Chapter 32

FUNDAMENTAL TRADEOFFS IN THE PUBLICLY TRADED CORPORATION

JOSEPH P. OGDEN, *University at Buffalo, USA*

Abstract

This article discusses some fundamental cost-benefit tradeoffs involving publicly traded corporations from a corporate finance viewpoint. The fundamental benefits include greater access to capital at a lower cost and economies of scale. The potential costs are associated with two fundamental problems: principal–agent conflicts of interest and information asymmetry. Various mechanisms have evolved in the United States to mitigate these problems and their costs, so that the bulk of the fundamental benefits can be realized.

Keywords: cost of capital; liquidity; economies of scale; conflicts of interest; information asymmetry; disclosure; monitoring; intermediaries; contract devices; signaling

32.1. Introduction

This article discusses, from a corporate finance perspective, the fundamental benefits and costs associated with the publicly traded corporation as a form of business organization. The fundamental benefits are two-fold. First, by incorporating and attaining public-trading status a firm gains access to a large pool of capital, which it can use to pursue capital investment projects that take advantage of economies of scale. Second, a firm's cost of capital is reduced because public investors will accept a lower cost of capital, and this is so because investors are diversified and the firm's securities are more liquid.

Costs relate to two fundamental problems that beset the publicly traded corporation, both of which are consequences of the separation of ownership and control. The first problem involves "principal–agent conflicts of interest." The second problem is "information asymmetry." This article discusses these fundamental problems, their potential costs, and various mechanisms that have evolved in the United States to mitigate these problems and their costs, so that the bulk of the fundamental benefits can be realized.

31.2. Fundamental Benefits of the Publicly Traded Corporation

The fundamental benefits of the publicly traded corporation are two-fold. First, by attaining public-trading status, a firm gains access to the large pool of equity capital that is available in the public equity markets, and also enhances its access to credit markets for debt capital. Large amounts of capital allow a firm to pursue capital investment projects that take advantage of economies of scale, and thus are more profitable. Second, as many corporations emerge, secondary markets develop that allow investors to trade corporate securities and become diversified. In addition, secondary markets increase the value of corporate securities by increasing their liquidity and decreasing the cost of debt and equity capital, which in turn increase the assessed profitability of corporate projects.

32.2.1. Economies of Scale

All for-profit businesses are established to create value. The corporation is specially designed to create value on a large scale. A corporation is a separate legal entity, tethered to its owners by shares of stock. The two basic legal characteristics that distinguish a corporation from other forms of business (e.g. a sole proprietorship) are "limited liability" and the "separation of ownership and control." Regarding the first, the extent of stockholders' financial responsibility for the liabilities of a corporation that they collectively own is limited to the corporation's assets, and does not extend to the stockholders' personal assets. Regarding the second, in most corporations ownership is vested in one group, stockholders, while control is vested in another group, management (though, of course, managers may hold some of the firm's shares).

These two legal characteristics allow a corporation to create value efficiently and on a large scale. Limited liability allows many individuals to pool their capital without concern for legal complexities and inefficiencies that would be involved if the personal assets of each individual were involved. As Jensen and Meckling (1976) explain, with unlimited liability individual stockholders would need to monitor each other's wealth in order to estimate their own liability, which would be very costly if the firm's shares were widely held.

The separation of ownership and control allows the two basic inputs in any economy, capital and expertise, to be contributed by separate individuals. Some individuals have expertise to develop and undertake profitable real investments, but lack capital, whereas other individuals have capital, but lack the time and/or expertise to undertake profitable real investments. The corporation combines these two factors of production under a formal efficient structure.

Moreover, economies of scale are present in virtually all business activities, and are generally very large. Scale economies allow a larger firm, at least potentially, to create substantial value by reducing the cost of production. A corporation has the potential to amass large amounts of capital, which in turn allows it to pursue capital investment projects that take advantage of economies of scale, and thus are more profitable.

32.2.2. Reducing the Cost of Capital: Diversification and Liquidity

Two additional important benefits are associated with the publicly traded corporation: diversification and liquidity. To see these benefits, note that each firm in the economy can amass a large amount of capital by appealing to many investors to become stockholders. In turn, each investor can invest only a small portion of his or her investable wealth in any given firm, and therefore can invest in the equities of many firms simultaneously. Thus, investors can reduce the risk of their portfolios by diversifying across many firms. Risk-averse investors will accept a lower expected return on the equity of each firm because they can eliminate much of the risk of these investments via diversification. Consequently, each firm's cost of equity capital will be lower than would be the case if investors were not diversified. In turn, if all firms in the economy face a lower cost of equity capital, more projects will be deemed profitable (i.e., value-creating).

A security is liquid to the extent that an investor can quickly buy or sell the security at or near a fair price and at a low transaction cost. Liquidity is important to an investor because the ultimate purpose of investment is to provide for future consumption, either sooner or later. Investors will accept a lower expected return on equity (and thus firms will enjoy a lower cost of equity capital) if equities are liquid. The liquidity of securities naturally follows from investors' desire to become diversified. This is so because secondary markets will develop to allow trading in securities. (For additional discussion, see Ogden et al., 2003, pp. 76–77).

32.3. Fundamental Costs of the Publicly Traded Corporation

According to Modern Corporate Finance Theory, two fundamental problems beset the publicly traded corporation: "principal–agent conflicts of interest and information asymmetry." These problems are important because they can potentially impose costs that are sufficiently large as to threaten the fundamental benefits discussed in the previous section. This section discusses these problems and their costs. The next section discusses various mechanisms designed to alleviate these problems, and thus to mitigate their costs.

32.3.1. Principal–Agent Conflicts of Interest

The first fundamental problem concerns the relationship between a principal and an agent. In general, a principal hires an agent to act in the principal's interest by performing a specified task. A problem arises in that the agent is hired to act in the principal's interest and yet, as a self-interested human being, the agent cannot be expected to subordinate his or her own interests. Thus, a conflict of interest naturally arises between the principal and the agent. In corporate finance, two types of principal–agent conflicts of interest are paramount: (1) conflicts between a firm's stockholders (as principals) and its management (as agents); and (2) conflicts between the firm (as an agent) and its creditors (as principals).

Regarding conflict (1), a firm's management is hired to act in the stockholder's interest, which is generally assumed to maximize the market value of the firm's equity. However, managers are ultimately interested in maximizing their own welfare and they control the firm. As noted earlier, an important feature of the corporation is the separation of ownership and control, and this feature is critical to capturing the stated fundamental benefits.

Managers have a self-serving incentive to capture "private benefits of control." The following are among the activities that management might employ to capture such benefits: (a) excessive consumption of "perquisites," (b) manipulating earnings and dividends, (c) maximizing the size of the firm, rather than the market value of its equity, (d) siphoning corporate assets, (e) excessive diversification at the corporate level, (f) a bias toward investments with near-term payoffs, (g) underemployment of debt, (h) entrenching their positions, and (i) packing the firm's board of directors with cronies. (For a discussion of these activities, see Ogden et al., 2003, pp. 83–88.) In the absence of mechanisms (discussed later) to offset management's private incentives, the costs to stockholders of such activities can be sufficiently large as to negate the stated fundamental benefits of the publicly traded corporation.

In addressing conflict (2), we generally assume that the conflict of interest between stockholders and management is resolved. Instead, we focus on a conflict of interest between the firm and its creditors. In this context, a creditor can be seen as a principal who "hires" the firm as an agent (i.e. by paying money up-front in the form of a loan) to act in the creditor's interest (i.e. to operate the firm in a manner that ensures that timely interest and principal payments will be made to the creditor.)

A conflict arises in that the firm's management, who will be controlling the firm, is hired to act in the stockholders' interest, rather than the creditor's interest. In the absence of mechanisms (discussed later) to protect the creditor's interest, management may engage in any of the following activities that serve to expropriate wealth from a creditor to stockholders: (a) increasing leverage, especially by subsequently issuing additional debt that has equal priority to the firm's original debt, (b) increasing the riskiness of the firm's operations (the "asset substitution" or "risk-shifting" problem), and (c) paying dividends. (For a discussion of these activities, see Ogden et al., 2003, pp. 88–93.)

In addition, Myers (1977) identifies an important deadweight cost of debt called the "underinvestment problem" or the "debt overhang problem." If a firm has default-risky debt outstanding and a profitable investment opportunity that must be financed with equity, the firm's management might forego the investment even though it is profitable *per se*. This can occur if a sufficient portion of the net present value (NPV) of the project transfers to the creditors (i.e. creditors are made better off by the adoption of the project) such that the net benefit to stockholders (i.e. net of their cash contribution) is negative.

32.3.2. Information Asymmetry

The second fundamental problem is called the "information asymmetry" problem. Akerlof (1970) is generally credited with recognizing information asymmetry as a general problem in a market, though its application to corporate finance was quickly recognized. To illustrate the problem, Akerlof refers to the market for used automobiles. The crux of the problem is that the quality of a particular used make and model of automobile varies across the units for sale, and sellers know more about the quality of their unit than do potential buyers. Sellers of low-quality units have an incentive to make minimal repairs and otherwise exaggerate the quality of their unit to mimic the better-quality units in the market. As a result, in equilibrium all units will share a common price, which reflects the (true) average quality of units for sale. However, this equilibrium is unsustainable because some or all of the sellers of (truly) better-quality units will exit the market. After they exit, the true average quality of units in the market is lower, and thus so must the common price. This process will continue until only the "lemons" remain in the market. In short, the market for used automobiles can collapse under the weight of information asymmetry. (See Ogden et al., 2003, pp. 101–102.)

The markets for corporate securities are also naturally beset by information asymmetry because of product market competition and the separation of ownership and control. A firm's management (assumed to be acting in the stockholders' interest) must devise strategic plans to compete in its chosen product market. These plans cannot be divulged to the firm's diffuse stockholders for the simple reason that this would be tantamount to revealing the information to the firm's competitors, who could surreptitiously become stockholders in order to gain access to such plans, and then thwart them with counter-strategies.

Consequently, a firm's management generally and necessarily has more information about the firm's operations, and thus its true value, than do the firm's actual or potential stockholders. In the absence of mechanisms (discussed below) to mitigate this information asymmetry problem, the market for corporate securities may be very poor,- and could even collapse àla Akerlof's argument.

32.4. Mitigating the Costs

A wide variety of mechanisms have emerged in the U.S. and other markets to mitigate costs associated with both the agency and information asymmetry problems discussed above. This section briefly discusses such mechanisms, following a top-down approach. (For an in-depth discussion of each of these mechanisms, see Ogden et al., 2003, Chapter 5.)

32.4.1. Government Laws and Regulations

The most fundamental services that government provides are for establishment of property rights through legislation and the enforcement of legal contracts through a judicial system. In addition, government generally regulates the financial markets, such as with the US Securities Act of 1933 and the Securities Exchange Act of 1934, the latter of which established the Securities and Exchange Commission (SEC). The SEC requires all firms with publicly traded securities to register such securities, to file periodic financial statements, etc. The 1934 act also requires publicly traded firms to provide stockholders the opportunity to vote on matters such as the election of board directors. The SEC also prohibits insider trading, requires major owners of a firm's equity to disclose their ownership, etc. The regulations imposed by the SEC most obviously help to reduce information asymmetry and associated costs. In addition, these regulations curb the self-serving activities of managers, and thus help to mitigate costs associated with principal–agent conflicts of interest.

32.4.2. *Securities Traders, Analysts, and the Press*

Securities traders, analysts, and the press all generate important information about the values of securities and the efficacy of firms' managements. Their efforts help to reduce information asymmetry. In addition, they serve as indirect monitors of each firm's management, which curbs management's opportunities to engage in self-serving activities, and thus mitigates costs associated with stockholder–management conflicts of interests.

32.4.3. *Ownership Structure*

A firm's stockholders can promote their own interest through "activism," specifically, by voting on major management-initiated proposals, submitting their own proposals, and monitoring management's decisions. Unfortunately, if a firm's ownership is diffuse, activism is generally thwarted by the "free-rider problem," whereby stockholders have an incentive to freely benefit from the costly efforts of others to monitor and reform management.

One means of mitigating the free-rider problem is for a firm's equity to be closely held (i.e. by nonmanagement stockholders), so that most or all of a firm's stockholders have a sufficient financial incentive to monitor management. However, close ownership is costly because it reduces the benefits of the corporate form discussed earlier. Alternatively, a firm may require management to own a substantial number of the firm's shares (or to hold stock options), which serves to align stockholders' and management's interests. However, this mechanism is also imperfect. For instance, if the bulk of a manager's personal portfolio is invested in the manager's own firm, his or her financial policies (i.e. real investment and financial decisions) may be distorted in a way that reduces the value of the firm's shares.

32.4.4. *Board Oversight*

Board directors are hired to protect and promote the interests of a firm's stockholders. The existence of boards of directors is perhaps the most obvious indication of a potential conflict of interest between stockholders and management. An independent board can be an effective advocate of stockholders' interests because the board generally has powers to: (1) require board approval of major capital expenditures, acquisitions, divestitures, and security offerings, (2) control the firm's capital structure, (3) hire outside consultants to scrutinize major projects, and (4) as necessary, fire senior management.

However, senior management has an incentive to "pack the board" with its cronies. If management is successful in doing so, the board becomes little more than a "rubber stamp" for management's decisions. To avoid this, stockholders should insist on an independent board, consisting of mostly outsiders who are not beholden to management.

32.4.5. *Financial Institutions*

A wide variety of financial institutions exist in the United States, including commercial banks, finance companies, insurance companies, venture capital firms, and securities firms (i.e. underwriters). According to theory, one of the most fundamental services provided by financial institutions is to mitigate costs associated with the information asymmetry problem in the market for corporate securities. Sellers of valuable proprietary information work through a financial institution that acts as an "intermediary" between the firm and investors. The intermediary is in a position to verify the value of the proprietary information, and yet can be trusted to keep such information confidential.

32.4.6. *Contract Devices*

Finally, firms employ a variety of contract devices to mitigate principal–agent conflicts of interest and/or information asymmetry problems. To illustrate, we briefly discuss two types of contracts that can alleviate conflicts: executive compensation contracts and debt contracts.

For a firm with diffuse ownership, devising a contract with senior management is problematic because managers have private incentives to maximize their own welfare, as discussed earlier. In order to align the interests of stockholders and management, a firm may include performance-based provisions in the executive's compensation contract, such as an annual earnings-based bonus or grants of stock or stock options. Such provisions may serve the intended purpose reasonably well, but could also backfire by causing management to distort the firm's capital investment program, its capital structure, its dividend policy, etc.

We also mentioned earlier that a conflict of interest arises between a borrowing firm and its creditors, whereby the firm has an incentive to take actions to expropriate wealth from creditors. Creditors can mitigate these incentives by including various provisions and covenants in the debt contract. For instance, a creditor may demand collateral to mitigate the asset substitution problem. Creditors may also restrict the firm's ability to issue additional debt and to restrict or prohibit the payment of dividends.

32.4.7. *Signaling*

Finance theory also suggests that firms can provide "signals" of true value to the market in order to mitigate the information asymmetry problem. In the finance literature, authors have suggested each of the following signaling mechanisms: ownership structure, leverage, dividends, and stock repurchases. (For discussion, see Ogden et al., 2003, Chapter 4.)

32.5. Summary

This article discusses fundamental tradeoffs associated with the publicly traded corporation. On the positive side, corporations allow for the concentration of large quantities of capital, which can be used for investing in large capital investment projects that capture valuable economies of scale. In addition, the corporate form allows investors to diversify and to trade securities, which reduces the cost of capital. On the negative side, the separation of ownership and control engenders two fundamental and potentially costly problems: principal–agent conflicts of interest and information asymmetry. Various mechanisms have evolved at various levels to mitigate these problems and their costs, so that more of the fundamental benefits of the publicly traded corporation can be realized.

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