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The Personification and Property of Legal Entities

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Property rights in productive assets are commonly held by legal entities rather than individuals. Only persons can own property, and the law defines persons to include organizations such as corporations, partnerships, and trusts (referred to collectively hereafter as "entities" or "firms"). This chapter addresses the related issues of the justification for firm ownership of property and the efficient division of assets among distinct legal entities.² In brief, firm ownership coordinates the productive activity of self-interested individuals. Earlier scholarship by economists suggested that the allocation of *control* over assets reduces the inefficiencies of incomplete contracts caused by imperfect information. Thus, economic

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²In the law and finance scholarship of the 1970s and 1980s, the predominant paradigm of the corporation was the nexus of contracts. E.g., Jensen and Meckling (1976); Easterbrook and Fischel (1991). The scholarship described in this chapter raised the salience of the ownership rights vested in the corporation, its legal personification, and particularly the significance of its boundaries. A related scholarly vein examines the property-like features of mandatory corporate law rules that bind third parties dealing with the firm, even without their consent. These property features are valuable in economizing on information costs. E.g., Armour and Whincop (2007) ; Merrill and Smith (2007).

integration brings assets into common ownership to avoid or simplify contracting. These theories, however, do not distinguish between assets owned directly by an individual and assets controlled indirectly through an entity. They also do not distinguish between assets held within a single entity and assets partitioned among multiple entities within common control. More recent literature fills this gap by explaining the legal significance of the boundaries of distinct entities, whether or not they fall under the control of a single owner.

The starting point for understanding firm boundaries is the observation that the person who is best situated to control the use of an asset may not be in the best position to finance its use. Berle and Means (1932) famously noted that the corporation is a vehicle for achieving such separation and that the separation raises significant and costly conflicts between owners and managers. This chapter explains how the deliberate drawing of firm boundaries can reduce these agency costs and thereby lower the cost of financing productive activity. In particular, the discussion focuses on the advantages of tailoring financing (or capital structure) to asset type. The law presents significant challenges to the goals of tailoring. Although optimal financing terms are often asset-contingent, the law favors entity-based rather than asset-based financing. In particular, the law requires considerable uniformity in the manner in which assets are financed and governed within a single entity, and the law raises obstacles to collaborative efforts across legal entities (the trade of goods, services, or capital across firm boundaries) even if they are held under common control.

Part I reviews the economic theories explaining the allocation of *control* over asset groups and, specifically, the justifications for the integration of assets under common control. Given the wealth constraints and risk aversion of individuals, external financing is often needed

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to enable the desired accumulation of assets; that is, ownership of the economic returns must be separated from control. Yet, this separation itself causes information problems (moral hazard and adverse selection) that afflict financial contracts. Part II demonstrates that the division of assets into distinct legal entities allows for the tailoring of financial contracts to asset types which, in turn, mitigates the information problems and reduces the cost of financing. The division of assets between entities, however, raises new costs: notably, (a) the partitioning of internal capital markets that facilitate the movement of capital from one use to another (Part III) and (b) the legal hurdles to collaboration between related firms, despite the presence of common control (Part IV). This framework might explain the conditions under which asset partitioning occurs, as well as the choice among alternative corporate restructurings involving divestitures (e.g., spin-offs, equity carveouts or securitizations) and combinations (e.g. mergers or acquisitions).

Part V briefly describes how enterprises may wish to keep in a discrete entity, assets that they intend to sell as a group, in order to reduce the transaction costs of such future alienation. The chapter then concludes with suggestions for future research.

I. Economic boundaries of control

In 1937, Ronald Coase inquired why a significant portion of productive activity is carried out within firms rather than by contract between individuals. This question has since spawned a large body of scholarly literature on the theory of the firm. Coase argued that a firm can rely on the hierarchical authority ("fiat") of its management to avoid the transaction costs of contracting with employees in the face of uncertainty. Since then, other scholars have focused particularly on the danger of opportunistic hold-up, which arises where one party to an exchange can increase the surplus from trade by making relationship-specific investments, but where information problems impede complete contracting (e.g., Klein et al., 1978; Williamson, 1975). Contracts are incomplete when they fail to specify efficient obligations for all possible future contingencies. This may be the case because the parties cannot anticipate all contingencies or they find it infeasible to provide for all of them. In addition, the parties may be asymmetrically informed in ways that prevent them from specifying the optimal performance obligations in each future contingency. And, even if they could provide for each future contingency, contract enforcement is costly and error-prone because the court might not be able to verify all relevant facts.

Parties may complete their contracts in order to achieve efficient trade ex post, either by renegotiating their deal or asking a court to fill the gaps. Both litigation and renegotiation give rise to opportunistic behavior, particularly hold-up strategies, that distort ex ante incentives to make specific investments. If one party has made an investment specific to the anticipated exchange, the other party may exploit a gap or ambiguity in the contract to appropriate the value of this investment. She may threaten to withhold performance in order to force a favorable renegotiation of the terms of trade. In anticipation of this renegotiation, parties are reluctant to make specific investments that cannot be protected by contract (e.g. R&D expenditures, Aghion and Tirole (1994)), and this reduces the expected value of exchanges. Efficient incentives might be restored if both sides make reciprocal investments. Otherwise, according to the early literature on hold-ups, this problem can be avoided by integrating the two parties in a single

hierarchical firm, where bosses make specific investment and employees must follow their commands.

A hierarchical structure might also improve the prospects for ex post efficiency – for example, the decision whether or not to execute the exchange as agreed upon or how much effort to invest in it. In fact, ex post efficiency is viewed by some authors as a more significant concern in business ventures than the vulnerability of specific investment (e.g., Baker, Gibbons and Murphy 2006). Whereas the hold-up literature assumes that information becomes symmetrical ex post in order to allow for efficient renegotiation, information problems in fact often persist to disrupt renegotiation. Given that renegotiation cannot ensure ex post efficiency and that a court might not be able to verify all pertinent facts, a feasible contract may simply give one party discretion over some term of the contract. For example, if it is not clear which color widget would yield the greatest surplus, the contract may allow the buyer to choose the color sometime after contracting. This may be preferable over contracting initially for a red widget and relying on renegotiation: if the seller were unaware of the value of the blue widget to the buyer, she might demand too high a price in renegotiation, leaving the buyer with no choice but to pay for the less valuable red widget. The advantage is particularly clear if the parties' interests are unlikely to conflict too much (e.g. the blue widget is much more difficult to manufacture than the red). (Simon (1951).³ Yet, this contract solution is effective in avoiding opportunism only to the extent that contract enforcement is cheap and accurate. In this light of the reality of imperfect contract enforcement, the hierarchical structure within a firm provides an

³This tradeoff anticipates also the evaluation of internal capital markets, discussed in Part IV, infra.

alternative mechanism for delegating discretion: the employer can direct its employee to manufacture the blue widget.

In reality, however, a boss can no more compel an employee to follow an order (instead of quitting), than she could specifically enforce a simple contract. (Alchian and Demsetz, 1972). Therefore, the mere establishment of a hierarchy within a firm cannot resolve the ex ante and ex post inefficiencies of incomplete contracting. Within or outside a firm, agency problems abound: an employee or contractor may invest too little in firm-specific human capital, each may exert too little effort in the performance of his duties and each may appropriate firm assets in the form of excessive perquisites or otherwise. (Jensen and Meckling, 1976)

Given that contracts are inherently incomplete and that the law does not permit coercive authority to be exercised directly over the actions of individuals, economists have looked for other means by which parties may delegate discretion and power. One tool is the control that accompanies ownership of physical assets that are critical to the production of the contracting surplus. Grossman, Hart and Moore, for example, suggest that allocating control over unique assets to parties who could make the most significant relationship-specific investments, gives them greater bargaining power to retain the fruits of their specific investment (Grossman and Hart, 1986; Hart and Moore, 1990; Hart 1995). Within a firm, shareholders have the authority to remove assets from their managers' control, and a creditor has the right to take control in the event of default. These ownership rights are the source of power and important discipline against agency conflicts with managers. In some cases, power does not rely on formal property rights. Rajan and Zingales (2000) note that physical resources are less significant in today's economy than assets over which property rights cannot be asserted: such as relationships, reputation and human capital. In these cases, an employer can use its access to a key resource, such as client relations or the complementarities among the human capital of different personnel, as leverage against a reluctant employee.

These theories explain that the control over key assets, whether vindicated by property rights or otherwise, can mitigate residual agency problems left unresolved by incomplete contracting, but they do not address the advantage of organizing collaborative activity in firms qua legal entities. They have little to say about the legal boundaries of discrete business entities. In particular, these theories do not distinguish among an individual owner, a single firm and a family of affiliate companies controlled by the same majority stockholder. The importance of entity financing is revealed when the assumptions of risk neutrality and boundless wealth are relaxed, and third party financing becomes necessary. External financing gives rise to a distinct set of contractual conflicts, between investors and managers. (Berle and Means 1932) To some degree, therefore, integration substitutes the problems of *financial* contracting for those of incomplete *commercial* contracting.

Entity ownership of property is important in addressing the problems of third party financing. If individual A acquires the assets of individual B - or, if firm A vertically integrates with firm B - the acquirer needs to finance the acquisition and the deployment of the assets. Productive assets, like A and B, are usually held in one or more firms in order to improve *financing* efficiency, rather than to address the challenges of incomplete contracts for goods or services. To a large degree, financing efficiency depends on the ability to match capital and governance structures with the types of assets being financed. The law makes it difficult, however, to achieve such tailoring to subsets of assets within a single firm. Thus, under current

law, an enterprise must split asset groups among distinct entities in order to tailor. Yet, while financing may be more efficient when the assets are separated, separation between firms resurrects the need to enter into incomplete contracts to exploit efficiencies from the joint use of assets. This tension is explored in Part III. In sum, the decision to integrate two pools of assets in a single firm or to separate them into distinct firms, has significant and conflicting efficiency implications.

II. The Legal Boundaries of a Firm

A. Capital Structure Tailoring⁴

Only a legal person has the capacity to enter into a contract. To contract, a party must have standing to sue and be sued, and must be entitled to hold property against which the contract may be enforced. The law endows some entities with the rights of a person, including the capacity to enter into legally enforceable contracts. Given that individuals have rights to contract, what is the advantage of contracting through legal entities? The benefit comes from pledging different subsets of assets to different obligations (Mahoney (2000); Hansmann and Kraakman (2000)). In particular, the discussion below explains that (a) there are benefits from tailoring financial contracts to asset types and (b) under current law, such tailoring can be accomplished only by separating different asset types into distinct legal entities.

⁴This section and Part III draw extensively from the analysis in Iacobucci and Triantis (2007), so specific references to that article are omitted throughout.

Three features of the boundaries around firm property are significant for our purposes. First, one entity cannot encumber the assets of another without the latter's consent.⁵ Thus, the assets of one entity are shielded from the claims and enforcement rights of creditors of another person. The legal recognition of debts as personal protects the firm's assets from the claims against the firm's owner, as well as against other firms controlled by the same owner (Hansmann and Kraakman (2000)).

Second, *all* firm assets are generally available to satisfy the firm's debts. It is difficult for a firm to insulate some of its assets from its creditors or to divide the residual claim in different group of assets between two classes of shareholders, unless they are removed to a separate legal entity. If a corporate division purchases inventory on credit, for example, judicial enforcement of that obligation can reach any asset of the corporation and is not limited to the inventory or the division to which it is delivered. Security interests and tracking stocks only partially segregate and shield assets; both contracts provide payoffs out of all firm assets when the firm is dissolved or liquidated (Triantis 2004; Iacobucci and Triantis 2007). Secured creditors have a higher priority against collateral assets, but they can also assert a personal claim against all firm assets (subject to marshalling restrictions). Under some circumstances, even non-recourse secured claims have general recourse against firm assets: for instance, they become recourse claims in Chapter 11 bankruptcy reorganizations. On the equity side, the tracking stockholder is entitled to share in the residual payoff following the dissolution of the firm. Thus, a firm's capital

⁵Courts occasionally invoke common law doctrines (such as alter ego, agency, veil piercing, enterprise liability, and of course fraud) to extend liability from one firm to another when the entities themselves have disregarded their separate personality. Widen (2007) finds however, that substantive consolidation of affiliates in the bankruptcy proceedings of large firms is fairly common. See Part V infra.

structure must be firm-wide; to tailor capital structure to asset-types, asset pools must be split into distinct entities. (Iacobucci and Triantis 2007).

The third important feature consists of the set of significant formalities and restrictions on the dealings that the law imposes on transactions between related firms, whether commercial or financial, in order to protect the interests of minority shareholders or creditors of the distinct entities. Thus, a parent company cannot shift capital between subsidiaries as easily as an integrated firm may move funds among divisions (Triantis 2004). Moreover, the affiliated subsidiaries are compelled by corporate and debtor-creditor laws to deal with each other at arm's length (Iacobucci and Triantis, 2007).

The benefits of tailoring capital structure to asset types are multifaceted and highly significant. While the scholarship on financial contracting is voluminous, several broad themes demonstrate that optimal capital structure varies with the type of asset or venture being financed. Much of financial contracting is motivated by the problems of imperfect information: asymmetric information between the outsider investor and the insider entrepreneur or manager, and agency problems due to costly and error-prone enforcement of contractual controls on behavior. The dual concerns with the insider's private information and the unchecked risk of misbehavior explain much of the financial contracting of an enterprise. (E.g., Jensen and Meckling, 1976; Myers, 1977; Myers and Majluf, 1984). The following asset-type contrasts, among others, bear accordingly on capital structure choices: (1) growth opportunities versus assets in place, (2) liquid versus illiquid assets, (3) risky versus non-risky assets, and (4) the degree to which asset values are vulnerable to exogenous and systemic volatility. First, the valuation of growth opportunities depends on information that is available only to insiders (for

example, R&D projects and other trade secrets), while mature industries tend to be more transparent. Second, agency problems are more significant when managers can convert firm assets into private benefits, and some assets are more prone to such appropriation. In particular, managers can more easily convert liquid than illiquid assets to their private use. Third, investors are concerned about the volatility of assets because of the risk of insolvency and often wish to diversify this risk. Fourth, the contribution of management to asset values is often difficult to observe when the values are susceptible to significant exogenous risks.

The benefits from tailoring hinge on the sensitivity of optimal design of financial contracts to the characteristics of firm assets. To the degree that the capital structure demand of asset types within a firm diverge, the cost of capital may be lowered by segregating asset types into distinct entities. For example, suppose that both asset group A and group B are most efficiently controlled by the same individual, but that the optimal shareholding of this individual is 60% in A and 40% in B. This combination is easily achieved by dividing the assets into firms A and B, both of which are controlled by a holding company. If the asset groups are held instead as divisions in a single entity, the entity would have a "blended" capital structure that reflects both asset groups and the interaction between them: for example, the controlling shareholder might hold a 50% equity stake.

The principal function of entity ownership of property is to reduce the cost of financing productive ventures by permitting the tailoring of capital structure to asset-type. As noted earlier, legal obligations are personal and, with few exceptions, a creditor can reach any of the assets of a debtor. Thus, the decisions to incur debts are firm-wide. Two ventures may call for different debt-equity ratios, so that separating the ventures between two entities allows each venture to have its optimal amount of debt and equity financing. (Leland 2007; Iacobucci and Triantis 2007) Indeed, the evidence indicates that spin-offs create firms with significantly different leverage than their originators have, both before and after the divestiture, which reflects the differences in asset types (e.g. Mehotra et al. (2003); Dittmar (2004)). Mehotra et al. (2003) report that "it is not uncommon for company documents to state that a spin-off would allow heterogeneous business units to establish capital structures that are better suited to the nature of their assets or growth prospects" (at 1362).

The tailoring of leverage to asset types encompasses many other features of debt contracting, and this cannot be done within a single firm. This is demonstrated in the scenario presented in Hansmann and Kraakman (2001). If a hotel and an oil refining venture are held in separate corporations, then the respective assets can be pledged to back the obligations to different lenders (see also Hansmann and Mattei (1998) on the use of the trust entity to partition assets). This tailoring of debt claims to asset types yields a number of potential benefits. Hansmann and Kraakman (2001) suggest that the borrower can thereby exploit the specialized screening and monitoring of one or both lenders. The lender to the hotel business can concern itself only with monitoring the hotel assets, and the oil refining lender can similarly focus its monitoring in oil refining. This may reduce the cost of borrowing if one or both lenders have comparative advantage in screening and monitoring the respective set of assets.⁶ The

⁶The partitioning of assets into distinct legal entities has the effect of limiting the effective liability for torts or regulatory fines arising out of the hazardous activities of either the individual or the corporation. It also may work to the disadvantage of less sophisticated creditors who may be unaware of the partitioning. (E.g., LoPucki 1996). There is some disagreement among commentators as to whether such judgment proofing motivates a significant formation of separate legal entities (e.g. White (1997))

partitioning may yield other efficiencies as well. The portfolio of one lender may be better suited to diversify or otherwise accommodate the risk in venture A. Or, it may be that venture B requires relatively little monitoring and can be financed by relatively passive bondholders, rather than by incurring the higher cost of a delegated monitor such as a bank.

The exploitation of screening and monitoring efficiencies was the explanation offered by a number of authors for secured credit (e.g. Jackson and Kronman (1979); Schwartz (1981); Levmore (1984). For example, a secured creditor could focus its monitoring efforts on the collateral, while unsecured creditors could monitor the remaining assets or the value of the synergies created by the joint use of the assets. Yet, such partitioning within a firm is less effective than between firms because of the right of secured creditors to enforce their claim against all assets of the debtor. Moreover, the bankruptcy process is well known to "bleed" secured creditors somewhat, leaving them exposed to share as unsecured claimants some of the losses from insolvency. (See, e.g. Scott, 1986). The desire to partition assets and insulate one group (often, receivables) from the bankruptcy of the other, has led to the use of special purpose entities in structured finance and securitizations. These entities often sell debt securities of tiered priority, whose market value depends on the expectation that the entity will be "bankruptcy remote".⁷

The choice between public and private debt is determined partly by monitoring considerations, but also by the feature that private debt is more easily renegotiated than public

⁷The matching of asset-types with lender-types is sometimes reinforced by contractual provisions ("single-purpose entity" covenants") in loan agreements that constrain the borrower from engaging in any other business or acquiring any new assets. They also require the borrower to keep its affairs separate and apart from those of any other entity.

debt (Triantis and Daniels 1995). Financial institutions are better suited to financing groups of assets with significant synergies (or going concern surpluses), particularly where exogenous shocks may cause insolvency and necessitate financial restructuring. If an enterprise includes ventures that are different in these respects, partitioning the ventures into distinct entities may reduce capital costs. In particular, assets with higher liquidation values and lower susceptibility to exogenous shocks may be financed by public debt and those with lower liquidation values and greater insolvency risk may be financed by bank debt.

In a related manner, partitioning between firms also shields one venture from the bankruptcy cost arising from another failed venture. If insolvency leads to the liquidation of the latter venture, the healthy one can continue intact without the cost of bankruptcy lawyers and accountants, the threat of inefficient liquidation, or distraction to management (Hansmann et al. 2006). On the other hand, combining the two ventures in one firm diversifies the risk of the assets and lowers the probability of insolvency and bankruptcy costs.

The same asset-based characteristics that govern efficient partitioning among lenders are also the source of potential benefits from tailoring stockholding to asset type. Investors with specialized screening and monitoring skills may pay more for stock in one or the other venture alone. Moreover, the risk of one venture alone may offer the market a "pure play" in that venture, that may meet diversification (or other) needs of a group of investors. As noted below, ventures that would benefit from closer monitoring may have more concentrated ownership than transparent assets. Issuing stock separately in a venture may also invite information intermediaries, such as analysts, to follow those assets separately, allowing the market to "unpack" their value. As noted earlier, the separate equity financing of such assets can only be done by removing them to a distinct legal entity.

The optimal concentration (or dispersion) of ownership offers a good example of tailoring opportunities. Finance theory suggests that the optimal concentration is a function of asset type under the following tradeoff. The larger the proportion of shares held by a single person, the more she internalizes the fortunes of the firm. If she is a manager, her decisionmaking incentives improve and, if she is not, her incentives to monitor improve. On the other hand, the owner of a large block of stock sacrifices some of her ability to diversify the nonsystematic risk of firm assets as well as the ability to trade shares in a liquid market. In addition, as a controlling shareholder acquires a large proportion of the votes, she is increasingly insulated from the market for corporate control and proxy contests from other shareholders. Such protection can lead to increase in consumption of private benefits at the expense of overall firm value. As a general matter, then, concentrated ownership is more valuable when the optimal monitoring investment is high; but concentration is less valuable when asset values are risky, managerial entrenchment causes inefficient private-benefit extraction, and there is otherwise a vibrant market for corporate control. Thus, for example, an unregulated venture highly dependent on R&D and vulnerable to the exogenous shocks of international trade may benefit more from the monitoring of a concentrated owner than a regulated or conventional manufacturing enterprise, yielding opportunities for private benefit consumption by managers or controlling shareholders.

To the extent there is a market for an entity's stock, trading in the stock reveals information about the value of the venture that would be less clear if the venture were part of an integrated issuer. This is a significant consideration in the design of performance-based compensation. The inability to issue stock that closely tracks the value of a division of an integrated firm constrains the ability of firms to provide performance-based compensation to the divisional managers, because they would benefit (or lose) from the performance of other divisions. A firm can compensate a divisional manager on the basis of the division's performance, as reflected in the firm's financial statements. If it seeks to exploit market rather than accounting information, however, it is limited to the market price of its firm-wide shares. Thus, partitioning assets offers valuable opportunities to tailor managerial compensation. It can also enhance recruiting and retention efforts because the manager is not subject to the risk of performance failures of other divisions.

Finance experts focus on the stock-side tailoring benefits in justifying the creation of a new entity and the divestiture of assets in spin-offs and equity carve-outs (e.g., Schipper and Smith (1986); Allen (1998); Daly et al. (1997)) . For reasons outlined above, tracking stocks cannot yield these benefits and are therefore much less frequent than either spin-offs or carve-outs. In particular, business enterprises and commentators suggest that, by creating a legal interest in the partitioned assets, the divestitures offer investors a new security (the "pure play") and more specialized coverage by securities analysts. In addition, the new stock can be issued to executives to align their compensation more closely to the value of the venture, as well as to recruit or retain talented management. In 2008, Motorola announced that it would split its company into two publicly traded companies, and it invoked explicitly the benefits of tailoring. The CEO and President announced that "Creating two industry-leading companies will provide improved flexibility, more tailored capital structures, and increased management focus – as well

as more targeted investment opportunities for our shareholders."8

The foregoing discussion focused on the tailoring of the distribution of financial interests and claims among investors. The governance or control rights in a firm may also be tailored. Given that governance choices typically entail personal obligations, in the sense described earlier, the segmenting of assets in different firms may be necessary for tailoring. For example, although covenants in debt contracts may apply to the use of specific assets (e.g., a covenant to insure or not to sell a key asset), all assets of the firm are pledged and are affected by a default. A violation of the covenant leads to acceleration of the maturity of the loan and entitles the lender to enforce against any or all the assets of the firm. Thus, a covenant that may be appropriate with respect to one group of assets may be undesirable when that asset group is combined with others because of the wider impact of the default sanction. If the contract cannot be renegotiated or refinanced, for example, there is a risk of inefficient liquidation. The integration of asset groups might be inefficient if it leaves the firm with a choice between two crude alternatives: to include the asset-specific covenant and bear the firm-wide consequences of violation or exclude the covenant and bear the cost of diluted incentives.

Corporate governance is firm-wide in other respects, as well. Each corporation chooses a single state of incorporation, which determines both the corporate statute and the courts that enforce state governance laws. For example, by selecting an incorporation state and its charter provisions, a firm chooses among various duties of care to bind its directors, as well as among

⁸*Motorola Commences Process to Create Two Independent Industry-Leading Companies*, March 26, 2008, PRNewswire-First Call. The company proposed to create two companies, Mobile Devices and Broadband & Mobility Solutions. It put the spin-off plans on hold in October 2008 while it cut its workforce and addressed other internal restructuring issues.

alternative standing rules allowing shareholders to bring derivative suits to enforce such duties. Directors owe fiduciary obligations to the firm as a whole, to maximize the value of the entire firm without regard to the value of any subdivision. As noted earlier, tracking stocks reflect imperfectly the value of the tracked division because they entitle the investor to participate in the residue of the entire firm. If tracking stock carries voting rights, those rights are to vote for directors on the firm's board. A single board typically sits at the top of each firm's governance hierarchy. Moreover, in cases involving fiduciary claims asserted by tracking stockholders, courts have declined to apply a fairness scrutiny to transactions that have disparate impact on tracked divisions (Triantis, 2004).⁹

Given that firms issue firm-wide equity interests and have unitary boards that owe duties to entire firms, it follows that only entire firms and not asset subgroups (or divisions) may be subject to hostile takeover bids. This is a significant constraint because some ventures would benefit more than others from the discipline imposed on inefficient managers by the market for corporate control. If a raider seeks control over a division alone, it must first assume control over the entire firm and then dispose of the other assets. Therefore, a firm's defenses against hostile acquisitions are firm-wide: poison pills, staggered boards and dual class recapitalization affect all assets in a firm. A firm cannot offer shareholders the discipline of exposing only some of its ventures to the discipline of the market for corporate control. Instead, the ventures must be

⁹Another asset-contingent governance choice is the proportion of inside, outside and independent directors on a firm's board. The optimal proportion is a function of asset type. In particular, outsiders are better suited to more traditional industries where assets are fairly transparent and there are temptations for management. In contrast, growth industries have relatively little slack and are more difficult for outsiders to monitor, even while sitting on the board.

split between distinct legal entities that can proceed to adopt different strategies toward future acquisitions. In fact, the anti-takeover provisions in the corporate charters of spinoffs often differ from those of their parents (Daines and Klausner, 2004).

III. Tension between legal separation and economic integration

The discussion thus far raises a tension between the motivation of economic integration and financial tailoring. A supplier and a customer might vertically integrate under common ownership in order to avoid the transaction costs of contracting. The owner, however, may be inclined to seek financial capital from outside investors either because of wealth constraints or risk aversion. This gives rise to the informational problems that drive much of the analysis of optimal capital structure and that might be mitigated by tailoring through legal partitioning (while maintaining common control). In order to enjoy both benefits of economic integration and financial tailoring, the two ventures may be brought within common control but in distinct affiliate firms. While spinoffs and carveouts both exploit the benefits of separate legal entities, they differ in their effect on control. In a spin-off, the shares of the new entity are distributed as a dividend to the shareholders of the original firm, who may then sell them. In a carveout, the original firm maintains a controlling interest as a parent of the new entity, while the minority interest is sold in a public offering. Each of the spun-off and carved-out firms has a distinct capital structure: including a state of incorporation, a separate board, and different creditors. The carved out firm, however, remains under the same control. Information is more easily transferred between the parent and the carved-out subsidiary, and the costs of collaboration

between the firms are correspondingly lower.

Legal partitioning, however, can undermine the gains from economic integration, even if the distinct legal entities remain under common control. Corporate and debtor-creditor law compels the two affiliates to transact at arm's length, a requirement that can be enforced by minority shareholders. Where assets A and B are held in different legal firms under common control, they may be understood to have a common "owner", but their joint use must be the subject of contract and cannot be determined by fiat. Otherwise, they risk having their boundaries disregarded by a court on the grounds that one firm is the alter ego or agent of the other (or, alternatively, doctrines of veil piercing or enterprise liability) and this would undermine the benefits of tailoring financial claims. Moreover, each party to the contract is a distinct legal entity with its own governance; each has different shareholders and/or creditors and a different board of directors. This resurrects transaction costs of various kinds, although the transaction costs are likely to be lower because there is less information asymmetry. Any contract between the two affiliates will be a related- party transaction and required to be authorized by a vote of disinterested shareholders or directors, and perhaps also pronounced by a court to be fair. Arguably, minority shareholders in each firm might require their respective boards to exploit gaps and uncertainties in the contracts in order to benefit their respective firms. These conflicts of interest, which threaten to lower the combined value of the parent and subsidiary, are absent when assets are legally and economically integrated in a single entity.¹⁰

¹⁰Ayotte and Gaon (2009) similarly observe in the context of bankruptcy that, if there are synergies between the assets in special purpose entities and those of the originating entity, their separation into distinct entities may make the preservation of going concern value more difficult.

It is not surprising therefore that elaborate contracts are drafted when firms spin-off or carveout some of their operations in a new firm. Iacobucci and Triantis (2007) describe the complex contract that was drafted when AT&T spun off its wireless division, in order to preserve the synergistic gains between the wireless and wireline businesses. Similarly, an elaborate contract was necessary when Air Canada partitioned its frequent flyer program, Aeroplan, as a wholly owned limited liability partnership in 2002. Aeroplan evolved into a loyalty marketing company serving other large consumer product companies. It was restructured in 2007 as an income trust in 2007, and a 12.5% interest was sold in an initial public offering. Air Canada's 2007 annual information form describes five major and complex agreements between the related companies.¹¹

IV. Internal capital markets tradeoff¹²

Firms usually prefer to fund new investments or operations with internal capital – cash from operations, asset sales or secured borrowing. An enterprise faces informational obstacles that raise the cost of external capital. The outside investor knows that insiders of the firm have private information about the prospects of future profitability. The firm's decision to sell stock may indicate that insiders believe the stock is overvalued. To a lesser degree, this may occur also with the sale of debt. The investor is therefore likely to ask for a premium rate of return.

¹¹Air Canada, Initial Annual Information Form 42-44 (March 27, 2007). Air Canada's parent, ACE Aviation Holding disposed of its remaining interest in Aeroplan in 2008, so that the companies are no longer affiliates.

¹²This section summarizes Triantis (2004).

The narrower the asymmetry, the smaller the premium: thus, firms may borrow at lower rates from their bank than from public debt markets (Myers and Majluf (1984)).

Information asymmetries are narrower or absent between two firms owned by the same parent. However, the legal obstacles noted in Part III that disrupt contracting between affiliates also impede capital movements across affiliates. Triantis (2004). Consider an enterprise with lines of business A and B and suppose they are divisions within a single entity. The managers may move capital between the two divisions with relative ease: they can divert A's cash flow to B, or borrow against A's assets to finance a venture in B. If A and B are in separate entities, however, the law imposes significant obstacles to the movement of capital. A's cash flow cannot simply be diverted. A might loan the funds to B, or it might guarantee repayment of a loan from a third party. Alternatively, A might pay a dividend to the parent who can use it to invest new equity in firm B. Legal obstacles impede such movement of capital between related entities, particularly if they have minority stockholders or different creditors. Under corporate law, minority shareholders can challenge and delay contracts between affiliates as related-party transactions, compelling ratification votes and perhaps judicial scrutiny of their fairness. In addition, a court may find that a fraudulent transfer has occurred if A transfers funds to B or guarantees the repayment of B's debts, for less than reasonably equivalent value and while B is insolvent or undercapitalized. The payment of a dividend by an undercapitalized subsidiary may also be contrary to corporate law, as well as being a fraudulent transfer. In addition, there may be tax regulations that similarly require that capital transfers occur on arm's length terms. In contrast, there are no such restrictions on the movement of capital between divisions of a single entity.

Internal markets have advantages and disadvantages, and the breaking up of internal markets by segregating assets into distinct entities sometimes yields a net benefit. Both informational obstacles and legal frictions are avoided when a firm uses internal capital. A multi-divisional firm can reallocate capital from one division with no profitable opportunities to finance the investments of another division in a growth industry. The advantage is the speed and ease with which the integrated firm can react to changing conditions, by redeploying capital from one venture to a more profitable opportunity. This is particularly helpful when the cost of external capital, from public markets or private institutions, is increased by the presence of information asymmetries as to the value and prospects of the firm. On the other hand, managers with the discretion to make these decisions may pursue private benefits rather than maximizing the value of the firm. Indeed, if one envisages the firm as a hierarchy in which headquarters allocate internal capital among divisions, then resources may be expended by divisional owners to lobby for an allocation skewed in their favor (e.g. Harris and Raviv 1996). Moreover, the ultimate allocation may not be the most efficient (Scharfstein and Stein 2000).

If the advantages of internal markets are outweighed by the agency and influence cost problems, legal partitioning may be desirable. In this way, any movements of capital between ventures must be done at market rates, with the formalities of arm's length contracting and with the approval of disinterested shareholders. So, while mergers can create internal markets within single entities, divestitures may be motivated by the elimination of cross-subsidization and the discipline of requiring managers to prove their value in capital markets (e.g. Allen (1998); Triantis (2004)).

V. Asset identification and alienability

William Widen (2007) writes that legal entities are convenient vessels by which to transfer groups of assets. Therefore, if a parent company acquires a subsidiary, it may preserve the firm as a subsidiary rather than legally transferring the assets into the parent, in order to minimize the additional cost of asset transfers at the time of the acquisition, as well as to facilitate a potential future sale of the those assets as a group. Transfers of stock can be completed at lower cost than the discrete transfers of individual firm assets. Widen observes in practice, however, that corporate groups seek also to maximize the gains from the economic integration of assets, by ignoring the corporate boundaries between affiliates and treating them effectively as divisions or departments. The group effectively forms an internal market for capital, labor and even physical assets. Thus, the identity of the subsidiary entity "hibernates" until it is needed to facilitate a future sale of all, or substantially all, its assets.

The disregard of corporate boundaries has legal consequences: a court is more likely to allow creditors to disregard the boundaries as well, thereby undermining attempts to tailor financial claims. However, if the purpose of the separate entity is not tailoring but rather what Widen calls "asset identification", then the pooling of assets to pay creditors is consistent with the intended capital structure. Widen notes that creditors frequently deal with corporate groups on the understanding that, in the event of insolvency, all assets in the group will be available to satisfy all third party liabilities. His observations that creditors seem to tolerate the disregard of corporate boundaries for the purposes of decision-making within a group and that they regularly consent to deemed consolidation¹³ of the group in bankruptcy reorganizations, are consistent with this view of the entity as a vessel for future asset sales, rather than for tailoring financial claims.

Widen is careful not to suggest that all lending to corporate groups is done on this basis; he notes in particular the importance of partitioning in the case of structured finance or securitized assets. He correctly argues that, where financing is intended to be tailored to asset groups, the legal partitioning among subsidiaries is often supplemented by covenants that protect the boundaries of the discrete entities: in particular, covenants prohibiting mergers or other combinations between entities, engagement in new lines of business, significant asset transfers, and the disregard of corporate formalities. Investors might also wish to proscribe sales of stock in the debtor and changes in control, but these are less common than the aforementioned covenants that preserve the integrity of the asset pool and its going concern. A related argument has been advanced recently by Ayotte and Hansmann (2009) in connection with the contracts of a firm. The authors argue that the separate legal entity creates transferable bundles of contracts. They assert that some contracting partners wish to prevent the assignment of their individual contracts (via anti-assignment provisions in the contract), without impeding the ability of the entrepreneur to cash out, or to finance the operations by selling interests or claims against the value of the bundle.

Conclusion

¹³The consolidation is "deemed" because the separate legal entities are preserved, while the assets are pooled for the purpose of determining the distributions to which all third-party creditors are entitled.

This Chapter explains that property is held by entities rather than individuals in order to lower the cost of financing productive assets, particularly where financing is desirable to integrate assets under common control. The discussion reviews four categories of efficiency benefits from dividing assets among discrete entities: matching financial claims and interests to asset types, tailoring governance, splitting internal capital markets and facilitating asset group transfers. There is a substantial body of empirical work indicating that divestitures such as spinoffs, carve-outs and structured finance yield gains from many of these features.

The law plays an important role in yielding these benefits: by endowing the legal capacity of persons to firms, shielding assets of one entity from the claims against another, by requiring firm-wide capital structure decisions in many respects, and by impeding the free flow of capital across firm boundaries. The analysis described here provides a positive explanation for these sets of legal rules, but it leaves a number of interesting normative legal issues – in corporate, securities and bankruptcy law – to future research. Two interesting lines of inquiry have been suggested in the foregoing discussion. First, should American law relax its requirement of uniformity of capital structure to allow for greater financial and governance tailoring within firms? Elgueta (2009) reports that civil law jurisdictions permit the partioning of property into pools of assets within a single entity. Each pool can be bonded to a different purpose and pledged only to creditors whose claim is connected to that purpose. Second, the resolution of a number of normative issues concerning the treatment of multiple-entity enterprises in bankruptcy – for example, substantive consolidation or the enforcement of intercorporate guaranties – seem to hinge on the motivation for the partioning of assets. In

particular, the decision to consolidate such enterprises or to subordinate inter-affiliate claims might depend on whether the separate entities were used for tailoring or simply for asset identification or regulatory compliance?

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