature of "cost" for the discussion here.

A reconceptualization of Coasean transaction cost and the theory of the firm is the key to a proper valorization of the acquisition premium. Thus far, this connection has not been explored by legal and economic scholarship. Importantly, Coase analyzed the firm as a standalone venture, and not in the context of M&A.[100] All firms have a beginning and many have an end (of independence at least). Coase focused on inception. A firm is not a spontaneous creation, but comes into being through expenditure of resources, which he argued is transaction cost. He envisioned the firm as a more efficient "one" contract rather than "a series of contracts" required in a substitute market transaction.[101] This Nobel observation is at the rarefied level of abstraction as some economists are wont to do. It is helpful to consider the firm structure more concretely at the terrestrial level.

A firm assembles factors of production (assets in common speak) within the legal boundary of the firm. This boundary is delineated by corporate personhood and entity separateness and distinctness,[102] which achieve limited liability and asset partitioning.[103] The firm solicits capital, enabling it to acquire assets. It contracts with counterparties, owns property, owes debts and obligations, and is party to legal actions. It employs workers

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[98]   *See infra* Section III.D. (explaining that firms are not indifferent to asset mix).

[99]   Coase, *supra* note 14, at 392; COASE, *supra* note 97, at 7.

[100]   *See supra* note 17.

[101]   *Supra* note 97; Coase, *supra* note 14, at 391.

[102]   *Corporate as Legal Entity*, 18 Corpus Juris Secundum § 6 (updated Sept. 2019); Southport Petroleum Co. v. N.L.R.B., 315 U.S. 100, 105-06 (1942).

[103]   *See generally* Robert J. Rhee, *Bonding Limited Liability*, 51 WM. & MARY L. REV. 1417 (2010); Henry Hansmann & Reinier Kraakman, *The Essential Role of Organizational Law*, 110 YALE L.J. 387 (2000).

who are subject to its command and control. It binds employees not only through directives, but also norms, culture, and habits developed over time. It contains a myriad of systems, protocols, processes, and institutional knowledge in which agents and employees engage in the firm's enterprise with customers, suppliers, counterparties, advisers, communities, capital markets, and regulators. A firm is characterized by complex contractual and assentual arrangements.[104] It is more than its book assets and liabilities, capital, employees, and their contractual connections.[105] It is a complex organization, characterized by interstitial networks and stability of social behavior directed toward a common venture. Most would agree that the firm has a certain firm*ness*—*i.e.*, an entity*ness* that is the set of all multidimensional, interstitial qualities giving the firm structure its durable, high order and organization of the factors of production therein.

Some of these qualities are discrete, segregable, tangible, and alienable, such as contracts, properties, and liabilities, which are most aptly associated with real contractual arrangements. Other are indiscrete, insegregable, and intangible, less aptly described transactionally as contract or assent in any meaningful sense.[106] Per Coase, all ventures require a certain state of order and organization of factors of production over the venture's duration, and the creation of this complexity requires expenditure of resources, a "cost of 'organising' production" as he put it.[107] All would agree on this crucial point: None of the firm's contracts, transactions, arrangements, or ordered qualities comes into being spontaneously.

The venture structure can materially affect value. In substitute market transactions, contracts, arrangements, and relationships can be amended, rescinded, breached, and disputed. The law of averages ensures that the probability of breakdown is greater in transient transactional arrangements defined by real legal contracts, and greater more in some probabilistic calculus with increasing interconnectivity and complexity of the venture. The transaction cost of the venture creation and maintenance is higher. Because substitute market transactions constitute "a series of contracts," the

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[104]   Coase, *supra* note 14, at 390-91.

[105]   *See supra* note 29 (defining "book asset" as asset recognized on the balance sheet).

[106]   An obvious example is a firm's goodwill. *See* KIMMEL ET AL., *supra* note 29, at 455 (defining goodwill).

[107]   Coase, *supra* note 14, at 390.

venture is more uncertain and unstable. [108] The duration of these arrangements is also important. Coase recognized that a key benefit of a firm is the reduction of uncertainty over a longer period. [109] The comparative stability of a firm structure is a major reason why transaction costs are lower. Firms exist in a higher, durable state of order and organization, brought about by the expenditure of transaction cost (as Coase defined it).

The above concrete description of the firm-creation process follows from Coase's revelatory abstractions. This Article accepts his conclusion that firms exist because they are more efficient, but contests the long-held orthodoxy among economists and legal scholars that incurred transaction cost is really a *cost*. Instead, such expenditure is capitalized as an *asset* and thus constitutes an investment. A firm's state of order and organization has an economic value that is *not* recognized in the finance theory of asset value and thus incorporated into the market price, but that is desired in the market for corporate control. A thing desired is an asset.

Factors of production do not freely self-order in a world of infinite resources. Only an unavoidable expenditure of resources, which Coase conceptualized as transaction cost, creates the complex state of order and organization in a firm structure, and this state is the firm's advantageous entityness. The insight here is simple: *The firm's structure, requiring an investment to order and organize the factors of production, has a value that is independent of the firm's ordinary assets because, while prior expenditure to bring about this state reduced ordinary assets, its value has not been dissipated as a past sacrifice of resources but is conserved as a capitalized asset representing the unavoidable investment in the precondition of entityness, which has value only to acquirers and thus is monetized only in the market for corporate control.*

The conceptual leap here is to recognize that transaction cost has a dual nature. Under the capital market paradigm, transaction cost exhibits an apparent cost-like quality. In this conventional account, it is seen as a sacrifice of resources, which, if true, reduces assets and profit. When he assumed this paradigm, Coase was thinking like a by-the-book accountant. Conversely, under the market for corporate control paradigm, the value of

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[108]   "It may be desired to make a long-term contract for the supply of some article or service. This may be due to the fact that if one contract is made for a longer period instead of several shorter ones, then certain costs of making each contract will be avoided." Coase, *supra* note 14, at 391.

[109]   *See supra* note 108. "It is true that contracts are not eliminated when there is a firm but they are greatly reduced." Coase, *supra* note 14, at 391.

expended transaction cost is not really sacrificed as a cost, but is conserved and intrinsic in the firm. The true nature of Coasean transaction cost is a converted form of asset, which is locked in the firm. Shareholders recoup the value of the capitalized expenditure in a downstream transaction. This capitalized asset is ultimately monetized in the market for corporate control.

III. THE THEORY OF ENTITYNESS

A. Transaction Cost as Capitalized Asset

Coase and economists are wrong to believe that transaction cost is really a cost. One promptly objects that any expenditure is an economic cost, a sunk expense that is incorporated into profit and loss under conventional accounting and thus reduces assets and firm value. This objection is intuitive because the idea of expenditure being a cost is frequently true — but equally often it is false. The flip side of the same principle is that an expenditure is not a cost if it continues to throw off benefits and someone values them. A resource that imparts present and future benefits is the textbook and common definition of an asset.[110]

Coase acknowledged, and indeed argued for, the comparative benefits of the firm structure. Entityness does not come about freely; it requires expenditure of resources. Coase assumed that such expenditure should be treated as a sacrifice of resources in some final accounting of revenue, expenses, and profit.[111] This is intuitive and consistent with conventional thinking. However, an important comparative advantage of a firm is its perpetual life; there is no such final accounting because entityness imparts ongoing positive value. The outlay of expenditure begetting the firm structure, characterized by durable, high order and organization, has not been sacrificed. It has been converted into another form of asset. Entityness imparts ongoing positive value. A thing of value is an asset.

We should disabuse the plainly wrong idea that the expenditure of resources is always a sacrifice of resources. True, it can ordinarily be a cost; equally true, it can be a purchase of an asset. Economic substance in each

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[110] "Assets are resources a company owns or controls. These resources are expected to yield future benefits." WILD & SHAW, *supra* note 29, at 9.

[111] The costs would be treated as expenses, and thus the accounting entries would be debit expense or cost and credit assets or liabilities, indicating an increase of expense or cost and a decrease of assets or an increase in liabilities.

case determines which side of this duality is true. For example, a firm expends cash to purchase property; this outlay is obviously not a true "cost." The transaction simply exchanged forms of asset. [112] Only when this property is loses value or is sacrificed in the production process (*e.g.*, depreciated or incorporation into a sold off good) does the firm incur a true cost recognized as a sacrifice of resources that reduces profit.[113]

The key principle is a distinction between an *expenditure* connoting an outlay of resources and an *expense* connoting the sacrifice of resources as a cost. Expenditures are not always expenses. A capital expenditure is a purchase of an asset, such as real property.[114] Upon acquisition, no expense has been incurred, thus no true cost. The true economic logic is a simple asset substitution. For example, while the cost of cleaning a fleet of airplanes may be a cost and expensed as such, the expenditure made to refurbish that fleet with new jet engines may be capitalized as an asset, augmenting the asset value of that fleet.[115] Only when that asset is consumed over time in the production process (flying) is its value sacrificed (depreciation), and such loss of value would be recognized as a real cost. This is textbook.

The principle of capital expenditure explains why the "transaction cost" incurred in firm creation is really an economic form of an asset substitution. The outlay of resources bought some *thing*. What thing? The firm structure is not a one-off benefit and sacrifice of resources as would be in substitute market transactions with finite duration and subject to a settling up of accounts at maturity. It is a durable benefit that is a precondition of all operating firms and that extends over the indefinite life of the firm. This benefit has not been lost or sacrificed. Coase argued that a firm is more efficient because it reduces transaction cost. His argument focuses on diminution (expenditure) of resources that is transaction cost as he defined it, but this thinking is incomplete and wrong. Coase focused on only one side of the transaction ledger. What was gained by the expenditure of resources?

This Article advances the more crucial reasons why firms are more efficient. Along with the paramount advantage of limited liability available

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[112]   Conventional accounting would record this transaction as a debit to real property and credit to cash, indicating an increase in real property and a decrease in cash.

[113]   KIMMEL ET AL., *supra* note 29, at 435.

[114]   *Id.* at 435; WILD & SHAW, *supra* note 110, at 367.

[115]   *See, e.g.,* KIMMEL ET AL., *supra* note 29, at 445.

only to firms,[116] firms have three distinct advantages over substitute market transactions.

(1) **Firms conserve more assets**. Firms preserve more value because they create a durable capitalized asset from the expenditure of venture creation, whereas substitute market transactions always incur expenses of venture creation that are true transaction costs and settled up at maturity as counterparties come and go in finite market transactions.

(2) **Firms can monetize all assets**. Firms are alienable as a whole and at a greater price, due to their legal status as separate and distinct entities and preservation of more assets including entityness valorized as a capital asset, whereas substitute market transactions, if complex, are not alienable at all or require much additional transaction cost to achieve entire alienation.

(3) **Firms generate more cash flow**. Firms require less expenditure to beget entityness, whereas market transactions require more transaction cost to achieve order and organization of factors of production, and thus firms comparatively preserve more net ordinary assets than substitute market transactions, resulting in greater cash flow production.

Coase's theory of the firm only identified reason (3) to explain why firms are more efficient (but he wrongly argued that all expenditures in firm creation are transaction costs). Reasons (1) and (2) (conservation and monetization of assets) are critical reasons why firms are more efficient. To show the theory of entityness and its relation to acquisition valuation, this Article applies the same Coasean analytical methodology of comparing side-by-side business ventures conducted through firms and substitute market transactions.

Market transactions are transactional. As transactions, they tend to be finite. Each transaction is subject to final accounting of profit and loss at

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[116]   Importantly, Coase did not acknowledge the tremendous advantage that the rule of limited liability gives firms even though the modern corporation had been well established by 1937. This is not a trivial oversight. Law plays a paramount role in business venturing and bestows an enormous benefit to venturers. Law enables the creation of firms. With respect to the substantive terms of firms, limited liability—more than transaction cost—is a greater consideration in choosing firms over substitute market transactions. Limited liability is bestowed only on firms. *E.g.*, DEL. CODE ANN. tit. 8, § 102(b)(6); UNIF. LTD. LIAB. CO. ACT § 304(a) (Unif. L. Comm'n 2006 and amended 2013). Irrespective of transaction costs, substitute market transactions can *never* mimic a firm because they cannot contractually gin up limited liability, neither in reality nor in theory. *See* Rhee, *supra* note 103, at 1444 ("Where existence of tort law is the baseline, private ordering cannot synthetically gin up the legal right of limited liability."). The corporation and capital markets would not exist as they do today without the sovereign's grant of limited liability.

maturity.[117] Parties tally the benefits gained and resources sacrificed, and then go home. In this settling up process, the costs of dealing have been incurred, expensed, and thus reduced assets and profit at maturity. They constitute true sacrifice of resources and thus reduce the net transaction value. Since substitute market transactions constitutes a "series of contracts," any exit or impairment a contract therein necessitates another transaction with similar cost accounting.[118] Alienability is another problem. While individual substitution is possible in any contract,[119] alienation of the entire venture would obviously be difficult or cumbersome as is the case in achieving unanimity in any group; substitution of parties would likely change expected payouts and risks among many counterparties. Substitute market transactions thus incur true costs and repeatedly so. These prosaic observations flow directly from Coase's analysis and are consistent with the standard way to thinking about business transactions.

The firm is quite different. Per legal rule, it has perpetual life.[120] There is no settling up, followed by a new substitute transaction with attendant transaction cost. Coase was right that the firm structure provides durable, continuing benefits, but he erred on the crucial point that transaction cost is a cost, and the market for corporate control bears out his error. Because such benefits continue into the future, outlay of resources begetting a firm structure has not been sacrificed as Coase and economists believe. To think otherwise would be to look at only one side of the transaction ledger as Coase and economists do. Such thinking is a faux account because every transaction has a dual entry. There was certainly an expenditure of resources wherein by virtual of the transaction the firm has less resources of the kind expended. But this recognition is not the end of the inquiry: What did that outlay get (or what benefit was received in exchange in the transaction)? Coasean transaction cost is an economic asset because that expenditure achieved a firm that exists in a steady state of high, durable order and organization (even as the firm's strategy and operational characteristics are dynamic) and thus continues to benefit from entityness.

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[117]   *See* Coase, *supra* note 14, at 391 ("if one contract is made for a longer period instead of several shorter ones, then certain costs of making each contract will be avoided").

[118]   *Id.* at 390-91.

[119]   *See* RESTATEMENT (SECOND) OF CONTRACTS § 317 (permitting assignments of contracts) (1981); *id.* §§ 279-280 (permitting substitution of contract and novation).

[120]   *See* DEL. CODE ANN. tit. 8, § 102(b)(5), § 122(1); UNIF. LTD. LIAB. CO. ACT § 108(c) (Unif. L. Comm'n 2006 and amended 2013).

Entityness is a precondition of all firms. No firm (or venture) can function without an order and organization of its factors of production. Entityness in firms minimizes the cost to maintain the venture as going concern; as Coase noted, any impairment or exit of a factor of production requires less effort to replace due to the firm's "one" contract.[121] Since the expenditure of resources to beget entityness provides a continuing comparative benefit in a firm with indefinite life, that outlay, albeit accounted for as an expense, is not a real economic cost. Value is conserved in the form of a capitalized asset. Although this investment is not a book asset that is discrete, segregable, and separately alienable like property, plant, equipment, and real contracts, and is not recognized as such in the ordinary milieu of doing business, the firm structure, *independent of the discrete factors of production therein (its ordinary assets)*, is an economic form of asset onto itself that continues to provide advantages. It is real because there are real buyers for it, and the existence of a special market for it (market for corporate control) confirms that it is an asset.

At this point, one may suspect a sleight of hand of academic rhetoric— just call a "cost" an "asset" and say Coase was wrong on the point about the nature of transaction cost in firms. This suspicion is fair enough. The claim in this Article is quite big, if for no other reason than Coase received the Nobel Prize for his work on the theory of the firm and transaction cost. Until now, transaction cost incurred in firms has never been valorized as an asset. Despite its grounding in basic economic logic, the idea of a capitalized asset may seem initially counterintuitive and may strike some as a gobbledygook of economic existentialism. One may perceive the nature of *entityness* as abstruse. Let's set aside the abstraction of firmness. We can more directly observe the concreteness of the conversion of asset forms and thus the preservation of value in the firm structure in the hard analytical framework of arbitrage and the iron law of one price.

1. Conceptualization of the Arbitrage Argument—Let's start an overview of the idea by identifying the markets. The market for the acquisition of a whole corporate asset is not the capital market. The capital market is where investors trade individual shares and thus exchange cash and securities representing present and future cash flow equivalents. In this market, all investors are both buyers and sellers at any given time, and shareholders are simply sellers at the specific point in time. The market for corporate assets is where acquirers transact to acquirer whole corporate

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[121]   *See supra* note 109.

assets, and not individual shares. An acquirer there is always a buyer, and sellers are always either: (1) all shareholders in the market for corporate control for a turnkey operating firm in a "buy" option, or (2) disparate owners of factors of production in various markets for a substitute market transaction that organically makes the corporate asset in a "build" option.

To acquire a whole corporate asset, an acquirer conducts a standard fare cost-benefit and investment return analyses.[122] This analysis includes an assessment of the "buy" versus "build" strategic options. Forgoing a turnkey acquisition under the "buy" option, an acquirer can elect the "build" option in a substitute market transaction. It assembles the needed factors of production and makes an operating firm. Building a business from ground up is not simply assembling capital, purchasing ordinary assets, signing contracts, hiring human capital and commanding them to "go make profit."[123] Business isn't that simplistic. Building an enterprise requires investments in time, effort, and resources. In this reality, the capitalized asset represents the prospective unavoidable expenditure of acquiring a corporate asset. Let's unpack this idea further.

Coase abstractly asserted that a venture requires the assembly of "factors of production." To recapitulate, a firm is a complex thing requiring various kinds of assets: (1) assets that are discrete, segregable, and alienable, such as capital and labor; and (2) assets that are indiscrete, insegregable, and intangible, such as goodwill and interstitial connectivity such as norms, systems, processes, culture, data, and institutional knowledge that steer human capital toward a shared enterprise.[124] These complex arrangements of people and things and their product do not spontaneously self-order by just dropping them within the legal partition of the firm. Per Coase, much transactional friction (*i.e.*, expenditure of resources) is incurred during the phase transition from identifying needed assets, to marshalling them, to building them, and then to starting up the machinery of an operating firm.

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[122]   *See, e.g.*, Derek C. Bok, *Section 7 of the Clayton Act and the Merging of Law and Economics*, 74 HARV. L. REV. 226, 302 (1960).

[123]   "Ordinary assets" means assets that are ordinary and generally recognized as such among scholars, judges, and businesspeople. They are all factors of production within the legal boundary of the firm. Clearly, book assets qualify, but ordinary assets are not limited to those recognized under accounting principles and encompasses all resources that are generally considered assets of the firm including non-book resources such as human capital and work capacity. "Ordinary assets" are used to generate cash flow.

[124]   *See supra* Section II.

Let's call the sum of these prospective expenditure of resources *buildup expenditure*, which is simply Coasean transaction cost by another name.

A firm may incur buildup expenditure without having generated a single dollar of positive cash flow — such is the nature of startup ventures. This explains why the theory of asset value does not include a positive variable for buildup expenditure. By measuring expected cash flow, the theory of asset value infers the value of the corporate asset, which has been *reduced* by the buildup expenditure under Coase's conventional account.[125] Transaction cost has a dual nature. It exhibits a cost-like quality in the capital market, supporting the easy intuition of Coase and economists that it is really a cost; but its expenditure is capitalized as an asset because its value is recouped when the asset is ultimately monetized in the market for corporate control. Thus, two paradigms are at work — the capital market and the market for corporate control.

To illustrate, consider the phase transition that a firm undergoes in the early stage of its life cycle. All firms are born as a pool of capital, people, and other factors of production (assets in common speak) housed in the firm's legal structure and boundary. During a "buildup" process, this inchoate firm *F* converts to an operating firm *F**, and this phase transition rearranges the assets from an initial state of non-order to a state of high order and organization. The illustration below depicts this phase transition.
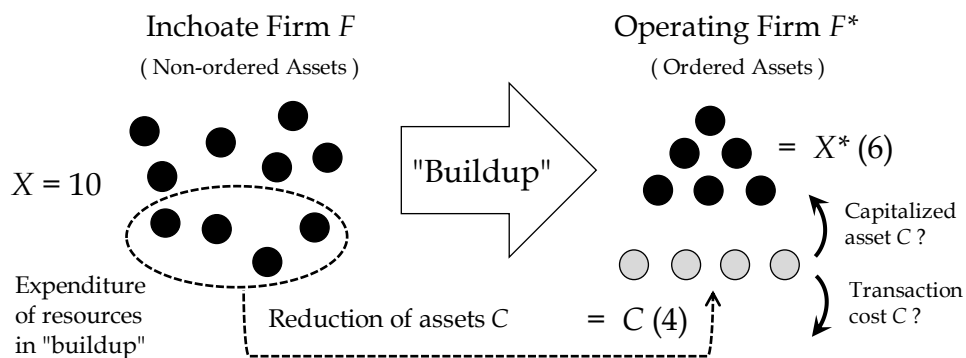
The organizer of the inchoate firm *F* initially assembles ordinary assets *X* (= 10), a process akin to acquiring commodities. Assume no debt in these examples so that asset value equals net asset value. The four gray dots *C* (=

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[125]   *See infra* Section III.D. (explaining why market price does not incorporate the value of entityness).

4) represent the Coasean "transaction cost" (*i.e.*, "buildup expenditure") incurred to convert inchoate firm F from merely a legal entity housing non-ordered assets to a cash-generating operating firm F^*. By the time the firm F^* generates its first dollar of positive cash flow, the ordinary assets have been diminished to X^* (= 6) due to the buildup expenditure C (= 4), because, as Coase recognized, resources expended in venture creation are not free. The key concept is the conceptualization of C.

Clearly, under Coase's by-the-book account of transaction cost, the operating firm F^* has fewer ordinary assets ($X - C \Rightarrow X^*$) precisely because C is treated as a cost and thus a sacrifice of assets necessary to achieve the operating firm's structure of order and organization. The firm value is less due to transaction cost C. The central question is this: Is C a true cost that reduces ordinary assets? Or albeit having a cost-like characteristic in the capital market, is C a component of firm value that is a capitalized asset and monetized in the market for corporate control?

2. Capital Market Paradigm—Coase's analysis adopted the capital market paradigm, which being conventional, is straightforward and easy to grasp. The theory of asset value is grounded on the sum of discounted future cash flow. The inchoate firm F with assets X produces no cash flow yet, and without an expectation of cash flow, the firm value would simply be the liquidation value of X. It would transition to an operating firm F^*, requiring transaction cost C. A precondition of any operating firm is an order and organization of assets. Once this state is achieved, the value of firm F^* is measured by the future cash flow generated by remaining assets X^*. Per Coase and conventional account of these transactions, C is viewed as a sunk cost defining how net assets X^* came to be, a footnote in the firm's history, but the expenditure C is *not* an augmentative factor of firm value.[126]

Coasean transaction cost C exhibits the key cost-like characteristic of an apparent sacrifice of resources.[127] Seen as an economic cost and treated as such as an expense, it *reduces* the total value of the ordinary net assets ($X \rightarrow X^*$). Shareholders are only interested in their future return when they relinquish present value dollars to claim the expected value inherent in stock, which is attributed to net assets X^*, now ordered and organized for production of cash flow. What about C? The capital market doesn't care, and rightfully so because the theory of asset value correctly captures the

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[126]   *See* Hamermesh & Wachter, *supra* note 32, at 137 ("The DCF analysis is a forward-looking concept, dependent on the future value of the free cash flows.").

[127]   *See supra* note 111.

value exchange among traders wherein all shareholders as traders are both buyers and sellers of present cash and future cash flow.

3. Market for Corporate Control Paradigm—We now switch markets. To acquire the desired corporate asset, an acquirer has the choice to "buy" it in the market for corporate control or to "build" it in substitute market transactions. It applies a standard fare cost-benefit analysis.[128] In the above hypothetical, if an acquirer elects the build option, it starts inchoate firm F and invests total capital X (= 10), and it expects to incur buildup expenditure C (= 4) as it transitions from inchoate firm F to operating firm F^* with net assets X^* (= 6). Alternatively, it can elect to buy a turnkey F^*. Assume that two options produce the identical desired corporate asset. If so, a precise valuation calculus must govern per an iron law of markets.

The pricing of the two options will be subject to the law of one price and the principle of no arbitrage. Arbitrage is the idea of riskless profit.[129] The simple example is an identical asset, such as Microsoft stock, trading at different prices. In reality, simple arbitrage rarely exists in sophisticated markets, precisely because everyone is on the lookout for them.[130] One form of a more realistic arbitrage is when equivalent, but not identical, assets trade at different prices, such as equivalent cash flows constituted from different assets that bear the same risk and yet have different prices.[131] Arbitrage is important because it polices market rationality. Much of finance theory is grounded on the principle that market actors will exploit arbitrage opportunities such that they disappear. [132] Arbitrage is the mechanism that enforces the law of one price, which states that the prices of identical or equivalent assets should converge to one price.[133]

Market actors do not give free lunches when they transact. When two things can be made to be equivalent, their prices must converge to one per

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[128]   An acquirer must also consider many other factors in light of the realities that building a firm may not exactly replicate the target asset, the target asset is a poor fit for the acquirer's strategic purpose, legal barriers may limit or prohibit an option, and strategic barriers such as intellectual property or uniqueness of human capital may practically preclude an option or make it prohibitively expensive. *See* Bok, *supra* note 122, at 302-03.

[129]   RANDALL S. BILLINGSLEY, UNDERSTANDING ARBITRAGE: AN INTUITIVE APPROACH TO FINANCIAL ANALYSIS 2 (2006).

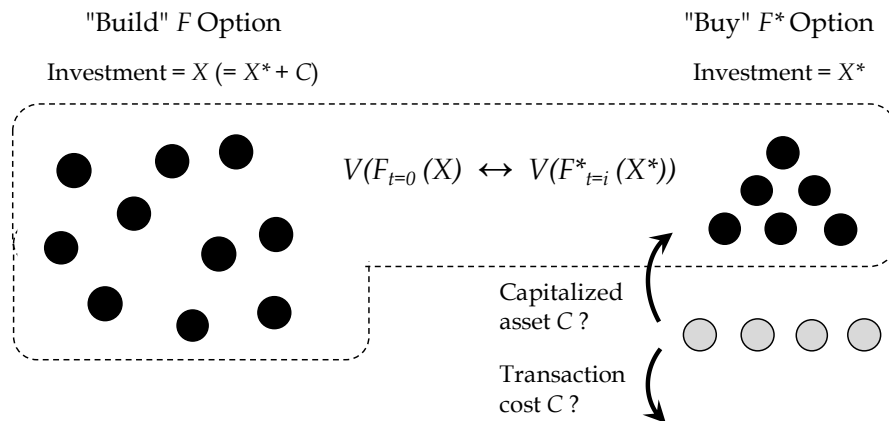[130]   *See* BREALEY, MYERS & ALLEN, *supra* note 2, at 59.

[131]   *See id.* at 351-52. This form of arbitrage is not riskless profit, but involves risk-taking. *Id.* Also, transaction cost in executing trades limit arbitrage opportunities. *Id.* at 352.

[132]   BILLINGSLEY, *supra* note 129, at 9-13.

[133]   *See id.* at 8-9.

the limit of arbitrage. Concretely, in the M&A context, when shareholders know that buildup expenditure *C* is unavoidable in the substitute "build" option, an acquirer must pay a parallel value in the "buy" option that is comparable in concept, lest an easy and obvious arbitrage would exist. This comparable value is incorporated in the acquisition premium. This Article advances an important insight: *An acquirer cannot arbitrage an elimination of the prospective buildup expenditure C through the election of the form of acquisition, but can only minimize it in an a priori cost-benefit analysis.*

To illustrate this idea, let's conduct a simple thought experiment based on arbitrage. Assume that the options of building *F* and buying F^* are identical in every way except, of course, the initial order and organization of the assets. Their values would be tethered by identical expected cash flows, subject only to the critical difference in time value, *i.e.*, operating firm F^* produce immediate cash flow whereas inchoate firm *F* will produce the identical cash flow in the future once it gains entityness. Assume for simplicity that market value equals to the historical purchase cost of remaining ordinary assets, meaning that with no debt the book value of operating assets X^* equals the market price of equity.[134]

"Build" *F* Option — Investment = X (= X^* + C)

"Buy" F^* Option — Investment = X^*

$$V(F_{t=0}(X)) \longleftrightarrow V(F^*_{t=i}(X^*))$$

Capitalized asset *C* ?

Transaction cost *C* ?

Let's assume now an unreal world where the valuation framework of the "buy" option does *not* require an acquirer to pay a premium to purchase F^* with ordinary assets X^*. By the mere election of the "buy" option, an acquirer would *eliminate* the prospective buildup expenditure *C* required

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[134]   The price-to-book (P/B) multiple is 1.0x. The chosen multiple, the assumption of the market value, is irrelevant to the analysis since both firms, being identical, would be subject to the same valuation metric.

under the "build" option to organically make *F*. Rational acquirer would *never* elect to build *F* by investing *X* (= 10) when it could buy F^* at the price of X^* (= 6). In this fictitious world where the buildup expenditure begetting entityness is attributed no valuational credit, the "buy" option would *always* be more desirable even though the two options are subject to equilibration for time value because they are otherwise exactly identical in expected cash flow. Such arbitrage can't be that obvious, that easy, and that massive.

In the real world, target shareholders know this. They would not be so foolish as to sell F^* at the market price X^* without a premium. This explains the immutable reality of the acquisition inequality (Market Price < Deal Price). Irrespective of the form of acquisition, an acquirer cannot eliminate an investment in entityness. The value of *C* is impounded in the acquisition premium, which thereby equilibrates (makes comparable) the "build" and the "buy" options such that an acquirer cannot arbitrage the mere election of the form of acquisition for identical assets.[135]

B.   Formal Arbitrage Derivation of Acquisition Premium

With the above conceptual argument explained, we can now formally demonstrate this arbitrage equilibration by viewing the valuation cathedral from the crucial perspective of the time values of discounted cash flows associated with the election of the "buy" or the "build" strategies. Rather than assuming an illustrative valuation metric as we did above,[136] we now directly apply the theory of asset value and carry out highly simplified but real discounted cash flow (CF) calculations to derive actual fundamental values of acquisitions under the two choices.

If inchoate firm *F* and operating firm F^* are compared at inception (*t* = 0), F^* would always be valued more because its cash flow is presently available, whereas *F* would generate the identical cash flow when it becomes an operating firm at some point in the future (*t* = *i*), by which time it would have incurred expenditure *C* and thus a diminution of ordinary assets ($X \rightarrow X^*$). Because F^* already incurred *C* in the past and thus its ordinary assets already reduced to X^*, its entityness provides a comparative present benefit in the form of immediate cash flow realization. Stated differently, the value of *C* is the value of entityness of F^*. This value *V*(*C*)

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[135]   Instead, the election would turn on a cost-benefit analysis that focuses on the myriad of other factors associated with the messiness of the real world. *See supra* note 128.

[136]   *See supra* note 134 and accompanying text.

can be conceptualized as the time value delta between the two discounted perpetual cash flows (CF_t) representing the fundamental values of the two firms $V(F^*)$ and $V(F)$.[137]

$$No\ Arbitrage\ Equation:\quad V(C) = \sum_{t=0}^{\infty} CF_t(F^*) - \sum_{t=i}^{\infty} CF_t\ (F)$$

We state this equation in simplified form: $V(C) = V(F^*) - V(F)$. As long as this equation holds, there can be no arbitrage through the election of the form of acquisition. An inequality between the two choices would represent an easy, obvious arbitrage opportunity, in other words: $V(F^*) > V(F)$, and accordingly in a fictitious world where the value of entityness is attributed no valuational credit ($V(C) = 0$), an acquirer would *always* select the buy option of purchasing $V(F^*)$, precisely because: $V(F^*) > V(F)$. The arbitrage here would be too evident, too simple, and too large.

The key equilibrating factor is $V(C)$. As we shall see, it represents the acquisition premium given to target shareholders. Concretely, without the premium $V(C)$ to equilibrate relative values $V(F^*)$ and $V(F)$, an acquirer would *always* arbitrage an obvious valuation difference between the two choices. Shareholders of firm F^* understand: (1) the existence of this arbitrage, (2) their prior investment C during firm creation, and (3) the concrete benefit of entityness as represented in the value $V(C)$. They will want to be paid for this asset $V(C)$, and not give the acquirer a freebie. We must equilibrate the inequality: $V(F^*) > V(F)$. By adding the value of entityness $V(C)$ to the value of the inchoate firm such that the acquirer is now indifferent between the "buy" and the "build" option. The two options for equivalent assets have reduced to the No Arbitrage Equation: $V(F^*) = V(F) + V(C)$, or restated as $V(F) = V(F^*) - V(C)$.

What does the No Arbitrage Equation mean in practical terms? Let's consider first the "build" option: $V(F) = V(F^*) - V(C)$. The right side of the equation simply states that an acquirer receives the fundamental value of the operating firm $V(F^*)$ *minus* the value of the buildup expenditure $V(C)$ (*i.e.*, Coasean transaction cost). It receives the value of the operating firm

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[137]   This assumes that the market price hews closely to the fundamental value and thus that does not incorporate a "minority discount." *See supra* Section I.B.; notes 49-56 and accompanying text.

$V(F^*)$ "discounted" by $V(C)$ in light of the fact that F does not generate immediate cash flow.

Let's consider now the "buy" option under the same No Arbitrage Equation: $V(F^*) = V(F) + V(C)$. The acquirer simply receives the operating firm value $V(F^*)$, which is obvious. The insight comes when this value is restated through substitution as: $V(F^*) = V(F^*) - V(C) + V(C)$.[138] The acquirer receives the right side of the equation, comprised of two mathematical clauses. The first clause $(V(F^*) - V(C))$ means that the acquirer receives the value of the inchoate firm $V(F)$, and thus receive the value of the operating firm $V(F^*)$ *minus* the value of entityness $V(C)$. What does this mean? The transaction is recorded on two sides of the ledger. On one side, target shareholders are paid for all that they own: the firm's fundamental value $V(F^*)$ representing the present value of expected cash flow generated by assets X^* at present time ($t = 0$), *plus* $V(C)$ representing their prior investment in the firm's entityness that enabled immediate cash flow realization relative to an investment in inchoate firm F under the "build" option. On the other side of the transaction ledger, the acquirer receives the value of the first mathematical clause, which is the fundamental value $V(F^*)$ *minus* the premium $V(C)$ it must pay to target shareholders. By paying a premium in excess of the fundamental value $V(F^*)$, the acquirer did not "lose" this value. It paid shareholders $V(C)$ to acquire an asset (entityness). This acquisition is noted in the second mathematical clause ($+ V(C)$), which means that the acquirer now received this capitalized asset.

Under the No Arbitrage Equation, an iron law of arbitrage applies. If a value of entityness $V(C)$ does not exist and only fundamental cash flow-based value governs, the acquirer would always have an arbitrage because: $V(F^*) > V(F) \Rightarrow V(F) + V(C) > V(F)$. Mathematically and pragmatically, this proposition cannot exist. Equilibration of the two forms of acquisition eliminates the arbitrage. The "buy" option must incorporate an acquisition premium $V(C)$ paid to target shareholders, which *reduces* the value that the acquirer receives by the same amount. In other words, since this premium is a cash outflow, it is a negative value ($-V(C)$) to the acquirer in that portion of the transaction ledger. Thus, we have the equation: $V(F) + V(C) - V(C) = V(F) \Rightarrow V(F^*) - V(C) = V(F)$. Again, we mathematically derive the No Arbitrage Equation.

In summary, the forms of acquisition produce equivalent values for equivalent assets. Formally conceptualized in this rigorous arbitrage and

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138   The term $(V(F^*) - V(C))$ is substituted for $V(F)$, given that: $V(F) = V(F^*) - V(C)$.

mathematical framework, the two acquisition forms would equilibrate in parallel value propositions that maintain the law of one price. No obvious arbitrage can result from the mere election of the form of acquisition, meaning that the value of entityness cannot be arbitraged away.

1. Deriving Actual Ranges of Acquisition Premiums — We can affirm this arbitrage framework with actual computations, which reveal real proportions of the range of acquisition premiums. Assume that both firms would produce an annuity cash flow of 110 in perpetuity,[139] and that the cost of equity, which is the discount rate, is the average longterm return on a market portfolio of 11%.[140] Applying the standard perpetuity formula of an annuity, the present value of F^* would be 1,000 at time ($t = 0$).[141] Inchoate firm F would require time to phase transition into an operating firm ($t = i$), and assume this timeframe to be two to four years for complex firms ($i = 2$, 3, 4). The discounted present values of F would be (rounded): 810 (year 2), 730 (year 3), 660 (year 4). The equilibration of these two otherwise identical cash flows would require "discounts" of 19%, 27%, and 34% to value of F^* (=1,000). These discounts embed the value of entityness $V(C)$.

To clarify a potential confusion, the "discount" here is not a "minority discount" embedded in the price of stock. Under the analysis here, the price of stock reflects the entire fundamental value per discounted cash flow, subject only to value of private information and the vagaries of the market process. The "discount" here does not manifest in the capital market, but is a valuation mechanism in the market for corporate control. It represents the *reduction* in value received by the acquirer under the "buy" option since the acquirer must pay target shareholders a premium for the value of entityness $V(C)$. In other words, an acquirer buys a corporate asset valued under the theory of asset value (without a minority discount) and get its fundamental value $V(F^*)$, but its payment of a premium $V(C)$ *subtracts* from the total cash

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[139]   The actual number is irrelevant so long as the amount of the two cash flows (each year's annuity) is the same for both firms.

[140]   *See* BREALEY, MYERS & ALLEN, *supra* note 2, at 168, 174, 205 (noting the long-term 1900-2017 Treasury bill nominal rate of return was 3.8%, the equity risk premium used by many financial economists to be 7%, and the market risk premium since 1900 was 7.7%). Under the capital asset pricing model, this implies a cost of equity between 9% and 12%. Robert J. Rhee, *The Irrelevance of Delaware Corporate Law*, 48 J. CORP. L. 295, 308 & nn. 66-67 (2023). The beta β of a diversified market portfolio would be 1.0. *Id.*

[141]   The perpetuity formula without any growth is: Present Value of Annuity = Annuity ÷ Discount Rate. RHEE, *supra* note 13, at 57-59. The present value calculation is: $110 ÷ 11\% = 1,000$.

flow-based value it receives. The "discount" here reflects this reduction of value received due to the acquisition premium when the two options are equilibrated.

The acquisition premium constitutes payment for the value of the firm's entityness. We know from literature the mathematical relationship that reverses the effects of a discount through a premium, which is expressed as: $P = D / (1 - D)$ where P is premium and D is discount.[142] We can apply this formula to the argument here based on the component variables identified above:

$$Premium = \frac{V(C)}{V(F^*) - V(C)}$$

This equation states that the premium should be the "discount" embedding the value of entityness $V(C)$ divided by the total value of the "buy" option received by the acquirer, *i.e.*: $V(F^*) - V(C)$.

Using this concept, the above discounts (D = 19%, 27%, 34% for i = 2, 3, 4) imply that premiums would be (P = 23%, 37%, 52%).[143] This premium range approximately mirrors the broad range of acquisition premiums 30% to 50% seen in the market.[144] This mirroring is *not* coincidental, but instead reflects a causal relationship. The discounted cash flow analysis applied here, while highly simplified, is not a stylized illustration. It applied the same computational methodology with actual representative discount rates to the two firms F^* and F. Broadly speaking, these derived discounts and premiums reflect actual approximations expected in the M&A market.

We note that as time toward entityness increase (i = 2, 3, 4), the values of D and P increase as well. This is not a quirk of mathematics. Two causes are at work. The first is obviously the mathematical effect of time in discounting; more time toward entityness results in greater discounts and thus premiums as well. The second cause is the reason behind the greater time toward entityness. It reveals a general hypothesis on the size of the acquisition premium. The principal factor determining the amount of the

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142   *Supra* note 46.

143   Changes to the value of the annuity amount does not change the analysis above. Changes to discount rate affects the results marginally, but generally in the same range and relationship. For example, at 9%, the premiums would be: P = (19%, 30%, 41%) for (i = 2, 3, 4). At 12%, the premiums would be: P = (25%, 40%, 57%) for (i = 2, 3, 4).

144   *See supra* note 52.

capitalized asset is the firm's complexity. Simple firms are easier to build, and complex firms require greater buildup expenditure.

Size is a proxy for complexity, explaining why premiums are generally not a range of absolute dollars values but instead are a range of percentages of firm size. Time toward entityness is another proxy for complexity. Complex firms require more time to build. The mathematics of discounting captures the substantive idea of a relationship between the time to build and the complexity of firms. The easy intuition is that the entityness of complex firms has more value because they are more complex, requiring more time to build and greater expenditure, and accordingly the acquisition premium should be larger, *ceteris paribus*. Lastly, complexity can also be seen through the criterion of ease of replicability. If the "build" option is difficult for various reasons, such as unique business model or barriers such as proprietary technology, we expect that an acquisition premium would be should be larger, *ceteris paribus*.

2. Summary of Market for Corporate Control Paradigm and Formal Arbitrage Argument—The above analyses in Sections III.A. and III.B. show the precise economic mechanism of the immutable acquisition premium. Coase and economists err by crediting only one side of the ledger—the reduction of assets resulting from Coasean transaction cost. Obviously, any expenditure reduces the assets outlaid. Cash expended reduces the cash balance (obviously). The other side of the ledger entry is an unavoidable investment by shareholders in preconditional entityness. Conceptually, a double-entry ledger of reciprocal value exchange applies. An acquirer's prospective expenditure under the "build" option is a target's opportunity asset under the "buy" option. Transaction cost has an apparent dual nature. Although it functions like a sunk cost to shareholders in the capital market paradigm, it is an asset in the market for corporate control. Expenditure in firm creation is not really an economic cost because arbitrage and the law of one price dictate a positive value in the market for corporate control.

Nor is a payment for the capitalized asset a holdup value derived from legal entitlement. Pay-for-vote does not figure into the exchange. The acquisition premium represents a value exchange in which shareholders and the acquirer swap assets. We should recognize these indisputable facts: (1) target shareholders *funded* (purchased and invested in) the acquisition of all assets X; (2) managers must direct a portion C of this capital to invest in the order and organization of the factors of production, resulting in net ordinary assets X^*; (3) this entityness provides benefits to the firm and is desired in the market; and (4) if the acquirer were to "build" the same

corporate asset, it must unavoidably invest in entityness, something that the target firm in the "buy" option has already done. The capital market does not incorporate the value of C into the market price due to the specific conceptualization of exchange value based on cash flow generated by ordinary assets X^* therein, which has been reduced to this level due to the unavoidable investment of C in entityness. A different value proposition governs in the market for corporate control. All target shareholders monetize the value of C through the acquisition premium impounding the value of their original investment X to fund the precondition of firmness.

Entityness is not a musing on how many angels can dance on top of an acquisition agreement. It is concrete and has hard value to rational actors in the M&A market. It is not captured in the collection of ordinary assets, liabilities, contracts, and properties in their atomistic parts as implied by a reductionist view of the firm as the sum of its component parts—that concept is called the breakup or liquidation value. [145] Entityness is the preconditional order and organization in a firm structure achieved through an unavoidable expenditure. The value of that outlay is conserved because it represents an acquirer's necessary investment in the broader market for corporate assets, purchased either from shareholders in an acquisition in the capital market in the "buy" option or from various owners of factors of production in other markets in a substitute market transaction in the "build" option. Acquirers attribute value to this capitalized asset because they must. Since the asset is embedded in the firm, intangible and indivisible, shareholders are entitled to compensation for it on a pro rata basis when the firm is sold. The core idea is this: *An acquirer must compensate shareholders for the value of the investment in entityness, which cannot be eliminated per arbitrage, and this conserved value is impounded in the acquisition premium and thus monetized in the market for corporate control.*[146]

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[145]   *See supra* note 31 and accompanying text.

[146]   If one is familiar with physics, one sees an analogy to the laws of entropy and thermodynamics. The natural world provides a useful analogy to the theory of entityness. In physics, energy is required to increase the order of things. ERIC D. SCHNEIDER & DORIAN SAGAN, INTO THE COOL: ENERGY FLOW, THERMODYNAMICS, AND LIFE 43 (2005). The first law of thermodynamics is the conservation of energy, which states that energy, though expended, is neither created nor destroyed, but is preserved and only changes in form. *Id.* at 36, 41. For example, the energy of our sun is converted by photosynthesis into particular order of carbon-based molecules in plants and that energy can be later released through burning carbon. In the theory of entityness, we can analogize the capitalized asset to the "energy" required to order and organize the factors of production in a firm. Ordinary

C. "Control Premium" and "Minority Discount" Revisited

As discussed, the ideation of a control premium has two versions. Firstly, abstract control held by aggregate shareholders has an intrinsic value.[147] Secondly, shareholders' control of merger approval has a holdup value. Both versions are dubious. The value of control is instrumental extracted only in post-acquisition; it thus belongs entirely to the acquirer's shareholders. A holdup payment is economic rent from a legal entitlement that is divorced from an economic value exchange. Conceptualized as such, it cannibalizes the acquirer's deal value. Both justifications of a control premium essentially reduce the net economic outcome of the acquisition to an investment approximating the value of minority shares in the capital market—why bother?

Likewise, the concept of a minority discount has two ideations. Firstly, the discount and the control premium exist in yin yang. Secondly, a lack of control at the share level necessitates a discount from fundamental value at the corporate level. Both versions are similarly dubious. If the yin of a control premium does not exist, neither does the yang of a minority discount. And the idea of a minority discount irreconcilably conflicts with the theory of asset value and market efficiency.[148] Oddly, its proponents may also believe in market efficiency and the theory of asset value.[149] F. Scott Fitzgerald famously observed that "the test of a first-rate intelligence is the ability to hold two opposing ideas in the mind at the same time, and still retain the ability to function."[150] Here, it is not intelligence so much as first-rate imagination that conjures a minority discount in an efficient market.[151] Either the theory of asset value under market efficiency is correct

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assets do not spontaneously self-order. This ordered state requires expenditure of resources. Like energy in nature, the expenditure is not sacrificed or lost, but only converts into a different form of a capitalized asset. Thus, value of the expenditure is conserved in the firm, and it is monetized in the market for corporate control.

[147]   *See supra* note 70.

[148]   *See supra* note 53 and accompanying text.

[149]   The contradictory messages of the Delaware courts come to mind. *See supra* notes 48, 58-59 and accompanying text.

[150]   F. SCOTT FITZGERALD, THE CRACK-UP 69 (1931) (ed. Edmund Wilson 1993).

[151]   *See supra* notes 8 & 54.

or market prices substantially discounted from fundamental value is right—we can't have both.

The theory of entityness explains in simple terms the phenomenon of a discount and a premium. Firstly, under the capital market paradigm and Coase's concept of transaction cost, the market price reflects only the value of X^* and thus contains an implied "discount" (loosely speaking only) incorporating the plain fact that assets declined from X to X^* due to C. Stated differently, finance theory "discounts" to zero the Coasean transaction cost C incurred in firm creation. By demanding the value of C as a component of the acquisition premium, shareholders recoup the investment value of entityness in the M&A market. Thus, the acquisition premium reverses this zero credit "discount" in the market price.

The "discount" can even be conceptualized as a negative value. Due to the reduction of assets ($X \rightarrow X^*$), the price would be "discount" insofar as ordinary assets that generate cash flow have been reduced by C. Any reduction in ordinary assets reduces potential cash flow and so C actually decreases firm value, that is: $V(X^* + C) > V(X^*)$. But, quite obviously, such a "discount" assumes a fictitious world where assets freely self-order and money falls from the sky, which explains why this abstract concept of a negative value "discount" is fanciful. The market price must be attributed to ordinary assets X^* existing in a state of order and organization net of an unavoidable investment C.

Of course, the exclusion of C in the market price is not formally a "discount" at all. The firm value based on X^* is the *correct* exchange value proposition of traders in the capital market where they are both buyers and sellers of individual shares with no intention to buy or build a corporate asset. A minority discount doesn't exist because the market price *correctly* values a standalone firm based on cash flow. The market price should not presume to incorporate the value of an asset that only acquirers attribute value in a different market. The "discount" represents the net reduction in value received by the acquirer in light of the acquisition premium paid for the value of entityness.

This Article also explains a quirk of many acquisitions involving public companies. While the target's stock price jumps upon announcement of an offer, the acquirer's stock is less sensitive. [152] This insensitivity is observed evidence that the market price cannot be the correct acquisition value in the market for corporate control; otherwise, a premium to the

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[152]   Stout, *supra* note 4, at 1263.

market price would always constitute overpayment, and thus it should inversely depress the acquirer's stock price. That mirror reflex ordinarily doesn't happen.

This Article proposes a general hypothesis. The acquirer's stock may be less sensitive because the market's initial presumption may be that the *deal price* (including a premium) should approximate the proper value of *all* assets shareholders owned. If so, however, we should expect a price jump from the accretive value of expected ACV. A small but important wrinkle explains why the acquirer's stock price is less sensitive. The acquirer's stock price is subject to two opposing forces.

The negative force on the acquirer's stock is the immutable reality of the acquisition premium. To understand this effect, assume that the acquisition is a mistake because there is no ACV. The acquirer's stock price should decline in similar proportion to the target's stock price jump—despite sellers and buyer exchanging equivalent values in the deal price. This seems paradoxical. The explanation lies in this Article's persistent question—why bother? If the acquirer purchased *only* an equivalent value of the corporate asset, the net effect is that target shareholders and the acquirer effectively swapped places in the capital market, but in doing so the latter monetized the firm's capitalized asset. The capital market rightly does not incorporate a value of this asset in the market price, which represents a cheaper price for the same asset. The payment of the acquisition premium would also impose an opportunity cost of capital on the acquirer. The acquisition would not make sense at all. If there is no expected ACV from control, acquirer's stock price should experience a fall, despite an equivalent value exchange, in an amount equivalent to the acquisition premium paid plus the opportunity cost of capital. This logic follows because shares in the capital market correctly does not incorporate the value of entityness. The acquirer overpaid based on this framework. Thus, the apparent paradox of a negative force on the acquirer's stock despite equivalent value exchange has a simple explanation. If swapping places was the misguided intent, the acquirer should never have transacted in the market for corporate control. Instead, it should have purchased the identical, cheaper shares in the capital market as a minority shareholder without paying a premium—in other words, why bother?

The positive force on the acquirer's stock is, of course, the additional value that the acquirer expects to create. The *reason* to acquire a corporate asset is to accrete value through expected ACV. This additional value creation would tend to offset this negative force on stock. Whether such

disclosure of expected value translates into an immediate stock price increase would depend on the details and credibility of the disclosure as the market assesses. The accretive expected value would counterbalance the negative effect of an acquisition premium on the acquirer's stock. These two offsetting effects shake out idiosyncratically. Each deal and packet of disclosure are unique. We can hypothesize generally that the two repulsive effects would likely make the acquirer's stock price less sensitive with any net movement therein reflecting the capital market's net assessment of the *deal price* paid and the expected *deal value* received.

D.   Correctness and Incompleteness of Market Price

Let's recapitulate the analysis thus far. Two prices for the same stock—market price and deal price—coexist because acquisitions take place at the junction of two markets with two kinds of buyers and value propositions. Different prices are not a glitch of market efficiency, a flaw in the theory of asset price, a systematic discounting of assets by traders, or a systematic overvaluation by acquirers. In the capital market, shareholders trade with no other value proposition than an exchange of cash flows, and the market process produces one market price based on that framework. In the market for corporate control, acquirers pay a higher deal price because they must compensate target shareholders for the entire value locked in the corporate asset, including past investment in the firm's entityness. Acquirers expect to create more value through post-merger additional input, which they should not share with exiting shareholders. In this way, the acquisition inequality holds: Market Price < Deal Price < Deal Value.

The idea of two markets, two prices, and three value propositions confronts a serious objection: If the theory of asset value is correct, why doesn't the stock price already incorporate the value of entityness? This is the objection of market price fundamentalism, the belief that the theory of asset value conceptualizes the (sole) fundamental value in all markets where stock trades hands and thus the market price must be *completely, unconditionally* correct. The siren call of market price fundamentalism is alluring. However, the answer to the question is not self-evident just by pointing to "the market" and assuming reified, omnipotent epistemological

powers of "market efficiency." Such belief is an ideological faith, more religion than analysis,[153] to which there can be no real reply.

Pushed to explain the exact mechanism in which the market price incorporates the value of entityness, market price fundamentalism may argue more precisely that: (1) the theory of asset value presumes the existence of the firm; (2) the market readily "sees" from observation, disclosures, and assessment that the factors of production therein exist in a state of high order and organization; (3) the thing valued is the corporate asset correctly seen as ordered and organized; (4) the market credits the firm's assets and their qualities, and therefore the market price should reflect the state of entityness. This train of thought presents a serious objection, requiring a thorough answer. Ultimately, however, the objection does not hold up to scrutiny.

This Article's analysis thus far has already addressed much of this specific objection.[154] In summary, the theory of asset value infers the value of assets from expected cash flow, and the market "sees" (incorporates the fact) that ordinary assets have been diminished ($X \rightarrow X^*$) by buildup expenditure and only attributes value to those net assets X^* since, under the capital market paradigm, expenditure C is accounted as a past sacrifice of assets. The acquisition premium impounds the value of C, which the theory of asset value discounts to zero (thus the market price does too).[155] To answer more thoroughly the challenge of market price fundamentalism, this Article explains further why the market price does not incorporate the value of entityness.

We start with a plain problem of market price fundamentalism itself. It has no good explanation of the acquisition premium. Its only refuge is the idea of a control premium. But the theoretical framework of market price (*i.e.*, the theory of asset value) says there should be no such thing as a minority discount.[156] Confronted with contradictory ideas, market price fundamentalism finds itself back to the riddle of the universal premium. We cannot unsee what the eye sees. Given theory or reality, the latter must be right. The acquisition premium, an immutable reality, is unaccounted for

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[153]   The Delaware Supreme Court has come close to embracing such fundamentalist belief in the market process. *See infra* note 183 and accompanying text.

[154]   *See supra* Sections III.A., III.B., and III.C.

[155]   *See supra* Section III.C.

[156]   Control *per se* is irrelevant, and the only factor of value is discounted cash flow. *See supra* notes 2, 8, 32, 54 and accompanying text.

in the market price in the capital market. Market price fundamentalism, as mere dogma, is internally incoherent. It does not explain basic reality so much as it ideologically answers the question by asserting its truth despite its obvious contradictions. What explains the acquisition premium when the market price is said to incorporate all factors of value including the value of entityness?

Market price fundamentalism reasonably assumes that, if rational actors have the means to assess value, they transact in rational value exchange. From this fair assumption, it draws the wrong conclusion that market prices constitute the complete, unconditional value of the corporate asset.[157] It fails to recognize that different markets exist, meaning that actors therein may hold different value propositions. Its error lies in chauvinism—the primacy of the capital market paradigm. It equates the market price as *the* controlling valorization in a different market. This assumption contains a contradiction in principle. A different market, the market for corporate control, says that acquisitions are never done at the "correct" market price. Thus, the relevant question is not whether the market price reflect the entire value of the firm. It clearly does not as a matter of reality, empirical truth. The proper question is: *Why doesn't the market price reflect the complete, unqualified value of the firm in the market for corporate control?*

We come back to the core idea that the theory of asset value and thus the market price do not account for the value of entityness for two clear reasons. First, the theory of asset value does not directly count or measure assets at all.[158] It measures only cash flow, which is caused (generated) by assets X^* net of buildup expenditure C. Second, the theory of asset value assumes a standalone going concern whose exchange value proposition is a trade of present dollars for the time value of risky expected cash flow. The generally accepted finance theory is simply the equation that make this trade true. There is no assumption of shareholder exit via buyout.

Market price fundamentalism may counter with a finer point: Albeit assets have been reduced, the market readily "sees" that X^* exists in a state of order and organization and therefore it must be crediting this quality in the market price. This argument is true as an observation, *i.e.*, the market assesses and values assets in their state as seen in public light. But this observation does not lead to the conclusion that the market specifically

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[157]   *See supra* note 56 and accompanying text.

[158]   Valuing individual assets would be a liquidation or breakup valuation that is used in bankruptcies, asset disposals, and certain other types of transactions.

apportions valuational credit to this state. The argument requires a second order assertion about the market's valuation process. In the first order, the market values cash flow, which results in a price. In the second order, the market attributes specific components of cash flow to specific firm qualities, such as entityness, at some micro level and thereby assigns units of causation. This second order process is dubious. It attributes some sort of a reified "thinking" process and omnipotent epistemological powers of "the market." This is market religion. We are now in the realm of asking how many angles can dance on top of an acquisition agreement. There is a salvation, however. We can have perfect confidence in one fact: The market price correctly attributes no augmentative factor of value to the past expenditure incurred to order and organize the firm structure; and, under the capital market paradigm and conventional accounting of such transactions under business and economic principles, the buildup expenditure is treated as a cost because it actually reduced ordinary assets ($X \rightarrow X^*$) that directly causes cash flow.

Even when an inchoate firm F is valued, the market valuation assumes a phase transition into a future operating firm F^* and would attribute present value of F based on the expectation of a future $F^*(X^*)$. For an operating firm F^*, the market price would value X^* as it exists in a state of order and organization, but this observation about the qualities of X^* misses the point. The question is not whether the market specifically credits order and organization of existing net ordinary assets X^* as a causal component of value in some reified "see-and-think" market process. The key concept is simply the treatment of past expenditure C.

Under the capital market paradigm, the market price would "discount" to zero credit for C insofar as that expenditure, perceived as a cost and expensed as such, diminished ordinary assets. Under its own terms, the theory of asset value and thus the market price do not include the expenditure incurred to beget entityness. The market price cannot include a positive value for C so that cash flow is based on undiminished assets X because, otherwise, the state of order and organization would have been achieved without an investment. In other words, only in an unreal world of free resources would assets self-order such that cash flow would be higher.

Shareholders in the capital market do not attribute value to the firm's entityness because the exchange proposition is filtered through a cash flow prism. Only acquirers value the firm's capitalized asset because it cannot arbitrage the elimination of C. If the market price includes the value of C, all firms would be sellers because their values would incorporate an

expectation of a sale price that includes the value of an asset that only acquirers give value—who are the buyers?

Together, the above reasons refute the objection of market price fundamentalism. This Article has demonstrated that the theory of asset value is *complete* under the capital market paradigm and thus correct there, but *incomplete* as to the market for corporate control paradigm. Valuation is not a single ontological truth. It is an intellectual construct of particular value propositions among buyers and sellers. This comment simply reflects the unremarkable observation that a thing may have no value in one market but have positive value in another market. Orange peels may be worthless to fruit vendors but worth plenty to teamakers. When two markets converge, we have different buyers and value propositions, and all shareholders are only sellers.
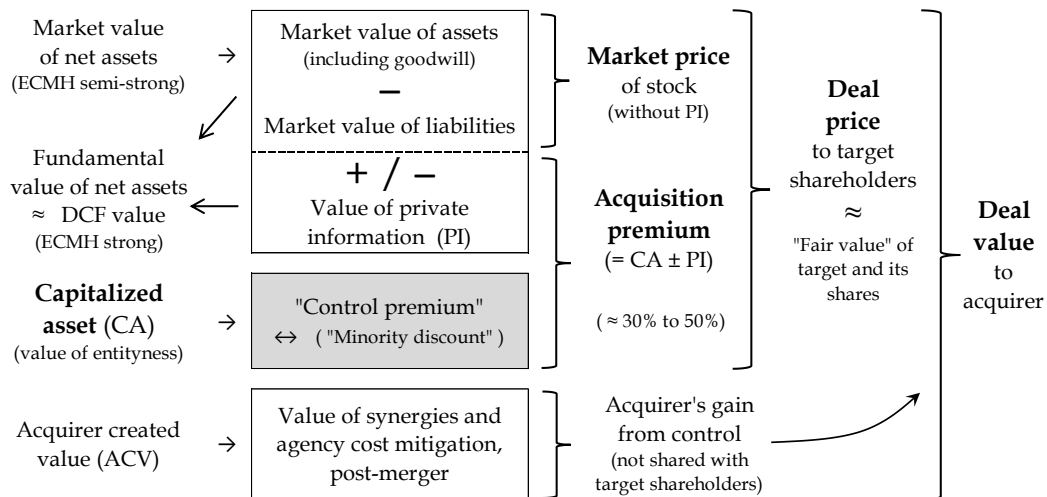
Lastly, although Coasean transaction cost is not a true cost, this Article agrees with Coase that it should be minimized, but for very different reason than the one he articulated. The unique nature of the firm's capitalized asset explains why it should be minimized. The simple reason is that firms are not indifferent to asset mix. Assets are not free; they are funded by investors. All assets thus bear the burden of the cost of capital. Ordinary assets, such as capital and labor, are used to generate cash flow, giving them value in the capital market. But from the standpoint of the theory of asset value, the capitalized asset is unproductive. As a past expenditure, it reduces ordinary assets, and thus directly causes lower cash flow (from the reference point of an unreal world of infinite resources). Albeit an unavoidable investment in the real world where assets do not self-order, it should be minimized to maximize cash flow in the capital market.

IV. MODEL OF ACQUISITION VALUATION

A. The Model

We can now construct the various pieces of value into a coherent whole model of acquisition valuation. This Article accepts the correctness of the theory of asset value, the efficiency of capital markets generally, and the Coasean theory of the firm to the extent it explains why firms exist and why "transaction cost" should be minimized. These foundational Nobel ideas should fit into a stable model of acquisition valuation. By integrating these ideas, the theory of entityness finally solves the longstanding riddle of the acquisition premium.

The deal price to shareholders and the deal value to acquirers have four components: *market price* under semi-strong form of market efficiency; *fundamental value* incorporating private information so as to mimic strong form efficiency; *acquisition premium* comprised of private information and the capitalized asset impounding the value of entityness; and *deal value* constituting the deal price plus acquirer created value (ACV). This diagram summarizes these components.

Market value of net assets (ECMH semi-strong) →	Market value of assets (including goodwill) — Market value of liabilities	**Market price** of stock (without PI)	**Deal price** to target shareholders ≈ "Fair value" of target and its shares	**Deal value** to acquirer
Fundamental value of net assets ≈ DCF value (ECMH strong) ←	+ / − Value of private information (PI)	**Acquisition premium** (= CA ± PI) (≈ 30% to 50%)		
Capitalized asset (CA) (value of entityness) →	"Control premium" ↔ ("Minority discount")			
Acquirer created value (ACV) →	Value of synergies and agency cost mitigation, post-merger	Acquirer's gain from control (not shared with target shareholders)		

1. *Market Price*—The market price is the exchange value proposition of investors in the capital market. It deviates from the fundamental value only due to private information and noisy vagaries of market efficiency. Under semi-strong market efficiency, the market price does not include the value of private information. The theory of asset value is correct in the capital market. The market price does not incorporate a "minority discount."

2. *Private Information*—Deals include a process in which private information is discovered or disclosed.[159] The value or disvalue of private information, if any, would adjust the market price to approximate a correct fundamental value if the capital market was strong form efficient.[160]

3. *Acquisition Premium*—This premium is not a "control premium." It is payment for private information (PI) and the capitalized asset (CA) that

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[159]   Miller, *supra* note 4, at 1407; Fir Tree, 236 A.3d at 326.

[160]   *E.g.*, Verition Partners, 210 A.3d at 139-40; Fir Tree, 236 A.3d at 326; Stillwater Mining, 240 A.3d at 12.

is the value entityness: Acquisition Premium = CA ± PI. The capitalized asset is the larger component in many deals.

4. *Deal Price*—The deal price to target shareholders should reflect the total value locked in a going concern that is subject to a sale. It represents the correct compensation given to target shareholders for the full value of *all* that is taken from them.

$$Deal\ Price\ = Market\ Price + Acquisition\ Premium\ (CA \pm PI)$$

This deal price schema exactly replicates the structure of deal valuation that we actually see in the M&A market.

5. *Deal Value*—The acquirer's value proposition is the deal price plus the control value inuring from the post-merger investment and risk assumption (ACV), principally synergies and agency cost mitigation.

$$Deal\ Value\ = Market\ Price + Acquisition\ Premium + ACV$$

Since ACV requires post-control additional input and risk assumption, it is not a variable in the market price. Nor should it figure into the calculation of the deal price. It belongs entirely to the acquirer's shareholders, and it is the reason why acquirer seeks the deal.

B.   Summary of Contribution of Theory of Entityness

The above model *exactly matches* the observed empirical facts of market practice. This Article does not assert that the market has gotten it wrong. To the contrary, its project is to explain the rationality of the M&A market and acquisition valuation in light of the theory of asset value, market efficiency, and the market price without resort to fables and fiction. To do this, we must correct the error in Coase's theory of the firm.

Lastly, let's take stock of how the theory of entityness differs from current understanding and academic thoughts. The theory makes the following important contributions to our understanding.

1. The theory eliminates the concepts of "control premium" and "minority discount" and thus resolves their contradiction with the finance theory of asset value in conceptualizing stock value in the capital market.

2.   The theory affirms the correctness and oneness of the market price in an efficient market and thus affirms the correctness of the finance theory of asset value in the capital market that undergirds market prices.

3.   The theory reconceptualizes the value of control as an exclusive claim of acquirers, contrary to the current flawed understanding in the M&A market, and thus the theory affirms the correctness of merger law.

4.   The theory shows that, while the market price may hew closely to fundamental value per market efficiency, the price is incomplete in the market for corporate control, and thus the theory affirms the rationality of a deal price that is always higher than the fundamental value.

In making these contributions to our understanding about the M&A market and the economics of acquisition valuation, the theory of entityness corrects the error in Coase's theory on why firms exist. Coase analyzed the firm and substitute market transactions as standalone ventures, and he did not consider the implication that ventures are alienable. Contra Coase, this Article argues that firms conserve more alienable assets and create more value through increased cash flow. Specifically, firms are more efficient than substitute market transactions for the following three reasons.

1. Firms create an asset whereas substitute market transactions incur costs—Firms capitalize the expenditure of resources to beget entityness because the benefits therefrom are intrinsic in a going concern, whereas substitute market transactions always settle up and thus incur expenses of venture creation that are true transaction costs because such transactions are finite and subject to final accounting among counterparties. Firms preserve more assets.

2. Firms are alienable in the market for corporate control whereas substitute market transactions are not—Assets are alienable. Because firms have the distinct advantage of being a separate and distinct entity per legal rule, [161] only firms impound the value of entityness and this asset is monetized through an alienation of the whole corporate asset in the market for corporate control. A venture in substitute market transactions suffers from two problems. First, it incurs transaction costs per Coase, but also, if complex, it cannot be alienated in any practical sense, *i.e.*, it can be alienated only if transaction cost is nil. Firms permit monetization of entityness.

3. Firms require less amount of asset to create the firm structure than the amount of cost incurred to arrange substitute market transactions—

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[161]   *See supra* notes 102-103 and accompanying text.

The true transaction costs of substitute market transactions are greater than the expenditure that are capitalized as an asset in firms, which means that, as Coase correctly observed, comparatively firms preserve more ordinary assets due to lower expenditure incurred to order and organize factors of production. Firms generate more cash flow.[162]

These above reasons together, coupled with the sovereign's grant of limited liability to venturers doing business through firms,[163] constitute an overwhelming advantage of conducting longterm business ventures through firms as opposed to substitute market transactions.

V. IMPLICATIONS FOR "FAIR VALUE" IN MERGER LAW

A. Delaware's Preference for Deal Price

The theory of entityness has important implications for the rules of fair value in merger law. Merger law requires courts to "determine the fair value of [dissenting] shares."[164] Fair value is a jurisprudential concept, and the court must take into account all relevant factors.[165] They include "techniques or methods which are generally considered acceptable in the financial community."[166] Fair value should exclude "any element of value arising from the accomplishment or expectation of the merger."[167] Shareholders should be compensated for all that is taken from them, which is their pro rata interest in a standalone going concern.[168]

In the 2000s, judicial appraisals opened a problematic fissure between the theory of asset value as determined under a discounted cash flow (DFC), and the hypothesis of market efficiency as seen in the market and deal prices. Merger arbitrageurs sought to arbitrage profit from the difference between the appraisal value principally calculated under the DCF analysis

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162   Coase also did not discuss limited liability as a critical advantage over substitute market transactions. *See supra* note 116.

163   *See supra* note 116.

164   DEL. CODE ANN. tit. 8, § 262(h). *See* MOD. BUS. CORP. L. § 13.02 (2020). A cash out acquisition triggers an appraisal remedy. DEL. CODE ANN. tit. 8, § 262(b).

165   DFC, 172 A.3d at 367.

166   Weinberger, 457A.2d at 713. *See* Verition Partners, 210 A.3d at 136 (attributing *Weinberger* as opening the door to modern valuation techniques).

167   DEL. CODE ANN. tit. 8, § 262(h).

168   Stillwater Mining, 240 A.3d at 10; Cavalier Oil, 564 A.2d at 1145.

and the deal price. This trend reached a nadir in *In re Appraisal of Dell, Inc.*[169] In a going private transaction, Dell offered a deal price of $13.75/share, and investment bankers opined that this consideration was fair. The chancery court reviewed the deal process and found a lack of meaningful price competition undermined the reliability of the deal price. [170] Eschewing "market fundamentalism,"[171] the court gave no weight to the deal price. It exclusively relied on its DCF analysis to calculate the fair value as $17.62 per share, almost $7 billion more than the deal price.[172]

In 2017, the Delaware Supreme Court in two rulings threw shade on appraisal arbitrage by clearly expressing a preference for the deal price in the acquisitions of public companies.[173] At the outset, the court rejected a legal presumption in favor of the deal price.[174] A presumption is a legal rule invoking a specific rule mechanism and having a rule-based litigation effect.[175] A preference has no hard deterministic legal effect, but has the soft coercive influence of an upper court's general guidance. While the holdings in two cases are specific to the underlying facts and scrutiny of how the deal process achieved the deal price,[176] the court clearly expressed its preference for the deal price.[177] When there is reason to suspect that market forces cannot be relied upon, the DCF analysis is most helpful.[178] But when the

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[169]   C.A. No. 9322, 2016 WL 3186538 (Del. Ch. May 31, 2016), *aff'd in part, rev'd in part*, 177 A.3d 1 (Del. 2017).

[170]   *Id.* at *37.

[171]   *Id.* at *23.

[172]   *Id.* at *51.

[173]   Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd., 177 A.3d 1 (Del. 2017); DFC Global Corp. v. Muirfield Value Partners, L.P., 172 A.3d 346 (Del. 2017).

[174]   Dell, 177 A.3d at 21; DFC 172 A.3d at 366.

[175]   *E.g.,* FED. R. EVID. 301, 302 (discussing the legal effect of a presumption in evidence); Aronson v. Lewis, 473 A.2d 805 (Del. 1984) (discussing the presumption of the business judgment rule).

[176]   In *Dell*, the court reasoned that Dell's stock was traded in an efficient market and thus reliable, and that the record shows no factual basis for a "valuation gap" between the deal price and the fair value. 177 A.3d at 25. In *DFC*, the court reversed and remanded the chancery court's assignment of giving only one-third weight to a reliable deal price. 172 A.3d at 349, 351.

[177]   A condition is that the deal price must be reliable. Stillwater Mining, 240 A.3d at 11. The market price must be the product of an efficient market, and the deal price and process were not tainted by breach of duty or other indicia of a faulty process. Dell, 177 A.3d at 21; Fir Tree, 236 A.3d at 328.

[178]   Dell, 177 A.3d at 35.

deal price was achieved through a robust sale process in an efficient market, it provides the best measure of fair value.[179]

The preference put a thumb on the scale. The court called attention to "the human element in the appraisal inquiry."[180] It was concerned with the application of the theory by a single judge or dueling expert witnesses in an adversarial process with its all-or-nothing incentives.[181] It instead looked to market efficiency as a better gauge of value. "Indeed, the relationship between market valuation and fundamental valuation has been strong historically."[182] Quoting a textbook, the court embraced a theory-free, faith-based conception of market price fundamentalism: "For many purposes no formal theory of value is needed. We can take the market's word for it."[183] The court was concerned not with the theory of asset value as such, since the capital market applies the theory to produce a market price. It leaned heavily on market efficiency, which it has long embraced.[184]

The theory of entityness supports Delaware's preference for the deal price, but it goes much further, stating: *The fundamental value in an efficient capital market, approximately reflected in the market price, should always be less than the deal price because the fundamental value does not consider the firm's entityness, capitalized as an asset, as a factor of value.* The deal price should be, and the market reality is, the sum of: (1) the market price reflecting the fundamental value under the theory of asset value, without the fiction of a without a minority discount, *plus* (2) a premium impounding the value of private information, if any, and principally the value of entityness in the market for corporate control. The deal price should always be higher than the market price, which exactly matches the reality we see.

Appraisals based on just the DCF analysis would be wrong *per se* because, absent judicial error, they would always undervalue the correct compensation. A properly calculated DCF analysis with only public information should reflect the market price, give or take the noisy vagaries of market efficiency. This conclusion naturally follows because there is no such thing as a minority discount. By preferring the deal price, Delaware

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179   *Id.*

180   Dell, 177 A.3d at 22; DFC, 172 A.3d at 369.

181   Dell, 177 A.3d at 24, 35; DFC, 172 A.3d at 367; Fir Tree, 236 A.3d at 315.

182   DFC, 172 A.3d at 369.

183   *Id.* at 369-70 (quoting RICHARD A BREALEY ET AL., PRINCIPLES OF CORPORATE FINANCE 13 (9th ed. 2008)).

184   *Id.*; Dell, 177 A.3d at 24.

not only suppresses arbitrage from chance judicial miscalculation, but also properly recognizes that a reliable deal price presents the proper compensation for taking away *all* assets belonging to shareholders.[185] The theory of entityness fits neatly into this recent doctrinal development.

Deal price primacy is not a matter of its *accuracy* compared to the judicial assessment of a single judge. It is a matter of *incompleteness* of the fundamental value in the capital market as an exchange value in the market for corporate control. Under the Delaware framework, if human errors can be eliminated, there should be no daylight between the deal price and the judicially assessed fundamental value. But human limitation is not the real problem.[186] Theory is the intractable problem.

The current orthodoxy of merger law states that shareholders are only entitled to the "fair value" conceptualized under the theory of asset value as a standalone firm.[187] This orthodoxy works *only if* one believes in a "minority discount" in the market price at the shareholder level, which must be reversed by a "control premium" to calculate firm value at the corporate level. Only in this way can the Delaware court conceptually equilibrate a fundamental value of a standalone firm with a hypothesized deal price. The house of cards is apparent because if the minority discount does not exist,[188] the market price would approximate the fundamental value under market efficiency.[189] When this card is pulled, the mess is an unexplained acquisition premium. Messier still is a "fair value" that must now be pegged to the market price, which would always undercompensate dissenting shareholders in theory as well as in practice since consenting shareholders in the sale of the company are getting a deal price that is always higher than the market price. We should appreciate the amazing work that the fiction of a "minority discount" performs in maintaining the

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[185]   *See supra* note 177 (discussing what "reliable price" means).

[186]   The necessity of subjective judgment has always been known and accepted as par for the course. *See* RHEE, *supra* note 13, at 118-19. The Delaware courts did not just discover this reality. *See* In re Topps Co. S'holders Litig., 926 A.2d 58 (Del. Ch. 2007); Union Ill. 1995 Inv. Ltd. P'ship v. Union Fin. Grp., Ltd., 847 A.2d 340, 359 (Del. Ch. 2004); Cede & Co. v. Technicolor, Inc., 1990 WL 161084, at *24 (Del. Ch. 1990).

[187]   *See* Stillwater Mining, 240 A.3d at 10; Fir Tree, 236 A.3d at 322; Dell, 177 A.3d at 21; DFC, 172 A.3d at 364; Verition Partners, 210 A.3d at 133; Cavalier Oil, 564 A.2d at 1144.

[188]   *See supra* notes 54-56 and accompanying text; Sections III.C. and III.D.

[189]   *See supra* notes 56-57 (citing scholars who argue that a minority discount does not exist) and accompanying text.

rationality of deal economics in the M&A market. The minority discount is truly the titan Atlas holding up the world of M&A.

We also note the internal contradiction in how the Delaware court professes its resolute belief in market efficiency[190] and at the same time it critically relies on a minority discount to make merger valuations work.[191] The current orthodoxy of merger law works only if one believes that the "minority discount" can coexist alongside the theory of asset value and market efficiency.[192] This means that the capital market values the intrinsic utility of control in addition to wealth in the form of cash flow. We might as well believe in fairies and phantoms, fiction being fiction. The conceptual problem lies in the fact that merger law and the current orthodoxy recognize only two valuation states: standalone firm in the capital market, and post-acquisition firm. The fair value is said to be the value of the standalone firm,[193] and merger law synthesizes a fundamental value that is greater than the market price through the fiction of a minority discount and a control premium.
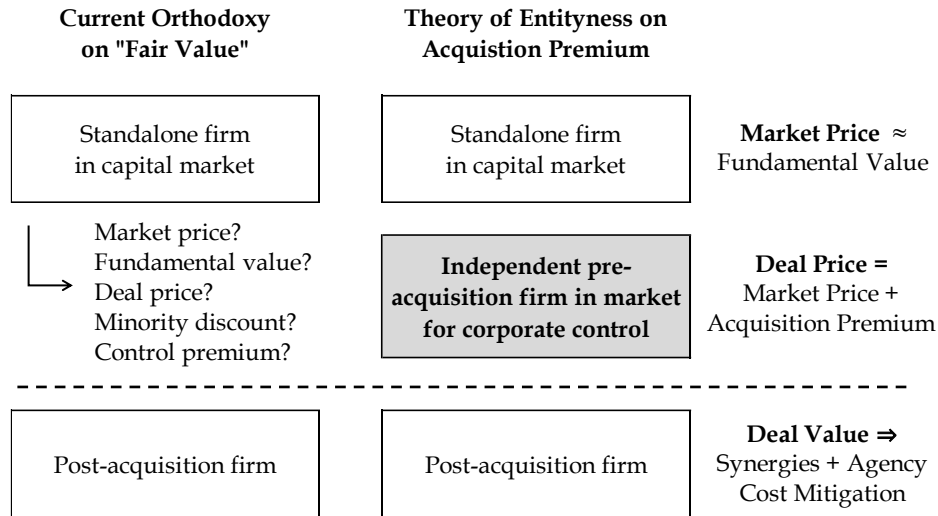
The theory of entityness neatly eliminates the internal contradiction of the current orthodoxy. It recognizes three valuation states: (1) standalone firm in the capital market; (2) *independent pre-acquisition firm in the market for corporate control*; and (3) post-acquisition firm.

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[190]   *See supra* notes 182-184 and accompanying text.

[191]   *See supra* note 48 and accompanying text; *infra* notes 200-201 and accompanying text.

[192]   *See supra* notes 49-54 and accompanying text.

[193]   *See supra* notes 10 & 167 and accompanying text.

Current Orthodoxy on "Fair Value"	Theory of Entityness on Acquistion Premium	
Standalone firm in capital market	Standalone firm in capital market	**Market Price ≈** Fundamental Value
Market price? Fundamental value? Deal price? Minority discount? Control premium?	**Independent pre-acquisition firm in market for corporate control**	**Deal Price =** Market Price + Acquisition Premium
Post-acquisition firm	Post-acquisition firm	**Deal Value ⇒** Synergies + Agency Cost Mitigation

In the first state, the market price is right per market efficiency as a general proposition, and the theory of asset value governs. But this first state is relevant only insofar as it provides the unaffected market price, which reflects the market's assessment of fundament value to the limit of semi-strong market efficiency. Contra current orthodoxy, a target firm must be valued not in the first state, but in the second state. A firm there is "independent pre-acquisition" in the sense that all factors of value are independent of any acquirer input, such as synergies; the firm value is its fundamental value to which all traders attribute value in the capital market plus its capitalized asset to which only acquirers attribute value in the market for corporate control. The theory of entityness advances a simple, elegant proposition: *A proper deal price reflects the value of an independent pre-acquisition firm; it constitutes the correct compensation package to exiting shareholders; and the value proposition therein exactly matches the immutable market reality of paying the unaffected stock price plus a premium*. The "fair value" is thus the deal price, or a price hypothesized as such.

The Delaware court is right to prefer the deal price but for the wrong reason. Appraisals that relied principally on the DCF analysis are wrong in two respects.[194] The court would be wrong if it incorrectly calculated a DCF value greater than a reliable deal price because that cannot be the case as a matter of theory; and it would be wrong if it awards only a correctly calculated DCF value because it would undercompensate shareholders by

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[194]   *E.g.,* In re Appraisal of Dell, Inc., C.A. No. 9322, 2016 WL 3186538 (Del. Ch. May 31, 2016), *aff'd in part, rev'd in part*, 177 A.3d 1 (Del. 2017).

valuing the firm in the first state as a standalone firm in the capital market. Therefore, the court could have instituted a legal presumption of a reliable deal price as the fair value. The implication is that appraisal arbitrage as exemplified in the chancery court's disregard of the deal price in *Dell* should not exist, but appraisal litigation should focus on whether the deal price is the product of a reliable process and an efficient market with respect to the unaffected market price, upon which legal presumption should attach.

The theory of entityness requires a deal price that is more than the fundamental value under the theory of asset value. The gulf is stark in theory, but less so, one suspects, in practice. In judicial or transactional practice, DCF calculations often embeds assumptions in a way that the derived value exceeds the unaffected market price, thus achieving in many cases or transactions, in a dirty (messy, oblique) way, an outcome that approximates a hypothesized deal price, which would thus capture the fundamental value (reflected in the market price) *plus* an acquisition premium. This is quite possible because DCF analyses are sensitive to the model's assumptions. A modeler can readily achieve outcomes that reflect hypothesized deal prices without dramatic changes in assumptions.[195] The suggestion is not that modelers systemically corrupt DCF valuations, but something more benign and practical—*i.e.*, outcomes can be massaged by a reality check. This Article tells an open dirty little secret that is not explicitly recognized in judicial or academic literatures, but that is known to, but rarely admitted by, anyone who has actually performed financial modeling: in many cases a modeler, not unreasonably, has an approximate value in mind, at the fore of consciousness or the aft of instinct, in light of an actual deal price and market-based data such as comparable companies and transactions, which are relevant even to valuations of private companies, and works to produce a value that on the whole "makes sense" in the total deal context. Indeed, a naïve belief that a DCF model is a pure scientific inquiry with precise equations deriving ontological financial truth, with no role for art and vacuum sealed from other relevant information, was the likely culprit in the chancery court's $7 billion error in *Dell*.[196]

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[195]   *See supra* note 186; RHEE, *supra* note 13, at 118-19.

[196]   *See supra* note 172 and accompanying text. *See also* RHEE, *supra* note 13, at 97 ("The wide range of valuation well illustrates the point that valuation is part science and a large part art."); *id.* at 91 (same); *id.* at 118 ("If you think valuation is a precise science, a methodology that will produce ontological truth, you are deluding yourself."); *id.* at 120 ("Science because rigorous economic reasoning provides the method, and art because judgment is required in applying the method.").

The larger point is that while the theory of entityness is a profound break in how fundamental value is perceived in theory under merger law, the practical implication is that it converges with longstanding practice where an acquirer must immutably give a premium to the market price — the theory fits the facts without dirty (messy, oblique) adjustments. If the market price reflects the fundamental value per semi-strong market efficiency, Delaware's concept of "fundamental value" (or "fair value") in mergers collapses as an incoherent house of cards; as a consequence, the fiction of a "minority discount" and "control premium" are paramount to a semblance of coherence.[197] Ultimately, the "fair value" should strive to give dissenting shareholders all that they own, which is reflected in a reliable price or a value hypothesized as such. Deal prices in the market for corporate control always (immutably) include an acquisition premium. In practice, the theory of entityness better explains the rationality of long-existing M&A market practice.

B.	Other Rules of Fair Value and Premiums

The theory of entityness affirms complementary rules dealing with squeeze outs of minority shareholders and sales of a controlling stake. Firstly, absent a controlling shareholder, we conceptualize control as an abstraction lying in the aggregate of shareholders.[198] Each shareholder, albeit a minority in fact, is attributed with a pro rata share of abstract control. In this respect, the payment of a "control premium" to shareholders has a veneer of sense. But when a controlling shareholder executes a squeeze out merger, there is no transfer of control at all, real or abstract.[199] The logical implication is that a controlling shareholder should not be forced to pay a "control premium" because she already has control and a "minority discount" in the market price *correctly* reflects the value of the shareholder's minority status in theory and in reality. The controlling shareholder likely paid a premium to acquire the controlling stake in the first place.

However, merger law contradicts this seeming sound logic. Minority shareholders must be paid a fair value that does not incorporate a minority

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[197]	*But see supra* Sections I.B. & III.C.

[198]	*See supra* note 44 and accompanying text.

[199]	The existence of a controlling shareholder neutralizes even abstract voting control. *See supra* note 70.

discount. [200] Delaware reasons that "to fail to accord to a minority shareholder the full proportionate value of his shares imposes a penalty for lack of control, and unfairly enriches the majority shareholders who may reap a windfall from the appraisal process by cashing out a dissenting shareholder."[201] On its face, this explanation does not make sense. Windfall how? A controlling shareholder, who paid a premium to acquire that control, does not reap a windfall by cashing out minority shareholders at a price that *correctly* reflects a "minority discount" since plainly they have no control, real or abstract.[202] We sympathize with minority shareholders who may receive less payment than previous shareholders who sold shares constituting a controlling stake presumably at a premium. But sympathy is not fairness. Shareholders are not guaranteed a sale price equaling past unrelated sales by other shareholders. Any wrongful coercion, inequitable conduct, or information asymmetry in a squeeze out can be dealt with through the doctrines of fair value and fiduciary duty. [203] Otherwise, minority shareholders own shares under their unique circumstances. The rule of no minority discount in squeeze outs seems to be justified on a sentiment of some inarticulate threat of opportunism.

The theory of entityness explains the correctness of this rule simply. Entityness is an intangible, indivisible asset. All shareholders only have proportional claims to it. In the market for corporate control, they should be entitled to a proportional claim to the capitalized asset, as well as the value of private information. A minority shareholder in a squeeze out should not be paid the market price, but instead should be paid a fair value that reflects a deal price including an acquisition premium.

There is a converse rule in merger law. When a controlling shareholder sells her stake, she is not required to share the premium received with

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[200]   *See* Cavalier Oil, 564 A.2d at 1144-45; Dell, 177 A.3d at 20-21; Brown v. Arp and Hammond Hardware Co., 141 P.3d 673, 683 (Wy. 2006); Pueblo Bancorporation v. Lindoe, 63 P.3d 353, 366-67 (Colo. 2003); Arnaud v. Stockgrowers State Bank of Ashland Kansas, 992 P.2d 216 (Kan. 1999).

[201]   Cavalier Oil, 564 A.2d at 1145. *See* Stillwater Mining, 240 A.3d at 10; Tri-Continental Corp. v. Battye, 74 A.2d 71, 72 (Del. 1950).

[202]   If "control" is conceptualized as a connection to the corporate vote, then it raises policy implications identified in *supra* Section I.B. *See supra* notes 70-79 & accompanying text.

[203]   *E.g.,* Eisenberg v. Chicago Milwaukee Corp., 537 A.2d 1051, 1058-62 (Del. Ch. 1987); Weinberger, 457 A.2d at 710-11.

minority shareholders.[204] Under the framework of a control premium and minority discount, this rule makes good sense. A controlling shareholder owns control, and thus the control premium is held at the shareholder level. She should not be required to share it with other shareholders. However, this rule conflicts with the reasoning of the rule of no minority discount in squeeze out mergers. If the control premium and the minority discount are inverse twins, logic dictates that the two complementary rules should be bound by a common principle: *i.e.*, a controlling shareholder should not share her premium because the premium reflects the actual value inherent in her individual shares, and likewise a minority shareholder should not be entitled to a reversal of the minority discount because the market price reflects the actual value inherent in his individual shares.

The theory of entityness explains the rule of no sharing of control premium simply. The "control premium" actually reflects all shareholders' collective stake in the firm's capitalized asset. Presumably, an acquirer pays a premium that is proportional to the stake acquired.[205] To illustrate, assume that a premium to acquire the whole firm is C. An acquisition of a controlling stake would require a lesser premium C^* ($= C - c_m$) where c_m represents the minority's proportional claim to the value of entityness. Intertwining economic and legal logic govern. Looking into the future, the new controlling shareholder knows that a minority squeeze out would require the payment of a fair value that does not incorporate a "minority discount."[206] A smaller premium C^* for a controlling stake would be warranted, lest when the controlling shareholder later squeezes out minority shareholders, she would have paid a total acquisition premium ($C + c_m$) that would be more than a whole acquisition premium C.

Because the premium received by a controlling shareholder should properly reflects her proportional stake of the firm's entityness, she should not share the premium with minority shareholders. Any mistake in calculating the premium by the purchaser would be windfall for the selling controlling shareholder, but a minority shareholder should not have a claim

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204   Thorpe v. CERBCO, Inc., 676 A.2d 436, 444 (Del. 1996); 1 Principles of Corp. Governance § 5.16 (1994).

205   *See* Tirole, *supra* note 8, at 403 (stating that large blocks of shares of at least 5% of outstanding shares are sold at premiums).

206   Cavalier Oil, 564 A.2d at 1145; Stillwater Mining, 240 A.3d at 10; Tri-Continental, 74 A.2d at 72.

against the selling shareholder for the purchaser's mistake. The minority shareholders will get theirs (c_m) when they are squeezed out later.

In summary, the theory of entityness affirms not only the correctness of a reliable deal price, but also two other rules of fair value under merger law. While the rule of no minority discount and the rule of no sharing of control premium are in tension, if not outright contradictory, under the framework of control, they are easily complementary under the framework of a capitalized asset that is intrinsic in the firm, intangible and indivisible and that belongs to all shareholders on a pro rata basis.

CONCLUSION

The concept of a singular ontological firm value does not exist. An acquisition occurs at the junction of two markets. When shares trade in the capital market, the theory of asset value provides the consensus view on the fundamental value of shares. This value tethers the market price through market efficiency. But when the firm is subject to an acquisition, acquirers value the same shares differently. This divergence arises from the workings of different markets, buyers, and valorization. Market lore tells the story that the "control premium" reverses the depressive effect of a "minority discount." These fictional concepts are stasis in emptiness. They are descriptive labels of correlative facts. They have no substantive content. They are benign white lies told for the sake of rationality. The theory of entityness shows that the acquisition premium is really payment for the firm's capitalized asset that is the value of entityness in the market for corporate control.

This Article links the acquisition premium and Coasean transaction cost in firms. Transaction cost is not a dissipation of resources, but remains preserved in the firm. Under the Coasean theory of the firm, transaction cost incurred for firm creation is believed to be a cost. Coase was wrong on this point. In 1937, he did not consider, and could not have considered, the implications of transaction cost in the context of the market for corporate control, the economics of takeover valuation, and the modern theory of asset value and market efficiency, these later ideas coming to bloom in the second half of the twentieth century through Nobel Prize-winning works in portfolio theory, market efficiency and inefficiency, capital asset pricing model, and corporate financing.

When firms undergo creation, the process conserves value. Assets are not dissipated as cost, but instead only convert in their form, and thus value

is conserved within the firm. In the capital market, this value is given no credit because under its cash flow-centric valuational framework the asset is not only unproductive but its expenditure is seen as a cost. Instead, this value is monetized in the market for corporate control. The capitalized asset represents the value of the precondition of a firm structure, the state of high and durable order and organization of the factors of production. This asset must exist because an iron law of markets (arbitrage) is at work. All firms must invest to create this state, meaning shareholders must fund it. Under an arbitrage framework and the law of one price, an acquirer must give value because, consistent with Coase's theory and a world of scarcity, its procurement per expenditure of resources is unavoidable whenever venturers seek to acquire a corporate asset or venture through substitute market transactions. The transfer of this value, per the acquisition premium, is intermediated in the market for corporate control.