Substance and Process in Corporate Law: Theory and History

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Over the last half-century, corporate law has moved from substance to process as the Delaware courts have avoided direct review of the merits of transactions, substituting review of the processes that brought the transactions about. This is a familiar observation, perhaps a truism. But it is a truism that is undertheorized. This article addresses the theory gap, suggesting a structural reason for the trend. Simply, the courts avoid reviewing substance because they lack a theory of value. The theoretical void disables direct evaluation of transactional merits. Process review avoids this problem. Processes and their operation are the lawyer's stock in trade. Courts are very well equipped to understand legal processes and evaluate compliance with them. Given this epistemic familiarity, it is understandable that courts gravitate toward process review. The article supports this assertion with formal analyses of the relative merits of procedural and substantive models of fiduciary law from economic and epistemic perspectives. The article goes on to review the development of judge-made Delaware law, posing it as an exemplar of the salience of the article's theoretical claim.

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INTRODUCTION

Over the last half-century, corporate law has moved from substance to process as the Delaware courts have avoided direct review of the merits of transactions, substituting review of the processes that brought the transactions about. We make no claim to originality in so asserting. This is a familiar observation,[1] perhaps a truism. But it is a truism that is undertheorized. This article addresses the theory gap, suggesting a structural reason for the trend. Simply, the courts avoid reviewing substance because they lack a theory of value. The theoretical void disables direct evaluation of transactional merits.

The theoretical void does not follow from some institutional failing peculiar to courts. In our view, *no one* can pronounce on the merits of corporate transactions because the inquiry is epistemically too demanding. Things would be different if the system of market prices reflected true value in a general equilibrium and thus provided an objective valuation of subjective transactional determinations. Our economic system, however, does not yield such reliable determinations of value due to the problem of market incompleteness, leaving us instead with multiple equilibriums and pecuniary externalities.[2]

This leaves a court charged with substantive review in an awkward place. It must rely on expert testimony when assessing the merits of a transaction. The expert presents the matter's economic posture in the form of partial equilibrium analyses, backing these with empirical showings. Unfortunately, the analyses and, hence, the proofs are assumption-laden, for the choice of a partial equilibrium model is, at bottom, subjective and strongly outcome-dependent. This leaves the expert with considerable discretion, so much so that even the most sophisticated receiving court lacks the means of effective challenge.

Process review works differently. Processes and their operation are the lawyer's stock in trade. Courts are very well-equipped to understand legal processes and evaluate compli-

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1. *See, e.g.*, Jonathan Macey & Geoffrey Miller, *Process as Currency With the Courts: Judicial Scrutiny of Directors' Decisions*, 1 INT'L J. CORP. GOV. 337, 338 (2010) (discussing focus on process in courts evaluating board decisions).

2. General equilibrium theory and market incompleteness are more particularly described *infra* text accompanying notes 38–39. For a discussion of the relevance to corporate law of general equilibrium theory and market incompleteness, see William W. Bratton & Simone M. Sepe, *Corporate Law and the Myth of Efficient Market Control*, 105 CORNELL L. REV. 675, 694–722 (2020).

ance with them. Even when the processes are complex, their design and execution are everyday business in legal contexts. Given this epistemic familiarity, it is understandable that courts gravitate toward process review.

In explaining this phenomenon, we do not apply an economic framework in which competing actors move toward an efficient result. Instead, we identify an epistemic comfort zone in which lawyers and judges, left to their own devices, will find their way. An efficiency overlay would not only be misleading but erroneous. The comfort zone exists precisely because, in practice, efficient evolution cannot safely be assumed, a message brought home by general equilibrium theory.

Our methodological approach employs formal linguistics and logic in addition to economics. Creating a systematic framework in corporate legal theory involves understanding how legal decisions are made and justified. Logic helps decipher the processes and structures underpinning legal reasoning. Received corporate legal theory, in contrast, predominantly focuses on the efficiency of corporate law's rules, with scholars assuming that a regulation's desirability is a function of its institutional impact on corporations. While this mode of analysis is crucial, it is incomplete and sometimes misleading. Because it strives for explanatory simplicity, it overlooks the complexity of the law's semantics and normative content. Before impact comes meaning, and the task of determining the law's meaning and articulating the behavior it prescribes is not at all straightforward. It tends to be passed over, accordingly.

We address this oversight by examining the linguistic and logical challenges faced by corporate adjudicators. By exploring the linguistic and logical structure of corporate law and its implications for different regulatory strategies, we enable a form of reverse engineering. This process, likely undertaken implicitly by Delaware courts, allows us to evaluate corporate law based (a) not only on the theoretical limits of standard disciplines such as economic theory and empirical analysis, (b) but also on the adjudicatory hurdles inherent to the language and logical structure of the law, and (c) the interaction between (a) and (b).

Part I provides theoretical background, prefacing our discussion of the strategic choice between substance and process. We review two related strategic choices—between mandatory rules and default rules and between rules and standards. The mandatory versus default presentation follows the economic theory of the firm to pronounce in favor of a default approach except in the case of externalities that cannot be remedied through Coasian bargaining. A *caveat* also is entered: policymakers should be suspicious of claims for mandatory law reform backed by economics drawn from partial equilibrium models. We then turn to rules versus standards in a contrasting discussion. Unlike the treatment of mandatory versus default rules, which stresses the choice's structural importance, the treatment of rules versus standards discussion is dismissive. Given the non-monotonic structure of the law,[3] standards can perform as well as rules, provided we give the judiciary the space

3. *See* Cristian Strasser, *Non-monotonic Logic*, STAN. ENCYC. PHIL. (Nov. 23, 2024), https://plato.stanford.edu/entries/logic-nonmonotonic/ [htttps://perma.cc/] ("[N]on-monotonic logic . . . is a family of formal logics designed to model and better understand defeasible reasoning. Reasoners draw conclusions in a defeasible manner when they retain the right to retract these inferences upon the acquisition of further information."); For a formal discussion of non-monotonic logic, see Sarit Kraus, Daniel Lehmann & Menachem Magidor, *Nonmonotonic Reasoning, Preferential Models and Cumulative Logics*, 44 J. A.I. 167, 168 (1990).

to make rule-like precedents while applying the standards. There is no *a priori* reason to prefer rules over standards as corporate law's basic building blocks.

Part II presents our analysis of the relative merits of procedural and substantive models of fiduciary law. The discussion has two prongs. The first is economic. We model two regimes for regulating interactions between principals and agents, (1) a process regulation framed to maximize returns to the principal and to entail minimal participation by an ex-post adjudicator, and (2) a substantive regulation in which the agent interacts strategically with an ex-post adjudicator. We project that the interaction under the substantive regime skews outcomes in the direction of the agent's preferences, where the process model hews closer to the principal's optimum. The second prong is epistemic. Here, we draw on formal linguistics and logic to model decision-making in transactional contexts. We start with a substantive review of transactional merits, looking for principled bases for decision-making. We show that the price system fails to provide a reliable backstop, leaving the adjudicator to resort to partial equilibrium models, leading to conflicting results and, ultimately, subjective decision-making. We then show that process review proceeds with greater epistemic surety, calling on lawyers and adjudicators to make law-to-fact determinations for which they are well-trained.

Part III reviews judge-made Delaware law, posing it as an exemplar of the salience of our theoretical claim. The discussion takes a developmental perspective. It begins with the bedrock business judgment rule, which exemplifies the shape taken by transactional law in the absence of a theory of value: Courts refrain from second-guessing business decisions under the duty of care precisely because they lack a substantive basis for so doing. Moreover, when directorial carelessness is successfully alleged, the courts avoid substance when adjudicating the claim, instead bringing to bear a procedural checklist. This approach is now mimicked in duty of loyalty cases. We date the historical turn to the 1983 decision of *Weinberger v. UOP*.[4] That case famously described fiduciary duty in dual terms, as a matter of fair dealing and fair price,[5] a regime of procedural and substantive scrutiny. But the *Weinberger* court simultaneously signaled that process might be *primus inter pares*, when, in a footnote dictum, it suggested that conflicted boards might insulate themselves from substantive review by remitting transactional decision-making to independent negotiating committees.[6] Procedural compliance and procedural review have dominated fiduciary law ever since. They now also determine scrutiny of self-dealing transactions, which can be validated in an internal boardroom process. The zone of intermediate scrutiny applied to

4. Weinberger v. UOP, Inc., 457 A.2d 701, 709 n.7, 711 (Del. 1983).

5. *Id.* at 711 (explaining that "The concept of fairness has two basic aspects: fair dealing and fair price. The former embraces questions of when the transaction was timed, how it was initiated, structured, negotiated, disclosed to the directors, and how the approvals of the directors and the stockholders were obtained. The latter aspect of fairness relates to the economic and financial considerations of the proposed merger, including all relevant factors: assets, market value, earnings, future prospects, and any other elements that affect the intrinsic or inherent value of a company's stock.").

6. *Id*. at 709 n.7 (stating that "[T]he result here could have been entirely different if UOP had appointed an independent negotiating committee of its outside directors to deal with Signal at arm's length . . . . Since fairness in this context can be equated to conduct by a theoretical, wholly independent, board of directors acting upon the matter before them, it is unfortunate that this course apparently was neither considered nor pursued . . . . [A] showing that the action taken was as though each of the contending parties had in fact exerted its bargaining power against the other at arm's length is strong evidence that the transaction meets the test of fairness.").

tender offers and mergers goes further still, emerging as entirely procedural. Even the determination of fair value in appraisal proceedings now turns on process compliance.

We close with a question about the future of Delaware law. Even as it presently puts process first, it remains a mixed system holding substance in reserve as a backstop for cases of procedural noncompliance. The time might be ripe for Delaware to go all the way, becoming a pure process-based system of fiduciary law.

I. REGULATORY STRATEGIES

The substance versus process distinction concerns a choice between regulatory strategies, strategies that may be conceived as binary opposites. A dispute respecting the rights of transacting parties can be resolved either by reference to their agreement's economic substance and the decision's impact on the value at stake, or by reference to a formal set of the rules of the game. The two regulatory paths diverge—the decisionmaker goes one way or the other. Moreover, because choices between substance and process are pervasive in transactional law, the decision-making pattern has structural significance. Studying the pattern yields insights about the legal regime—the purposes it serves, the motivations of its decision makers, and the consequences of their decisions.

Substance and process are not the only such binary opposites in the structure of transactional law. This Part provides background by describing two other pairs of regulatory alternatives—the choice between mandatory rules and default rules and the choice between rules and standards.

A. Mandatory Rules versus Default Rules

1. Externalities.

Transactional law supports arrangements made by private parties and so favors default rules. The problems that corporate law needs to solve are contingent on the specific details of the extensive game played by the corporation's various participants. The details include both the economic primitives (such as the production function and the distribution of information among the participants), and the structure of the markets in which the participants operate (such as the markets for managers, financial capital, and production factors). The problems and solutions will differ from company to company. Structural implications follow, it would be wrong to assume that a company operating in sector I_L, where the level of informational asymmetry between decision-makers and the financial market funding the production is relatively low, should have a governance structure similar to a company operating in sector I_H, where the assumptions are the opposite. The purpose of default rules is to make the governance structure adaptable to such specific contingencies.

If we take a simple consequentialist perspective, the only justification for shifting over to a mandate is the presence of an externality.[7] More particularly, when a transaction between A and B negatively impacts C and the harm caused to C exceeds the surplus that A

7. *See* Alan Schwartz & Simone M. Sepe, *Economic Challenges for the Law of Contract*, 38 YALE J. ON REG. 678, 685–86 (2021) (discussing the rationales behind prohibiting contract terms due to the potential to create undesirable externalities).

and B can generate, there may be a basis for mandatory intervention against A, B, and their transaction.[8] Contrariwise, when the A-B surplus exceeds the harm to C, and A, B, and C can bargain their way to an adjustment, the externality does not justify mandatory intervention. Generalizing, from a consequentialist perspective, corporate law should include mandates only where it is not possible to internalize externalities through consensual processes embodying forms of Coasian bargaining.

When might that be? Answers respecting both the externalities' existence and their correction can be hard to come by because corporate transactions often involve multiple parties whose relationships are complex. Public corporations involve collectives of individuals and entities rather than just single individuals, parties with differential access to information.

Let us offer an example. Assume that Corporation A is publicly traded and has no controlling shareholder. It is incorporated in a state in which all fiduciary law operates as a default. The shareholders of A agree to a charter amendment that eliminates the duty of loyalty. The shareholders are convinced that the benefits incident to self-dealing contracts between A and its directors and officers will exceed the costs in the form of contractual one-sidedness and foregone opportunities. At the time of the shareholder vote, these assumptions are reasonable. The consenting shareholders further assume that Coasian bargaining will be available to solve any problems cropping up in the future.

This contractual adjustment of the default rule works well assuming complete information on all sides and a static future. Introduce even minimal frictions and this bargain comes unstuck, and frictions there will be. With public companies, informational asymmetries are endogenous and inescapable, and particularly likely to impair exchanges among parties with divergent interests. Nor is it safe to assume that future bargaining can solve all future problems. Shareholders in public companies come and go. Those who negotiate today may not be the ones affected by the decisions tomorrow. Moreover, the facts informing cost-benefit calculations respecting self-dealing can change. This makes the cost-benefit calculation dynamic, implying that any frictions deterring revision of the bargain are problematic. It follows that Coasian bargaining may fail to solve future problems. A case for a mandate coalesces.[9]

8. Externality analysis must consider not only present injuries but future effects—the welfare calculation must encompass both the negative effect on C in the specific transaction and the effect that protection (or lack of protection) for C might have on future similar transactions. Assume, for example, that controlling shareholder (A) enters into a transaction with a party (B) that generates a surplus of S while causing a negative effect on minority shareholders (C) equal to H, where $H < S$. The A–B transaction is welfare enhancing. However, there could still be welfare-based reasons to protect C, as allowing the externality might increase the cost of raising capital for future transactions. If this future cost is not fully reflected in current prices, the increase could outweigh the contingent net benefit to S–H.

9. Conversely, in privately held companies, there might be more room for Coasian bargaining that can effectively internalize the externalities. For example, consider Corporation B, which is closely held by five shareholders each holding an equal share and contributing directly to production. Here, the case for a default status for the duty of loyalty is considerably stronger—given the smaller numbers and diminished information asymmetries—theoretically reducing the need for mandatory rules.

2. Governance Structure

As we have seen, externalities justify mandates when Coasian bargaining is unavailable to effect internalization. The question is whether one can expand the justifiable zone of mandatory corporate law a further step, using mandates to embed a system of good corporate law. The desirability of so doing depends on the existence of principled axiological statements specifying the content of good corporate law. If such principles do exist, they arguably justify mandatory implementation.

Proponents have been advancing competing axiological statements of good corporate law for the last quarter-century. The debates center on two prevailing (and contrasting) views respecting governance structure and shareholder power.

The first view, which we will call the *managerial moral hazard hypothesis*, posits that self-interested managers can self-deal and slack off to the shareholders' detriment.[10] Financial markets, even though they generally function well, are deemed to be unable to correct distortions stemming from this reserve of managerial power. The distortions are termed agency costs. It is held that the main goal of corporate law should be to minimize these agency costs. From a regulatory perspective, this calls for adjusting the legal framework to weaken managerial power and encourage market control (and hence shareholder control) of corporate decision making.[11] To achieve the cost-reductive goal, the intervention should be mandatory.

A contrasting view, which we will call the *market myopia hypothesis*, is skeptical of the capital markets' ability effectively to guide investment decisions and emphasizes the importance of managerial decision-making discretion in the creation of long-term value. This perspective argues that information asymmetries will lead markets to focus on suboptimal short-term performance enhancement. It follows that stepped-up market control will cause managers to prioritize short-term gains over long-term value creation, sacrificing value.[12] Therefore, the legal model should grant managers real authority, mandatorily protecting the business plan from shareholder influence.

Clearly, the two views are fundamentally opposed. Yet each, at a theoretical level, is completely defensible. How can that be?

As we have discussed elsewhere,[13] each of the managerial moral hazard hypothesis and the market myopia hypothesis is grounded in a partial equilibrium economic model. Partial equilibrium models proceed on the heroic assumption that everything in the economy is in efficient equilibrium, except for a specific market failure identified in the model. The model thus focuses on one market at a time, determining its equilibrium outcome in

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10. *See generally* Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976) (introducing the concept of agency costs).

11. *See* Bratton & Sepe, *supra* note 2, at 685–87 (discussing the model in detail and its impact on corporate legal theory).

12. *See* Jeremy C. Stein, *Efficient Capital Markets, Inefficient Firms: A Model of Myopic Corporate Behavior*, 104 Q.J. ECON. 655, 667 (1989) (modeling suboptimal investment where managers maximize a weighted average of near-term stock prices and long-run value); *see also* Jeremy C. Stein, *Takeover Threats and Managerial Myopia*, 96 J. POL. ECON. 61, 63–67 (1988) (showing formally that, even absent agency costs, managers of the firm threatened by a takeover will sell an underpriced asset).

13. Bratton & Sepe, *supra* note 2, at 696–99.

isolation on the assumption that all other factors remain constant. For example, the managerial moral hazard view assumes that managerial opportunism is the firm's only unsolved problem and applies market control to minimize the resulting agency costs between managers and the corporation. Within the model's framework, increasing shareholder influence always enhances efficiency.[14] Conversely, the management myopia model shifts the locus of imperfection from managerial moral hazard to adverse selection problems. The model focuses on information asymmetries between insiders and market shareholders and assumes that the shareholders know less about the business than its managers.[15] Under this assumption, the model formally demonstrates that greater shareholder influence leads to inefficiencies.[16]

How can we decide which model is *right* for policy making purposes? The answer is that we cannot. Both models should be seen as useful examples that highlight logical shortcomings in normative arguments often made in policy contexts. Can we fall back to a lesser claim and pose one or the model as the more salient basis for policy making? We cannot do that either. What we *can* say is that the dominance of one problem over the other will be contingent on the fundamentals of the economy and the technology of the given firm. A mandatory structure goes against this conclusion, unjustifiably assuming that one problem (for example, managerial moral hazard) dominates the other and requires a clear institutional response (for example, more shareholder power).

There arises a strong implication against mandatory law making. Parties should be left free to address problems of agency costs and market myopia depending on their relative dominance or weight in the particular company.

B. Rules versus Standards

We turn now to the distinction between rules and standards.

A rule specifies conduct as permissible or impermissible in advance, leaving only factual issues for the adjudicator.[17] For example, a corporate code could provide that transaction X is not valid unless a majority of outstanding shares votes to approve it. The adjudicator's job is done when it finds the facts regarding the shareholder vote. In contrast, a standard may leave over for the adjudicator both the specification of permissible or impermissible conduct and the fact-finding regarding the conduct.[18] When legal language uses terms like due care, good faith, fair, independent, proportionate, or draconian—terms well-known to corporate lawyers—a standard is being applied. Although both rules and standards take the form of if-then conditionals, with standards the adjudicator must not only verify the antecedent of the conditional but also attribute normative significance to the terms ascertained at either the antecedent or consequent level. For example, a corporate

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14. *Id.* at 695–99.

15. For an analytical discussion of the information problems, that is managerial moral hazard, adverse selection and the interaction of the two in corporate law, see generally Simone M. Sepe, *Board and Shareholder Power, Revisited*, 101 MINN. L. REV. 1377 (2017).

16. *See* K.J. Martijn Cremers & Simone M. Sepe, *The Shareholder Value of Empowered Boards*, 68 STAN. L. REV. 67, 71 (2016) (discussing the various inefficiencies in markets).

17. *See* Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 560 (1992) (defining rule in a legal and economic context).

18. *Id.*

code could provide that transaction X must be approved by the majority vote of a board of directors acting in good faith. The good faith segment of this regulation is a standard and requires the adjudicator to specify the content of good faith conduct as well as to find facts respecting good faith's presence or absence.

Generalizing, the rules versus standards distinction goes to the timing (and to some extent the origin) of the specification of regulatory content—with rules the content is determined *ex ante* where with standards the specification of content is completed *ex post*. To the extent that *ex ante* specification enhances certainty for the parties involved, rules are thought to have advantages in transactional contexts, for they import predictability at a lower compliance cost.[19]

The advantages may be more apparent than real, however. We believe they tend to be overstated for three reasons.

First, rules would indeed be easier to administer and more predictable if their conditional structure were monotonic, meaning that adding premises would not change the truth of the consequent.[20] Legal rules, however, tend to be *nonmonotonic*[21] because the law often provides exceptions, exceptions to exceptions, and so on. Nonmonotonicity is very problematic as it implies that, deductively, we can no longer rely on strengthening the antecedent to reach the same conclusion.

Consider a hypothetical made up of a series of four rule statements in which the result varies as facts are added:

1. If the transaction is approved by a majority of the shareholders (a), then the transaction is valid (b): $a \to b$.
2. If the transaction is approved by a majority of the shareholders (a), and the majority of the shareholders has been deceived (c), then the transaction is not valid (b): $a \wedge c \to \neg b$.
3. If the transaction is approved by a majority of the shareholders (a), the majority of the shareholders has been deceived (c), and the transaction has been ratified by a board of independent directors (d), then the transaction is valid (b): $a \wedge c \wedge d \to b$.
4. If the transaction is approved by a majority of the shareholders (a), the majority of the shareholders has been deceived (c), the transaction has been ratified by a board of independent directors (d), and the transaction constitutes corporate waste (e), then the transaction is not valid (b): $a \wedge c \wedge d \wedge e \to \neg b$.

A rule can succeed at being predictable only if it includes all possible exceptions and exceptions to exceptions. This leads to problems at the drafting stage, for it is difficult to anticipate every relevant contingency.[22] For example, where the situation to be regulated has a low frequency of occurrence, contingency specification becomes speculative. In cases

19. *Id.* at 564.

20. *See* Kraus, Lehmann & Magidor, *supra* note 3, at 172–75 (discussing nonmonotonic reasoning).

21. *See* Anthony S. Gillies, Alan Schwartz & Simone M. Sepe, The Logic of Legal Formalism (2025) (unpublished manuscript) (on file with authors).

22. The economic theory-oriented reader would notice a connection between nonmonotonicity and incomplete contract theory, which arises when contracting parties cannot foresee and then specify all unforeseen contingencies. For incomplete contract theory, see the seminal work of Oliver Hart & John Moore, *Incomplete Contracts and Renegotiation*, 56 ECONOMETRICA 755 (1988).

where rule-drafters fail to make complete specifications, exceptions (and exceptions to exceptions) can still find their way into the law as a matter of interpretation and construction. Such a process of rule development closely resembles that of a standard.

Second, standards, once applied over time, take on attributes of rules. When an adjudicator attributes the normative significance of a standard in the context of deciding a case, the adjudicator creates rule-like conditionals, establishing a precedent.[23] The precedent effectively functions as a rule for future decision makers and planners. For example, assume that a court applying the due care standard articulates the following rule-like proposition: if a director is uninformed, then she breaches the duty of care, with liability as a consequence. This rule-like application of the standard remains subject to the same nonmonotonicity problems as other rules, so exceptions and exceptions to exceptions are future possibilities. Over time, the standard acquires rule-like specificity and complexity as a matter of accumulated application.

Third, even the best-articulated rule can become obsolete in a world where corporate practices and problems evolve dynamically across time. Standards, because they leave the specification of regulatory content over to the adjudicator, better adapt to change.[24]

We conclude that there is no *a priori* reason why the regulatory structure of corporate law should be rule-based rather than standard-based. The issues, rather, are: (a) understanding what corporate practices require regulation; and (b) in cases where standards are used, determining the degree of authority to give precedents that provide the standards' normative content.

II. Substance versus Process

We proceed to this Article's primary theoretical presentation, its consideration of a third dimension of the choice of regulatory strategy in corporate law—substance versus process.

In the foregoing discussion of rules and standards, we presented regulations as if-then conditionals and noted that rules specify the conditional and leave verification of the antecedent of the conditional to adjudicators while standards require the adjudicator to both verify the antecedent of the conditional and to attribute normative significance to the terms ascertained at either the antecedent or consequent level.[25]

With substance versus process we refer to the semantic structure of the propositions forming the conditionals, specifically whether the legal effect of the consequent depends on an antecedent that is substantive or procedural. A conditional such as "if the transaction price is fair, then the transaction is valid" is substantive. In contrast, a conditional like "if the transaction is approved by a committee of independent directors, then the transaction

23. *See* Kaplow, *supra* note 17, at 561–63 (discussing how standards take on rule like qualities); John F. Horty, *Rules and Reasons in the Theory of Precedent*, 17 LEGAL THEORY 1, 5–7 (2011) (discussing the use of rules and factors in developing precedent).

24. *See* Kaplow, *supra* note 17, at 563–64; Pierre Schlag, *Rules and Standards*, 33 UCLA L. REV. 379, 388–89 (1985).

25. For a discussion of if-then conditionals, see Robert C. Stalnaker, *A Theory of Conditionals*, *in* IFS: CONDITIONALS, BELIEF, DECISION, CHANCE, AND TIME 41, 44–45 (William L. Harper, Robert Stalnaker & Glenn Pearce eds., 1981).

is valid" is procedural. More particularly, in transactional contexts the substance/process distinction concerns the type of assessment made by the adjudicator. If the assessment ultimately addresses the merits of the transaction, the law is substantive. If the assessment verifies behaviors independent of the merits of the transaction, the law is process-based. Corporate fiduciary law, viewed as a whole, is *prima facie* substantive, allowing self-dealing by directors, officers and majority shareholders on 'fair' terms. But, viewed more closely, fiduciary law varies, in application, between substance and process. If, in a particular litigation, the claim adjudicated calls for evaluation of the merits of a transaction or corporate action, then the fiduciary law applied is substantive. Conversely, if the administration of the fiduciary regime and *ex post* judicial verification involves assessing a director's behavior independently of a transaction's merits, the fiduciary duty is procedural.

Section A compares the economic properties of a substance-based regulatory model with those of a process-based model, extending the analysis to a consideration of mixed models. Section B compares the epistemic conditions requisite for proper adjudication of disputes in a substantive regulatory model with those in a process-based model.

A. Economics

Consider a business task—the selection and approval of an investment project. (The task could be any significant corporate action, in addition to project selection—the approval of a fundamental transaction, the implementation of a takeover defense, or the approval of an executive compensation plan.) The task is to be affected by an agent, whether a board of directors or a manager. The agent acts under the constraint of a regulatory regime imposed by a state authority-principal.[26] The state authority can choose either a process-based regulatory model regime or a substance-based model. Either way, it's objective is social welfare enhancement.

In the following Part, we posit a process model and a substantive model. The difference between the two models lies in their operation. The process model is close to self-executing where the substantive model depends on the judgments of an adjudicator who interacts with the agent.

1. Process Model

When the regulation takes the process form, the state authority-principal establishes rules under which the agent's selection of the project is deemed valid if the agent complies with the specified procedural constraints (PCs) irrespective of the transaction's merits. It is a screening model, importing an irrebuttable presumption of validity when the agent satisfies the PCs.[27]

From an economic perspective, the process model is optimal when it sets the PCs such that the marginal value of the agent's discretion equals the marginal cost of agent moral

26. We are collapsing the state of incorporation that enacts and adjudicates under the corporate code and the corporate entity to which the agent owes fiduciary duties into a unitary actor. This allows the principal to be modelled to pursue social welfare as the purpose of the regulatory regime. The agent, in contrast, pursues private gain.

27. For a discussion of screening models, see Joseph E. Stiglitz & Andrew Weiss, *Credit Rationing in Markets with Imperfect Information*, 71 AM. ECON. REV. 393, 393–95 (1981).

hazard. A trade-off is involved. With no PCs, the agent has complete discretion. This theoretically allows the agent to select beneficial projects, but it also opens the door to full moral hazard, whereby the agent could monopolize all cash flows from the projects. Consequently, no PCs leads, at the extreme, to reduced social welfare against the interest of the principal. Conversely, with too many PCs most opportunities for moral hazard will be eliminated but so will be the agent's discretion. Excessive PCs can prevent the agent from undertaking valuable projects that would be available absent the constraints, again resulting in reduced overall welfare.[28]

Note that with a procedural model, when a project fails to deliver and *ex post* litigation occurs with respect to the agent's performance, the only question for adjudication is whether, in fact, the procedure was followed.

2. *Substantive Model*

In a pure substantive regime, the agent is not constrained by an explicit process but must stand ready to defend the project on the merits. More particularly, we posit a model that provides for an adjudicator on behalf of the principal's interest. The adjudicator can either accept or reject the agent's decision based on the transaction's merits. Adjudication can occur either in midstream (after the *ex ante* stage in which agent concludes the transaction and in connection with an internal approval process) or *ex post* (as a liability regime in cases of transactions gone wrong). In the midstream arrangement, the agent gets no compensation in the event the transaction is rejected. In the *ex post* arrangement, the agent forfeits compensation previously paid. For the moment, we will model the regime as midstream.

For this regulatory strategy to work effectively, the adjudicator must be able to deductively verify the transaction's merits. For this, the adjudicator will need a theory, which we will define as a set of formal propositions closed under logical consequence, such as an economic theory. If the theory indicates that a transaction is expected to generate returns within a specified acceptable range, the adjudicator can approve the transaction. If the transaction's performance is below the lower bound of the range, the adjudicator can reject it.[29]

The foregoing scenarios are straightforward by design. But they represent the easy cases lying at the extremes—when one transaction is clearly valuable and the other clearly not valuable. The interest lies in the area between the two extremes, where there is no clear signal for the adjudicator. This is the zone in which the agent, anticipating the lack of a clear value signal and seeking a payoff, will behave strategically in anticipation of the adjudicator's decision, seeking to influence the adjudicator.

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28. One of us, in a previous work, has identified this tradeoff in a more general corporate context as the freedom-constraint tradeoff. *See* Simone M. Sepe, *Corporate Agency Problems and Dequity Contracts*, 36 J. CORP. L. 113, 116 (2010) (discussing this tradeoff as a problem for "investors of all types").

29. Without such a theory, an adjudicator can use proxies to infer the agent's behavior. For instance, if the adjudicator finds that principals in similar transactions did not receive a payoff, it has strong reasons to reject a transaction of that kind. Conversely, if the adjudicator finds that principals in similar transactions enjoyed a substantial payoff, it has reason to affirm the transaction. Logically, the application of these proxies causes the reasoning to depart from pure deduction and shift towards abduction.

More specifically, the agent undertakes to conduct the transaction within self-created and endogenously determined *procedural* constraints. Like in a signaling model, these constraints aim to convey to the adjudicator that the agent's behavior aligns with the principal's interest.[30] For example, the agent could employ an independent expert to opine on the project's expected value. The constraints act as bonding mechanisms,[31] signaling the agent's lack of self-interest and decreasing the likelihood of rejection by the adjudicator.[32] However, unlike in the procedural model, in the substantive model the presumption of good agent behavior that follows from compliance with the endogenous constraint is rebuttable by the adjudicator. Our strategic agent will propose a program of voluntary constraints with an optimal trade-off in mind. More constraints mean a lesser zone of discretion and less room for moral hazard but also reduce the probability of the adjudicator invalidating the transaction. For the agent, the optimal level of constraints is reached when the marginal revenue from moral hazard equals the marginal cost for the agent of transactional invalidation. At this optimal point, the agent will choose a level of constraints that maximizes her expected payoff.

The agent's solution may result in *fewer* or *more* constraints than the principal would impose. This is a counterintuitive result, for, from an agency cost perspective, the intuition is that the agent would always choose fewer constraints. But that is not necessarily the case. Three interrelated factors will determine whether an endogenous level of agent constraints results in more or less discretion for the agent relative to the principal's process-based regulatory strategy: (i) the distribution of adjudicator error, whether in the form of false positives or negatives; (ii) the risk aversion of the agent, which can be controlled to some extent through compensation;[33] and (iii) the personal cost the agent incurs when the adjudicator finds a transaction invalid. Factor (iii) manifests itself when the adjudicator's rejection of a transaction leads to a reduction in the agent's payoff, whether by a reduction in expected executive pay or reputational capital. In a regime of *ex post* review, imposition of personal liability similarly imposes a cost on the agent. With high values for factors (i)–(iii), one can expect that the substantive model induces more endogenous constraints than would a pure process model designed by the principal.[34] Conversely, with lower values for factors (i)–(iii), we might expect fewer endogenously induced process rules than those determined through a pure process model, leading to more room for agent moral hazard.

30. For a signaling model, see the foundational work of Michael Spence, *Job Market Signaling*, 87 Q.J. ECON. 355, 357–59 (1973).

31. *See* Jensen & Meckling, *supra* note 10, at 308–10 (discussing agency costs).

32. The cleansing effect has limits, however: The endogenously determined constraints serve as a non-conclusive proxy for the transaction's validity and the agent understands this.

33. *See* Stephen A. Ross, *Compensation, Incentives, and the Duality of Risk Aversion and Riskiness*, 59 J. FIN. 207, 213–15 (2004) (explaining how executive compensation can affect risk aversion and riskiness through convex incentive structures).

34. We note that setting a parameter based on higher values (i)–(iii) could exacerbate other informational problems, such as adverse selection, potentially attracting agents with lower reputational capital and less talent, as in the standard lemon problem, adding further complexity to optimal regulatory strategies. *See* George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 489–90 (1970) (discussing the informational problem in the automobile market).

3. *Mixed Models*

There also can be mixed models based on a combination of process rules and substantive rules. Such a model can be set up two ways—under the first, the agent must both comply with a procedural test *and* survive substantive scrutiny; under the second, the agent must *either* comply with a procedural test *or* survive substantive scrutiny.

In the first mixed model, in which the proponent must satisfy both regimes, process compliance is mandatory, a necessary but not sufficient condition for the validity of the transaction. This result contrasts starkly with the result under a pure process model, which by definition creates an irrebuttable presumption that process compliance imports validity. With an irrebuttable presumption, there is no role for substantive review to play, for process compliance completes the matter. The addition of substantive review to a process regime as an additional required step implies that any presumption stemming from process compliance is rebuttable, for the proponent can fulfill the process requirement yet still fail to achieve validation. Restated, under this first mixed model the screening arising from the process regime is only partial. The agent, however, can introduce endogenous procedures on top of the principal's procedures to reduce the likelihood of failed validation, in which case we have a signaling model on top of the screening model. In either case, the presumption about good agent behavior[35] that follows from the agent's compliance with procedure cannot be dropped entirely. Without it, the procedural leg of the two-step test serves no purpose—one might as well proceed directly to substantive review.

The second mixed model works on an either/or basis. Here, process compliance is optional, so a matter can go directly to substantive review. At the same time, process compliance imports validity and accordingly can carry an irrebuttable presumption. Significantly, this version can accommodate a failed process, providing that an agent who attempts but bungles process compliance can use substantive review as a backstop.[36]

We will see in Part III that Delaware law most closely resembles the second mixed model.

B. *Epistemic Foundations for Adjudication*

This Section compares the epistemic conditions required for an adjudicator to assess compliance in a process-based regime with those required for the application of a merits-based substantive standard. Both the substantive models (1) and process-based models (2) are based on nonmonotonic conditionals.

1. *Substantive Conditional*

For simplicity, assume that regulatory structure (1) is grounded in a substantive conditional that takes the following form: If the transaction is *G* on the merits, then the transaction is valid, with *G* being a predicate representing an axiological criterion (for example

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35. Both in the case of the substantive model and the first mixed model, the extent to which the presumption of good behavior holds is an empirical question.

36. We note that this treatment is not the inevitable result of an either/or mixed regime. Under an alternative approach, the regime could create divergent substantive and process paths, with the actor who unsuccessfully pursues the process path having no backstop resort to substance.

efficiency or fairness). Let us assume that the axiological criterion is efficiency, meaning G indicates value maximization.

For the adjudicator to deduce the validity of the transaction under (1), it must verify that the transaction has the predicate G, which means verifying the efficiency of the transaction. Here we encounter a serious deductive question: Based on what formal propositions, closed under logical consequence, can the adjudicator establish that the transaction is value maximizing? The question does not admit of an answer, highlighting the complexities inherent in a substantive model. Without an established theory to determine value maximization, the adjudication process becomes significantly more challenging and subject to greater epistemic burdens.

This task of substantive adjudication would be at least feasible if the price system were a reliable instrument for establishing the efficiency of transactions. An adjudicator could then simply compare *ex ante* and *ex post* prices. The transaction is valid if the *ex post* value is higher and invalid if the value is lower. Unfortunately, such signals will not be forthcoming. The markets with which we deal in corporate law contexts are incomplete, and general equilibrium theory, which is the most general theory on prices, tells us that in incomplete markets the price system is an unreliable theory of value and cannot be generally used deductively to establish the efficiency of allocations and transactions.[37] Furthermore, given incompleteness, profit maximization is also an ambiguous criterion. For example, in the case of non-convex production functions (such as those involving innovation requiring high initial sunk costs), there is no clear path to profit maximization.[38] This ambiguity is a significant reason why we observe shareholder disagreement respecting business decisions. This would not occur in complete markets where shareholders can coordinate their choices perfectly based on prices.[39] In sum, there is no easy factual stand-in for shareholder value maximization.

An objection arises at this point: although a theory may be absent, the stock price provides a practical guide. This is a fair point. Even so, we question the stock price's reliability. In incomplete financial markets, share prices may not accurately reflect fundamental values and are influenced by equilibrium effects (both strategic and non-strategic) that can significantly deviate prices from these underlying values. Issues such as the multiplicity of equilibria and pecuniary externalities further compromise the price system's reliability as a stable mechanism for value determination.[40] Consequently, the price system fails to provide definitive guidance for managerial decisions.

When the price system does not provide a reliable criterion, the adjudicator must consider a series of subjunctive conditionals, also known as *counterfactuals*, to determine

37. *See* Bratton & Sepe, *supra* note 2, at 699–705 (discussing development and challenges of general equilibrium theory).

38. *Id.*

39. *Id.* at 707–11.

40. *Id.* at 702; *see also* Alan Kirman, *The Intrinsic Limits of Modern Economic Theory: The Emperor Has No Clothes*, 99 ECON. J. 126, 127–32 (1989) (arguing that, as we do not know the excess aggregate function, we could have a multiplicity of equilibria).

whether the agent's behavior was *causal* in producing an undesirable, low value transactional outcome.[41] Assume that it is necessary for the adjudicator to determine whether an agent's ϕ-ing has led to an inefficient transaction, with ϕ being an active verb signifying the action taken by the agent. The types of propositions the adjudicator must evaluate are as follows:

(a) If the manager hadn't ϕ-ed, the transaction would have been efficient (G).

Note that the nonmonotonicity of counterfactuals poses a problem. The question is whether the agent's ϕ-ing has led to an inefficient transaction, but there is no guarantee that the agent's ϕ-ing supports the conclusion that the transaction is inefficient.

For example, we could also have:

(b) If the manager hadn't ϕ-ed and had ψ-ed, the transaction would have been inefficient, with ψ being another action the agent could have taken.

But:

(c) If the manager hadn't ϕ-ed, had ψ-ed, and had χ-ed, the transaction would have been efficient.

The pattern could continue, each time potentially altering the conclusion.

Thus, the adjudicator faces the logical challenge of determining which *possible world*—(a) where the manager did ϕ, (b) where the manager did not ϕ and did ψ, or (c) where the manager did not ϕ, and did ψ and χ—is closest to the actual world where the manager ϕ-ed.

The foregoing sets the table for the adjudicator. Some applications will be easy. For example, if the agent's conduct involves cash flow diversion to herself at the expense of the shareholders. The judgment of the facts is obvious, for the closest possible world is clearly the one in counterfactual (a).

But in most cases, the answer is unlikely to be obvious, instead raising questions like those arising from the unreliability of prices. On what grounds can the adjudicator determine that the closest possible world is one in which (a), (b), or (c) is true—in other words, which counterfactual should be chosen? Likewise, on what basis can the adjudicator conclude that (a)–(c) are true? What economic foundations support such a conclusion? The best the adjudicator can do in selecting (a), (b), or (c) and establishing that (a)–(c) are true with an acceptable degree of approximation is to rely on ad hoc, partial equilibrium models and related empirical analysis. This is a tall order, as the reasoning will be complex and prone to fallacies.

As we have seen,[42] partial equilibrium models are subject to intrinsic limitations. Multiple partial equilibrium models can describe contrasting and conflicting states of the world. Adjudicative results heavily depend on the choice of model, and there is no clear independent criterion to determine which model to choose. When two distinct models, M_1 and M_2,

41. For a general theory of counterfactuals in logic, see DAVID K. LEWIS, COUNTERFACTUALS (1973); Robert Stalnaker, *A Theory of Conditionals*, *in* STUDIES IN LOGICAL THEORY 98, 98–112 (Nicholas Rescher ed., 1968).

42. *See supra* text accompanying notes 13–16.

lead to different results, and there is no independent criterion to facilitate the choice of one model over the other, we encounter the classic problem in the philosophy of science known as *underdetermination*.[43] The objectivity of modeling is undermined as a result, for the choice of model will be subjective.

For example, assume that the goal is to deduce through a model whether a given course of management behavior maximizes shareholder value. Should the adjudicator be guided by a model describing an exchange economy, where value is maximized when the probability of takeover is maximal? Or should the adjudicator employ a model of an investment economy where the incentive for specific investments decreases with the probability of takeover because a takeover can be disruptive? Alternatively, should the adjudicator bring discounted cash flow analysis to bear, ignoring the possibility of strategic interactions of firms in the relevant market? These are rhetorical questions without clear answers, as there is no theory to guide the choice of a specific model. We are left with significant questions about the epistemic value of modeling for legal adjudication. In thus concluding, we are not diminishing the value of economic modeling, which is crucial for understanding basic relationships. But we are pointing out a significant limitation: Economic theory, at a high level of generality, does not provide solid foundations for deductive reasoning in a legal context. It leaves the adjudicator to cherry-pick among competing models that establish a truth either under unrealistic assumptions or in very limited contexts (that is, with too many assumptions). Theoretical grounding as soft as this could potentially negatively impact the legitimacy of legal decisions.

There is an empirical alternative. Instead of relying on theoretical models, one establishes empirical relationships based on past observations about the likelihood of (a)–(c) being true. This exercise presupposes that the empirical analysis is well-identified, which is a very challenging criterion in corporate finance where most choices are endogenously determined by firms. But even assuming we can overcome the empirical hurdles and identify relationships so that the adjudicator can be confident about (a)–(c) being true, the fundamental logical problem persists. Empirical analysis can provide little guidance, if any, in determining which scenario is closest to the actual world where the manager ϕ-ed.[44] In other words, although empirical analysis can help determine whether (a)–(c) are true, it is not useful in determining whether (a), (b), or (c) should be the reference case against which to assess the agent's behavior.

Given the foregoing, how is an adjudicator supposed to decide a case? An adjudicator will, as a practical matter, be relying on expert testimony for inputs about reference cases. Not being an expert herself, the adjudicator will have no solid grounds with which to challenge the experts' presentations. The upshot is that adjudication of substantive issues inevitably vests the experts with tremendous discretion.

There is a contrary argument which asserts that a dialectical and adversarial approach among experts retained by the parties (or perhaps by the adjudicator) can lead to a solution

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43. *See* W.V. Quine, *Two Dogmas of Empiricism*, 60 PHIL. REV. 20, 40–43 (1951) (discussing underdetermination issue with regards to algebra); PIERRE DUHEM, THE AIM AND STRUCTURE OF PHYSICAL THEORY 180–81 (Philip P. Wiener trans., Princeton Univ. Press 1954) (1914) (discussing areas of science where the logical connection between experiment and theory is more opaque than traditionally understood).

44. Unfortunately, empirical corporate finance, unlike, for example, industrial organization, is not adequately developed with structural models that would allow for counterfactual analysis.

that, while not deductively valid, would be *abductively* supported.[45] Indeed, this is how the adjudication of value tends to proceed in the real world—first bring in all the technical presentations, then evaluate *ad hoc*, and finally pick the most persuasive approach based on intuition. Unfortunately, results thus derived lack robustness.

The robustness of an abduction depends on the reliability and objectivity of the criteria used to select the best explanation. If the criteria are missing, the abduction is weak because the basis for choosing one theory over another for a best explanation is at best unclear and potentially biased. The result becomes dependent on pragmatic contingencies, such as the reputation or affiliation of the experts, an anticipated political consensus respecting the outcome chosen, or the adjudicator's subjective sense of the reliability of the various technical presentations.

Rights adjudicated in such a framework lose their normative grounding. To see why, consider a frequently litigated question: whether a manager should be liable or should have immunity in respect of a transaction that has gone wrong. Assume that the result depends on the adjudicator's merits-based review of the transaction. The rights at stake, whether the shareholders' or the manager's, become dependent on the judgment of economic facts that are difficult to evaluate. Indeed, the adjudicator's evaluation of the business transaction ultimately could depend on truth-independent factors. A jaded legal realist might shrug their shoulders and fairly ask, 'What do you expect?' The realist's understanding of the practicalities does not make the jurisprudential foundations of the rights articulated any less dubious. Meanwhile, a conscientious adjudicator will be left looking for a doctrinal approach better suited to the task at hand.

2. *Process Conditional*

For simplicity, assume that regulatory structure (2) is grounded in a process conditional that takes the following form: If the agent ϕ-ed, then the transaction is valid; with ϕ being an active verb signifying compliance with a procedure P (for example, approval by a disinterested and independent board majority or approval by a disinterested shareholder majority).

For the adjudicator to deduce the validity of the transaction under (2), it must verify ϕ—the compliance of the agent with procedure P. At first glance, the exercise of ϕ verification appears to be a straightforward application of law to fact. But, because the conditional is nonmonotonic, there can be exceptions, exceptions to exceptions, and so on. Some of the exceptions will be explicit, while others will be implicit and not stated. Either way, they import complexity to the adjudicator's task. Restating the base point: The epistemic conditions for the adjudicator to uphold the validity of the transaction under (2) are to verify ϕ and ensure there are no exceptions that would make the conditional false.

45. *See* Mathias Dewatripont & Jean Tirole, *Advocates*, 107 J. POL. ECON. 1, 2–5 (1999) (providing a formal discussion about the use of such systems in various organizational contexts); *see also* Paul Milgrom & John Roberts, *Relying on the Information of Interested Parties*, 17 RAND J. ECON. 18, 23 (1986) (providing a seminal model on decisional mechanisms relying on information provided by interested parties). In these contexts, it is important to remember that it is not the model that supports the legitimacy of a (legal) decision but the dialectic between the interested parties.

(a) *Epistemic Environment*. Lawyers know how to manage the complex structure of a nonmonotonic process regime. They understand well when exceptions and exceptions to exceptions are triggered, simply because a big part of the law is understanding the logic behind processes. Adjudicators, in their turn, are very well equipped to judge process compliance. It is fundamental to what they know as lawyers because the practice of law is deeply rooted in understanding and navigating legal procedures.

Assume, for example, that ϕ is approval of a transaction by a majority of the shareholders. Lawyers will have no problem understanding the logic behind this requirement—shareholders, as a collective, can dispose of their rights by consent. Lawyers also understand that consent *normatively* requires individuals to be informed about the relevant facts. Thus, approval by uninformed shareholders is inconsistent with the rationale of the procedure.[46] These are simple and logical legal facts with which lawyers and adjudicators deal routinely. Not that economic facts are absent in this example—the conclusion of procedural compliance presupposes a finding of sufficient disclosure. The facts to be disclosed (or not disclosed) are economic. Decisions need to be made about the fact set—some facts will be material and others not. Both the transaction planner and the adjudicator conceivably could be making multiple materiality determinations. But they would do so at a considerable jurisprudential remove from a determination of transactional validity and with a considerable assist from the SEC's mandatory disclosure regime, which represents a decades-long accumulation of experience on the materiality question.

(b) *Interaction with the Rules versus Standards Dimension*. How should process regulations interact with the other regulatory dimensions we have analyzed? We first ask whether a process-based regulatory approach should be based on rules or on standards. Recall our conclusion in Part I.B.:[47] Because the application of the law is nonmonotonic, it does not in the long run make a great deal of difference whether a process-based regulatory approach is made up of rules, standards, or a mix of the two.

Consider the previous conditional for the process-based approach: If the agent ϕ-ed, then the transaction is valid. Since there are exceptions (and exceptions to exceptions) to ϕ-ing, to state the conditional as a rule is to specify the exceptions and exceptions to exceptions, each of which must be verified by a reviewing court. Now let us restate the conditional in the form of a standard: If the agent ϕ-ed and the way the agent ϕ-ed is *fair*, then the transaction is valid. The insertion of a 'fairness' concept need not import vagueness and uncertainty. In practice, the second antecedent in the conditional (the way the agent ϕ-ed is *fair*) will amount to an instruction to the court to assure that there are no exceptions (and exceptions to exceptions) to ϕ-ing. In effect, the standard's inclusion in the regulation's legal articulation amounts merely to an explicit recognition of the nonmonotonicity of legal rules.

Let us try this another way and conceive a conditional as follows: If the approval process is *fair*, then the transaction is valid. Now the particulars of the process regulation are subsumed into the fairness concept, and the court must also attribute the normative

46. *Cf.* Lynch v. Vickers Energy Corp., 383 A.2d 278, 281 (Del. 1977) (noting failure to disclose in connection with a tender offer by a majority shareholder).

47. *See* Gillies, Schwartz & Seppe, *supra* note 21 and accompanying text.

significance of *fair* related to a process. The attribution involves creating rule-like conditionals that establish precedents, effectively functioning as rules for future decisions.[48] This leads to an evolutionary project under which the court articulates and refines the process conceived for that specific end. This is a task that lawyers and courts perform routinely.

In sum, a process regime, although well-suited to statement in the form of rules, also can be formulated as a standard if one is willing to wait for the courts to articulate the particulars.

(c) *Interaction with the Mandatory versus Default Dimension*. Process-based regulation, when serving as the sole means of regulating the agent's behavior, must be mandatory, at least to some extent. Recall our base example in which the grant of immunity and discretionary space to an agent is conditioned on compliance with a process which has been designed for the purpose of increasing social welfare.[49] Allowing the agent to *codetermine* the rules of the process would undermine the regime's purpose and upset its cost-benefit rationale, for the agent pursues personal rather than social welfare.

Note that in this context 'mandatory' status does not presuppose a sovereign lawgiver, whether a legislature, an agency, or a court. But it does imply state sanction. Assume that a process importing immunity to officers and directors has been created internally in the form of a bylaw. The process can serve its function of importing immunity only if endorsed by a court in its role as enforcer of the liability regime. The authority that the court confers on the process, even a process privately drafted and promulgated, is that of a mandatory rule: to get effect E, the agent must ϕ, and there are no alternative routes to E. Similarly, if there are multiple possible processes that can guarantee effect E—for example, E can be obtained if the transaction is approved either by a committee of independent directors or by most minority shareholders—the two processes do not become defaults because neither is necessary for achieving the effect. Both processes are mandatory. It is just that we have the disjunction of antecedents for the truth of the conditional.

The foregoing should not be taken to mean that all terms of a process regime must be mandatory. For example, we can have a process for changing the rules of a second process. Now we have two processes on the table—first, the process of amendment and, second, the process being amended. Assume that the rules of the second process are default rules. Significantly, the exercise of changing this default must be conducted pursuant to the rules of the first process, which must be mandatory to avoid the problem of infinite regression. For example, suppose a process has rules about majority shareholder ratification of corporate transactions. If these rules can be changed, then we have a case of default rules in a process regime. However, the procedural mechanism for changing these rules cannot itself be a default mechanism, because otherwise the process for changing the process would be indeterminable.

48. *See* Kaplow, *supra* note 17, at 561–63 (explaining how the rule creating process can be complex); Horty, *supra* note 23, at 5–7 (discussing the role of reason in legal arguments about precedent).

49. *See supra* Part II.A.2.

C. Summary

In Part A we posed two base models: (a) A pure process model in which a principal exercises control over agent-initiated transactions with the goal of social welfare maximization determining the level of constraint; and (b) a substantive model under which, in the likely absence of clear value signals, the agent, pursuing the goal of private welfare maximization, adopts endogenous process constraints. If the interests of the principal and agent are perfectly aligned, each of (a) and (b) lead to the same process model. In theory, that scenario can be realized through optimal executive compensation.[50] Unfortunately, this will not occur in practice; instead, the principal's solution will differ from the agent's solution. In Part B we suggested that there is an epistemic differential between adjudication of questions of process compliance and substantive merit. Process adjudication draws lawyers and adjudicators into familiar territory where substantive adjudication poses questions of value. The law is ill-equipped to answer in the absence of a clear theory of corporate value.

These results have negative implications for a received wisdom.[51] Decades ago, when management dominated boardroom processes, it was thought that process review threatens shareholder value due to the agent's ability to manipulate the process for personal gain, whereas substantive review by an impartial adjudicator ensures shareholder protection. We now have two points that undermine this conclusion. First, it overlooks the possibility that a regime of substantive review is unlikely to persist without a process side, because the agent has incentives to use endogenous process constraints to enhance its substantive case given the lack of clear value signals. Second, pure substantive models are likely to impose an excessive epistemic burden on adjudicators.

This analysis suggests that we should avoid viewing the process/substance choice as an either/or based on an efficiency analysis. If there is a choice, it is the much less clear-cut one between a pure process-based regime and a regime that mixes process and substance. Given this posture, the most helpful (and cautious) approach focuses on the epistemic burden, seeking to determine which regulatory model better reduces adjudicators' epistemic burden in the absence of a clear theory of corporate value.

Part III undertakes a review of Delaware judge-made law that shows the Delaware courts are taking just this approach in a mixed regulatory context, privileging procedural rules over substantive rules over time.

III. DELAWARE LAW

This Part takes theory to practice, turning to Delaware law to confirm our theoretical assertions. We show that over the last half century the Delaware courts have redirected both fiduciary law and the law of appraisal rights to stress process over substance.

We review the structure and evolution of Delaware's corporate fiduciary law and its appraisal remedy. The review of fiduciary law covers (1) the business judgment rule, (2)

50. *See generally* Lucian Arye Bebchuk & Jesse M. Fried, *Executive Compensation as an Agency Problem*, 17 J. ECON. PERSPS. 71 (2003) (describing the rise of economic theories that consider how managerial compensation could be a tool to reduce agency problems).

51. *See infra* text accompanying notes 61–62.

the law applied to self-dealing transactions, (3) majority to minority shareholder duties, and (4) the intermediate or enhanced scrutiny applied to tender offers and mergers. A consistent positive theme emerges: Judicial evaluations of the conduct of corporate actors over time turn more and more on compliance with process rules even as the Delaware fiduciary law nominally grants coequal status to substantive review under the fairness rubric. Our thesis is that the absence of a theory of value has a great deal to do with this. We turn finally to the appraisal remedy, which provides unexpected support. Here the statute explicitly charges the court to ascertain the value of the corporation. Despite this, the Delaware courts have interposed a procedural condition: when the process that led to the merger under review passes inspection for quality, the valuation is cut short, and the merger price determines the financial outcome.

A. The Business Judgment Rule

The Business Judgment Rule (BJR) insulates boards of directors from liability in respect of business decisions gone wrong. It comes to bear subject to a trio of conditions—the transaction or action in question can involve neither self-dealing, fraud, nor illegality. The insulation is not absolute, however, even given satisfaction of the three conditions: If a shareholder challenger can make out a factual case of gross negligence on the board's part, the BJR will not protect it. To make this case, the challenger must demonstrate an uninformed decision. A well-advised board accordingly doubles down on its insulation by creating a record of its decisional process that verifies the existence of an informational base. The reviewing court confirms the information's existence but does not go further to pronounce on the information's quality or the validity of the analysis based thereon. The interplay of doctrine and practice is noteworthy—what is nominally substantive review under the negligence rubric is transformed at the level of practice into a process regime. At the bottom line, if the board (or, more particularly, the board's counsel) checks the informational boxes, insulation is complete. It is, in effect, a mixed model in which process can trump substance.

Some find this result anomalous: Why should corporate directors get protection from a negligence complaint where a brain surgeon does not?[52] Courts offer a three-pronged justification. First, the state corporate code formally vests authority to manage the business in the board of directors. A court second-guessing a decision arrived at in compliance with the statute's process rules would undercut the statutory scheme,[53] reallocating decisional

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52. *Cf.* Kenneth B. Davis, Jr., *Once More, The Business Judgment Rule*, 2000 WIS. L. REV. 573, 581 (explaining how since lawyers, surgeons, and accountants must make snap judgments during their careers that they are potentially not liable for, then corporations should be held to the same standard).

53. *See* Zapata Corp. v. Maldanado, 430 A.2d 779, 782 (Del. 1981) (stating that "Directors of Delaware corporations derive their managerial decision making power, which encompasses decisions whether to initiate, or refrain from entering, litigation, from 8 Del.C. § 141(a). This statute is the fount of directorial powers. The 'business judgment' rule is a judicial creation that presumes propriety, under certain circumstances, in a board's decision. Viewed defensively, it does not create authority. In this sense the 'business judgment' rule is not relevant in corporate decision making until after a decision is made. It is generally used as a defense to an attack on the decision's soundness. The board's managerial decision making power, however, comes from § 141(a). The judicial creation and legislative grant are related because the 'business judgment' rule evolved to give recognition and deference to directors' business expertise when exercising their managerial power under § 141(a).").

power from the board to itself and, by extension, to the complaining shareholder. Second, and more substantially, courts lack the expertise requisite for on-the-merits review of business decisions[54] and *ex post* litigation does not afford an appropriate context for evaluating the decisions' surrounding circumstances.[55] Third, insulation backstops risk-taking, thereby encouraging value creation. A counter-factual demonstrates this point. Were a director held liable in the wake of a business collapse; a staggering damages calculation would follow. Directors would have to be compensated *ex ante* for this pecuniary risk. Directorial emoluments accordingly would be considerably higher than they are under a regime of insulation, giving rise to the question whether a tough liability regime would be cost-effective from the shareholders' perspective. Alternatively, directors' compensation could be set so as not to compensate for the liability risk. Two perverse effects would follow: first, it would be difficult to recruit capable directors, and second, board members would be highly risk-averse and excellent business opportunities could be passed up for fear of failure and liability. It follows that insulation is necessary for the proper conduct of business. Downside risk is better borne by the shareholders,[56] who can reduce it through diversification.

The three justifications collapse into one, for each follows from the same epistemic point: Successful business decision making requires information and expertise unlikely to be available to either courts or shareholders. A second point follows: even given information and expertise, a court would be ill-positioned to second guess and impose liability, for no theory comes to bear to facilitate evaluation. Of course, directors and officers traverse the same epistemic territory in planning and executing transactions. But they do so in a different context. When business (as opposed to adjudicative) decisions are made, risk and return march in tandem, and, while the board does need to act on adequate information,

54. *Id.*; *cf.* Dodge v. Ford Motor Co., 170 N.W. 668, 684 (Mich. 1919) (explaining that "We are not, however, persuaded that we should interfere with the proposed expansion of the business of the Ford Motor Company. In view of the fact that the selling price of products may be increased at any time, the ultimate results of the larger business cannot be certainly estimated. The judges are not business experts. It is recognized that plans must often be made for a long future, for expected competition, for a continuing as well as an immediately profitable venture. The experience of the Ford Motor Company is evidence of capable management of its affairs.").

55. *See* Joy v. North, 692 F.2d 880, 886 (2d Cir. 1982), *cert. denied*, 460 U.S. 1051 (1983) (stating that "[C]ourts recognize that after-the-fact litigation is a most imperfect device to evaluate corporate business decisions. The circumstances surrounding a corporate decision are not easily reconstructed in a courtroom years later, since business imperatives often call for quick decisions, inevitably based on less than perfect information. The entrepreneur's function is to encounter risks and to confront uncertainty, and a reasoned decision at the time made may seem a wild hunch viewed years later against a background of perfect knowledge."). The more particular criticism of adjudication is behavioral—*ex post* evaluation entails hindsight bias, the tendency to judge based on the realized outcome rather than on the *ex ante* possibility set. *See* Melvin Aron Eisenberg, *The Divergence of Standards of Conduct and Standards of Review in Corporate Law*, 62 FORDHAM L. REV. 437, 438 (1993) (discussing the divergence of standards of conduct and judicial review as a way of dealing with the information problem); *Cf.* Holger Spamann, *Monetary Liability for Breach of the Duty of Care?*, 8 J. LEGAL ANALYSIS 337, 338–39 (2016) (explaining why monetary liability should not be imposed when directors breach fiduciary duties, and how doing so allows for optimal corporate governance); *see* Andreas Engert & Susanne Goldlücke, *Why Agents Need Discretion: The Business Judgment Rule as Optimal Standard of Care*, 13 REV. L. & ECON. 1, 2 (2017) (explaining that courts should not impose liability on companies since they also make mistakes in decision making).

56. *See* Davis, *supra* note 52, at 573–80 (discussing how the business judgement rule allocates risk).

it does not need to verify its decision with a theory. Conversely, a theory of value is precisely what a court evaluating the same business decision needs—a substantive conditional like 'the transaction was undertaken by the directors with due care.' The necessary theoretical content is lacking, for there is no clear value metric against which to benchmark directorial due care. Given this theoretical void, Delaware's mixed model of deducing BJR immunity from procedural compliance helps avoid the difficulties of uncertain counterfactuals and mitigates the risk of subjective treatments.[57]

B. Self-Dealing Transactions

The treatment of director self-dealing transactions under the duty of loyalty was one of the great battlegrounds of twentieth century fiduciary law. There was a persistent substance versus process question: whether self-dealing transactions were always subject to judicial review for fairness or could be insulated from review by adherence to an appropriate approval process.

Substance and process vied for dominance within jurisdictions and across time. At the start point, in the late nineteenth century, some states applied a blunt substantive prohibition, making self-dealing transactions voidable at the option of the corporation. Other states allowed validation in a distinctive mixed substance/process regime: a self-dealing transaction was valid if approved by a disinterested board majority subject to the possibility of *ex post* judicial review for fairness; a transaction approved by an interested director majority remained voidable at the option of the corporation.[58]

The pendulum swung toward validity during the twentieth century. *Per se* voidability disappeared. The leading question concerned the availability of process insulation: whether disinterested director validation of a transaction could trigger application of the BJR, blocking fairness scrutiny.

Process insulation won in the end. The Delaware courts first signaled in favor of boardroom validation in a subset of cases, beginning with *Aronson v Lewis*,[59] decided in 1984. They finally confirmed the point across the board in 2005 with *Benihana of Tokyo, Inc. v. Benihana, Inc.*[60] Delaware emerged with a mixed regime—given a failed process or no process, the court still reviews for fairness. Meanwhile, courts undertaking process review follow a standard playbook. They examine each member of the approving board for disinterest and independence, one by one. If, at the conclusion of this analysis, most of the board is disinterested and independent, the standard of review is business judgment. Given

57. In some cases, Delaware's mixed BJR model takes up a distinctive trait through the simplified fairness test, where only the fairness of the process is examined and not the fair price (which is a purely substantive criterion). In the classic BJR test, the question is whether directors complied with a, b, and c. If so, BJR immunity is granted. Under the simplified fairness test, if the directors did not comply with a, b, and c, BJR immunity cannot be granted; rather the court must determine whether the actual process (e.g., k, m, and n) is sufficient to conclude that the process was fair.

58. Daniel James, *Interested Directors in Corporate Transactions*, 6 IND. L.J. 413, 414 (1931); *see also* DAVID KERSHAW, THE FOUNDATIONS OF ANGLO-AMERICAN CORPORATE FIDUCIARY LAW 346–49 (2018) (discussing how the UK courts handled the situation).

59. Aronson v. Lewis, 473 A.2d 805, 814 (Del. 1984).

60. Benihana of Tokyo, Inc. v. Benihana, Inc., 891 A.2d 150, 185 (Del. Ch. 2005), *aff'd*, 906 A.2d 114 (Del. 2006).

a majority of interested or non-independent directors, business judgment protection does not obtain, and the court proceeds to review for fairness.[61]

The substance/process distinction became deeply politicized as this regime evolved. Anti-managerialists backed substantive review, not as a function of a jurisprudential preference but due to distrust of the operation of the process alternative. In their view, effectively 'independent' directors did not exist, so thoroughgoing was management's influence over boardroom decision making. It followed that shareholders had no choice but to depend on a judicial backstop in the form of fairness review if insiders were to be prevented from lining their own pockets.[62] The gradual eclipse of this view followed from the gradual rise of effective, independent boards during the late twentieth century.[63]

Expanding on this point, process displaced substance as an incident of the appearance and success of the corporate governance movement. The concept of corporate governance has not always been with us. It appeared as a response to perceived problems with the managerialist corporate model of the post-war era, when the economic malaise of the 1970s undermined confidence in that model.[64] Management power came to be seen as a source of economic and social dysfunction. Corporate governance was invented to tackle the job of reform. The role of the board of directors, long seen as a moribund institution,[65] was reconsidered: we should, it was thought, give the board a more focused job description, assigning it the task of monitoring management performance; if boards could be induced to monitor successfully, corporate performance would improve.[66] The monitoring function in turn required independent directors and a committee structure keyed to monitoring functions.[67] This governance initiative, which originated with policy entrepreneurs and was entirely process-based, eventually caught on in practice. Confidence in internal processes vastly increased during the 1980s and 1990s, with a concomitant diminution of reliance on substantive judicial intervention.

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61. *See, e.g.*, Gantler v. Stephens, 965 A.2d 695, 713 (Del. 2009) (discussing and applying doctrine of ratification); *In re* INFOUSA, Inc., S'holders Litig., 953 A.2d 963, 989–90 (Del. Ch. 2007) (conducting an individual count of the members of a board in connection with demand futility); Beneville v. York, 769 A.2d 80, 87 (Del. Ch. 2000) (holding that one member of a two member board did not suffice to establish an independent board majority for demand excusal purposes).

62. *See* William W. Bratton, *Reconsidering the Evolutionary Erosion Account of Corporate Fiduciary Law*, 76 BUS. LAW. 1157, 1173–89 (2021) (discussing development of business judgement rule).

63. *Id.* at 1195–99.

64. *See* William W. Bratton, *The "Nexus of Contracts" Corporation: A Critical Appraisal*, 74 CORNELL L. REV. 407, 413 (1989) (discussing the power of management and the critique of it that emerged).

65. MYLES L. MACE, DIRECTORS: MYTH AND REALITY 41, 43 (1971).

66. MELVIN ARON EISENBERG, THE STRUCTURE OF THE CORPORATION: A LEGAL ANALYSIS 156–57 (1976).

67. *Id.*

C. Majority Shareholder Duties and Cashout Mergers

The 1970s also was a time of political danger for Delaware. There were high profile calls for federalization of fiduciary law.[68] The calls were echoed in cases under Rule 10b-5[69] that the federal antifraud regime occupied a corner of the field of state fiduciary law and challenged the Delaware judiciary's control over it.

More particularly, private plaintiffs used a broad reading of Rule 10b-5 to challenge 'going private' transactions. Going private transactions were tender offers and mergers that took advantage of the depressed 1970s stock market to cash out minority shareholders of controlled companies. The transactions generated the era's focal point questions respecting fiduciary law—opponents described them as opportunistic schemes designed to eliminate minorities for less than fair value. The Delaware courts proved unreceptive to challenges based on the fiduciary duties of majority to minority shareholders, remitting going private plaintiffs to the appraisal remedy,[70] which, as we shall see, tended to result in undervaluation. The plaintiffs, wanting bigger (and easier) recoveries turned to the federal courts, contending that Rule 10b-5 applied in state law fiduciary territory. Their reading got its first judicial adoption in a federal district court in 1972.[71] Acceptance by the Second Circuit Court of Appeals followed in 1976.[72]

In 1977, the United States Supreme Court shut down the plaintiffs' game in *Santa Fe v. Green*,[73] rejecting the broad reading and pushing Rule 10b-5 back inside a narrow, fraud-based box. The Delaware courts reacted defensively, nonetheless. In September 1977, just six months after the Supreme Court's *Green*[74] opinion, the Delaware Supreme Court, in *Singer v. Magnavox Co.*,[75] imposed a then-fashionable business purpose test on parent

68. *See* William L. Cary, *Federalism and Corporate Law: Reflections Upon Delaware*, 83 YALE L.J. 663, 672 (1974) (explaining how Delaware's judiciary dealt with the changes occurring legally and politically surrounding fiduciary law); RALPH NADER, MARK GREEN & JOEL SELIGMAN, TAMING THE GIANT CORPORATION 17 (1976) (making the case for federal chartering by focusing on economic externalities).

69. 17 C.F.R. § 240.10b-5 (2023). Rule 10b-5 is promulgated pursuant to Section 10(b) of the Securities Exchange Act of 1934:

> It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce or of the mails, or of any facility of any national securities exchange . . .
>
> (b) To use or employ, in connection with the purchase or sale of any security registered on a national securities exchange or any security not so registered, or any securities-based swap agreement any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors.

Securities Exchange Act of 1934 §10(b); 15 U.S.C. § 78(j).

70. *See* Stauffer v. Standard Brands, Inc., 187 A.2d 78, 80 (Del. 1962) (stating that "there was no remedy except appraisal [and] [t]hat the remedy has been lost.").

71. Bryan v. Brock & Blevins Co., 343 F. Supp. 1062, 1069 (N.D. Ga. 1972), *aff'd*, 490 F.2d 563 (5th Cir. 1974).

72. Green v. Santa Fe Indus., Inc., 533 F.2d 1283, 1285 (2d Cir. 1976).

73. Santa Fe Indust. v. Green, 430 U.S. 462, 477 (1977).

74. *Id.*

75. Singer v. Magnavox Co., 380 A.2d 969, 976 (Del. 1977).

firms in cash out mergers. It was a substantive barrier keyed to the parent's motivation in setting the merger into motion—the deal had to add value overall.[76]

The *Singer* rule presents a classic case in which substantive review turns on a judicial appraisal of corporate value. Significantly, it did not remain in place for long, being in turn rejected in 1983 in *Weinberger v. UOP*.[77] There the Delaware Supreme Court substituted a looser, process-based approach to cash-out mergers.[78] They suggest in a footnote,[79] that negotiation of the transaction on behalf of the minority interest might be remitted to a special committee of independent directors. The idea was that the constructed negotiation would be the minority's first level of protection, with judicial, value-focused, review dropping to second place and then only if the process were found deficient. This entry-level process review potentially obviated the need for direct, substantive review of the transaction and judicial confrontation with facts concerning the value of the firm. The salient question, whether the majority was robbing the minority, was instead to be addressed indirectly and circumstantially with a process inquiry.

The independent committee device was quickly drawn on across the board in Delaware fiduciary cases.[80] Fairness scrutiny did not disappear from the doctrine but manifestly occupied a backseat position. The reason had to do with litigation burdens. A successful committee process put the burden of proof on fairness on the plaintiff, a shift that tended to suffice to denude the case of settlement value. Indeed, the Delaware courts would not have occasion to adjudicate an entire fairness issue (in the wake of a finding of procedural failure) until 2013.[81]

At the same time, plaintiffs had no difficulty surviving dismissal at the pleading stage, making cashout mergers a perennial litigation magnet. The Delaware Supreme Court raised the bar accordingly in 2014 in *Kahn v. M & F Worldwide Corp.* (*MFW*).[82] *MFW* created a direct link between process compliance (in the form of independent director approval and disinterested shareholder ratification) and business judgment review, echoing developments respecting self-dealing transactions described in the preceding subsection.[83] Under

76. The test derived from a famous 1964 law review article. *See generally*, James Vorenberg, *Exclusiveness of the Dissenting Stockholder's Appraisal Right*, 77 HARV. L. REV. 1189 (1964). Under Vorenberg's test, "only where there is a plausible business purpose of the corporation beyond the majority's desire to enlarge their own stockholdings or to eliminate a minority stockholder should the minority holder be required to choose between what is available to him as a result of the action proposed by the majority and the cash value of his shares." *Id.* at 1204. A "plausible business purpose" is a source of value unlocked by the merger, which simultaneously imports a financial explanation and a financial justification. *Id.* Absent the value-added, the only explanation for the merger is the desire to eject the minority shareholders at a disadvantageous price. *Id.*

77. Weinberger v. UOP, Inc., 457 A.2d 701, 704–15 (Del. 1983).

78. *Id.* (overruling *Singer* in favor of less restrictive process scrutiny of cash out mergers).

79. *Id.* at 709 n.7.

80. *See, e.g.*, Kahn v. Lynch Commc'n Sys., 638 A.2d 1110, 1117 (Del. 1994) (discussing a deployment of the independent committee).

81. *See In re* Trados Inc. S'holder Litig., 73 A.3d 17, 45 (Del. Ch. 2013) (using the entire fairness standard).

82. Kahn v. M & F Worldwide Corp., 88 A.3d 635, 644 (Del. 2014).

83. Marcel Kahan & Edward Rock, *The Cleansing Effect of Shareholder Approval in a World of Common Ownership* (NYU Sch. of L., Pub. L. Rsch. Paper No. 24-54, 2024), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5026564. The authors highlight a significant issue in a process regime built around shareholder approval. The authors explore the impact of common ownership of the stock of both companies involved in a merger

the process condition, the transaction had to be conditioned *ab initio* on a process designed to replicate an arm's-length merger.[84]

With *MFW*, and its process-based path to validity that cuts off fairness review, Delaware's majority to minority fiduciary duty approaches a process-based regime. The mixed process/substance model persists even so. A defendant that fails to achieve process insulation remains open to a substantive challenge. That same defendant can still salvage its transaction by sustaining the burden to show substantive fairness.

D. Intermediate Scrutiny

Hostile takeovers also prompted a spate of innovative fiduciary lawmaking in late twentieth century Delaware courts. The first case challenging management defensive tactics, *Cheff v. Mathes*,[85] effected a categorical break with fiduciary law in chief, subjecting defending managers to a loose process-based standard rather than fairness review. The standard was later toughened in *Unocal Corp. v. Mesa Petroleum Co.*, in which the court reserved the privilege of second-guessing the defending board's actions and justifications under the rubric of "proportionality."[86] *Unocal* became corporate law's first line of pure process review, built on care-based duties in the boardroom. It would over time gravitate away from the proportionality rubric to delineate a zone of prohibited tactics, deemed 'preclusive' or 'coercive.' Defenses not in the prohibited zone were subjected to light reasonableness review.[87]

This new regime of "intermediate" or "enhanced" scrutiny got a second prong in *Revlon, Inc. v. MacAndrews & Forbes Holdings*, *Inc.*[88] This line of precedent began with a strong process mandate—certain mergers needed to be concluded pursuant to an auction process. The process mandate later was softened into a looser regime of review of transactional conduct—selling managers needed to institute a process directed to the achievement of the best value reasonably available.[89] The zone of scrutiny, however, narrowed over time. *Malpiede v. Townson*[90] applied charter provisions blocking monetary claims for

transaction, demonstrating how such ownership can create conflicts and potentially result in a vote approving an inefficient transaction. *Id.* at 2–3. They argue that in cases where these divergent interests are present, courts should disregard the votes of common owners and propose that the court ask whether the acquirer holds a non-negligible pre-acquisition stake in the target. *Id.* at 42–43. We note that the scenario described illustrates the salience of nonmonotonic decision sequences in process contexts. *See supra* text accompanying note 46.

84. Kahan & Rock, *supra* note 83, at 9 ("[W]here the controller irrevocably and publicly disables itself from using its control to dictate the outcome of the negotiations and the shareholder vote, the controlled merger then acquires the shareholder-protective characteristics of third-party arm's-length mergers, which are reviewed under the business judgment standard.").

85. Cheff v. Mathes, 199 A.2d 548, 556 (Del. 1964).

86. Unocal Corp. v. Mesa Petroleum Co., 493 A.2d 946, 954–55 (Del. 1985) (reversing *Cheff* and applying an expanded review of tender offer defensive tactics under proportionality test).

87. *See* Unitrin, Inc. v. Am. Gen. Corp., 651 A.2d 1361, 1375 (Del. 1995) (applying the reasonableness review).

88. Revlon Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 182 (Del. 1986) (inventing a duty of management defending tender offer to auction company in limited circumstances).

89. *See* Paramount Commc'ns, Inc. v. QVC Network, Inc., 637 A.2d 34, 46 (Del. 1994) (holding that management has an obligation to achieve best value reasonably available for shareholders).

90. Malpiede v. Townson, 780 A.2d 1075, 1094 (Del. 2001).

breaches of the duty of care to *Revlon* claims grounded in board carelessness (as opposed to board self-dealing). *Revlon* litigation as a result came to focus on injunctive relief during the pendency of the merger rather than on the calculation of *ex post* damages. This too was a break with the fiduciary law of the past. *Revlon* became, in the first instance, a mode of real-time policing of the sale processes and a more conventional exercise of loss compensation only in the rare case. The Delaware Supreme Court doubled down on this development in *Corwin v. KKR Financial Holdings LLC*,[91] interpolating business judgment as the standard of review in cases where the merger had been approved by a majority of fully informed and uncoerced stockholders. Given shareholder approval, the primary question henceforth would concern the quality of the approval process rather than the quantity of value on offer. It was almost as if the Delaware courts had become allergic to valuation questions.

Revlon remits the critical matter of merger pricing to the market.[92] As such, it can be seen to validate the standard law and economics trope that markets are superior to hierarchies, and fairness review gets in the way of beneficial market processes. But one needs to be very careful with this characterization. We saw in Part II that general equilibrium theory counsels that, given market incompleteness, remission of matters to the market cannot be expected to take us to a preference-based first best equilibrium.[93] The *Revlon* rule implicitly recognizes this when it directs the realization of the best value "reasonably available" rather than laying down a rule of shareholder value maximization.[94] The Delaware courts, always astute, see that absent a theory of value, no one possibly can know when value is being maximized.

The *Unocal* leg of intermediate scrutiny admits of a similar gloss. The matter of sale of the company to a hostile tender offeror might have been treated very differently, with the courts fully remitting the outcome to the market. Indeed, this was the notion that animated Easterbrook and Fischel to recommend a ban on defensive tactics—defensive passivity would facilitate the transfer of assets to the highest valuing user pursuant to market processes.[95] Delaware, ever mindful of its institutional place, never shared this confidence in the market. As we have seen, general equilibrium theory validates this judgment.[96]

Intermediate scrutiny cases like *Unocal* and *Revlon* also well illustrate how, given the nonmonotonicity of legal conditionals, it does not matter whether a process-based regulatory approach is made up of rules, standards, or a mix of the two. *Unocal*'s proportionality standard only differs from the *Revlon*'s auction rule to the extent it amounts to an explicit rather than implicit recognition of the nonmonotonicity of legal provisions. In either case, nonmonotonicity demands an evolutionary approach by courts to refine the process-based

91. Corwin v. KKR Fin. Holdings, LLC, 125 A.3d 304, 308 (Del. 2015).
92. *Revlon*, 506 A.2d at 182.
93. *See supra* notes 38–39 and accompanying text.
94. *Revlon*, 506 A.2d at 184.
95. *See* Frank H. Easterbrook & Daniel R. Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 HARV. L. REV. 1161, 1175–80 (1981) (discussing rationale for the ban on defensive tactics).
96. *See supra* notes 38–39 and accompanying text.

adjudicatory process considering the likelihood of exceptions (and exceptions to exceptions) to established procedural conditionals, as evidenced, for example, by *Corwin's* interjection of new specifications into the *Revlon's* auction rule.

E. Appraisal Rights

We turn finally to appraisal rights. *Weinberger v. UOP*[97] once again shows up as the touchstone case. Although *Weinberger* was not an appraisal proceeding, the Delaware Supreme Court took the occasion at the damages phase of the case to withdraw a long-prevailing and mandatory approach to valuation known as the Delaware Block.[98] Under this, fair value was a function of three or four methodological building blocks: earnings value, asset value, market value, and, in appropriate cases, dividend value.[99] The value elements, once fixed, produced a final figure on a weighted average basis. The parties disputed both the amount of each value element and the appropriateness of the weights accorded to them.[100] Unfortunately, no principles or guidelines had emerged to guide the Chancery Court at the critical weighting stage,[101] at which the judges chose numbers reflecting their level of confidence in the expert presentations made in the case.[102] The Chancellors also had a notable tendency to grant more weight to elements yielding smaller numbers. Compounding this problem, the Block had gotten out of date, locking in methodological practices dating from the close of the Depression era.[103] During the 1960s and 1970s, undervaluation to the detriment of shareholder minorities was a frequent result.[104]

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97. Weinberger v. UOP, Inc., 457 A.2d 701, 704, 715 (Del. 1983) (overruling *Singer* in favor of less restrictive process scrutiny of cash out mergers).

98. *Id.* at 712. The case concerned a cashout merger of a 49% minority by a 51% parent corporation. *Id.* at 706. It was not an appraisal proceeding, but an action for breach of fiduciary duty in which appraisal precedents on valuation were invoked at the damages phase. *Id.* at 703. The Chancery Court, following the Block, had rejected the plaintiff's DCF analysis. *Id.* at 712–13. The Supreme Court reversed. *Weinberger*, 457 A.2d at 715.

99. *Weinberger*, 457 A.2d at 712–13.

100. *Id.*

101. *See* Rutheford B. Campbell, Jr., *The Impact of Modern Finance Theory in Acquisition Cases*, 53 SYRACUSE L. REV. 1, 39 n.138 (2003) (discussing how "one author" had stated that "virtually no weighting guidelines exist").

102. *See* Joseph Evan Calio, *New Appraisals of Old Problems: Reflections on the Delaware Appraisal Proceeding*, 32 AM. BUS. L.J. 1, 37 (1994) (discussing the method of calculation).

103. For an exposition of valuation techniques common in the post-war period, see 1 ARTHUR STONE DEWING, THE FINANCIAL POLICY OF CORPORATIONS 369–401 (5th ed. 1953) (discussing the valuation of industrials in terms of earnings value (based on past earnings figures); liquidation value, trading market value, and sale value). The origins of the instantiation of these techniques in the Delaware Block are obscure, however. *See* Calio, *supra* note 102, at 32 (stating its adoption came "[d]espite the uncertainty of the origin of the Delaware Block"); *Id.* at 31.

104. In business practice, valuation analyses now were based on projected cash flow figures. Delaware, in contrast, had locked itself into methodologies based on accounting earnings and dividends. Earnings analysis under the Block systematically understated results. *See, e.g.*, Elmer J. Schaefer, *The Fallacy of Weighting Asset Value and Earnings Value in the Appraisal of Corporate Stock*, 55 S. CAL. L. REV. 1031, 1032 (1982) (" [T]he weighting method consistently underestimates the value of corporate shares . . . ."). Delaware insisted a five-year past average of the target's earnings and then drew on current price/earnings ratios from comparable companies to capitalize them. *See, e.g.*, Francis I. Du Pont & Co. v. Universal City Studios, Inc., 312 A.2d 344, 348 (Del. Ch. 1973), *aff'd*, 334 A.2d 216 (Del. 1975) (describing this as "established [Delaware] law"). In a growth era,

Weinberger did for appraisal rights what *Singer* had done for majority-minority fiduciary duty—it threw out a layer of shareholder-unfavorable caselaw proving damaging to the state's reputation. It did not, however, delete the Block from the menu of acceptable valuation methodologies. It instead expanded the menu, inviting reference to whatever state-of-the-art valuation technologies the parties' experts brought to court.[105] It was a remarkable uncoupling of legal doctrine from economic theory.

The change flowed down to bottom-line results, facilitating liberality in the treatment of appraisal petitioners. But the value jurisprudence was as *ad hoc* as ever. Judicial intuition remained determinative—the court decided the case by choosing the most reliable methodology from among a range of presentations made by the parties. As a result, the remedy evolved more due to shifting perspectives on reliability than due to changing notions about substantive shareholder entitlements. Appraisal became a jurisprudence about how to decide. There was also one consistent trend—the menu of acceptable methodologies continued to expand, thereby expanding the set of possible outcomes. Every menu expansion implied a further disconnection of substantive law from economic fact.

Finally, the Delaware Supreme Court effected a break with this open-ended approach in a trio of cases—*DFC Global Corporation v. Muirfield Value Partners, L.P.*,[106] decided in 2017, *Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd*,[107] also decided in 2017, and *Verition Partners Master Fund Ltd. v. Aruba Networks, Inc.*,[108] decided in 2019. These rulings bring back mandatory methodology in a subset of cases. Specifically, the merger price (minus synergies) becomes the exclusive basis for fair value ascertainment given an arm's length merger effected by an appropriate process.[109] There is also yet another menu expansion—for the first time since the Block era, the pre-merger stock market price pops up on the menu.[110] *Weinberger* is not overruled, however, and the menu of methodologies survives untouched. Untouched but of lesser importance, for the door to

five-year past averages have no utility as value indicators, although they might have made sense during the Depression. Furthermore, current price/earnings figures make sense (albeit limited sense) as capitalization rates only when applied to the most recent earnings of the company being valued. It is a matter of consistency. A perverse effect followed: A control-party could use its control power to put through a minority freezeout merger at a low price without having to worry about dissenters' rights.

105. *Francis I. Du Pont & Co.*, 312 A.2d at 713.

106. *See* DFC Glob. Corp. v. Muirfield Value Partners, 172 A.3d 346, 388–89 (Del. 2017) (requiring, on remand, that the Chancellor explain his valuation with reference to economic facts and corporate finance principles).

107. *See* Dell, Inc. v. Magnetar Glob. Event Driven Master Fund Ltd., 177 A.3d 1, 34 (Del. 2017) (noting that "when the evidence of market efficiency, fair play, low barriers to entry, outreach to all logical buyers, and the chance for any topping bidder to have the support of Mr. Dell's own votes is so compelling, then failure to give the resulting price heavy weight . . . abuses even the wide discretion afforded the Court of Chancery . . . .").

108. *See* Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., 210 A.3d 128, 133 (2019) (holding that "the Court of Chancery abused its discretion in using Aruba's 'unaffected market price' because it did so on the inapt theory that it needed to make an additional deduction from the deal price for unspecified 'reduced agency costs.'").

109. *Id.*

110. *DFC Glob. Corp.*, 172 A.3d at 373 ("When, as here, the company had no conflicts related to the transaction, a deep base of public shareholders, and highly active trading, the price at which its shares trade is informative of fair value . . . .").

competing experts and methodologies now opens only in the case of a merger that fails the process test.

DFC, *Dell*, and *Aruba Networks* lurch away from *Weinberger*'s liberality of treatment and thereby dampen litigation incentives. Indeed, there is no incentive at all given a merger that passes the process test. All that appraisal holds out for the plaintiff in such a case is the merger price, an amount that non-dissenters can pick up at no cost with no deduction for synergies. With a qualifying merger, valuation disappears from the ascertainment of fair value, despite the statute's apparent mandate that the court undertakes a valuation.[111]

Summing up, appraisal has taken on the earmarks of a process jurisprudence. It is now as closely related to *Revlon* as it is to the collection of approved valuation methodologies.

Let us consider a counterfactual and imagine appraisal as a conventional jurisprudence grounded in substantive rights. Such a substantive regime would require a clear answer to a central question of valuation: whether to model the company as a standalone going concern or to value it by reference to the price a third-party buyer would be willing to pay. Let us assume that our hypothetical regime chooses in favor of pre-merger going concern value. It would follow that judicial appraisals would both exclude methodologies that sweep in third party sale value and over time would articulate specific instructions concerning the assumptions and methodologies to be employed in ascertaining going concern value. Eventually, there would emerge a precise articulation of the dissenting shareholder's value entitlement, a statement that would reflect input from financial economics as well as legal sources.

Viewed superficially, Delaware appraisal resembles this hypothetical model. Its first major precedent, decided in 1934,[112] opted for going concern value over third-party sale value. The ruling, which has been emphatically reconfirmed ever since, is widely acknowledged as the centerpiece of a conceptual framework of fair value. Unfortunately, this conceptual touchstone has never determined the results of the cases. Quite the contrary: measures of third-party sale value have appeared on Delaware's methodological menu during all periods of appraisal's history, cutting the jurisprudence off from its own conceptual framework. Significantly, *DFC*, *Dell*, and *Aruba Networks* now go so far as to turn the conceptual framework on its head, locking in third party sale value in high-profile cases.[113]

Such are incidents of body of law devoted to the ascertainment of fair value in the absence of a theory of value.

F. Comment

Half a century ago, the duty of care stood out as a corporate law anomaly—a negligence rule that functioned in practice to insulate director defendants with process rather than substance serving as the means to the end. Today, it lies in the mainstream, for the rest

111. DEL. CODE ANN. tit. 8, § 262(h) (2023) (stating that "[T]he Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger, consolidation, conversion, transfer, domestication or continuance, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors.").

112. Chic. Corp. v. Munds, 172 A. 452, 455 (Del. Ch. 1934) (basing this on the idea that "[w]hen a stockholder buys stock it is to be supposed that he buys into a corporation as a going concern.").

113. *See supra* notes 106–08 and accompanying text.

of corporate fiduciary law has retreated from substantive scrutiny of management conduct in favor of process testing. Even the appraisal remedy, nominally the redoubt of judicial valuation, now moves toward process.

One reason for this development is epistemic. Courts, left to their own devices, have a built-in preference for process-based adjudication in business contexts. Disputes about corporate conduct always turn on value at the bottom line, and courts, quite simply, have no theory of value to bring to bear in resolving them.

But it should be noted that the Delaware courts only began to pursue this epistemic preference in the wake of institutional changes, in particular the rise of corporate governance and the monitoring model of the board. Boards composed of effective independent directors are positioned to serve as quasi-principals in regulatory implementation, in a cooperative, rather than antagonistic, scheme with the state-principal. In Delaware's evolving regime of mixed procedural and substantive review, boards of directors interact with the Delaware courts in the production of process rules, with the courts to some extent delegating lawmaking authority to boards. Within this interactive evolutionary approach, when a board-created rule is validated by court approval it is then treated as any other procedural precedent, contributing to the refinement of Delaware's nonmonotonic procedural processes. This unveils another strategy unique to the Delaware corporate law system: it enables private-public ordering cooperation in shaping corporate law rules by allowing for some degree of private-ordering delegation in the creation of procedural conditionals.

Weinberger initiated the shift to this lawmaking interaction between boards and courts. It affected a break with a doctrinal past informed by substantive principles from trust law by extending an invitation to a majority shareholder to cede control of a conflicted transaction to a special committee of independent directors. Its successor case, *MFW*,[114] went on to adjust the regime's process hurdles so that a merger-based *ab initio* on qualifying processes at the board and shareholder levels earns business judgment review, thereby tipping the scales of Delaware's mixed regime to the process side.

The operative principles in Delaware fiduciary law now come from the process-based field of corporate governance. An additional, incidental benefit appeared over time. Issues about the composition of special committees and their conduct of proceedings brought the Delaware courts to the forefront of debates about corporate best practices[115] and Delaware caselaw became a focal point in self-regulatory corporate governance discussions.

We have one final observation about Delaware law. Recall that in Part II we saw that process regulation can be implemented through a screening model, under which the state-principal establishes exogenous procedural rules constraining the agent's behavior. But it can also take the form of a signaling model, under which procedural rules are endogenously established by the agent to seek to influence an adjudicator's substantive decisions, enabling process delegation through a signaling model managed by the board. Our historical review shows Delaware transition from a screening to a signaling model, with the resulting mixed regime of procedural and substantive review limiting the room for resort to value considerations.

114. Kahn v. M & F Worldwide Corp., 88 A.3d 635, 644 (Del. 2014).

115. *See, e.g.*, *In re* Oracle Derivative Litig., 824 A.2d 917, 939–48 (Del. Ch. 2003) (expounding on the meaning of directorial independence).

CONCLUSION

We have shown that, in theory, process-based regimes of transactional review work better than substantive regimes. We also have shown that Delaware law, in its evolution across the past half-century, has moved across-the-board in the direction of process review. But it has not gone all the way. Delaware, even as it now puts process first, holds substance in reserve. This serves two purposes. First comes the carrot and stick—the transactional proponent that wishes to avoid the expense and uncertainty of substantive review is encouraged to comply with the process. Second comes the escape hatch—a transactional proponent that either ignores the process or falls short of effecting process compliance can turn to substantive review to salvage its case.

Our theoretical analysis leads us to question this backstop persistence of substance. If process compliance provides a superior route to transactional review, then, by hypothesis, a regime built exclusively on process compliance will work better. More specifically, informed approval by independent director majority or, depending on the case, the combination of an independent director majority and an informed majority of disinterested shareholders, should be a prerequisite to transactional validity, with no backstop in the case of process noncompliance. Such a process mandate would undercut the justification for the carrot and stick. It also would close the escape hatch. The opportunity costs of closure would be modest—the only transactions foregone would be conflicted ones. Corresponding benefits in the form of informational symmetry, transactional certainty, and adjudicative clarity, would be considerable.