

TRUST, REPUTATION AND LAW: THE EVOLUTION OF COMMITMENT IN INVESTMENT BANKING

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ABSTRACT

We discuss the commitment mechanisms that underpin social orderings. We categorize commitments in relationships along a hierarchy that runs from the most extra-legal to the most legally intensive devices. Commitment devices are chosen in light of their social, legal, and technological contexts. Changes to these contexts therefore change the social order and, in extremis, can cause significant social dislocation. We use a new new dataset of underwriting syndicates between 1933 and 2008 to argue that financial market have experienced such a dislocation. We discuss the policy implications of this dislocation with specific reference to cases in securitization and M&A markets.

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1. INTRODUCTION

Most modern social orderings rely upon the ability of their members to make extended commitments. For example, such commitments underpin marriage, political careers, and the care of the very young and the very old. And, of course, they lie at the heart of commercial life. Such commitments could be general (“vote for me and I will underwrite medical insurance for the poor”), or relationship-specific (“if you give me seeds in the spring then I will give you produce in the fall”).

This Article studies commitment in relationships. We make two contributions. First, we categorize and analyze modes of commitment. We explain the choice of commitment device, and we discuss the relationship between commitment, social mores, the sophistication of the legal system, and the technological environment. Second, we investigate commitment in a specific industry: investment banking. Investment banks provide a particularly fertile environment for the study of commitment for at least two reasons. First, as we demonstrate in this Article, modes of commitment in investment banks have undergone a clear change in recent years. Second, because investment banks have a significant impact upon the allocation of resources in developed economies, they are the focus of intense regulatory attention.

Our discussion of commitment starts from the observation that, even in modern societies with sophisticated legal structures and institutions, cooperation frequently relies upon informal interaction and arrangements that lie outside the law. This statement is as true of business relationships as it is of marital partnerships: cooperation in business life relies upon commitments that extend beyond, and are frequently more subtle than, those embedded in black-letter contracts and corporate law. A rich literature examines the ability of such commitments to support private orderings in situations where formal contracts cannot be written. Many rest upon the threat of exclusion from tight-knit business or social groups: the medieval merchant guild evolved to render such threats credible,¹ and the Maghribi, Jewish Mediterranean traders operating in the Muslim world before the development of effective courts, relied upon the threat of exclusion from their trading network to induce payment from their customers (Greif 1989; 1993; 1994). The nineteenth century New York Stock and Exchange Board, which in 1863 became the New York Stock Exchange, used the threat of exclusion from its trading floor to ensure compliance with its rules (Banner 1998). Stewart Macaulay’s seminal study of agreements between Wisconsin companies found that many were non-contractual, with no legal force: they were honored because the parties involved wanted to sustain their business relationship (Macaulay 1963). Farmers and ranchers in close-knit communities in Shasta County, California, use social sanctions and informal

¹That is not to claim that the law merchant was created as trans-national law from long custom and usage. Emily Kadens (2012; 2014) makes a convincing case, in line with our discussion of reputation in section 2.2, that, to the extent that merchant law was uniform, it was legislated and, to the extent that it was customary, it was local and contested.

norms in preference to formal legal actions when they experience disputes (Ellickson 1991). Professional bodies in the modern diamond and cotton industries use the threat of expulsion to ensure compliance with their rules (Bernstein 1992; 2001; Richman 2006).

We start by asking what distinguishes relationships like these, that have little if any reliance upon the formal law, from those whose success relies upon the machinery of the modern legal state. We present our answer using a hierarchy of commitment devices, which runs from the supremely extra-legal commitment mode of trust through reputation and contract to fiduciary law. We also discuss the regulation of commitment in light of our hierarchical classification.

Our commitment hierarchy is a useful taxonomic device. Devices that sit lower in the hierarchy require sophisticated legal systems, and, hence, are characteristic of more developed economies and of more complicated social orderings. They enable more impersonal, arm's-length, dealings and so facilitate commitment between actors who have had little or no prior dealings and, possibly, have no social connection. Commitment relies more upon extra-legal devices at the top of the commitment hierarchy when devices lower down the hierarchy are inappropriate. That could occur when the legal system is insufficiently developed, or when the commitment required is too complex and too subtle to be enforced by a court; it could also be the consequence of excessively heavy-handed state intervention. The trade-off between commitment at the top and the bottom of the hierarchy also depends upon the sociological environment: a society with well-developed social networks of private individuals is better-equipped to operate at the top of the commitment hierarchy than one whose members tend to meet only in state-sponsored fora.

We argue in section 2.4 that most relationships rely upon a spectrum of commitment devices: the parties to a commitment might use a formal contract to structure their relationship, for example, while also relying upon reputational concerns to ensure that the spirit of the relationship is respected when the letter of the contract is insufficient to guide behavior. But we contend that a relationship can be viewed as resting more heavily upon some elements of the commitment hierarchy than others. A bilateral relationship between repeated traders in the diamond market is more nearly positioned at the top of the hierarchy than a fleeting interaction in the foreign exchange market, for example. We refer to the place where the relationship's commitment spectrum is most closely focused as its *position* or *situation* in the commitment hierarchy.

The position of relationship commitment on the hierarchy reflects the nature of the legal system and the sociological and political environments. It also reflects the state of information technology. However much two actors wish to structure their relationship around contract, they will be unable to do so if it is impossible for them to record the details of their relationship in a form that can be used to adjudicate disputes. Changes to legal institutions,

social and political upheaval, and advances in information technology will each serve to alter the position of relationships on the commitment hierarchy and, hence, to alter the social ordering that emerges from individual commitments.

Our hierarchical presentation does not reflect a value judgment. Indeed, it is hard to see how one could make a blanket choice between commitment devices: legalistic mechanisms are “lower-order” only in the sense that “higher-order” commitment devices frequently rest upon legal foundations. Moreover, the lower-order commitment mechanisms of the formal law have the highly desirable ability to facilitate commitment between relative strangers and, hence, are engines of social mobility and economic growth.² The choice between commitment devices therefore reflects situation-specific details, rather than moral sensibilities. But the choice is made in the shadow of formal laws; a serious analysis of the commitment hierarchy must discuss the appropriate role of the regulatory state.

Our discussion of the relationship between regulation and commitment emphasizes the role of information technology. Advances in computer science have made it easier to measure outcomes; as a result, it is easier for rule makers to engage with higher-order commitment devices. But it remains unclear that such engagement incubates higher ethical standards, or better economic outcomes. The reason is epistemological. We see social orderings everywhere, but we cannot usually assign them a single purpose. Indeed, social orderings are seldom designed: they arise from the independent decisions that actors make when making cooperative arrangements with one another.³ Those arrangements form immensely complex webs of interactions between individual actors.⁴ We cannot hope to understand the details of, and the relationships between, those interactions in sufficient detail to control their effect.⁵

²This point was famously recognized in 1861 by Maine (1920, 174), when he argued that “[T]he movement of the progressive societies has hitherto been a movement from status to contract.”

³“It would be no exaggeration to say that social theory begins with — and has an object only because of — the discovery that there exist orderly structures which are the product of the action of many men but are not the result of human design.” (Hayek 1973, 37).

⁴While we are concerned with the operations of broad social orderings, our analysis focuses upon the actions of individual actors. Our analytic decision reflects the position that that social orderings must be understood as the consequence of choices by, and transactions between, individuals. The position, sometimes characterized as “methodological individualism,” has a lengthy pedigree. It was first articulated by Max Weber (1968, 13, 18), who cautioned that it need not entail individualist *values*. It was further promulgated by Weber’s student, Joseph Schumpeter (Schumpeter 1980; 1909; see also Popper 2002; Hayek 1996). Methodological individualism is criticized on a number of grounds, some of which reflect an interpretation of the term at variance with ours. For example, methodological individualists have been accused of attempting to reason about individuals abstracted from any social context (See, e.g., Lukes 1973, 140). We do not deny the relevance of sociological context, and we will emphasize its importance in explaining a variety of extra-legal commitment devices. Nevertheless, sociological forces operate through individual agency and, if we want to understand the impact of those forces, we must understand the choices that individuals make, and the ways that they deal with one another.

⁵Our inability to generate sufficient information to control economic activity is a common theme in Austrian school economics. The Austrian School contends, first, that no central intelligence can hope to gather and to assimilate all of the situation-specific information to manage individual economic interactions, and, second, that policy should be guided by market outcomes, rather than attempt radically to alter those outcomes (see Hayek 1945; 1978).

Any attempt to do so may result in unintended and unwanted consequences.

Technological advances therefore present a difficult regulatory problem. On the one hand, regulators are able to gather better information about higher-order commitment than ever before. On the other hand, it is very hard for rule makers to be sure that they use this information effectively: higher-order commitments are complex, so that neither rule-makers nor anyone else may be able fully to appreciate the ordering that those commitments support, or to predict the wider consequences of morally plausible interventions. What is certain is that any regulation of higher-order commitment attenuates the freedom of individuals to arrange their affairs as they see fit; activist law making therefore carries serious risks to individual liberty, and its effects are hard-to-predict.

But, while it is hard for regulators to use information about higher-order commitments effectively, it does not follow that they should not try although, clearly, they should tread carefully. We discuss the regulation of higher-order commitment below. We argue that, while regulation should prevent market abuses and restrict the imposition of negative externalities, it should not attempt to double-guess the usefulness of specific commitment choices, or to restrict freedom of association unnecessarily. In other words, one could conceptualize good regulation as serving a similar purpose to a pacemaker, which ensures the healthy operation of its host, without dictating his or her goals.⁶ In short, the regulation of an economic ordering should be sympathetic to the commitment choices that underpin that ordering.

Regulation will not be sympathetic to commitment choices if regulators do not understand the ordering they support. Almost every regulated ordering is better understood by the regulated than by the regulator. This discrepancy in understanding is particularly acute when the ordering is supported by higher-order commitments that are underpinned by tacit understandings. Regulation of such commitments should therefore acknowledge the massive informational challenges that regulators face. We argue that these challenges are most effectively addressed through collaboration between regulator and regulated. The precise form of this collaboration must be situation-specific. But we suggest that, to the extent that relationships are underpinned by complex, tacit, and hard-to-verify commitments, they are better managed by establishing clear principles and allowing regulated parties some freedom in choosing their strategy for complying with those principles, and also for demonstrating their compliance. These conclusions are consistent with the literature on “new governance;” we discuss its relationship to our analysis below.

In some industries, private actors have used new codification technologies to make more formal, lower-order, commitments. For example, this has clearly happened in banking.

⁶Michael Oakeshott argues for a similar conception of state activity, when he distinguishes between states that act as “enterprise associations,” with overriding goals, and those that serve as “civil associations,” whose members need have no common goal, and rely upon the legal system to provide the framework within which individuals can pursue their own ends. For Oakeshott, the state should be conceived as a civil association (see Oakeshott 1975, 108–121).

New technologies have allowed financiers to write formal contracts where previously they had to rely upon understandings born of long relationships and close cooperation. As a result, much formerly relationship-intensive business is now carried out in trading rooms by actors who have little or no personal relationship with one another. Regulators can use information technology to make the same shift, by predicating formal rules upon new data. This approach is at variance with the more process-based approach that we advocate, but, as we argue below, it has nevertheless been employed in bank regulation, as, for example, when hard data about deal flow is used in formulaic rules to determine a bank's susceptibility to fraud and other forms of operational risk.⁷ There are clear advantages to regulating in this way: codified regulations are easy to exhibit to legislatures, easy to check, and they may be politically expedient. But, as we have already noted, when private actors continue to rely upon tacit, higher-order, commitment devices, regulation using formal and lower-order devices fails to satisfy our requirement that it be sympathetic to the commitment choices of regulated actors: it may even serve to crowd out those choices.

The investment banking industry is an excellent case study for our arguments. Financial markets are a natural place to study commitment choices, because extra-legal commitment has always been at least as important in finance as legal commitment. Finance frequently involves the exchange of price-sensitive information that is not susceptible to formal contract. For example, when an investment bank organizes the sale of new shares, it gathers information that is relevant to the price of those shares from various market participants. It is famously difficult to contract on information, first, because it is impossible to prove that the information was tendered or received, and second, because social actors cannot alienate their information.⁸ Hence, investment banks that wish to facilitate the exchange of that information have historically relied upon extra-legal devices, founded largely upon reputation, to persuade their counterparties that they will receive an adequate return for divulging their private information.⁹ Similarly, a banker that specializes in merger advice is party to privileged information, and must find a way credibly to commit not to abuse the trust vested in her. Fiduciary law has a part to play in this situation, but historically it, too, is supplemented with informal, reputational, devices (see, e.g., Morrison and Wilhelm 2007, 65–96).

Information exchange therefore lies at the heart of modern finance. We claim that investment banks evolved to allow parties to exchange commitments over this information: one can think of the central role of the traditional investment bank as the maintenance of an *information exchange*. We show how investment banks accomplished this by adopting ownership

⁷See note 60 below.

⁸For a discussion of the challenges surrounding trade in information, see Arrow (1962).

⁹This is not to say that regulation has no part to play in investment banking. We discuss regulation *infra*, Part 4. Choi and Pritchard (2012, 23) assert generally that “The primary goal of securities regulation in the United States is to reduce the informational disadvantage facing outside investors.”

structures and forming relationships that facilitated the creation of trust and reputation. We have gathered new data that allows us to examine the evolution of client relationships, and, hence, of the importance of informal commitments in investment banking.

Finance has been radically changed by information technology. Computer systems are now used to record and report information that previously was available only to the immediate parties to an agreement. Computerization has also altered the content of financial data, as financial engineering techniques that rely upon mathematical modeling and rapid processing have been used to create new financial instruments. As a result of both effects, investment banking has been transformed: many of the commitments that investment banks once made in long-lived relationships are now made at arm's length in dealing rooms. In other words, to use the terminology of this Article, many investment banking activities have moved down the commitment hierarchy. In those activities, reputational commitment has been displaced by contractual commitment. Inevitably, investment bankers in those businesses are less concerned for their reputations than they once were. Nevertheless, as we document below, reputation remains a critical asset in traditional investment banking businesses such as M&A advisory work and IPOs.

Some commentators have argued that a diminution of reputational concerns amongst investment bankers was a contributing factor to the financial crisis of 2008–09 (see, e.g., Davidoff 2011; Kennon 2012; Schäfer and Jenkins 2012). They may be right. But it is impossible to push the genie back into the bottle: bankers are unlikely to start to worry about their reputations simply because legislation requires that they do so. Policy makers should instead ask how to regulate the banking commitments we have, not the ones that they wish we had. This is a significant challenge, not least because investment banking commitments have a wider spectrum on the commitment hierarchy than ever before: one size regulation cannot fit all.

Marrying investment bank regulation to commitment device therefore requires a delicate balancing act. Rule-based regulation of higher-order commitment undermines regulatory understanding of the tacit elements of the banking sector, and interferes in unpredictable ways with the order those elements support. At the same time, treating lower-order commitments as if they had extra-legal content undermines parties' abilities to make firm arm's-length commitments to relative strangers. The problems of investment bank regulation are illustrated in a number of recent high-profile cases. We discuss one, relating to a securitization performed by Goldman Sachs in 2007. In this case, we suggest that regulatory actions were misguided, because they failed to respect the commitment choices of private actors. We conclude by suggesting that recent decisions in the Delaware Court of Chancery represent a more coherent way of addressing the new commitment environment.

2. THE COMMITMENT HIERARCHY

Many social phenomena rest upon transactions that extend over a significant time interval: indeed, it is impossible to imagine a society in which such transactions did not occur all the time. For example, consider the purchase today of a ticket for a concert that will occur in the future. This simple exchange highlights at least three important features of extended commitments. First, the transaction enables both of the parties to it to plan for the future: the ticket buyer is guaranteed a seat at the concert, and the seller is assured in advance of an audience. Second, the proceeds of the sale can be used by the ticket seller to defray the costs of staging a performance; indeed, without them the performance might be impossible. Third, the ticket buyer is exposed to the ticket seller: absent some mechanism that guarantees her presence in the concert theater, the seller might simply abscond with the ticket price. We are concerned in this Article with the mechanisms that market participants use to resolve the last of these risks: specifically, that they use to commit themselves to honor their side of the bargain in a temporally extended transaction. Legal devices have an important role to play. However, we contend that, historically, extra-legal commitment devices were more important, and that such devices remain crucial today. In this Part we study a hierarchy of commitment devices, which we later relate to the investment banking industry.

Commitment, in the sense that we use the term in this Article, can occur only in the context of a relationship. An actor, X, might believe that other actors, whom she has never met, will perform some action because not to do so would be tortious. X's belief is well-founded, and it is an important feature of a social ordering. But X's belief concerns actors whom she has never met, and of whose existence she may be unaware and, hence, it falls outside the scope of our discussion. We are concerned with situations in which two parties, X and Y, have a relationship, as a result of which Y has deliberately assumed an obligation to X to perform action A in the future. We categorize commitment in terms of the reasons that X might have a well-founded belief that Y will meet her obligation. That belief could be founded upon Y's characteristics, or upon the legal, social, and technological forces that constrain Y's choices.

First, X might simply *trust* Y. We provide a detailed discussion of this term below in Section 2.1; for us, it refers to situations where Y performs A even in the absence of any extrinsic penalties for failing to do so. Trust exists in close relationships, and trust-based agreements have particularly weak enforcement requirements. Second, X might expect Y to perform A in order to protect a valuable *reputation*. In this case, Y is concerned to avoid an extrinsic cost, but Y nevertheless suffers no legal sanctions from a failure to perform A. Third, Y might be required to perform A by an enforceable *contract*. The contract is a relational device: its terms are directly negotiated by X and Y, and the enforcement decision is X's. But the enforcement mechanism in this instance is legal, failure to perform is established by

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the courts, and the extrinsic costs that Y faces upon a failure to perform are imposed by the courts. Fourth, Y might be required to perform A by virtue of a *fiduciary* relationship with X. Fiduciary responsibility is embedded in the relationship that X and Y have, and the fiduciary relationship is willingly adopted by both X and Y. Nevertheless, we contend that the courts have more scope to exercise discretion when determining the definition and the scope of the fiduciary responsibility than they do when interpreting a purely contractual relationship. Fifth, Y might be required to perform A by a *regulation*. Such regulations can be relational, in that they may be predicated upon the existence of a relationship between X and Y, but their terms are imposed from outside the relationship and their enforcement is the responsibility of a third party that will most likely consult neither concerned party before acting.

The previous paragraph identifies a commitment hierarchy, running from trust down to fiduciary law and regulation. The further up the hierarchy a commitment device lies, the more closely its design and enforcement are embedded in the relationship between the parties to the commitment, and the less it relies upon the formal law for its definition and enforcement. Conversely, the lower down the hierarchy a device lies, the more it is embedded in the public sphere, and the more directly it relies upon courts and upon the legal state. Our hierarchy identifies a range of *ideal forms* of commitment. In practice, a specific relationship is likely to involve several elements of the hierarchy. Many complex contractual relationships have a substantial reputational component (see, e.g., Macaulay 1963), and the parties to a contractual relationship may organize their affairs so as deliberately to expose themselves to each others' trustworthiness, or to take advantage of extra-legal commitment modes.

Regulation has a complex relationship with the commitment hierarchy. On the one hand, regulation may impose commitments as soon as a relationship is formed. Fiduciary law functions in this way. So, too, do laws restricting the content of a marriage commitment. Regulation of this sort is the lowest-order commitment device—it occurs when a voluntary social association is created, but its scope and interpretation is devolved entirely from the parties to the association. But regulation need not impose relationship-specific obligations. In many contexts, it serves to define or to limit the scope of general commitment devices.¹⁰ For example, it is impossible today to contract oneself into servitude.¹¹ More generally, to the extent that the parties to a commitment rely upon the courts to enforce it, their freedom

¹⁰For example, the 1934 Securities Act seeks specifically to void attempts to contract out of disclosure requirements and other provisions of the Act. Securities Exchange Act of 1934 15 U.S.C. § 78a-78pp, § 78cc(a) (2009). For cases in support of this provision, see *id.*, at § 78cc(a), note 83.

¹¹The moral explanation for this restriction is provided by liberal philosophers whose ultimate goal is to protect freedom of contract. For example, Mill argues that contracting into servitude is wrong because they defeat the rationale for liberty and, hence, that they should be impossible (Mill 1982, 173); see also Braucher (1990, 719) (“Denying enforcement of oppressive terms is based on respect for an underlying value that consent is thought to serve—freedom”). More generally, contracts that are perceived to undermine personal autonomy or to commoditize the human condition are frequently constrained (see generally Trebilcock 1993).

to commit is a regulatory choice. An extreme version of this position holds that freedom of contract is at most a theoretical construct and that, in practice, it is impossible to separate contract from the regulatory state (Atiyah 1979).

We start this Part by discussing the ideal form elements of our hierarchy. We then identify the ways in which the parties to a relationship deliberately incorporate multiple elements of the commitment hierarchy. Finally, we discuss the ways in which regulation constrains and defines elements of the hierarchy. In particular, we argue that new information technologies have served to extend the reach of regulation further up the hierarchy.

2.1 Trust

Trust has been studied extensively by philosophers, sociologists, and legal scholars, and we do not attempt in this Article to provide a comprehensive summary of that work.¹² Nevertheless, if we are to make progress we need to cover enough ground to define “Trust,” and to distinguish it from the other elements in our hierarchy.

Suppose that, absent other considerations, Joe would prefer to cook with nuts. Can we say that Sue, who has a mild nut allergy, trusts Joe if she believes that he will not use nuts when cooking for her? More formally, suppose that Y would prefer action B to action A if he had no relationship with X. If X believes that, because she has a relationship with Y, Y will select action A, can we say that X trusts Y? Much of the published work on trust appears to suggest that we can, although formal definitions of trust are surprisingly rare in academic treatments of the subject.

While the definition of trust outlined in the previous paragraph encompasses ours, we believe that it is too broad. If Joe believes that he will go to jail if he cooks with nuts then can we really say that Sue’s belief that he will not is founded upon trust? We think not; while Joe has a choice, his decision is calculative, and reflects the extrinsic incentive that the law provides. Suppose instead that Joe anticipates that a decision to cook with nuts will result in his exclusion from a social circle that he values highly. Is Sue’s belief that he will work to avoid social exclusion a trusting belief? Again, we do not think it is; Joe’s incentives in this case are not provided by the law, but they are real enough: his actions are once again calculative, and reflect the extrinsic costs of social exclusion.¹³

Once we exclude all calculative decisions of the type discussed in the preceding paragraph

¹²Some significant conceptual treatments of the subject are due to Hardin (2006); Sztompka (1999); Fukuyama (1995); and Hollis (1998).

¹³For a related perspective, see Williamson (1993, 486) (arguing that the term “trust” should be reserved for “noncalculative personal relations”). See also Blair and Stout (2000-2001, 1751) (studying “internalized trust”, which is “driven by expectations of intrinsic trustworthiness” rather than on whether the trusted person “has external incentives to refrain from exploiting another”); and Ribstein (2001, 557) (arguing for a “strong-form” definition of trust, which arises “when the trustee is not bound by external constraints to honor his promise”).

we are left with a relatively small set of truly trusting relationships. Trusting relationships have two components: first, they arise when one actor can be relied upon in some situations to choose a less-preferred option by virtue of its relationship with another party, and second, they occur only when that decision is instinctive: that is, when it is made in a non-calculative way. Hence, trust occurs in response to motivations that are intrinsic to the person who is trustworthy, rather than that are provided through extrinsic motivations such as money or social approbation.¹⁴ Only when both of these requirements are satisfied can the action-performing party be said to be trustworthy and, hence, can the relationship be characterized as one of trust.

A child can truly be said to trust that a parent will keep a promise to take it to the movie theater; a failure to honor such a promise has no extrinsic cost, although the parent will most likely suffer an intrinsic, conscience-inspired, cost if the promise is broken. But trust need not be confined to close familial relationships. Professional athletes trust the other members of their teams to act in a selfless way, even though there may be strong financial incentives not to do. The military could not function without trust although, of course, such trust co-exists with reputational devices, founded upon norms of reciprocity and exclusion. That there are limits to such trust does not deny its existence: trust arises between two parties with respect to a particular action; it need not arise with respect to another.

Economic discourse frequently plays down or assumes away the possibility of the sort of non-calculative cooperation engendered by a trusting relationship, in part because it is hard to see how to conceptualize such cooperation in a constrained optimization problem.¹⁵ But a wealth of evidence indicates that trustworthiness is one of the ethical norms that renders a capitalist economy effective.¹⁶ The relationship between trust and the more formal institutions of a capitalist economy is a focus of this paper.

The sociological literature on trust suggests that it arises in close communities where individuals have acquired the habits of trustworthiness through long association, and, usually, as children.¹⁷ But it is important to be clear as to the nature of those communities and the

¹⁴Our intrinsic motivations are identified by David Charny (1990, 393–4) in his discussion of nonlegal sanctions as “psychic and social goods” by which he means self-esteem, the avoidance of guilt, and the ability to think of oneself as trustworthy and competent.

¹⁵See, e.g., Sabel (1993, 1137) (stating that cooperation that arises as a consequence of a maximizing strategies “can only be a *modus vivendi* and never trust.”); *Id.*, at 1141 (criticizing the notion of an individual as an actor who maximizes the satisfaction of a bundle of desires). Amartya Sen (1977, 326–327) discusses the weaknesses of economic models of choice, and suggests that a broader definition of rationality is required, which incorporates motivations that cannot be incorporated into a person’s well-being; he styles such motivations “commitments,” using the word in a very different sense to the one employed in this Article.

¹⁶Charles Sabel (1993, 1139) argues that, because individuals engage in self-authorship in a social context that rests upon shared norms and interpretations, “trust in the sense of shared expectations (and confidence that the expectations are and will continue to be shared) is the constitutive fact of social life.” For a discussion of trust and ethical standards in capitalist economies, see Sen (1999, 265–266). On the cultural basis for capitalism, see, e.g., Weber (2003).

¹⁷Charles Sabel (1993, 1135) discusses this perspective, noting a commonly held view that cooperation

commitment they generate. Some sociological and legal scholars define trust to encompass commitments enforced by the threat of exclusion from a social circle.¹⁸ We do not: for us, a trusting relationship reflects the intrinsic characteristics, moral or otherwise, of the parties to it, and is not an artifact of calculative cooperation.

Trust in the sense we have defined it can arise in business relationships. Some people working in business are guided by an internal moral compass¹⁹ to turn down opportunities to engage in undetected fraud, whether minor (stealing pencils from the stationery cupboard) or more significant (claiming unincurred expenses). Of course, others seize such opportunities with alacrity. Similarly, some business people work harder than necessary because they experience guilt if they do not. Some business people trust others, in the sense that we use the term, because they share family or educational backgrounds. It is rather hard to measure the extent of this type of trust, however, and much of the literature on extra-legal “trust-based” agreements is really concerned with reputation, to which we turn next.

2.2 Reputation

Many commentators stress the importance of reputation in social and economic life. There is a deep and technical literature on reputation, but we are unaware of a careful conceptual analysis of the subject. Indeed, outside the technical economics literature, there are few attempts precisely to define reputation.²⁰ We have already noted that reputational enforcement is frequently conflated with trust-based commitments.²¹ In this Section we therefore attempt a deeper discussion of reputation than of the other levels in the commitment hierarchy. We start with a brief analysis of reputation; we then discuss some of the social and institutional features that support reputation formation.

Reputation is a social attribute. We can say that a person has brown hair without reference to her peer group, but if she has a reputation it reflects what other people expect or believe of her. So, for example, when we say that a “reputation” accrues to a person whose actions comply with our notion of virtue, we are not reporting merely on the past actions of that person, although those actions will inform our thinking; rather, we are making a statement about our belief that he or she will continue to behave in that way in the future. The past actions are useful as a guide to the future, but they do not constitute the person’s

might arise for “reasons rooted in a common history — belief in the same god, dedication to the same political ends, or a common ethnic or cultural heritage.” However, as we discuss *infra* section 2.4, Sabel argues that trust can be created in economic affairs. *Id.*, at 1142.

¹⁸See, e.g., Hardin (2006, 17) (“To say we trust you means we believe you have the right intentions towards us and that you are competent to do what we trust you to do.”)

¹⁹The guidance need not be purely moral. It might reflect a desire for peer group esteem. See McAdams (1997-1998).

²⁰For useful surveys of various parts of the economics literature, see MacLeod (2007); Mailath and Samuelson (2006).

²¹See, e.g., Hardin (2006, 23) (“Reputation is a centerpiece in many discussions of trust.”).

reputation.

It is common to refer to “corporate reputation,” and we will occasionally do so in this Article. This is a natural usage, but, in light of our emphasis upon methodological individualism,²² it requires clarification: what does it mean for a reputation to attach to an institution, rather than to a decision-making individual? We define institutional reputation by analogy with individual reputation: an institution has a reputation for a given behavior if its representatives can be expected to take actions that accord with that reputation, even when they would not do so if operating independently of the institution.²³

If reputation is a social attribute then it is wrong to use the word to describe a quality whose measurement is not a matter of social interaction and of individual judgment. Hence, for example, it would be wrong to describe a blue-eyed person as having a reputation for having blue eyes; this is a fact that can be independently and uncontroversially measured, and is not the basis of a social, and reputational, judgment. On the other hand, the traditional notion of a “good name” is inherently social: someone has a good name when her actions are judged to conform with a vision of the Good that itself reflects current social norms. An international trading business can earn a good name today by treating indigenous cultures with respect; two hundred years ago, it could not.

Reputation reflects individual judgments, but it has real consequences. Some doors are closed to a person whose reputation is “bad” in the sense that his peers believe that he does not conform to received moral standards; he is unlikely, for example, to be invited to join the board of a charity, to achieve public office, or to be invited to certain social events. A corporation with a reputation for customer service is more likely to attract business; a person with a reputation for competence and intelligence is more likely to be hired.

If a person’s reputation has such a profound effect upon her social and professional life, a robust social ordering demands that her reputation be as accurate as possible, and that she have the ability to contest accusations likely to tarnish her good name.²⁴ Hence, the law has a natural connection to reputational concerns:²⁵ effective defamation laws have the potential to reduce the volume of baseless accusations against public individuals and organizations,

²²*See supra* note 4.

²³The relationship between corporate reputation and individual commitment devices is particularly interesting. Lisa Bernstein (2014) identifies formal contractual arrangements between individuals within firms that maintain particular outward-facing reputations. Arguably, the formal in-firm commitments are necessary to sustain informal inter-firm reputational commitments.

²⁴In a discussion of defamation law, Robert Post (1986) identifies three reasons to believe that defamation undermines social ordering: it may undermine a property-like asset, as, for example, when a person experiences damage to a reputation built up over several years; in a deference society it may impugn honor; and, by damaging our social relations with others, it may undermine the dignity that is part of our personhood. The perspective adopted in this Article is closest to Post’s property-rights perspective, although it is consistent with notions of dignity.

²⁵Libel laws reflect society’s “pervasive and strong interest in preventing and redressing attacks upon reputation.” *Rosenblatt v. Baer*, 383 U.S. 75, 86 (1966).

and so to alleviate the associated transactions costs. In practice, of course, the courts are not neutral arbiters of reputational facts: in identifying those facts that are defamatory and, hence, can serve as the basis for an action, they apply majoritarian moral codes, either because they reflect received wisdom, or because they are handed down by legislatures.²⁶

The relationship between reputational effects and the law is concerned with more than the settlement of defamation cases, however. For example, a firm might wish to acquire a reputation for underhand competitive tactics in order to protect itself against new entrants to its markets. Most people would regard such a reputation as inconsistent with ethical business norms and, hence, it could not be protected with a defamation lawsuit. But this example goes deeper. “Underhand competitive tactics” are surely contrary to most conceptions of the law, whether instrumental, moral or purely analytic. Why, then, does the law not prevent the creation of this type of reputation?

The problem, of course, is that “underhand competitive tactics” are extremely hard to pin down in law. Indeed, it is precisely because they cannot easily be measured that a reputation for such tactics is valuable. In this instance, reputation is serving as the basis for a social ordering where problems of measurement and formal law preclude the use of the formal law.

We believe that this is the most important attribute of reputation: for us, reputation is useful because it tells social actors what to expect of one another in situations where key actions or attributes cannot be measured, and cannot form the basis of a legal agreement.²⁷ In other words, and despite the existence of defamation laws, reputation exists apart from the formal law. It facilitates temporally extended social transactions that could not be supported using purely legal arrangements.

For example, The Body Shop is a British cosmetics firm that promises to behave ethically in its dealings with developing country suppliers, and that adheres to a strict ethical code that precludes animal testing of its products.²⁸ It is probably impossible to check that it has kept some of its promises; others concern very hard-to-measure and highly contestable quantities. Nevertheless, its long trading history appears to convince its customers that the Body Shop will honor its ethical commitments. A new entrant to the cosmetics market

²⁶Robert C. Post (1986, 737) highlights the case of a person who sues for defamation after being called a homosexual. He does not demand damages, and is suing to protect his dignity and social position. Then his case will hinge upon whether the court wishes to affirm a vision of social acceptability that excludes homosexuals. Similarly, a court may award damages because a statement exposes an individual to hatred or ridicule; in this instance, the court predicates its actions on the effect that a social norm has upon an individual, rather than upon a deliberate attempt to affirm a given norm. See, e.g., *Cassidy v. Daily Mirror*, 2 K.B. 331 (1929) (affirming that a married couple were entitled to damages after a newspaper stated that they were merely engaged to be married).

²⁷For a related perspective, see Sharman (2007, 22) (“Reputation is so important and valuable because it allows actors, whether states, firms or individuals, to predict other actors’ future moves during strategic interaction”).

²⁸Body Shop (2013).

without a track record would struggle to generate as much confidence. The Body Shop's reputation is therefore a valuable business asset; it is able to charge customers who value ethical behavior higher prices because its promises are uniquely credible. Both the Body Shop's shareholders and its customers benefit from its ability to make reputationally enforced commitments. This is a relatively simple example: we study a number of more complex ones from the financial markets below.²⁹

Any firm could attempt to create the systems and procedures that underpin the Body Shop's commitment to specific behavioral patterns. In other words, the Body Shop's reputation appears largely to reflect *behavioral choices*, rather than specific and unusual attributes or talents. Economists have studied models in which reputation has this property; in their models reputable firms maintain their behavior patterns so as to maintain their reputations and, hence, their superior income stream; firms without a reputation do not provide superior service because it is not expected and, hence, it is not reflected in the prices they can charge.³⁰

Reputation is critical to the maintenance of complex social orderings. It enables social actors to make commitments, and hence to generate wealth, that would be unattainable using only private law. It has a non-instrumental justification, too: a reputational ordering is not enforced by the state, and so allows individuals to pursue their own version of the Good. A state-sponsored system of measurement and reporting might be able to use public law to achieve behavior patterns that cannot be enforced through private, contractual, law. But such a system would impose the same values upon everyone. In contrast, a private, reputational, ordering allows actors to choose the behaviors to which they subscribe, and hence is arguably an effective way to accommodate a plurality of values in a liberal society.³¹

Given the centrality of reputational concerns to social life, it is important that we understand the social and institutional features that facilitate their creation and maintenance. Reputations can be created and maintained only if actors can observe the reputation carrier's behavior with some probability, so that they can downgrade the reputation carrier's reputation if the wrong actions are taken. But recall that reputations derive their value from the fact that they concern hard-to-codify actions that cannot form the basis of a black-letter contract. Information about reputations is therefore most effectively transmitted through social networks in which nuanced information can be effectively communicated, even when it cannot be written down and proved.

²⁹See *infra* Part 3.

³⁰These ideas were developed by Kreps (1990) and Fudenberg *et al.* (1994).

³¹That people should be able to pursue their own life plan according to their own vision of the good is a central tenet of modern liberalism. See, e.g., Mill (1982, 71) (arguing that the liberal principle "requires liberty of tastes and pursuits, or framing the plan of our life to suit our own character"); Raz (1986, 108) (stating that "people are autonomous moral agents who are to decide for themselves how to conduct their own lives"). Of course, there is also a danger that reputational sanctions will reflect repressive social norms: see *infra* section 2.3.

These observations reinforce the social nature of reputation. They suggest that reputation-supported commitment is most easily maintained in societies that have interlocking networks of people amongst whom the tacit information that supports reputation can be credibly exchanged. A similar observation was made by Alexis de Tocqueville (2010), who argued that early nineteenth century American society was able to support informal enforcement devices because it had a tradition of voluntary associations that extended beyond the family, but were smaller than, and independent of, the state. In contrast, he argued that French society, which lacked such a tradition, could not rely upon extra-legal commitment devices, and so was forced to fall back on state organization and coercion. Francis Fukuyama (1995, 49-56) suggests that the presence of intermediate associations renders a society better able to create reputational enforcement mechanisms,³² which he believes are a source of competitive advantage, because they are more nuanced and cheaper to establish than formal contracts.

If reputation is significant in business life then it must be supported by the intermediate networks of the previous paragraph. For retail firms, which are subject to word-of-mouth effects, and whose business is closely reported in the media, such networks are easy to create. But a firm whose transactions are harder to observe and to explain, such as a diamond merchant or a bank,³³ can only be monitored by a sophisticated actor that understands its behavior. If it is hard for such actors to communicate their knowledge to one another then it is correspondingly hard to create a large reputation-sustaining network. A firm that cannot create such a network may sustain multiple small networks of actors able to share information and, hence, have multiple reputations. One such actor is a client; that client may struggle credibly to transmit information about its trading experiences, so that the firm's reputation is client-specific.³⁴

In general, because it is hard to transmit reputation-sensitive information about complex firms, it is hard for those firms to create large social networks within which reputations can be maintained. Such a firm could maintain multiple reputations, each with a separate actor or group of actors that can communicate with one another, but not with actors outside their ambit.

The multiple-reputation firm has some advantages: the separation of reputations across multiple social networks creates natural “firewalls” against the contagion of reputationally

³²Fukuyama (1995, 26) labels as “trust” the enforcement mechanisms with which he is concerned. Trust for him is partly sustained by the reputational mechanisms that we discuss in this section. But it can also stem from learned behavior: he stresses the importance of *culture* in sustaining extra-legal arrangements and by “culture” he means the unreflective acceptance of social norms. *Id.*, at 34. Cultural relationships in Fukuyama's work therefore correspond to our notion of trust, *supra* section 2.1. Fukuyama argues that cultural norms are internalized in childhood in societies where they have been established through reputational orderings. *Id.*, at 36-41.

³³For studies of reputational enforcement in the diamond industry, see Bernstein (1992); Richman (2006). On the role of reputation in banking, *see infra* Part 3.

³⁴This remark does not contradict our earlier claim that reputation is a social phenomenon. Such phenomena obtain whenever one actor forms a view of another through social contact.

damaging information and allows for some discrimination between customer groups. But this structure undermines the effectiveness of reputational commitment devices: if an actor can break a promise to one consumer without seriously damaging its reputation with others then it will struggle to attract new customers, who are aware that their relationship with the firm is new and of little reputational value, and to retain older consumers, who fear that they will be cut loose as soon as the continuation value of their relationship is perceived by the firm as likely to diminish in the future. It follows that a complex firm operating in a market where extra-legal commitments are important derives a significant competitive advantage from a large reputation-sustaining social network. Moreover, because such networks are very hard to build, such an advantage may be unassailable.

A natural solution to the problem of information transmission in complex reputational businesses has emerged in market economies. When a firm's business is too complex for the majority of its business counterparties to observe, there is a role for a specialist organization whose only role is to observe and communicate its activities. Such an organization facilitates the creation of a social order by enabling economic actors to create and maintain reputations, and to use those reputations when dealing with very infrequent or one-off counterparties. This is the reason that so-called "gatekeeper" firms such as accountants and credit ratings agencies have emerged in advanced economies; especially in the developing world, Non-Governmental Organizations (NGOs) serve an important role in validating a firm's reputation for ethical behavior (see, e.g., Carr and Outhwaite 2011; Charnovitz 1997). Gatekeeper firms certify the quality of a firm's activities and the truthfulness of its promises. They therefore serve a court-like purpose, although the nature of their activities renders it hard to hold them to account, and prevents them from applying a rigorous standard of proof. Indeed, in that their activities are outside the law and profoundly affect the nature of the social order, some have argued that their activities should be subject to the oversight of state agencies.³⁵ This point is a complex one which we do not attempt to address in this Article. But it is worth noting that a quasi-gatekeeper role in financial services is already sometimes performed by the courts. For example, Bratton and Wachter (2014, 81) argue that the Delaware Chancery Court today serves as a focal point in the market for banker reputations.³⁶ We address this point in the context of the commitment hierarchy in section 4.3 below.

Gatekeeper firms facilitate the creation of corporate reputations. Much of the value associated with those reputations accrues to the firm that bears them and, as a result, gatekeeper services are typically paid for by the reputation carrier. However, in two circumstances the carrier may be unwilling to pay a third party reputational gatekeeper. First, the information

³⁵For a detailed analysis of regulatory options, see Coffee (2004).

³⁶See also Rock (1997, 1015) (arguing that Delaware courts establish norms of good behavior through "fact-intensive, normatively saturated descriptions of manager, director, and lawyer conduct").

upon which a reputation rests may be commercially confidential: in that case the client may be unwilling to expose information to a reputational gatekeeper, or the reputation carrier may regard the risks of disclosure to a third party as greater than the potential benefits of reputation formation. Second, a reputation carrier may be unable to recoup the costs of reputation formation through dealing with those who rely upon the reputation. A classic argument about economic externalities then applies. A reputation that third party stakeholders use to condition behavior that is not priced generates no return for the reputation carrier, which therefore will not fund the gatekeeper that maintains the reputation. Indeed, if the absence of reputation data enables the reputation carrier to operate at the expense of the third parties, it will actively discourage the gatekeeper. When reputation violates confidentiality requirements or is an externality there is a potential role for public policy; a state-sponsored auditor can maintain socially valuable reputations that no one else will pay for.

While the previous paragraph identifies a rationale for state-sponsored gatekeepers, their introduction is subject to complicated practical problems. These are illustrated by the argument surrounding the funding model for credit ratings agencies in the wake of the 2007–2009 financial crisis. The crisis appeared to highlight serious deficiencies in the ratings of some structured credit instruments.³⁷ Some commentators argued that ratings agencies were conflicted because their services were paid for by the rated firm, and that this conflict resulted in poor ratings standards. They concluded that ratings agencies should be controlled by the state.³⁸ However, various scholars argue that any loss of reputational concern within ratings agencies reflected ill-considered regulatory interference in their activities (see Portnoy 1999; Morrison 2009). In the early years of the twenty first century the regulation of banks and investment firms was increasingly predicated upon the credit ratings of their assets.³⁹ This decision reflected a desire to bring the superior dispersed information gathering capabilities of free markets to bear upon the regulation of those markets. But it had the unanticipated consequence of undermining the market processes that generate that information. The reason was that regulations that made high ratings a necessary prerequisite for regulated firms to invest in certain classes of securities introduced a secondary role for the ratings agencies: in addition to certifying the quality of investments, they now constrained the activities of

³⁷See Benmelech and Dlugosz (2009) (analyzing almost 4,000 structured bonds backed by loans: the loans have an average rating of B+, a “junk” rating, and 70% of the bonds receive the highest AAA rating); Coval *et al.* (2009) (arguing that ratings agencies would have to be extraordinarily confident of their ability to estimate the correlation between defaults to justify the ratings given to structured products).

³⁸For a recent proposal that ratings agencies be required to disgorge funds in the wake of poor quality ratings, see Hunt (2009).

³⁹International coordination of regulatory capital requirements for banks is achieved through the Basel Committee on Banking Supervision, which is comprised of representatives from the central banks and prudential regulators or major economies, and which meets three or four times per year. Basel Comm., *History* (2013, 1). The second Basel Accord based capital requirements on risk models whose parameterization included credit ratings. See Basel Comm. on Banking Supervision (2006).

regulated entities. Those entities may have valued a relaxation of their regulatory constraints more than maintained high quality of ratings agency data; if so, reputational concerns lost their bite in the ratings agencies. Reputational gatekeepers are therefore more likely to be effective when they have only one function; introducing new roles, even when those roles reflect laudable goals such as the maintenance of orderly markets or the protection of retail investors, can undermine their reputation maintenance role, and may even serve to undermine the original rationale for role expansion.

2.3 Contract

Contract sits below trust and reputation in our commitment hierarchy because it relies upon the courts and the legislature. While trust and reputational commitments are, in general, defined and enforced without recourse to the organs of the state,⁴⁰ “contract” is meaningful only when there are courts or other arbitration bodies that can identify contractual relationships and interpret contractual terms. The literature that explores this dependency is voluminous, nuanced, and deep; we confine ourselves in this Section to a brief discussion of the elements of contract that are relevant to our argument. In particular, we stress the role of the state in defining and interpreting contract, and we discuss the importance of technology in determining the effectiveness of contractual commitment.

Our first observation is that, in some respects, a contractual relationship gives its parties a greater degree of freedom than one founded upon trust or reputation. Contractual commitments are carefully delimited and are purposefully adopted; enforcement actions are triggered by one of the parties to the contract. In contrast, reputational commitments are frequently self-enforcing. If Y fails to honor a reputational commitment to X then, provided Z can observe this failure, Y will suffer an immediate reputational cost. If Z is a gatekeeper⁴¹ then Z can trigger the reputational cost without recourse to X or to Y. Moreover, as we note in section 2.2, the content of a reputational commitment is partly socially determined: irrespective of her wishes, an actor can be reputationally exposed if her peers are in a position to make moral judgments about her actions.

Hence, higher-order commitment devices leave social actors exposed to the norms of the communities within which they build reputations and form trusting relationships. Of course, in that they internalize those norms, actors cannot avoid them. But, because contracts are interpreted by courts, contract represents an opportunity to be bound by a different set of norms. Those norms are in part supplied by the parties to the contract when they agree upon contractual terms. At the same time, to the extent that the terms are enforced by the

⁴⁰Although in some circumstances, the state can smooth the operation of such commitments, for example by enforcing defamation laws that protect against egregious attacks on reputation. See *supra* notes 24–26 and accompanying text.

⁴¹See *supra* text accompanying note 35.

court, they also reflect whatever social norms the court wishes to respect. Those norms need not be identical to those of the communities within which higher-order commitments are made but, equally, they need not be the ones that the contractual parties would have chosen for themselves. For example, late eighteenth century merchants preferred to avoid recourse to the courts, because juries tended to impose their vision of justice on transactions, rather than to follow the content of their contracts (Horwitz 1977, 141–3). Today, the basis for legitimate contract formation, the boundaries of enforceability, and the nature of legitimate consent are determined by the courts, and not by the contractual parties (Braucher 1990, 701, 704, 712–9).

The choice between contract and higher-order commitment devices is therefore partly determined by the contractual arrangements that the courts are prepared to sanction. To the extent that courts are prepared to enforce the intent of contractual parties, those parties are able to choose the commitments to which they are exposed. When the court systems respect it, contract can therefore advance the liberal ideal of self-determination by giving individuals the power to commit themselves only when they wish to do so.⁴² In other words, a liberal conception of contract incorporates the contractual freedom that Randy Barnett (1992, 93) characterizes as “freedom from contract.” Depending upon the social context in which contracts are written, then, a more general notion of “freedom from imposed commitment” may be better served by real-life contracts than by higher-order commitment devices.

Parties do not choose between contract and higher-order devices solely on the basis of the court’s willingness to respect their choices. They are also concerned with the court’s ability to interpret those choices as they appear in contractual language. Even when the courts adopt a liberal stance to contract, contract can only advance the liberal ideal of self-authorship, and can enable the efficient allocation of resources, when its parties are able effectively to communicate their intentions to the courts. That is, the relative effectiveness of contract and higher-order commitment devices depends upon our ability to set out our intentions in language that the courts can understand and enforce.

H.L.A. Hart (1961) studies this ability. We face two challenges in writing formal rules for the courts to enforce. On the one hand, the courts may be ignorant of the facts (*id.*, at 125). The parties to an agreement may understand very well that one of them has failed to perform, but it may be very hard to communicate this fact to a court and, hence, they may prefer to rely upon higher-order commitment devices that substitute this communication problem with other, more tractable ones. On the other hand, all formal rules must be expressed in natural language, and natural language is always imprecise, so that we suffer in drafting formal rules in general, and contracts in particular, from an “indeterminacy of aim.”⁴³

⁴²On the role of contract, and contract enforcement, in self-determination, see, e.g., Freid (1982).

⁴³For example, Hart (1961, 125–6) demonstrates that an apparently simple stricture denying the right to take a vehicle into a public park gives rise to numerous borderline cases that require case-by-case interpre-

Hart's challenges will always be with us. But we contend that their magnitude depends in part upon technology. When information technology is sufficiently advanced, more facts can be determined, and, hence, the problem of ignorance is reduced. At the same time, the contractual incompleteness that derives from Hart's indeterminacy of aim generates can be addressed by better information technology. Contractual language can evolve in response to improved measurement, asymmetries of information can be addressed, and both drafting costs and the possibility of mistakes may be reduced.⁴⁴

Informational and normative issues intersect, in that the courts require a doctrine to deal with contractual incompleteness.⁴⁵ One approach to incompleteness is to seek to impose default terms that the parties would have adopted themselves, had they written a complete contract to maximize available economic surplus (see, e.g., Posner 2004-2005; Ayres and Gertner 1989-1990; Baird 1990). Another is to supply a contractual term with reference to the social context of the relationship and also prevailing fairness norms (see, e.g., Macneil 1978; Gordon 1985). And one could adopt a purely formalist approach, enforcing only the express terms of the contract as written (see, e.g., Scott 1999-2000; Schwartz and Scott 2003-2004; Choi and Gulati 2005-2006). The choice between these approaches has a normative content.⁴⁶ We do not need to adopt a position on this choice to see that, in making it, the courts potentially impose a solution upon contracting parties that they may not have selected for themselves. Any technology that reduces the costs of avoiding contractual incompleteness therefore renders contract relatively more attractive than higher-order, extra-legal, commitment devices.

2.4 Overlapping commitments: Using contract to enable higher-order commitment.

Contract allows parties to create commitment and to build social structures that involve strangers whom they may not trust, and of whose reputations they know nothing. But

tation.

⁴⁴For a discussion of contractual incompleteness and its sources, see Schwartz (1992, 278-81).

⁴⁵For outlines of enforcement approaches, see, e.g., Schwartz (1992, 275-278); Scott (1999-2000, 849-853); Posner (2004-2005, 1590). For a discussion of doctrine relating to contract interpretation, see Posner (2004-2005, 1596-1608). The maintained assumption in much of the economics literature is that vague language cannot feature in a contract because it cannot be executed by the courts (see, e.g., Hart and Moore 1988). In practice, the decision to introduce such language may be a deliberate response to the costs of avoiding it. Scott and Triantis (2005-2006, 825-6) characterize interpretation as a *process* that occurs in a courtroom. Engaging with the process by hiring expert witnesses and counsel is a cost that parties anticipate when they introduce imprecise natural language terms into contracts but, because the expected value of these costs is in some instances less than the cost of with precise drafting, they are worth incurring. Hence, given the nature of the interpretative process in the United States, vague language is commonplace in US contracts. *Id.*, at 817.

⁴⁶The normative basis for the various interpretative strategies is the subject of a vast literature. For a discussion of some of the relevant points, see, e.g., Braucher (1990); Charny (1990-1991); Craswell (1989-1990).

contract is not merely a formal substitute for higher-order, extra-legal, commitment devices. An important and growing literature demonstrates that trust is not entirely exogenous, in the sense that social actors need not take background levels of trust as fixed and immutable. Instead, they can build social structures around contractual relationships that allow them to build relationships and, ultimately, to create trust.

Charles Sabel (1993, 1154, 1166) examines the construction of trust in the context of state-level industrial programs in the United States. He concludes that actors can build “studied” trust in programs that enable the construction of local cooperative networks. Within these networks actors can define their own needs, learn about their mutual self-interest, and redefine their self-conceptions so as to alter the communities within which they are prepared to adopt a trusting attitude and to behave in a trustworthy way. A related approach is adopted by Robert Scott (2003), who argues that parties sometimes elect not to condition contracts on available verifiable measures so as to learn whether their counterparties have a preference for reciprocal fairness, thus opening the door to higher-order and, arguably, more nuanced and efficient modes of commitment.

The role of formal contract in creating the structures within which parties can learn about one another and create trust as a precursor to higher-order commitment is studied by Ron Gilson *et al.* (2010). In their work, formal arrangements for information exchange are “braided” with informal mechanisms so as to facilitate learning and commitment in an on-going relationship whose precise ends may be too poorly defined to underpin a formal contract. This approach can work only if the courts are cognizant of the role of the braid, so that they enforce only the commitment to collaborate, rather than impose high-powered incentives based on a particular outcome (*id.*, at 1427). In numerous examples, Gilson *et al.* demonstrate the effectiveness of braiding in building extra-legal cooperation in complex environments between actors who have little or no prior connection. This approach is particularly important in innovative industries, where end goals are ill-defined and technologies are undeveloped. In contrast to the predictions of standard economic theory, braiding has allowed for vertical disintegration in innovative sectors (Gilson *et al.* 2009).

2.5 Fiduciary Duty

Like the other commitment types in our hierarchy, fiduciary law creates commitments within relationships. But those commitments are optional only to the extent that relationship formation is optional: the content of fiduciary duty is determined by the courts—its scope, and the penalties for breach, are not a matter for the parties to the relationship. Hence, fiduciary duty is particularly dependent upon formal legal machinery and doctrine, and leaves little open to the discretion of the involved parties. It is for these reasons that fiduciary duty sits below contract in our commitment hierarchy.

Fiduciary law applies to a broad range of situations, many of them created when a contractual relationship is formed, and its precise nature is hard to pin down. Once again, we restrict our attention to a very brief summary of the aspects we need to make our general point.

While the appropriate scope and the precise content of the fiduciary relationship are the subject of scholarly debate, we can identify some important salient features. A fiduciary has control over the property of a beneficiary, and that control is usually open-ended.⁴⁷ Hence, the beneficiary is exposed to bad faith on the part of the fiduciary. Moreover, the fiduciary is in a superior position to the beneficiary, usually by virtue of its better information, its physical proximity to the relevant assets, or its social power (as, for example, when the fiduciary is a professional adult and the beneficiary is a child). Fiduciary law protects the beneficiary by requiring the fiduciary to act in the interests of the beneficiary and, moreover, to avoid taking any actions with respect to the fiduciary relationship that could give even the impression of self-interested behavior. Hence, for example, a fiduciary cannot sell the assets for which it has responsibility to itself, and it cannot engage in self-dealing with its assets.⁴⁸

As conceived by some authors, fiduciary law facilitates and protects close personal dealings between social actors. This conception appears to militate against our decision to place fiduciary law towards the bottom of our commitment hierarchy. For example, it has been argued that fiduciary law exists to protect trust.⁴⁹ That statement strikes us as contradictory. Trust sits at the top of our commitment hierarchy because, when it exists, it needs no legal reinforcement. It would be better to say that fiduciary law exists to protect relationships that would be better intermediated by trust, but where trust is imperfect. But that begs a question: what prevents those relationships from resting upon reputation concerns or upon contract law?

The answer is that the relationships governed by fiduciary law involve extreme contractual incompleteness.⁵⁰ The open-ended nature of the fiduciary's control renders it almost

⁴⁷For similar definitions, see, e.g., Smith (2002) (stressing the importance of discretion, and arguing that fiduciaries have control over the beneficiary's "critical assets."); Ribstein (2011) (stressing the open-ended nature of the fiduciary's power).

⁴⁸In the context of our financial market examples, fiduciary duty is of relevance because it is usually held to govern the behavior of corporate directors with regard to shareholders. Some authors contest the appropriateness of fiduciary duty in this context, or even its de facto existence. See Alces (2009-2010) (arguing that directors are not entrusted with open-ended control of corporate assets, and that the case evidence contradicts the hypothesis that directors are held to fiduciary standards). Some commentators have also argued that investment banking advisors should have a fiduciary responsibility to their clients.

⁴⁹See, e.g., Flannigan (1989) (arguing that fiduciary law has its basis in a public interest in ensuring that trust is honored).

⁵⁰For a particularly forceful exposition of a related but stronger position, see Easterbrook and Fischel (1993, 427) ("a 'fiduciary' relation is a contractual one characterized by unusually high costs of specification and monitoring."). Of course, not every incomplete contract is governed by fiduciary law, which applies when there is also a significant imbalance of power.

impossible in most situations to state up-front what course of action is in the beneficiary's interests, and renders it extremely hard to generate information about actions after they have been taken. If one could enumerate optimal choices and measure their implementation then a reputational or contractual relationship would be the appropriate commitment device. Either would be a safer way to meet the needs of the beneficiary, and neither would interfere with the natural desire of the fiduciary to pursue his own goals in tandem with those of the beneficiary.

If the impossibility of enumerating and measuring fiduciary actions renders fiduciary relationships necessary then, inevitably, the parties to a fiduciary relationship must rely to a great extent upon the courts to evaluate fiduciary actions and to provide recompense for inappropriate choices. It is hard or impossible to restrict the court's discretion (Frankel 2011, 195-200). And, because the courts frequently cannot determine after the fact whether the fiduciary acted in the beneficiary's interests, they are frequently forced to fall back upon procedural requirements, like the prohibition on self-dealing, rather than to make substantive judgments.⁵¹

Once again, we argue that new information technologies alter the range of commitments in which fiduciary law is the most effective regulating device. Better reporting systems allow for more information to be codified; in turn, this reduces information asymmetry and enables the courts to evaluate actions, rather than processes. In short, we argue that, just as better information likely renders contract more attractive relative to higher-order commitments, so too does it reduce the social utility of an imposed fiduciary solution to commitment over a negotiated contractual one.

2.6 Regulation

Regulation relates to the commitment hierarchy in two ways. First, regulations can impose commitments upon actors by virtue of their relationship to one another. Regulation that directs commitment in this fashion sits at the bottom of our commitment hierarchy. We have already argued that fiduciary law is an example of this type of commitment.

Regulation also affects higher-order commitment, by restricting the commitments that can be formed, rather than directly imposing commitments. For example, this type of regulation affects contract formation and validity, and so rules out some forms of commitment, but does not force commitment choices within the remaining range of commitments. Our concern in this Section is with this second type of regulation.

We start by asking what regulation is intended to accomplish. This would be an easier question if the involved parties could agree a purpose for a social ordering. In practice, they

⁵¹For an economic discussion of this point, see Cooter and Freedman (1991) (discussing the burden of proof in fiduciary law).

cannot; the people that comprise a society do not have common goals, and a social ordering works when it enables them to work independently towards their own notion of the Good. It is therefore meaningless to say that regulation should advance society’s goals: “society” does not have a goal or a purpose. Regulation is an *enabling* device; it allows individuals to pursue their own goals, without trespassing upon the rights of others to pursue theirs.⁵² Good regulation functions like a pacemaker: it enables its host body to function more effectively, but it does not attempt to dictate the goals of its host.

This is not to say that regulation should never prevent people from doing what they want, nor that it should never force a particular action. But we argue that regulation cannot impose such restrictions in pursuit of a unified vision of the Good. Public policy should aim for specific ends that enable the smooth functioning of the social ordering. For example, regulations intended to prevent financial crises are easily justified on the basis that crises interfere with the reasonable life plans of many people who are not implicated in the crisis; those regulations do not have to take a view on what a “reasonable life plan” looks like.

One could argue that the case for regulation against financial crises is further strengthened by the fact that even the participants in financial markets have only a limited understanding of the system-wide consequences of their actions (and, moreover, that they care little for those consequences). This is indeed the case. But it does not follow immediately that regulators have superior knowledge. If the financial crisis of 2008–09 has taught us anything, it is that complex markets are difficult for regulators to understand, and that the most apparently reasonable rules can have unintended and damaging consequences. The starting point for the regulation of complex markets should be an acknowledgment of our ignorance.

This observation lies at the heart of the literature on “new governance.”⁵³ That literature rejects the New Deal philosophy that a cadre of experts can establish the goals of public policy and then pursue those goals through the operation of a well-defined bureaucracy that follows a carefully defined plan.⁵⁴ This top-down approach to public policy may have been appropriate when regulated industries were relatively easy to understand, and when the actions of regulated actors could easily be observed. But, even if such industries ever existed

⁵²That is, as Michael Oakeshott argues, the state is a “civil association” rather than an “enterprise association.” See *supra* note 6. Of course, even this liberal position leaves a number of questions unanswered. Some scholars have argued from the individual’s ownership of her destiny to a position of absolute property rights (see, e.g., Nozick 1974). Others conclude that, if we are all to have the right to construct our own lives, property rights cannot be sacrosanct, and that some re-distribution is necessary to ensure that we are in a position to make meaningful choices (see, e.g., Rawls 1999). For the purposes of this Article we do not believe that it is necessary to adopt a position on this debate.

⁵³ For example, Cristie Ford (2010, 446) suggests in a discussion of new governance in the financial markets that regulation should proceed from “a degree of humility about knowability.”

⁵⁴Orly Lobel (2004-2005, 344) argues that the New Deal conceptualised law as “national, top-down, and sanctioned.” He contrasts this approach with the “Renew Deal” approach, which attempts to harness the knowledge and expertise of the regulated.

(and we are unconvinced that this is so), modern economies are too complicated for a single mind to comprehend and to direct.

Knowledge problems in regulation derive most obviously from the extreme complexity of modern markets. Rapid technological change does not simply increase the efficiency of existing business methods; it also enables new forms of interaction, and so results in radical changes to social structures and the interactions they support. In some markets, for example in the financial sector, these changes have been so rapid that regulators have struggled to keep pace with the practitioners they monitor. Regulated parties have thus found clever and unanticipated ways to bend regulations to their own purposes.

When regulators are faced with such rapid change, it is unreasonable to expect them to design the right rules first time around. It is equally unreasonable to expect a rule that works today to continue to work in the future. Regulation is thus re-conceptualized; the structures that support regulation in complex and fast-moving industries must increasingly support experimentation, as opposed to a priori command-and-control rules. In particular, the regulators of a complex system may establish their goals only as they learn about the operation of the system.⁵⁵ Hence, as Sabel and Simon (2003–2004, 1019–1020) observe, regulation should be concerned with the procedures that regulated and regulator use to establish and modify the norms of regulation, rather than with the enumeration of suitable behaviors and inputs.⁵⁶

In complex industries this analysis mitigates in favor of principles-based regulation. That is, it suggests that regulators should establish high-level and broad-based goals, and that they should devolve much of the interpretation of those goals to the regulated. Such regulation is not the same as *laissez faire*, and nor is it cheap; it is intended to facilitate regulatory learning, and therefore requires agencies to devote financial and human resources to monitoring the choices of regulated parties.⁵⁷ Rather, it is an attempt optimally to respond to the problems of information production; when the regulated understand the content and the purpose of their trade better than the regulator, regulations should not dictate terms.⁵⁸ Moreover, in this situation, the social costs of *ex post* principle interpretation are greatly exceeded by the costs of *ex ante* rule creation.⁵⁹

⁵⁵See, e.g., Ford (2008, 27) (“New Governance identifies ongoing deliberation as the most legitimate and most effective mechanism for making decisions in complex organizational structures”).

⁵⁶Of course, experimentalist regulation changes the locus of rule-making, and so presents potential challenges to the traditional Madisonian ideal of limited government. Michael C. Dork and Charles F. Sabel (1998) argue that an experimentalist approach is necessary in modern markets, and they discuss institutional arrangements that ensure the legitimacy of this approach.

⁵⁷“Principles-based securities regulation is thus a particular way of structuring regulation, not a decision to do away with rules.” Ford (2010, 278). Ford notes the need for adequate numbers of regulators staff and the importance of robust powers to gather information. *Id.*, at 289–290.

⁵⁸See, e.g., Liebman (2003–2004, 214) (arguing, after Dewey, that teaching is a craft that is best defined and learned from teachers who are acknowledged experts).

⁵⁹For a detailed discussion of this point, see Kaplow (1992). But see Dworkin (1967–1968, 26) (arguing

The new governance literature focuses on the limits to our knowledge of markets that are complex, in which technology changes very rapidly and regulators find it difficult to understand its use and its ramifications. Our commitment hierarchy adds a new dimension to this analysis. Technology has not only served to render contractual relationships complex and difficult to follow; it has also extended the potential scope of regulation. Precisely because we can measure aspects of reputation- and trust- based relationships, we are in a position to impose rules over their operation. The temptation, therefore, is to introduce top-down, formal regulation of higher-order relationships that previously, by virtue of their unobservability, were hard for the regulatory state to reach. Indeed, at least in financial markets, regulators appear to have succumbed to this temptation.⁶⁰

But the epistemological problems that justify an experimental and principles-based approach to the regulation of contractual relationships are far more profound when relationships are founded upon higher-order commitment. New technologies allow us to record some aspects of higher-order commitment, but, inevitably, much of the content of such commitments remains obscured from regulators. Moreover, our ignorance of the purpose of such relationships is far more pronounced. Any attempt to impose formal rules on such relationships is likely to have several undesirable consequences.

First, any attempt to use new codification technologies to impose rules upon higher-order commitments inevitably focuses the regulator's attention on the elements of a relationship that can be observed and measured. To the extent that actors wish to avoid regulation, they can alter the content of their relationships, and the ways that those commitments are recorded. As a result, the codified data that regulators receive presents a distorted picture of the relationships with which they are concerned. Furthermore, any commitment device selected solely to avoid regulation must be sub-optimal. The reason is that the involved parties have accepted restrictions upon their interaction that they would not have chosen for themselves, and that, moreover, were not selected for them by a regulator in pursuit of a wider social goal.

Second, when actors do not move higher up the commitment hierarchy in order to avoid codified regulation, they may move lower, where codification and regulatory reporting is cheaper. We have argued that higher-order commitments allow for nuanced commitments, while restricting the circle within which they can be made. Forcing actors down the hierarchy therefore restricts the range of commitments that they can make. In light of the extreme epistemological problems that the regulator faces at the top of the commitment hierarchy, it is highly unlikely that it can accurately weigh up the costs and benefits of forcing this move.

that a principle is not just an un fleshed-out rule: rather, that it is a *justification* for a rule).

⁶⁰The most obvious place to look for examples of this tendency is the Basel Accords, which lay down principles for bank regulation (Basel Comm. on Banking Supervision 2006). For example, the Second Basel Accord includes detailed formulae purporting to establish a formula for operational risks: that is, for the risk of losses due to fraud or human error. *Id.*, at 649, 654.

We conclude, therefore, that regulation should be sympathetic to the level of the hierarchy to which it relates. Codification may render some extra-legal arrangements easier to observe. Nevertheless, we cannot be sure of the purpose of those arrangements, and we should therefore tread carefully when designing rules to govern relationships that rest upon higher-order commitment. Black letter regulation of higher order tacit obligations is at best ineffective, and, at worst, highly distortive.

This is not a counsel of despair. Improved measurement admits the possibility of a greater understanding of higher-order commitments and, hence, of more effective regulation of these commitments. But we should view this measurement as the platform upon which better monitoring can occur. Hence, as we have already suggested, higher-order commitment should start from a broad statement of goals, from which regulator and regulated can build. A precise statement of intent will be ineffective, even if it uses the precise data revealed by new codification technologies.

Julia Black (2008, 446) identifies some of the challenges of principles-based regulation. In particular, she notes that, for broad principles to acquire specific meaning and relevance, they require an “interpretative community” that can firm up the natural language in which principles are expressed.⁶¹ Of course, that community must include the regulator, who should be a skeptical participant with as much access as possible to the relevant data.⁶² Furthermore, when the precise role of regulation is unclear, enforcement cannot be too heavy-handed for, if it is, the regulated are likely to adopt conservative modes of behavior, which undermine the flexibility that, we argue, is the main benefit of higher-order commitment.⁶³

In some respects, the requirements of the previous paragraph are easier to satisfy in higher-order relationships. Those relationships rest upon tacit understandings whose meanings are established in communities. The interpretative communities that are essential to principles-based regulation already exist for higher-order relationships.⁶⁴ On the other hand, the principles by which those relationships are to be regulated can emerge only slowly, as regulators come to understand the orderings that they support. And, until those principles

⁶¹See also Black *et al.* (2007, 194) (“Whether a rule is clear or certain depends on shared understandings. Just looking at a rule does not tell us whether it is certain.”). More generally, Emily Kadens argues that, far from being have a universal meaning, the customary elements of the law merchant were interpreted locally according to the mores of the community in which it was applied. See, e.g., Kadens (2012, 1181) (“[i]n the medieval mind, custom belonged to the specific community that created it.”).

⁶²For a detailed discussion of these points, see Ford (2010, 288–293).

⁶³See Black (2008, 449–450). Professor Black advocates a “negotiated model of compliance, in which meaning and application can be negotiated through iterated regulatory conversations.” *Id.*, at 451. See also Ford (2005) (arguing that the SEC’s reliance upon massive monetary penalties is inconsistent with its aspiration to change corporate culture in the financial sector, and pointing to Reform Undertakings as a step towards a more constructive form of enforcement).

⁶⁴This remark overcomes the concern, expressed by Donald C. Langevoort (2009, 1034–5), that principles-based regulation is impossible when markets are extremely extensive, since, when that is the case, it may be hard to regulate through social pressure and reputational sanctions. This concern clearly cannot bite for higher-order commitments, which are themselves built upon social pressure and reputational sanctions.

are understood, a very literal or harsh interpretation of the rules is likely to cause a severe malfunction of the ordering that those rules are intended to protect.

We believe that the investment banking industry presents a particularly interesting case study for the ideas we have developed. Historically, investment bankers relied almost entirely upon tacit and extra-legal commitment. The last forty years have seen some investment banking businesses move steadily down the commitment hierarchy: the clearest evidence of this shift is the ever-growing importance of the trading room, and of the arm’s-length, contractual, commitment upon which it relies. As we argue below, this shift was largely attributable to advances in information technology and financial engineering. Regulators have, naturally, responded to this movement by writing formal rules that are predicated upon the information used and created by the new technologies. But, to the extent that investment banking continues to rely upon higher-order commitments, this shift has the potential to backfire: as noted above, it could cause the ossification of market practice and the distortion of commitment choice. The remainder of this Article is devoted to an examination of these phenomena.

3. COMMITMENT HIERARCHIES IN INVESTMENT BANKING

The precise activities that investment bankers undertake have changed over time, but we can identify a common thread in all of their businesses. *Investment bankers exist to facilitate trade in situations of extreme unknowability.* That is, they enable parties to commit to one another in situations where neither has a complete picture of the transaction, where the important facts are very hard to acquire and extremely hard to communicate, and where critical information cannot easily be verified by a third party, such as a court. This Part expands upon this statement, and discusses its implications for commitment technologies.

3.1 Investment Banking and Early Atlantic Commodity Trade

Investment bankers emerged from the late eighteenth and early nineteenth century trans-Atlantic trade in cotton and dry commodities (Morrison and Wilhelm 2007, 255). For example, Rothschilds, Barings, Brown Brothers and Peabody all started as commodity traders (*id.*, at 123–126); each of their family trees ends with a prominent modern investment banking firm.⁶⁵

When we refer to a “commoditized” industry today, we have in mind one in which there is little product differentiation, so that firms compete largely on price.⁶⁶ Today’s commodity

⁶⁵Rothschild and Brown Brothers Harriman remain independent firms; Barings is now part of the Dutch banking giant ING; J.P. Morgan is a direct descendent of Peabody. See Rothschild, *Our History* (2014); Brown Brothers Harriman (2014); ING (2012); Morrison and Wilhelm (2007, 165).

⁶⁶For a conceptual discussion of commoditization, see, e.g., Reimann *et al.* (2010).

markets are commoditized; those of the eighteenth century were not. It was very hard at that time for commodity traders to verify the quality of goods sold, not least because information traveled across the Atlantic on sailing boats (Morrison and Wilhelm 2007, 100). Information about the credibility of counterparties was hard to acquire and difficult to assess (*Id.*, at 111). And contemporary legal institutions were ill-suited to international commerce (Horwitz 1977, 141-147; Friedman 2005, 404-407): courts were unlikely to award expectation damages; indeed, juries were permitted to create laws *ad hoc* and in line with their prejudices and their perceptions of fairness (Horwitz 1977, 29; *id.*, at 142; Morrison and Wilhelm 2007, 130). The rules governing interstate commerce were unclear (*id.*, at 130), and international trade was still governed by English marine law (Friedman 2005, 189).

Trade in these circumstances was complex. Counterparties could not focus solely upon the quality and the price of the commodities they traded, as neither of these data was easily determined, and, in any case, they could not be sure that they would be paid, nor that disputes would be reasonably settled. Clearly, then, trade could not rest upon the formal law. Indeed, merchants preferred whenever possible to avoid formal litigation, and to rely instead upon extra-legal arbitration (Morrison and Wilhelm 2007, 106–107; Horwitz 1977, 147). Commitment in this environment could only be higher-order. Market players would pay a substantial premium to deal with a counterparty who could be relied upon to keep its promises. Some combination of trust and reputational enforcement was therefore critical.

It is hard at a two hundred year remove to know whether commitment was founded upon trust as we have defined it,⁶⁷ or whether it rested upon reputation. But we contend that trust mattered, because many trading organizations were comprised wholly of family members.⁶⁸ Moreover, a good deal of trade was performed in relatively small social groups. As investment bankers became more engaged in financial work,⁶⁹ trade was initially concentrated in networks of German-Jewish immigrants and New England Yankees, centered respectively around the firms Kohn, Loeb & Co. and J.P. Morgan & Co. (Morrison and Wilhelm 2007, 162–170; Redlich 1968; Caroso 1970); at least some of the commitment within those networks appears to have been intrinsic and trust-oriented, rather than extrinsic and reputational.

But, while trust may have been important within family trading networks, reputational enforcement was the critical commitment device for early investment bankers. Early traders overcame informational problems through long and repeated relationships.⁷⁰ Both parties to

⁶⁷See *supra* section 2.1.

⁶⁸For example, eighteenth century Dutch traders expanded their networks using family members (Chapman 1984, 56). And family members were central to the Rothschilds, both as linen traders and, later, as financiers (Morrison and Wilhelm 2007, 142–143). The failure of the Rothschilds to crack the American market in the nineteenth century is attributed in part to their inability to persuade a family member to work there (*id.*, at 151; Ferguson 1998, 576).

⁶⁹See *infra* section 3.2.

⁷⁰See Morrison and Wilhelm (2007, 113–113, 129); in the specific case of the House of Brown, see Perkins (1975, 127–8).

such relationships profited from them and, hence, were unwilling to do anything that might jeopardize them. Early movers in the Atlantic trade therefore built up significant reserves of reputational capital. Their trading counterparties generally had inferior knowledge of the goods traded and the creditworthiness of other market players. Hence, in line with our earlier discussion,⁷¹ reputation was valuable because it helped those counterparties to form reasonable expectations about trade in the absence of other information. Reputation in the informationally opaque and legally primitive world of the Atlantic trade was therefore an important source of competitive advantage; without it, the cotton trade that underpinned the Industrial Revolution would have been impossible. The importance of reputation was underpinned by the panic of 1837, when cotton prices dropped twenty five percent, multiple banks failed, and eight American states defaulted on their debt (Morrison and Wilhelm 2007, 146–153). The survival of both the House of Brown and of Peabody & Co. signaled their financial reliability, thereby enhancing their reputation and hugely increasing their market share and profitability.⁷²

In summary, for technological reasons, information about goods and counterparties in the trans-Atlantic commodity trade of the early nineteenth century was complex and hard-to-verify. Moreover, legal institutions were still developing and traders preferred where possible not to rely upon legal commitment devices. The market was therefore characterized by extreme unknowability. The early Atlantic traders facilitated trade in this environment by building and maintaining reputations for fair dealing and, in the absence of other commitment mechanisms, reputational capital was a critical asset.

3.2 Early Technological Change and Financial Specialization

Financing the Atlantic trade was particularly challenging: financiers faced informational and legal problems of at least the same magnitude as commodity traders. The trusted informational intermediary was well-placed to perform this trade; in particular, its ability to exclude counterparties from its trading network enabled it to enforce trading agreements with parties who had little to fear from formal legal enforcement. Hence, the largest Atlantic traders started early on to finance trade, initially as guarantors of Bills of Exchange and as signatories of letters of credit (*id.*, at 123–126). These activities required a very strong reputation, and so had natural barriers to entry. Participants were able to generate high profits, and so were very protective of their reputations.⁷³

The Atlantic traders started to specialize in finance, and so began to look like the in-

⁷¹See *supra* note 27 and accompanying text

⁷²See *id.*, at 148–149. At this time, both firms were increasingly concerned with finance, rather than simply with commodity trade.

⁷³For example, Peabody insisted that his “credit be kept unsullied and all obligations met promptly at any cost.” (Hidy 1949, 89).

vestment banks of today, in response to seismic technological and institutional changes in the middle of the nineteenth century. On the one hand, the introduction of expectation damages in commercial law (Friedman 2005, 203-206) and the increasing sophistication of maritime trade law (Morrison and Wilhelm 2007, 129-132) rendered arm's-length contractual relationships more feasible in commodity markets. On the other hand, information flowed more easily across the Atlantic, and was more easily verified, as a consequence, first, of the 1817 inauguration of timetabled steamship crossings of the Atlantic,⁷⁴ and, later on, of the opening in 1866 of the trans-Atlantic telegraphic cable (*id.*, at 159). Both developments served to expand the space of contracts available to Atlantic commodity traders. The consequence was that commodity markets began to “commoditize.”⁷⁵ As commodity traders began to deal more at arm's length and to compete more on price than on their ability to make a credible promise, the Atlantic traders were less able to make significant returns from their reputational assets in commodity trade. But the informational challenges and legal complexities of financial trade remained significant. Finance was the natural arena in which to earn a return from reputational assets and, inevitably, the largest Atlantic traders began to specialize in finance.

The major trading houses began by financing the commodity business from which they had emerged. Later on, they used extensive networks of European contacts to raise funds for the industrialization of the United States (Caroso 1970, 29–33). We have already noted the importance of the German-Jewish and “Yankee” investment banking networks; the former were particularly successful in raising money in Germany, while the latter had strong contacts in the United Kingdom. European investors were extremely exposed because they were unable to gather detailed information about the securities in which they invested, or even adequately to audit the accounts of the issuing firms. As a result, they relied upon their bankers to identify good investments, and to achieve a fair deal for them if their borrowers ceased to pay interest. And they had little recourse to black-letter law: for many years, US bankruptcy law was created in court by the investment banks.⁷⁶ It follows immediately that reputation was a critical asset for investment banks that presented a significant barrier to entry.

In summary, major technological and institutional innovations led the antecedents of today's investment bankers to specialize in finance. They continued to operate in the most complex and opaque markets, so that the same conditions of extreme unknowability obtained

⁷⁴Morrison and Wilhelm (2007, 100-101). At 28 days, the voyage was not fast, but it represented a new level of reliability in trans-Atlantic communications

⁷⁵See *supra* note 66 and accompanying text.

⁷⁶The first bankruptcy law that was sufficiently robust not to be repealed was the Bankruptcy Act of 1898, ch. 541, 30 Stat. 544 . It was pro-debtor, and left a good deal of scope for law to be created in court: see Skeel (1998). It was only with the passage of the 1938 Chandler Act that strict procedures for insolvency were adopted. Bankruptcy Act of 1938, ch. Pub. L. No. 75-696, 52 Stat. 840 . For a detailed history of bankruptcy law, see Skeel (2001).

in the new financial markets as had existed in the older commodity markets. For all of the the nineteenth century, and for much of the twentieth, trade in these markets relied upon higher-order reputational commitment devices, and the composition of the trading firms reflected this fact.

3.3 Protecting Reputations

In light of the immense importance of their reputational assets, one would expect the early investment bankers to design their firms so as to protect their institutional reputations. They did so in three ways: first, by hiring from an appropriate pool; second, by adopting the partnership form; and third, by forming very close relationships with their client companies.

3.3.1 *Hiring policy*

The most important requirement that early investment bankers had of their hires was that they conform to the social and cultural mores that sustained the bank's reputation, and that they be sufficiently motivated by the fear of exclusion from the bank. Banks achieved this by recruiting from close-knit and relatively small social circles, stressing social connections and character over technical business education.⁷⁷

We can see this effect at work in the preeminent Yankee and German-Jewish banks of the late nineteenth and early century, JP Morgan and Kohn Loeb. Recent research by Susie Pak (2013) documents their hiring choices, and the social circles within which the senior partners of both banks moved. They were drawn from very different social circles. JP Morgan was perceived at the turn of the twentieth century as the quintessential establishment bank. It recruited executives from elite WASP circles. The partners socialized together, joining the same social clubs and sitting on the boards of the same charities. Kuhn Loeb's senior executives were recruited from a close-knit group of families that were descended from German-Jewish immigrants. Like Morgan's partners, Loeb's socialized together, but there was almost no contact between the Morgan and Loeb circles outside of business hours.

3.3.2 *Partnership structure*

The consequences of reputational impairment are long-lived. Hence, reputation is most easily maintained when bankers care about the long-run. Pre-1970 investment banks accomplished this by adopting the partnership form.⁷⁸ The defining characteristics of a partnership are

⁷⁷See Supple (1957, 145) (documenting the close-knit social circle from which German-Jewish bankers were drawn); Morrison and Wilhelm (2007, 165–170) (presenting evidence of close contact between prominent Yankee bankers).

⁷⁸The argument of this and the following paragraph is expounded formally by Morrison and Wilhelm (2004).

first, that it is owned by its managers, and second, that its members are able to commit one another in their business dealings. Hence, when a partnership employee enters the partnership, she risks her own capital, and she has to rely upon her partners to protect it. These observations have two consequences. First, in an opaque business like an investment bank, junior employees represent the most natural market for the shares of retiring partners. Those employees are best-informed about the future prospects of the firm and about their own ability to run the firm in the future; if either the firm's prospects or the training of junior staff is unsatisfactory then the price of a partnership share is impaired. Current partners therefore have a strong incentive to maintain the firm's reputation and to train their junior staff, and partners' horizon extends sufficiently far beyond their own retirement to satisfy the next generation of partners. The partnership form is therefore a natural mechanism for sustaining institutional reputation.

The second implication of investment in a partnership derives from the ability of each partner to commit the others. New partners must therefore be convinced that they can avoid malfeasance by their partners. This places an upper bound on the size of the partnership for two reasons. First, peer group monitoring is hard in large partnerships, so that it is easier for a partner to make reputationally damaging choices without detection. Second, in large partnerships the costs of reputationally damaging actions are shared amongst many people, while the benefits of taking those actions is captured by the person that takes the action; the cost of reputationally damaging costs is therefore lower.

While partnerships protect reputation, their limited scale restricts their access to partner funds, and so precludes their entry into very capital intensive businesses. For most of the history of investment banking this restriction had little bite; investment banks were pedaling reputational services, and did not need deep reserves of financial capital.⁷⁹

3.3.3 Close relationships

We have already argued that reputation is effective only if it is deployed within social networks where bad faith can be detected and punished.⁸⁰ For many years, investment bankers created such networks by sustaining close and lengthy relationships with their client firms. For example, it was common practice throughout the nineteenth and much of the twentieth centuries for investment bankers to take seats on the boards of the firms for which they issued securities.

We have gathered evidence on investment banker Board representation from court submissions relating to a suit filed under the Sherman Act by the US Justice Department against seventeen investment banks that were accused of conspiring to suppress investment banking

⁷⁹For evidence of low investment bank capitalization in the mid-twentieth century, see Morrison and Wilhelm (2008, 334, Table III).

⁸⁰See *supra* section 2.2.

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Bank	Directorships	Bank	Directorships
Blyth	10	Kidder Peabody	4
Dillon Read	2	Kuhn Loeb	10
Drexel	2	Lehman Brothers	54
Eastman Dillon	4	Morgan Stanley	2
First Boston	3	Smith Barney	8
Glore Forgan	6	Stone & Webster	2
Goldman Sachs	34	Union Securities	9
Harriman Ripley	6	White Weld	6
Harris Hall	1		

Table 1

Board memberships by bank for the seventeen banks cited in *US v. Morgan et al.*

over a thirty year period starting in 1915.⁸¹ The submissions covered the period from 1930 through 1949. Table 1 shows the number of firms at which partners of the cited banks had Board memberships in that period. Twenty firms had directors from more than one bank; ten had directors from both Goldman Sachs and Lehman Brothers. In most instances, a firm with a banker on its board used his bank for at least one securities issue.

Although all banks had board representation at other firms, partners at Goldman Sachs and Lehman Brothers were by a wide margin the most active board members. Their bankers had very long-lived relationships with the firms upon whose boards they sat. We illustrate this with more data from the *US v. Morgan et al* papers. Table 2 illustrates external directorships held over the reporting period by Sydney Weinberg, head of Goldman Sachs from 1930 to 1969.⁸²

The widespread presence of bankers on non-financial firm boards is a priori susceptible to both positive and negative explanations. The banker could have provided a valuable service, by advising his companies on financial matters, and acquiring information that he could later use for share flotation. Moreover, because a banker risked his reputation when he accepted a board seat, he had a motive to execute his duties carefully, and also a reason to pick the firms upon whose boards he served with particular care. On the other hand, a bank directorship could have been evidence of self-dealing or of monopolistic malpractice by bankers; this was certainly the view taken by a number of prominent early twentieth century commentators (see, e.g., Brandeis 1914).

⁸¹The United States alleged that the defendant banks “entered into a combination, conspiracy and agreement to restrain and monopolize the securities business of the United States.” *United States of America v Henry S. Morgan, Harold Stanley et al.*, 118 F. Supp. 621, 628 (S.D.N.Y. 1953). This was contrary to the Sherman Act, which declares such restraints on commerce illegal. Sherman Anti-Trust Act of 1890 15 U.S.C. § 1-7, § 1 (2009).

⁸²For a description of Weinberg and his management style at Goldman Sachs, see Endlich (1999, 50–62); for his service on boards generally, see *id.*, at 55–57.

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Client	Start Date	End Date	Tenure as Director (years)
Cluett, Peabody & Co., Inc.	6/3/30	12/31/49	> 20
Continental Can Co., Inc.	6/11/30	2/31/49	> 20
Franklin Simon & Co., Inc.	10/11/36	1/14/39	2
General Cigar Co., Inc.	2/16/33	12/31/49	17
General Electric Co.	6/22/45	12/31/49	4.5
General Foods Corp.	6/25/30	12/31/49	> 20
B.F. Goodrich Co.	6/10/30	12/31/49	> 20
Manhattan Shirt Co.	1/1/27	12/22/38	12
McKesson & Robbins, Inc.	4/14/34	12/31/49	> 16
National Dairy Products Corp.	8/7/30	2/20/36	5
Sears, Roebuck & Co.	7/1/30	12/31/49	> 20
Van Raalte Co., Inc.	1/1/27	12/31/49	> 23

Table 2

External directorships held between 1930 and 1949 by Sidney Weinberg. Those directorships whose length is assigned a lower bound were active at the end of the reporting period for *US v. Morgan et al.*

Academic evidence appears to support the positive view of banker board participation. At the turn of the twentieth century, firms experienced positive share price reactions when a J.P. Morgan partner joined their boards.⁸³ Moreover, the share prices of firms with banker directors suffered a negative price reaction relative to firms with no such directors after the 1914 passage of the Clayton Antitrust Act,⁸⁴ which weakened the influence of bankers in non-financial corporations (Frydman and Hilt 2011).

3.4 Information Marketplaces

We have argued that a common feature of investment bank business lines is that they all involve situations of extreme unknowability. We have presented evidence that, at least historically, bankers addressed this problem using higher-order reputational commitment devices. We now take a deeper look at informational issues in investment banking by examining two important investment bank business lines: initial public offerings, and M&A advisory work.

3.4.1 Initial public offerings

The formal procedure by which Initial Public Offerings (IPOs) are brought to market in the US was established by the 1933 Securities Act, and has since been refined. We do not

⁸³See DeLong (1991) (finding that between 1910 and 1912, the presence of a J.P. Morgan member on a corporate board added about 30% to the price of the corporation's common stock).

⁸⁴Clayton Antitrust Act of 1914, Pub. L. No. 63-212, 38 Stat. 730 (1914).

attempt in this Article to perform a comprehensive review of the rules in this area; our focus is upon the flow of information in securities offerings, and upon the extra-legal role that investment bankers play.⁸⁵

Section 5 of the 1933 Securities Act required information about IPOs to be properly disclosed through a registration statement and a statutory prospectus, and it also ruled that IPOs should not be sold before the registration statement was in effect.⁸⁶ The Act did not ban face-to-face communication, and it was quickly established that issuers could distribute circulars before registration, provided they did not attempt to solicit offers to buy the new securities. It rapidly became industry standard practice to circulate the registration document with a red legend stating that it did not constitute an offer to sell: the so-called “red herring” prospectus (see Langevoort and Thompson 2013, 8).

These practices were formally recognized in 1954 amendments to the Securities Act that broke the offering period into three distinct periods, which continue to structure today’s issues (Langevoort and Thompson 2013, 12–13). First, the *quiet period* started when the investment bank won the underwriting mandate and signed a letter of intent; as a result of 2005 changes to the rules (*id.*, at 16–17), the quiet period now starts 30 days before the submission of a registration statement. During the quiet period the bank performs necessary due diligence⁸⁷ and prepares a registration statement. Communications are strictly regulated in the quiet period: companies cannot make oral or written statements that might “condition” the market.⁸⁸

Second, the submission of the registration documents marks the start of the *waiting period*, during which the documents are reviewed by the SEC.⁸⁹ Information can be communicated during the waiting period. Under the 1954 rules, oral communication was permitted, and written communication through the red herring prospectus, tombstone ads and an identifying statement were allowed (Langevoort and Thompson 2013, 13). The distinction between oral and written communication has been somewhat blurred by technological advances, and, under the 2005 SEC rule changes, issuers can use a “free writing prospectus” in the waiting period to communicate information and an expected price range: free writing prospectuses can be promulgated using a range of methods from email to letter, provided some (complex) safe harbor requirements are met (*id.*, at 17–18). The SEC now relies upon liability rules to keep communications honest (*id.*, at 19).

Finally, the *post-effective* period starts when the SEC declares the registration documents

⁸⁵For a clear account of the evolution of disclosure rules in IPOs, see Langevoort and Thompson (2013).

⁸⁶See Securities Act of 1933 15 U.S.C. § 77a-77mm, § 77e(a) (2009).

⁸⁷For a discussion, see Schneider and Manko (1981, 34).

⁸⁸Companies cannot generate publicity that might affect perceptions of the issuer; this follows an SEC interpretation of Section 5(c) of the Securities Act, which prohibits any person from selling or offering to sell a security through any medium (Rice 2004, 323; Choi and Pritchard 2012, 416).

⁸⁹For a discussion of the review process and the time it occupies, see Choi and Pritchard (2012, 433–4).

effective (Choi and Pritchard 2012, 439). Sales then occur, and the final prospectus is delivered.

Notwithstanding the formality of the IPO process, the investment bank's most significant economic activities are extra-legal. It is responsible for establishing the right price for the new issue, and ensuring that there is an adequate market for the shares when they are sold. Neither of these activities is easy to contract upon, and the investment banker's reputation is the basis for credible commitment between the relevant parties.

The extra-legal nature of the investment bank's activities is particularly apparent in its pricing responsibilities. The price of a security reflects the likely cash flows that the underlying business will generate, the riskiness of those cash flows, and the other calls upon investor funds when the shares are sold. No single party to the IPO has all of the information needed to establish all of these facts. The management of the business that is being floated has the best information about the quality of its product. However, the insiders are not well-placed to estimate product riskiness, and they certainly cannot evaluate their business against alternative investment opportunities. Indeed, an entrepreneur need not have a particularly good grasp of the business opportunities that he will have after flotation. Professional investors and investment analysts are best placed to evaluate business riskiness, business opportunities, and outside investment opportunities.

Hence, investment bankers do not communicate with investors solely to impart information about the issuing company; bankers also gather information about demand for the issue that they need if they are accurately to price the issue. The process by which this information is acquired and used to establish a price is sometimes referred to as "book building." As Langevoort and Thompson (2013, 15) note, effective book-building and, hence, effective pricing, is impossible if information cannot flow between banker and investor during the waiting period. The SEC's steady relaxation of communication rules reflects this fact.

The banker intermediates the flow of information between issuer and investor in order to ensure that both parties truthfully reveal all of their information. The floating firm has a natural incentive to be optimistic, so as to maximize the value of its shares. Similarly, if investors have truthful information about a new issue their incentive is to understate its value so as to acquire shares cheaply. SEC rules can protect investors from outright fraud but they can do little to prevent the parties to an IPO, concerning which very little public information exists, from engaging in wishful or pessimistic thinking. And this problem cannot be resolved through the creation of an arm's-length textbook market in information: as we have already noted, such a market cannot be created, because information is non-verifiable and cannot be alienated.⁹⁰

The investment banker achieves honest information sharing where an arm's-length mar-

⁹⁰See *supra* text accompanying note 8.

ket could not. It devotes resources to verifying the claims that issuers make about their businesses, which it can then certify to all putative investors. Its certification is plausible because it risks its future reputation for probity when it expresses an opinion. That reputation is valuable because it ensures the ongoing participation of investors. At the same time, investors can establish reputations with investment banks, because the banks are long-lived players. What investment banks require of their investors is accurate pricing and guaranteed participation in issues, even if they prove on the issue date to be unattractive; in exchange, the investment bank provides the investor with share allocations at discounted prices.⁹¹ Investors maintain their reputations so as to ensure that they have access to IPO allocations.

M&A Business

Investment banks also have a traditional intermediation role in the Merger and Acquisition (M&A) process.⁹² If the parties to a corporate takeover had all of the information that they needed to determine the fair price for the deal then an open auction would maximize the revenue accruing to the target firm. In practice, however, roughly half of large corporate M&A deals involve negotiations with a single bidder, and many deals involving many bidders are still controlled sales with a deliberately limited pool of bidders (Boone and Mulherin 2009, 28). By restricting the universe of potential buyers, the investment bank is able to control the flow of information about the target firm through non-disclosure agreements.⁹³ One reason to do so is that this information is likely to be commercially confidential; a buyer may be less willing to acquire a firm if it knows that its competitors have acquired that information during the takeover process, and the target may be unwilling to share information indiscriminately. Moreover, understanding that information is costly, and a bidder may be unwilling to make the necessary expenditure if it seems unlikely to succeed in its bid.

Information Marketplaces

Investment bank actions are structured by regulations in the IPO and M&A markets, but they add value through their ability to sustain extra-legal trade using their reputational capital. In both markets, investment bankers facilitate the exchange of information on fair

⁹¹Information exchange between investors and investment bankers occurs during roadshows and, inevitably, there is differential access to information between roadshow participants and other investors. This has led a number of commentators to suggest that road shows should be conducted via the internet, do that retail investors have the same opportunities to acquire information as do professional investors. See Eddy (2000, 868); Svahn (1999, 253); Yi (2002); Unger (2001).

⁹²For a discussion of J.P. Morgan's role in nineteenth century corporate mergers, see Morrison and Wilhelm (2007, 182-184)

⁹³For a discussion of the mechanisms through which information flows are restricted, see Boone and Mulherin (2009, 29-30).

terms; without that information the markets would function less effectively and, hence, it is socially very important. The information could not be exchanged in an arm's-length market, and it is not readily susceptible to formal contract.

We draw some general conclusions from this discussion.

First, investment bankers find alternatives to formal contracting over information. In other words, the most important investment banking activity is creating an *information marketplace* within which buyers and sellers can exchange information. The investment bank's reputation underpins this marketplace; on the one hand, it reassures participants that the information they receive will be accurate; on the other, the threat of exclusion from the information marketplace serves to keep information suppliers honest.⁹⁴

Second, one cannot create an information marketplace without dealing with counter-parties on both sides of the relevant transaction. In their traditional roles, it follows that *investment banks are inevitably conflicted*. This problem cannot be legislated away; it must be managed as effectively as possible.

3.5 Recent Technological Changes

We have argued that the Atlantic commodity traders became modern financiers in response to shocks to trans-Atlantic communications technology and to the legal and institutional environment in which they operated.⁹⁵ The development of computer technology had a similarly significant effect upon investment bankers.

Computers came to Wall Street in the 1960s (Morrison and Wilhelm 2008, 329). The early computers were large mainframe computers. They were capable of performing large scale repetitive computations ("batch processes"), but were unable to provide real time data analysis. They were therefore of most utility for large scale processing of customer information and for deals settlement. These were tasks that were particularly important to firms like Merrill Lynch and E.F. Hutton whose business involved a lot of deals with small clients. This type of "retail" business was particularly reliant upon its back office operations and could generate a significant competitive advantage by adopting computerized settlement. Indeed, when a surge in trading volumes between 1967 and 1970 triggered settlement problems that forced the NYSE to shorten its trading day and then to close on Wednesdays, firms like Merrill that had embraced computers experienced far fewer settlement failures than those that had not (*id.*, at 331).

Mainframe computers were extremely useful to retail firms that generated a sufficient volume of deals to justify their very high cost. They were less relevant to the business model of "wholesale" firms, of whom the most important exemplar was Morgan Stanley. Such

⁹⁴For another discussion of the participants in the information marketplace, see Morrison and Wilhelm (2007, 71-88).

⁹⁵See *supra* section 3.2.

firms were engaged mostly upon advisory businesses and underwriting activities. Hence, retail firms were the earliest investment bank adopters of information technology.

The importance of this change cannot be overstated. We argue above⁹⁶ that investment bankers built their business upon higher-order commitment devices because it was impossible for them to capture the data upon which they traded in a court-verifiable format. Computerization changed this: for the first time, information about clients and about deals that had formerly been entirely tacit was codifiable and, hence, was more subject to contract. Some investment banking activities started to move down the commitment hierarchy. And, as businesses became more susceptible to computerization and contract, new opportunities emerged to achieve economies of scale. This was an important change: we have noted that capital constraints on traditional investment banking partnerships did not bite because they had little need of capital.⁹⁷ The new economies of scale rendered financial capital important for the first time and, hence, created a trade-off between financial capital, which could not be raised in significant quantity by a partnership firm, and the reputational capital that partnerships incubated. For the retail firms, in which reputational incentives were undermined by the new information technology, the scale tilted in favor of financial capital. In 1971 the New York Stock Exchange relaxed rules that prevented its member firms from floating, and a wave of retail firms floated immediately. The wholesale firms, which derived little value from mainframe computers, and in which reputational capital remained critical, did not float (Morrison and Wilhelm 2008, 334-335).

Wholesale banks became subject to the trade-off between financial and reputational capital only when information technology enabled them to codify elements of their business, and to capture economies of scale. This started to happen when computers became sufficiently small and powerful to run applications like spreadsheet programs that could be interrogated in real time. This innovation coincided with a series of advances in the analysis and valuation of financial derivatives like option and swap contracts. The associated mathematical models were easy to apply by traders who had access to new microcomputer technology. As a result, an increasing part of trading could be reduced to the mathematics and computer science of derivative modeling. Moreover, as traders began to appreciate the power of the new technology, businesses that had previously been the preserve of the old-fashioned reputational banker started to move into the trading room. For example, interest rate swaps were initially performed by bankers who arranged back-to-back trades between counterparties with whom they had relationships; spreadsheet models and liquid interest rate futures markets resulted in their management from trading desks (*id.*, at 339-341).

These changes had a significant impact upon wholesale firms and their position in the commitment hierarchy. Computerization and financial engineering rendered codifiable much

⁹⁶ See *supra* sections 3.1 and 3.2.

⁹⁷ See *supra* note 79 and accompanying text.

that previously had been tacit. Computers could analyze performance data, and tradeable instruments were by their nature more susceptible to contract than the relationship-based transactions that they displaced. The consequence was that many wholesale investment banking activities could be supported by commitment devices lower down the hierarchy. In those businesses, reputational capital no longer presented a significant barrier to entry. The consequence was the emergence of new competitors for the old blue chip investment banks and, with them, narrower trading margins (*id.*, at 341). At the same time, computers served to increase the scale at which a derivatives trading operation could operate from a given cost base.

The combined effect of a lower position on the commitment hierarchy and a concomitant need for financial scale had the same effect upon the wholesale banks as it had had upon retail banks (*id.*, at 343). The 1978 acquisition of Salomon Brothers by the public company Phibro (see, e.g., Markham 2002, 100) was the start of a lengthy move towards the public ownership of wholesale investment banks. The wholesale firms went public as their primary businesses became codified and moved into the trading room. The last blue chip bank to float was Goldman Sachs, in 1999 (Morrison and Wilhelm 2007, 279): Goldman delayed flotation for as long as it did because it remained very committed to the traditional advisory businesses in which reputational capital remained important.⁹⁸

3.6 Commitment Spectrum, Relationships, and Conflicts

The previous Section argued that new technologies have forced some investment bank activities lower down the commitment hierarchy. In others, primarily the advisory businesses, higher order commitments remain critical. In short, the long-run effect of the last half century's advances in information technology and financial engineering has been to broaden the spectrum of commitment devices that investment banking firms use. This has had two significant effects. First, as bankers and clients have become better able to rely upon contract rather than reputation, their incentives to maintain close relationships have been attenuated. Second, new problems of labor mobility and conflict management have arisen. We consider these effects in turn.

Relationship strength

If, as we claim, investment banks from the 1970s onward became less reliant upon reputational commitment and more able to use contract, neither they nor their clients had as much need as previously for the strong relationships within which reputation can be maintained. We should therefore see changes to the patterns of relationships between investment banks

⁹⁸For discussion of the lengthy partnership debate that preceded the Goldman flotation decision, see Endlich (1999, 18, 371).

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Table 3

Exclusivity data for major banks from 1933-1969.

Banks	Clients	Exclusive Relationship	% of Client's Deals Managed
Morgan Stanley & Co.	182	60.99%	69.34%
First Boston Corp.	355	45.63%	42.60%
Kuhn, Loeb & Co.	160	56.88%	62.44%
Lehman Bros.	340	57.65%	46.35%
Halsey, Stuart & Co.	212	16.04%	24.68%
Dillon, Read & Co.	132	68.94%	58.41%
Blyth & Co.	315	59.37%	42.62%
Goldman, Sachs & Co.	305	67.54%	63.43%
White, Weld & Co.	269	60.97%	39.74%
Kidder, Peabody	417	67.63%	39.35%
Smith, Barney & Co.	162	55.56%	42.11%
Salomon Bros.	132	27.27%	18.88%
Eastman Dillon, Union Securities & Co.	237	64.14%	41.93%
Merrill Lynch	186	51.08%	30.67%
Harriman Ripley & Co.	83	38.55%	25.34%

and their clients. This Section presents evidence of such changes.

We have constructed a unique dataset that allows us to study the changing nature of investment banking relationships. We draw upon three sources. First, we use data that were submitted to the court by the defendants in *US v. Morgan et al*⁹⁹ relating to deals between July 26, 1933 and December 31, 1949. Second, we extract deal data for the 1950s and 1960s from contemporary records in *Investment Dealers' Digest*. Third, we extract post-1970 data from the Thomson Reuters SDC database. This dataset holds incomplete records for issues between 1970 and 1979, and we therefore exclude these years from much of our analysis.¹⁰⁰

We use these data to determine the exclusivity of investment banking relationships before and after the introduction of computers to Wall Street. For the 1933-1969 period, Table 3 reports for leading investment banks the number of clients for which it ran a securities offering, the fraction of its relationships that were exclusive,¹⁰¹ and the percentage value of

⁹⁹United States of America v Henry S. Morgan, Harold Stanley *et al.*, 118 F. Supp. 621 (S.D.N.Y. 1953).

¹⁰⁰We follow the empirical investment banking literature and exclude from our analysis unit issues, limited partnerships, issues by funds, LBOs, self-funded deals, rights issues, equity deals with par amounts below 5, and debt issues of less than two years or less than \$1 mn. We also exclude issuers with the following SIC codes: 4000s (Transportation, communications, electric, gas, and sanitary service), 6000s (Finance, insurance and real estate), 9000s (Government issuers).

¹⁰¹We categorize a client's relationship with a particular bank as "exclusive" during a decade if the bank is the only one that underwrote any of the client's deals in that decade.

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Table 4

Exclusivity data for major banks from 1980-2009.

Banks	Clients	Exclusive Relationship	% of Client's Deals Managed
Goldman, Sachs & Co.	1,038	38.92%	36.12%
Morgan Stanley & Co.	762	39.37%	33.74%
Salomon Bros.	735	27.35%	25.28%
Merrill Lynch	899	36.04%	25.88%
Drexel Burnham Lambert Inc	482	51.45%	59.98%
Lehman Bros.	669	38.57%	24.58%
J. P. Morgan & Co.	550	29.82%	19.77%
Bank of America	659	34.75%	21.22%
Credit Suisse	502	42.83%	26.99%
First Boston Corp.	387	32.04%	21.89%
Donaldson, Lufkin & Jenrette, Inc.	400	48.50%	31.10%
Bear, Stearns & Co.	369	47.97%	20.76%
Barclays Bank PLC	72	22.22%	13.07%
Deutsche Bank, A. G.	180	34.44%	11.21%
Kidder, Peabody	335	46.87%	17.11%

all of its clients deals for which it acted as lead manager.¹⁰² Table 4 reports the same figures for the 1980-2009 period.

The exclusivity of investment bank relationships is strikingly lower after 1980 than it was before 1970. This indicates that issuers were more willing or more able to pick banks on a deal-by-deal basis. Doing so enabled them to seek the lowest issuance fees, the best deal placement, or some other criterion. But doing so came at the expense of their relationships; when a banker felt that it was less likely to profit from a long-term relationship with a client his willingness invest in that relationship was correspondingly reduced. Hence, when the banker came to create the information marketplace necessary to float that client's securities he would be less able to do so. That bankers started to resolve this trade-off in favor of deal-by-deal negotiation rather than long-term relationship management in the last decades of the twentieth century indicates that investors had access to alternative sources of information. Those sources derived from better information technology and the improved codification and contracting that came with it.

A weakening of client relationships altered the way that advisory business was performed. In contrast to the modern practice of paying advisory fees contingent upon deal completion, banks routinely received no payment for advice until the 1960s, understanding that com-

¹⁰²When a deal has more than one lead manager we apportion its value equally between them. This was an extremely rare occurrence before 1970.

compensation would come from relationship fee income from securities issuance.¹⁰³ This was a reasonable understanding in a world with stable and often exclusive relationships, and had the desirable side-effect of diminishing banker incentives to promote deals not in their clients' best interests. But, as relationships became less exclusive, bankers started to charge for their advice.¹⁰⁴

Coincidental with the weakening of client relationships through the 1970s and 1980s, the length of partnership tenure at investment banks dropped. The traditional investment bank's partnership structure mitigated against employee mobility. Investment banking partnerships were opaque to the outside world: clients and competitors could see the firm's results, but they could not easily determine who was responsible for those results. This opacity was fostered by the imposition of flat pay scales within banks and the adoption of "up-or-out" promotion policies; only by observing the firm's promotion decisions could outsiders intuit which of the its employees were the most effective. As a result, investment banks that attempted to hire their competitors' staff faced a potential winner's curse problem: in the absence of hard information to the contrary, they would fear that any banker willing to accept their offer of employment was of low quality, and did so only because he did not anticipate future promotion at his current firm. As a result, lateral movement between banks was extremely uncommon, and investment banking partners tended to spend their entire career at one institution (see Morrison and Wilhelm 2008).

We use our partnership data to examine changes to partnership tenure at our sample leading investment banks through the twentieth century. For example, the average partnership tenure of the five partners working for Goldman Sachs in 1934 was 37 years. John Whitehead,¹⁰⁵ who eventually became the chairman of Goldman Sachs, joined the firm in 1947 and was one of three bankers promoted to the partnership in 1956; this was the largest new partner cohort in the firm's history. They joined thirteen existing partners. The average total tenure of those sixteen partners was 26 years.

Our data show a fall in average partner tenure in the second part of our sample period, and an expansion in partner numbers. When Whitehead retired from Goldman Sachs in 1984, he and 16 other retiring partners were replaced by a new 25-member partner cohort; as a result, the firm lost 226 years of partnership experience, by far the largest change to that point in the firm's history. The partnership then stood at 89 members, whose average time as a partner at that date was only seven years.

The changes that occurred at Goldman Sachs over the course of Whitehead's career are

¹⁰³For example, D.M. Dwight Whitney (1954, 338), counsel for two of the defending banks in *US v. Morgan et al*, stated in a comment on the case that "The only real business is the buying and selling business, and the advisory does not exist separately but only as part of the general service to the issuer."

¹⁰⁴For a discussion of the emergence of M& advisory work as a distinct, fee-charging, business line, see Morrison and Wilhelm (2007, 255-262).

¹⁰⁵See Endlich (1999, 70-76) (outlining Whitehead's career).

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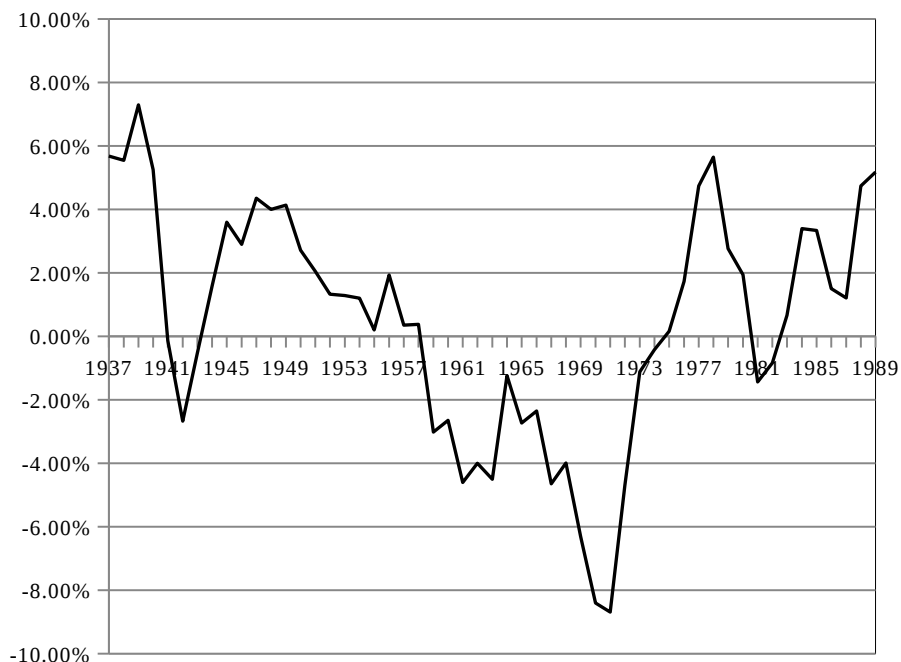


Figure 1

3-Year Moving Average Percentage Change in Partner Tenure. Partner tenure is measured as the number of years served as a partner entering the current year. The percentage change is calculated annually and used to calculate the average percentage change for the preceding 3 years. The figure reports the average of this 3-year moving average calculated for each of Dean Witter, Goldman, EF Hutton, Lehman, Merrill, Morgan Stanley, Salomon, and Smith Barney. The chart shows the average figure.

representative of broader industry trends. Figure 1 shows a rolling average of percentage changes in partner tenure at eight leading investment banks between 1937 and 1989. There was a sharp drop during the period when Wall Street started to computerize.

Shortening investment banker tenure was in part a consequence of increased labor mobility in investment banking. It is to this phenomenon that we now turn.

Individual and Institutional Reputation in Investment Banking

We note above that, when reputational capital was more important to investment banks than technical smarts, their employees were hired from a pool likely to conform with local cultural mores and to value their association with the firm.¹⁰⁶ As new technology improved legal contracts and rendered it easier to monitor bankers, the rationale for seeking future partners in a restricted social and cultural circle was correspondingly diminished. The investment banks started to cast their recruitment nets wider, and to hire staff on the basis of their technical skills as well as their social contacts. Between 1965 and 1969, the fraction of Harvard's graduating MBA class that accepted investment banking jobs increased from 8

¹⁰⁶See *supra* text accompanying note 77.

to 21 percent (Morrison and Wilhelm 2007, 245, n. 48). The increase was due in part to the retirement of a generation of investment bankers; it also reflected the growing need for technical skills in the new trading room-oriented businesses.

Technological change did not merely change the social make-up of investment bankers. It also gave them opportunities to build individual reputations. The traditional opacity of investment banks was undermined by the codification of activity and the corresponding measureability of individual banker performance. When a bank's rain-makers could be identified by market players they could also be recruited, and so could capture a higher fraction of the returns to their talent. For the first time, *individual* reputations became important in investment banks, and a "star" culture began slowly to emerge.

Superior skill earns very high returns in star cultures and, as a result, highly skilled actors have very strong incentives to identify themselves. Such a system may enhance economic efficiency, by ensuring that complex work goes to the actors most able to perform it. But it generates problems in the situations of extreme unknowability with which investment bankers are concerned. The problem arises because a banker with special skills may be able to reveal them only by taking complex actions that are not in the client's best interests. For example, a junior employee may demonstrate his brilliance to the labor market by executing an unnecessarily complex cross-border M&A deal, or performing a pointless credit securitization.¹⁰⁷ Clients who have only a vague idea of what service they most require are highly exposed to this type of opportunism. Traditionally, such clients could rely upon the investment bank's reputational concerns to ensure that they got the services they required. Increased labor market mobility has brought that reputational concern into conflict with the individual investment banker's incentive to build a personal reputation. This is a new conflict-of-interest problem. Investment banks are inevitably conflicted; managing their conflicts is increasingly hard in organizations with broad spectrum commitment.

These observations suggest that, in some banks, the conflict between individual and institutional reputation will be resolved in favor of the individual. For example, Geoff Boisi, the youngest-ever partner of Goldman Sachs, left the firm in 1991 because he felt it was starting to embrace a star culture, with non-partners in pursuit of star status assuming massive risks with partnership capital. Wilhelm and Downing (2001, 9) This is a particularly striking example, because Goldman was historically focused upon teamwork and client well-being.¹⁰⁸

¹⁰⁷For a formal exposition of this idea in a non-financial context, see Ely and Välimäki (2003). For related work in an investment banking context, see Chen, Morrison, and Wilhelm (2014); Chen, Morrison, and Wilhelm (2014).

¹⁰⁸On Goldman's emphasis on teamwork, see, e.g., Endlich (1999, 21).

4. REGULATORY IMPLICATIONS

The previous Part argued that recent advances in information technology and financial engineering have caused many investment banking businesses to move lower down the commitment hierarchy. As a result, investment banks now operate across a broader spectrum on the commitment hierarchy than every before. This change has altered the nature of investment bank relationships, and has generated new conflicts in investment banking. In this Part, we draw out some preliminary conclusions for investment bank regulation.

4.1 Foundational Remarks

We argue above that, when attempting to regulate a complex and rapidly changing market, we should start by acknowledging our ignorance.¹⁰⁹ Our social ordering changed as information technology improved and investment bankers chose to move elements of their business lower down the commitment hierarchy. It is always hard to fathom the purpose that a social ordering serves;¹¹⁰ the problem is particularly difficult in today's rapidly evolving investment banking business. And, in line with remarks made earlier in the Article,¹¹¹ we cannot hope to write detailed rules until we have a better understanding of the purpose of the new ordering and, ultimately, of its regulations. In short, our earlier analysis points towards a principles-based system of regulation in which information is shared between regulator and regulated. Our remarks in this Part are therefore concerned with regulatory principles rather than with specifics.

Recall that our basic position is the liberal one that regulation should respect the autonomy of regulated actors: good regulation facilitates an orderly social order, but does not attempt to dictate its direction.¹¹² So, to the extent that bankers and their clients prefer to operate at a lower point on the commitment hierarchy, we should attempt to change their choices only if their actions significantly affect the autonomy of unrelated actors.¹¹³

If one accepts this principle then one cannot attempt to force investment bankers back up the commitment hierarchy simply because one finds their modern reliance upon lower-order commitment devices distasteful. Some commentators have argued, for example, that investment banks should be forced to re-adopt the partnership form.¹¹⁴ To make this case in a liberal economic framework, one needs to identify a clear and costly externality. It is clearly difficult to demonstrate this: changes to commitment choices may be rent-seeking

¹⁰⁹*Supra* text accompanying note 53.

¹¹⁰*See supra* note 3 and accompanying text.

¹¹¹*Supra* text accompanying notes 55–56.

¹¹²*See supra* note 6 and accompanying text.

¹¹³In other words, as we argue above, regulation should alter commitment choices only if they unreasonably affect the reasonable life plans of actors not engaged in the regulated activity. *See supra* note 52 and succeeding text.

¹¹⁴See, e.g., Davidoff (2008); Harper (2011) (making the case for partnerships).

attempts to avoid regulation, but they might equally enhance efficiency, and, hence, welfare. Regulation thus immediately runs up against knowability problems.

Epistemological problems lie at the center of the discussion in Section 2.6. We argue there that the best way to overcome such problems is through close interaction between the regulated and the regulator that is governed by a clear set of principles.¹¹⁵ One way to achieve this interaction is through a system of self-regulation and, while there may be other equally effective approaches, this one has the virtue that it already exists. Andrew Tuch has written a recent and excellent discussion of its operation.¹¹⁶ Professor Tuch quotes William O. Douglas, SEC chairman from 1937 to 1939, who argues that self regulation is effective because it is able to regulate conduct and activity “lying beyond the periphery of the law in the realm of ethics and morality” (*id.*, at 12). Douglas’ comments are technically correct: precisely because investment banking is still partially governed by tacit understandings and private languages, investment bankers are best placed to engage with its extra-legal elements: they form the type of “interpretative community” to which Professor Black refers in her work.¹¹⁷

But the ethical content of Douglas’ comments is a poor basis for policy making. We remark in a commentary upon Professor Tuch’s work that, if Douglas believed that self-regulation should concern itself with ethics, then he should have spelled out his ethical stance (Morrison and Wilhelm 2014). Professor Tuch’s position, for example, is that self-regulation ought to enforce professional standards (Tuch 2014, 7). But we have argued that many of the virtues that we recognize as constitutive of professionalism in investment banking evolved as optimal responses to complex commitment problems. If bankers and their clients elect to use lower-order commitment devices, they and the society in which they operate may be better served by new professional codes that have yet to emerge. It is incumbent upon law-makers who see a wider social benefit in traditional professional values to enunciate that benefit and justify any attempt to protect it legislatively. In short, investment bank regulation requires precisely the sort of deliberation that Professor Ford discusses if it is to be legitimate and effective.¹¹⁸

Any attempt to protect specific values through regulation runs up against a further problem. We note in section 2.6 that regulated actors respond to regulation by altering their behavior. Like bankers, regulators have access to more codified data than ever before, and they are naturally keen to use this data when they write rules. But, as we argue above, higher-order commitment is ill-suited to codified rule-making, precisely because many elements of the associated relationships can never be captured in court. When applied at the top of the

¹¹⁵ See *supra* text accompanying notes 56–59.

¹¹⁶ Tuch (2014) Investment bankers are regulated as broker-dealers by the Financial Industry Regulatory Authority (FINRA). *Id.*, at 3

¹¹⁷ See *supra* text accompanying note 61.

¹¹⁸ See *supra* note 55 and accompanying text.

hierarchy, black-letter laws are likely simply to displace commitment activity, in a potentially welfare-reductive way. For such commitments, self-regulation provides the interpretative community needed for effective regulation. Similarly, as we argue in the previous paragraph, an attempt to impose upon arm's-length relationships the professional standards that govern extra-legal commitment is likely to undermine economic efficiency by chasing bankers further up the commitment hierarchy. In short, as argued in section 2.6, regulation should be sympathetic to the level of the hierarchy to which it relates.

Our analysis in this Section yields broad principles for regulation, but does not contain specific rules. This is a natural consequence of our emphasis upon discovery and deliberation in regulation. Nevertheless, we can use our framework to comment upon regulatory innovations, and so start to chart a route to a better regulation of investment banker commitment. We do so in two contexts. First, we discuss the SEC's civil complaint against Goldman Sachs in connection with ABACUS, a 2007 synthetic collateralized debt obligation. In this case, we argue that the SEC's enforcement action was not sympathetic to the level of the hierarchy at which Goldman operated and, hence, that it lacked coherence. Second, we briefly review two recent conflict-of-interest cases in the Delaware Chancery Court. We argue that these actions were consistent with changing commitment modes, and that they may point the way towards better regulation of lower-order bank commitment.

4.2 The ABACUS Transaction

The ABACUS deal was a complex transaction, but its goals were simple: it facilitated a transfer of risk between, on the one hand, the hedge fund manager John Paulson, and, on the other, the German bank IKB Deutsche Industriebank AG (IKB) and ACA Management LLC (ACA). Paulson believed that the US housing market was overheated and was suspicious of the investment grade ratings that bonds backed by mortgages were receiving. He used the ABACUS deal to establish a short position on a Baa2-rated portfolio of such bonds; IKB and ACA assumed the long side of the deal (Davidoff *et al.* 2012, 535). The precise portfolio that Paulson wished to short was not rated, so Goldman created it as one tranche of a securitization deal.¹¹⁹

The ABACUS deal became a focus of attention on April 16 2010, when the SEC filed a civil complaint in the U.S. District Court for the Southern District of New York against Goldman Sachs and Fabrice Tourre, the Goldman Sachs vice-president responsible for the

¹¹⁹The major part of Paulson's short position was achieved by way of a credit default swap with Goldman. There were no notes issued against this tranche: ABN Amro received periodic premium payments from the ABACUS SPV, but was liable for a payment of up to nearly \$1 billion in the event of a massive decline in real estate values. Of the remaining six tranches of the ABACUS transaction, two were partially funded by notes purchased by IKB and ACA; the other four tranches never traded. Such transactions, for which notes are not issued in value equal to the underlying portfolio, are known as "unfunded" securitizations. See Davidoff *et al.* (2012, 537).

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ABACUS deal.¹²⁰ The SEC made two claims.¹²¹ First, that Goldman Sachs and Fabrice Tourre each violated Section 17(a)(1), (2), and (3) of the Exchange Act.¹²² Second, that Goldman Sachs & Co and Fabrice Tourre each violated Section 10(b) of the Exchange Act and Rule 10b-5.¹²³ Specifically, the SEC alleged that Goldman had misled investors by failing to state in its marketing materials that Paulson had played a significant role in selecting the portfolio that he shorted;¹²⁴ that Goldman had incorrectly indicated to ACA that Paulson held a risky long position in the portfolio;¹²⁵ and that IKB would not have invested in ABACUS had it been aware of Paulson's role.¹²⁶

Quite apart from the accuracy of the SEC's allegations, the case raises some interesting questions about the regulation of the modern investment bank. Was the SEC's complaint justified? And was its response appropriate? We start to address these questions by asking where the ABACUS transaction sat on the commitment hierarchy. Lloyd Blankfein, a former trader and now Chairman and CEO of Goldman Sachs, addressed this question directly in US Congressional testimony, stating that

What clients are buying [...] is an exposure. The thing that we are selling to them is supposed to give them the risk they want. They are not coming to us to represent what our views are [...] They shouldn't care.¹²⁷

The implication of Mr. Blankfein's statement is clear. He argues that Goldman Sachs' securitization business is contractual. Indeed, as Bratton and Levitin (2013, 858) argue, the ABACUS SPE is "a gapless contractual firm" and, hence, they conclude that "[t]he deal, viewed as a whole, looks less like a long-term investment of capital than a collection of arm's-length one-off bets entered into at the swap desk—a series of discrete contractual trades without fiduciary overtones."

Mr. Blankfein appears to imply that Goldman is in the business of selling tailored risk positions to market participants. As sophisticated institutional investors, ACA, IKB, and Paulson knew what was in the portfolio, what sort of risks they ought to be taking, and either already had the price-relevant information that they needed to evaluate the risks, or could acquire it for themselves.¹²⁸ Absent a fiduciary duty, economic efficiency is probably

¹²⁰SEC v. Goldman Sachs & Fabrice Tourre, 10 Civ. 3229 (S.D.N.Y. Apr. 16, 2010).

¹²¹See Press Release, SEC Charges Goldman Sachs With Fraud in Structuring and Marketing of CDO Tied to Subprime Mortgages (Apr. 16, 2010), <https://www.sec.gov/news/press/2010/2010-59.htm>.

¹²²SEC v. Goldman Sachs & Fabrice Tourre, 10 Civ. 3229 (2010, pp 68); Securities Exchange Act of 1934 15 U.S.C. § 78a-78pp, § 77q(a)(1), (2), and (3) (2009).

¹²³Securities Exchange Commission Rules, 17 C.F.R. § 240.10b-5 (2013); Securities Exchange Act of 1934 15 U.S.C. § 78a-78pp, § 78j(b) (2009).

¹²⁴SEC v. Goldman Sachs & Fabrice Tourre, 10 Civ. 3229 (2010, 36-43).

¹²⁵*Id.*, at 44-51

¹²⁶*Id.*, at 59.

¹²⁷Investment Banks Hearing (2010).

¹²⁸In fact, all parties, including IKB, participated in the portfolio selection process. On IKB's participation, see Senate Comm. on Inv. (2011).

best served by Goldman having no obligation to tell any of the parties to the trade who their counterparties were, or why those counterparties had entered into the transaction regardless of the information's materiality.¹²⁹ Indeed, in traded security markets, this type of disclosure would be illegal.¹³⁰ Hence, as a result of technological advances in computing and financial engineering, Blankfein argues that Goldman has no role in the securitization markets as a reputational intermediary. It was forced down the reputational hierarchy,¹³¹ and served as a transactions cost minimizer. On the basis of this argument, the SEC's case appears weak: it was attempting to impose regulations appropriate for higher-order commitment upon lower-order, arm's-length, relationships.¹³²

The previous paragraph draws some conclusions from Mr. Blankfein's testimony that many at Goldman Sachs would find uncomfortable. They would argue that the firm's customer focus has been the principal explanation for its preeminence over many decades. They might argue, for example, that the parties to the ABACUS deal could not understand all of the details of the transaction, and that they therefore relied upon their bank for careful advice. If this is true then ACA and IKB were both at risk from the personal reputation building of Fabrice Tourre.¹³³ To the extent that it could not control Tourre's actions, Goldman Sachs' reputation, and, hence, its profitability, was therefore at risk.

If customer ignorance of the details of ABACUS-like transactions was indeed a problem how should the SEC respond? One might argue that it should impose a fiduciary duty upon Goldman with respect to its clients. To do so would present immense technical difficulties, because, of course, Goldman is both a principal to its deals and an advisor to its clients.¹³⁴

¹²⁹Anthony T. Kronman (1978) argues for limited disclosure in arm's-length contracting to stimulate costly information production to a socially desirable level. Ironically, both the real estate bubble and Paulson's motivation for the ABACUS transaction rested in large part on the relative difficulty of profiting from information production that identifies over-heated markets. ABACUS and similar transactions allowed traders to profit from such information.

¹³⁰In his testimony in the Fabrice Tourré trial, Michael Narty, a Goldman salesman dealing with IKB, expressed a belief that, even had he known of Paulson's role in the transaction, he most likely wouldn't have revealed it to IKB for fear of violating client confidentiality rules. See New York Times (2013).

¹³¹As we discuss in section 2, we do not wish to imply by this statement that Goldman and other investment banks no longer use higher-order commitment devices. Our position is that the range of commitment devices deployed by investment banks is far more concentrated upon formal legal arrangements than it was previously.

¹³²See the summary of *Banca Cremi, S.A. v. Alex Brown & Sons, Inc.*, 132 F3d. 1017 (4th Cir. 1997) in Cox, Hillman and Langevoort (2009, 1047–1050) for an early example of a 10b-5 fraud action related to the sale of mortgage-backed securities. Banca Cremi alleged a series of misrepresentations and non-disclosures after suffering losses on mortgage-backed securities purchased from Alex. Brown. The 4th Circuit Court affirmed the District Court's summary judgment in favor of Alex. Brown, framing its decision with reference to a set of factors set forth for establishing justifiable reliance in *Myers v. Finkle*, 950 F.2d 165 (4th Cir. 1991). The decision turns on the identification of Banca Cremi as a "sophisticated investor" with access to relevant information, no standing relationship with Alex. Brown, and owed to fiduciary duty.

¹³³See *supra* text accompanying notes 107–108.

¹³⁴We have already noted that investment banks cannot avoid conflict. *Supra* text following note 94. See also Laby (2010) (arguing that the imposition of a fiduciary role on broker-dealers is inconsistent with their role as profit-maximizing dealers and underwriters); Langevoort (2009–2010) (noting that fiduciary duty sits uneasily on a business that sells products and services for profit).

But this approach has nevertheless been advocated in some quarters, and something very close to it is imposed by the Dodd-Frank Act.¹³⁵ Quite apart from the legal challenges that it presents, we believe that this approach is likely to be mistaken.¹³⁶

Fiduciary law deals with situations of open-ended control whose control is exercised without restriction, or with very incompletely specified restrictions. It is for this reason that fiduciary law sits below contract in our commitment hierarchy. When fiduciary and beneficiary dispute a decision, both are very reliant upon the court's ability to establish a reasonable course of action. That course may reflect the original intentions of the committing counterparties; it may equally reflect a doctrinal position on fiduciary loyalty that fits the parties' goals only imperfectly.

In the highly codified world of the modern investment bank, opportunities for court intervention are legion. Increasing intervention, and the concomitant expansion of precedents, surely attenuates the decision-making powers of the fiduciary. If the fiduciary is less able to make decisions for itself, it is less able to build or to sustain a reputation. In short, in imposing a fiduciary responsibility upon investment bankers, legislators are very likely to weaken their reputational assets. This effect, surely an unintended consequence of the regulation, will serve to prevent bankers from forming information marketplaces, and mediating extra-legal agreements to exchange information. There is some irony in the fact that this

¹³⁵The Act prohibits an underwriter, placement agent, initial purchaser, sponsor, or any affiliate or subsidiary of any such entity, of an asset-backed security from engaging in any transaction that would involve or result in any material conflict of interest with respect to any investor in a transaction arising out of such activity for a period of one year after the date of the first closing of the sale of the asset-backed security. Wall Street Reform and Consumer Protection (Dodd-Frank) Act of 2010, Pub. L. No. 111-203, § 621, 124 Stat. 1376 . Also see John C. Coffee, Jr., *Testimony Before the Subcommittee on Crime and Drugs of the United States Senate Committee on the Judiciary*, Hearing on S.3217 "Wall Street Fraud and Fiduciary Duties: Can Jail Time Serve as an Adequate Deterrent for Willful Violations," May 4, 2010 (arguing (p.5) that "Goldman should have recognized an obligation to act in the best interests of those investors to whom it offered the Abacus offering.")

¹³⁶Andrew Tuch (2012) suggests a less extreme solution. He argues that, as gatekeepers to the new issues market, underwriters should be subject to conflict of interest rules that strengthen their incentives to ensure correct information disclosure. This is an interesting idea, but it begs several questions. First, if the role of the investment bank is to sustain an information marketplace, it is not clear why legal incentives are required to supplement reputational ones. Indeed, the former could crowd out the latter. Second, if the investment bank has moved down the commitment hierarchy away from the information marketplace then it will be difficult, and possibly counterproductive, to attempt to push it back up. Third, the costs of information production in complicated transactions like ABACUS may be so high as to preclude consistent enforcement. Finally, in the specific case of the ABACUS transaction, Goldman explicitly draws investors' attention to the possibility that it will experience conflicts of interest. Offering Circular, Goldman, Sachs & Co., ABACUS 2007-AC1, Ltd. (Apr. 26, 2007), <http://av.r.ftdata.co.uk/files/2010/04/30414220-ABACUS-Offer-Document.pdf>. In a similar 2007 transaction (Timberwolf I), Goldman even entertained the possibility of drafting a "Big Boy" letter to reinforce the arm's-length nature of the transaction (see Senate Comm. on Inv. 2011, note 2464). Such letters contain, among other things, a non-reliance provision stating that the buyer is not relying on any of its counterparty's non-disclosures. For details and a discussion of recent litigation lending force to such provisions, see McLaughlin (2012). While we can envisage a requirement that any repudiation of the duty of care between market professionals be subject to more formalities, we find it hard to find a completely plausible reason why those professionals should be denied this right.

effect could stem from legislation intended to protect the ignorant.¹³⁷

The ABACUS transaction is a hard case, and it highlights the challenge of formulating public policy in the face of rapid technological change. When the securitization market emerged through the late 1990s and the 2000s it was the latest manifestation of information technology and financial engineering in financial markets. It demanded a regulatory response. But, despite the efforts of excellent economists and lawyers, neither the SEC nor any other regulatory agency fully appreciated the effect of securitization trades upon the social ordering.

It would be unreasonable to expect the initial regulatory response to these trades to be clear cut and it was not. Goldman agreed to a \$550 million settlement with the SEC in July 2010 without admitting or denying guilt.¹³⁸ In a separate private action ACA alleged that Goldman “fraudulently induced it to provide financial guaranty insurance” for ABACUS. On May 14, 2013 the New York state appeals court, in a 3-2 decision, dismissed the case on the grounds that ACA failed to establish justifiable reliance.¹³⁹ Tourre refused the SEC’s July 2010 settlement offer and on August 1, 2013 jurors found him liable on six of seven counts of misleading IKB and ACA.¹⁴⁰

The legality of Goldman’s actions is still contested. It is, however, hard to argue that the SEC’s enforcement was sympathetic to the level in the commitment hierarchy at which securitization business occurs.¹⁴¹ Mr. Blankfein’s comments¹⁴² indicate that Goldman regarded the transaction as existing in the lower half of the commitment hierarchy. In attempting to hold Goldman to standards that relevant to the less-codified reputational deals at the top of the hierarchy, the SEC arguably undermined the (ex ante) choices of the parties to the deal, and, potentially, distorted future deals. Of course, the action occurred at a time when public faith in the financial industry was at a particularly low ebb. The SEC’s actions may

¹³⁷For a related point, see Ribstein (2001, 584) (“Courts frustrate [trust-based commitment] by making implicit bargains explicit”). But see Blair and Stout (2000-2001) (arguing that the imposition of fiduciary law frames expectations in such a way as to encourage, rather than to undermine, trust-based exchange).

¹³⁸SEC v. Goldman Sachs, 10 Civ. 3229, at 2 (S.D.N.Y. July 14, 2010).

¹³⁹See ACA Financial Guaranty Corp v Goldman Sachs & Co, 106 App. Div. 3d 494 (Sup. Ct. May 14, 2013). “Plaintiff’s amended complaint nevertheless fails to establish justifiable reliance as a matter of law. Indeed, plaintiff fails to plead that it exercised due diligence by inquiring about the nonpublic information regarding the hedge fund with which it was in contact prior to issuing the financial guaranty, or that it inserted the appropriate prophylactic provision to ensure against the possibility of misrepresentation (see Centro Empresarial Cempresa S.A. v AmÈrica MÒvil, S.A.B. de C.V., 76 App. Div. 3d 310 (Sup. Ct. June 3, 2010).”

¹⁴⁰SEC v Fabrice Tourre, 10 Civ. 3229 (S.D.N.Y. Mar. 12, 2014).

¹⁴¹Bratton and Levitin (2013, 861) argue that, as ABACUS was “an empty shell incapable of perpetuating a fraud,” it should be viewed as a vehicle of Goldman Sachs, which thereby acquires higher-order responsibilities for representing its activities. In other words, they argue that Goldman’s contract with the ABACUS SPE should not be viewed as truly arm’s length and, hence that it requires a fresh doctrinal response. Their prognosis is pessimistic: they argue that we have “an incomplete menu of defensive responses” to SPE innovations that blur the boundaries of the firm. *Id.*, at 784.

¹⁴²See *supra* text accompanying note 127.

have reflected an emerging political consensus that a deal was not justifiable simply because its counterparties were satisfied with it.¹⁴³ But, if this is so, then a more nuanced form of deliberation is surely possible.

We now consider two cases that appear more successfully to marry regulatory actions to commitment hierarchy choices.

4.3 Recent Developments in M&A

In this Section we highlight some features of two recent cases in the Delaware Court of Chancery, relating to *Revlon* duties: *El Paso*¹⁴⁴ and *Del Monte*.¹⁴⁵ We do not attempt a complete discussion of either case, nor of the institutional detail to the case. For both, we refer the reader to the careful and nuanced analysis in a recent article by Bratton and Wachter (2014).

Both cases arose as a consequence of banker conflicts of interest. Briefly, the facts are as follows.

Del Monte was put into play by its long-term advisor Barclays, which had started the process by canvassing interest in a possible sale with various private equity firms, without first broaching the subject with Del Monte. Del Monte and KKR eventually agreed a merger agreement.¹⁴⁶ The agreement occurred after a first round of bidding had failed to uncover a deal that satisfied the board.¹⁴⁷ The KKR bid was cooked up with Vestar, another unsuccessful first round bidder; the negotiation between KKR and Vestar violated the no-teaming provision of the confidentiality agreement, and occurred with the encouragement of Barclays but without disclosure to the Del Monte board.¹⁴⁸ Vestar was ultimately permitted to join the KKR bid, but the board remained ignorant of its prior involvement.¹⁴⁹ Barclays, which had agreed to finance the KKR purchase in addition to its fee interest in the deal, was retained by Del Monte to administer a 45 day “go shop” period. In doing so, Barclays was conflicted, as it stood to earn as much from financing the deal as from advising on it, and, hence, would be disinclined to replace KKR with a higher bidder than did not require finance.¹⁵⁰ Barclays informed KKR of an attempt by Goldman Sachs to take over the go shop, which was averted by an offer from KKR of 5% of the financing deal.¹⁵¹ Vice-Chancellor

¹⁴³For a related perspective, see Jenkins and Guerrero (2010). See also Bratton and Levitin (2013, 792) (“ABACUS was a small-scale compliance problem that underwent magnification in a particular political context”).

¹⁴⁴In re El Paso Corp., 41 A.3d 432 (Del. Ch. 2012).

¹⁴⁵In re Del Monte Foods Co., 25 A.2d 813 (Del. Ch. 2011).

¹⁴⁶*In re Del Monte*, 25 A.2d, at 819–820.

¹⁴⁷*Id.*, at 822.

¹⁴⁸*Id.*, at 824.

¹⁴⁹*Id.*, at 825.

¹⁵⁰*Id.*, at 825–826, 828–829.

¹⁵¹*Id.*, at 828–829.

Laster found a *Revlon* violation and enjoined the shareholder vote for 20 days.¹⁵²

El Paso had an oil exploration and production business and a pipeline, and sought to spin off its production business. Kinder Morgan, Inc. proposed a purchase deal, threatening a hostile bid if it was not accepted.¹⁵³ Kinder Morgan was 19% owned by El Paso’s advisor, Goldman Sachs, two of whose bankers served on the Kinder Morgan board and, hence, owed the company fiduciary duties;¹⁵⁴ the banker working on the spin-off owned \$340,000 of Kinder Morgan stock, a fact that was never disclosed to El Paso.¹⁵⁵ Negotiations with Kinder were performed by Doug Foshee, the El Paso CEO, who set the terms, acquiescing to a last minute price reduction and agreeing a merger agreement with a no-shop provision.¹⁵⁶ Foshee planned a management buyout of the production business, but did not reveal this to his board.¹⁵⁷ Chancellor Leo Strine ruled that an action against the board had a reasonable chance of success, but declined to enjoin the shareholder vote.¹⁵⁸

Both cases present evidence of conflicts at investment bank advisors. In and of itself, this is not particularly surprising: we have already noted that investment bankers cannot avoid conflict.¹⁵⁹ But the way that the conflicts were managed is a potential source of concern. Bratton and Wachter (2014, 21–25) argue that the concerns reflect M&A trends, witnessed, for example, by the practice of “stapled financing:” that is, of sell-side advisors guaranteeing financing to a successful bidder. Stapled financing is the source of at least two conflicts. First, it discourages an advisor from seeking higher bids, because they serve to reduce the value of the security it takes when financing the deal. Second, it incentivizes the advisor bank to recommend bids by firms that are likely to use the stapled financing. The second effect was stressed by Chancellor Laster in his opinion on *Del Monte*.¹⁶⁰ Selling boards that allow stapled financing are potentially exposed under their *Revlon* duty to maximize short-term value when selling their company for cash.¹⁶¹ M&A bankers appear to be sailing increasingly near to the wind in their management of conflicts.

Of course, it is perfectly possible that bankers assume these conflicts in order to give their clients the best possible service. A stapled financing deal, for example, may allow

¹⁵²*Id.*, at 833–837.

¹⁵³In re El Paso Corp., 41 A.3d 432, 434–435 (Del. Ch. 2012).

¹⁵⁴*Id.*, at 436.

¹⁵⁵*Id.*, at 440.

¹⁵⁶*Id.*, at 436–437.

¹⁵⁷*Id.*, at 441–442.

¹⁵⁸*Id.*, at 444, 449–452.

¹⁵⁹*Supra* text following note 94.

¹⁶⁰None of the five bidders for Del Monte in March 2010 requested permission from Del Monte to explore financing possibilities with Barclays. KKR did state that their bid contemplated “newly raised debt in line with guidance provided by Barclays.” Chancellor Laster comments that KKR’s bid would have been the most attractive for Barclays, because of their interest in financing the transaction. In re Del Monte Foods Co., 25 A.2d 813, 10–11 (Del. Ch. 2011).

¹⁶¹*Revlon v. MacAndrews & Forbes Holdings*, 506 A.2d 173 (Del. 1986). For a discussion of stapled financing and the *Revlon* duty, see Bratton and Wachter (2014, 60–62).

potential bidders to overcome financial frictions, and, hence, enable them to bid higher for the selling firm.¹⁶² But, as investment banks operate on ever wider commitment spectra, and so are subject to greater and more complex conflicts,¹⁶³ we cannot assume that reputational concerns will always ensure that these conflicts are appropriately managed by the bank: while advisors are very concerned for their reputations, they may be overruled in a full-service bank by divisions whose commitment is lower-order.

What is the right regulatory response to this problem? If one were to follow the template suggested by the ABACUS case, one might be inclined to hold investment bankers to the professional values that obtained historically in the investment banking business. But firms are free if they choose to deal with specialist “boutique” advisory firms that are not subject to the same reputational conflicts (Morrison and Wilhelm 2007, 300–309); that not all firms choose to do so is presumably evidence that the lower-order commitment available from full-service banks is still valuable. If so, it seems unreasonable and inefficient to hold bankers to a standard that neither they nor their clients necessarily want.

Bratton and Wachter (2014, 45–56) make a convincing case that the Chancery Court has found an effective solution to this problem. They note that, under agency law, banker-client engagement letters allow investment bankers to contract out of fiduciary duty. When a banker does this, they argue, it reveals itself as desirous of a contractual relationship. In that case the banker requires active management and supervision.¹⁶⁴ The board is held to a fiduciary duty; the banker is responsible only for honoring its contractual obligations and, hence, it is the responsibility of the board to decide the trade-off between a conflicted and an unconflicted advisor resolves itself in favor of conflict.

This approach seems to us to be in line with the broad principles outlined earlier.¹⁶⁵ If bankers and their client boards favor a contractual relationship then there is no *a priori* reason to prevent them from adopting one. The Chancery Court publicizes information and, hence, could serve to enable reputation formation in situations where it is valuable; when reputation is not critical, the Court has a growing body of expertise that enables it to interpret banker actions in light of their contractual relationships. It is not trying, as the SEC did, to impose high-order commitment upon lower-order relationships.

5. CONCLUSION

Social orderings are built from the many transactions that individuals elect to make with one another and, in a modern society, those transactions are frequently extended in time. Hence,

¹⁶²For a longer discussion of this effect, see *id.*, at 22–25.

¹⁶³See *supra* text accompanying notes 107–108.

¹⁶⁴Bratton and Wachter (2014, 67) (“If it’s arm’s-length the bankers want, treat them accordingly and protect your own beneficiaries.”)

¹⁶⁵*Supra* section 4.1.

if we are to understand social institutions, we must also understand the commitment devices that sustain long-term commitment. Those devices occupy a hierarchy: at the bottom of the hierarchy are the devices that rely most upon the sophisticated legal machinery of the modern state; devices higher up the hierarchy lean less upon the law, and leave more to the discretion of the parties to the commitment, and to the social networks in which they operate.

The position that a relationship occupies in the commitment hierarchy depends upon its social, legal, and technological contexts. Changes to those contexts therefore cause changes to commitment modes and, hence, to the social ordering that emerges from them. The advent of information technology caused a particularly sharp dislocation in investment banking commitment, which saw many traditional businesses move away from their relational roots to adopt arm's length commitment devices towards the base of our hierarchy. The most visible artifact of this shift was an explosion of business conducted in trading rooms.

The normative implications of these changes remain unclear. It is certainly far from obvious that the diminished role for reputation and trust in banking relationships is entirely a bad thing. Reputational modes of enforcement rely upon long relationships and close social networks. These requirements present massive barriers to entry for new investment banking firms. They also have the potential to ossify social relations, and to stifle innovation. Change, even rapid and destructive change, may be beneficial.

But, at the same time, the attenuation of reputational concerns in investment banking presents a challenge. Even the most sophisticated and careful analysis can give only an incomplete impression of the way that the dust will settle on this change: the new modes of commitment serve different purposes than the old ones, and they support a different set of relationships. The changed social ordering that emerges from those relationships will be qualitatively different from the old one. It is quite possible that something valuable will be lost in the process.

Notwithstanding these remarks, we suspect that the biggest difficulties presented by the commitment dislocation in investment banking arise in the design of public policy. New technologies change the spectrum of commitments in regulation as well as in commercial relationships. The challenge facing rule-makers is to marry the two as effectively as possible. This Article presents some organizing concepts and argues for a set of regulatory principles, but it represents only an early step towards a deeper understanding of this challenge.

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