Negative covenants can further be divided into occurrence-based versus maintenance-based covenants. Covenants for high-yield loans will typically be occurrence-based that means the issuer can only undertake certain actions, such as raising additional debt or selling assets, if the action contemplated will not result in it breaching certain financial ratio tests at that time. These may include leverage ratio tests as, for instance, the debt/total capitalization ratio or the debt/EBITDA ratio and coverage tests as, for instance, the EBITDA/interest ratio. Conversely, bank credit and private placement note purchase agreements usually contain restrictive maintenance-based covenants that are tested quarterly or semi-annually. Non-compliance with such tests would typically constitute an event of default even if the issuer had not borrowed another penny since the original debt issuance.[197]

An extreme application of negative restrictive covenants comes from the use of veto rights as a protective provision often attached to preference shares in venture capital financing. These clauses give the investors a right to oppose unfair company's actions carried on against their interests. However, the scope of these provisions differs from company to company. Veto rights are generally employed by venture capital investors in order to avoid claim dilution in situations in which the risk supported by them is disproportionate vis-à-vis their return. Accordingly, they allow the investors to oppose the completion of a firm's recapitalization through the issuance of new securities involving the entry of a new investor, if the subscription price is considered to be too low compared to the real share price or the presumed share price.[198] These covenants are also frequently used in the context of an exit event, a sale of all or substantially all of the company's assets, a merger or other important corporate transactions. For instance, in Initial Public Offerings (IPOs), if the financier considers unacceptably low the price per share proposed for the listing, he or she may benefit from a right to veto and block the transaction by refusing to convert the preference shares into common shares.[199]

Corporate Governance, Bus. L. 41, 423 (1986); J. Day & P. Taylor, *Bankers' Perspectives on the Role of Covenants in Debt Contracts*, J. Intl. Banking L. 5, 201 et seq. (1996).

197. These covenants can also be used as early warning signs of a financial deterioration of the business.

198. See R.A. Mann et al., *Starting From Scratch: A Lawyer's Guide to Representing a Start-Up Company*, Ark. L. Rev. 56, 861–862 (2004).

199. The preferred stock purchased by financiers will generally have a provision requiring the automatic conversion of preferred stock upon either an IPO at a pre-specified price per share or the requisite vote of preferred stockholders.

CHAPTER 2

Distinguishing between Equity and Debt

The starting point for any research in capital structure is the Modigliani & Miller (M & M) theorem. It suggests that – under very strict and unrealistic assumptions – a company's capital structure does not matter. However, without doubt, a lot of energy is invested in finding the optimal capital structure for a given company in the real world. Theory explains this mainly by pointing towards the differing tax and regulatory treatment of debt and equity, respectively, as well as information asymmetries between creditors, shareholders and managers. However, once the conditions that underpin the M&M study on the optimal capital structure are relaxed,[1] the choice between financing assets with debt or equity becomes material, and *mutatis mutandis*, the classification of a financial instrument as either debt or equity. As far as classifications are concerned, accounting rules play an important role in the framework of corporate law. They are targeted to measure and classify the financial instruments issued by a company in order to reflect the desire for transparency between company and investors. Furthermore, regulatory bodies heavily rely on accounting numbers as control over regulations.

Accountants and tax authorities are dedicated to a dichotomous classification that has been considered the most suitable way to identify and then interpret certain results as the annual income and taxable results. Although in principle, a twofold distinction between equity and debt can appear quite straightforward because of their contrasting characteristics, it is in reality blurred by the existence of hybrid financial instruments, which consist in securities with a mix of both equity and debt features. Therefore, hybrids complicate the task of the regulators because they provide the users with an optimal tool of regulatory *arbitrage*.

1. It means that markets are not perfect and efficient so taxes and bankruptcy costs exist as well as asymmetric information and borrowing costs.

§2.01 DOES CAPITAL STRUCTURE MATTER?

During the years, the equity-debt trade-off has animated many doctrinal discussions in relation to dividend policies, the optimal financial structure on investment choices, conflicts of interests arising between different claimants of future streams of returns and the management of the company, as well problems associated with the separation between ownership and control in a company.[2]

One strong argument against writing a book on the *Debt-Equity* distinction is the M & M theorem, which demonstrates how the division between the two is irrelevant to the value of the firm and the doctrine on corporate finance should not concern itself with figuring out the perfect debt-equity ratio to maximize the shareholders' value. The theorem was published in 1958 and since then has been considered by many as the foundation of the modern corporate finance.[3]

In the study, Modigliani and Miller assumed several strict conditions. First, in their fictitious economy they assumed the absence of any costs of insolvency (bankruptcy costs) as well as the absence of any taxation imposed either at the firm level or at the individual level. Second, markets are efficient and perfect. The efficient markets assumption means that there is no asymmetric information between the managers and all market participants. Therefore, the prices on traded stocks, bonds or property already reflect all known information, and instantly change to reflect new information. The perfect markets assumption means that transaction costs do not exist and there are no barriers to exit or enter in the markets. Thus, all investors share homogeneous expectations about the future prices of securities and individuals can borrow at the same interest rate as corporations. Third, in this fictitious world there is no division of the stream between cash dividends and retained earnings in any period, because the management is presumed to be acting in the best interests of the stockholders. The issued shares are divided into 'equivalent return' classes that means that all the shares issued by any firm in the same class have the same return and the various shares within the same class differ, at most, by a 'scale factor'. In this way it is possible to classify firms into groups within which the shares of different firms are 'homogeneous' or

2. See P.L. Davies, *Gower and Davies' Principles of Modern Company Law* 859–864 and 1179–1199 (9th ed., Sweet & Maxwell 2012); D. Kershaw, *Company Law in Context: Text and Materials* 163 et seq. (Oxford U. Press 2009); J.H. Farrar & B.M. Hanningan, *Farrar's Company Law* (4th ed., Butterworths 1998) 158–160; R. Burgess, *Corporate Finance Law* 5–6 (2d ed., Sweet & Maxwell 1992) (; T.E. Stocks, *Corporate Finance: Law and Practice* 6 (Sweet & Maxwell 1992) ; R.W. Hamilton, *Corporations, Including Partnership and Limited Liability Companies, Cases and Materials* 299 (West Group 1998) (; J.D. Cox & T.L. Hazen, *Business Organizations Law* 540 (3d ed., West 2011) ; W.A. Klein & J.C. Jr. Coffee, *Business Organization and Finance: Legal and Economic Principles* 7–11 (9th ed., Foundaton Pr 2004) ; R. McCormick & H. Creamer, *Hybrid Corporate Securities: International Legal Aspects* 2 (Sweet & Maxwell 1987); but this opinion is supported since long time A. Stone Dewing, *The Financial Policy of Corporations* 34 and 78 (2d ed., Ronald Press Co. 1919).
3. See F. Modigliani & M. Miller, *The Cost of Capital, Corporate Finance and Theory of Investment*, Am. Econ. Rev. XLVIII, 261–275 (1958). The essay was modified in part later by F. Modigliani & M. Miller, *Corporate Income Taxes and the Cost of Capital: A Correction*, Am. Econ. Rev.LIII, 433–443 (1963), and reconsidered more recently by M.H. Miller, *Debt and Taxes*, J. Fin. 32, 261–275 (1977) and M.H. Miller, *The Modigliani Miller Propositions After Thirty Years*, J. Econ. Perspective 4, 99 (1988).

perfect substitutes for one another. At the same time, all bonds are assumed to yield a constant income per unit of time, are traded in a perfect market and are perfect substitutes for each other up to a 'scale factor'.[4]

Given those assumptions, the first and most famous proposition establishes a company capital structure does not matter because it is completely independent from the investment choices.[5] To support its thesis, the M&M theorem showed that as long as the relations between 'market value' and 'average cost of capital' did not hold between any pair of firms in a class, arbitrage could take place and restore the stated equalities simply because if an investor were to exploit an arbitrage opportunity and to acquire shares at a lower price, the value of the overpriced securities would fall and the under priced shares value would rise, eventually eliminating the discrepancy.

From the first proposition derives the second proposition that concerns the 'rate of return' on ordinary shares in companies capitalized by debt. The second proposition establishes that gearing the firm does not increase the shareholders' return or reduce the cost of capital, because the cost of equity capital is a linear function of the debt-equity ratio.[6] Obviously, M&M theorem does not deny that a different composition of the financial structure could affect the expected rate of return of a company, but it shows that increasing the rate of return of the ordinary shares increases the amount of debt and consequently the financial risk, generating in a long-term investment a zero-sum game.

A conclusion for an optimal investment policy of the firm that summarizes the M&M theorem is reported in their third proposition where they state that the optimum ratio equity/debt is *completely unaffected by the type of security used to finance the investment*.[7] For the authors, firm value is determined by the size and riskiness of the cash flows arising from the investments in risky projects. The underlying investment and operating decisions that determine corporate cash flows are independent of financing decisions i.e., are unaffected, and therefore capital structure decisions will merely result in changing the distribution of these cash flows between the different claimants. Capital structure decisions will, of course, alter shareholder's anticipated risk and returns but this will not have any impact on total firm value because in a perfect and complete capital market, investors can profit without cost from any market mispricing via the application of 'home-made leverage', namely the arbitrage effect.

Subsequently in a following study, Miller and Modigliani – first, and Miller – then, observed the same scenario relaxing the no taxation assumption. Due to the preferential treatment of debt relative to equity in tax law, the optimal capital structure

4. However, Stiglitz demonstrated that this third assumption is not essential, see J.E. Stiglitz, *A Re- Examination of the Modigliani-Miller Theorem*, Am. Econ. Rev. LIX, 784–793 (1969).
5. See F. Modigliani & M. Miller, *The Cost of Capital, Corporate Finance and Theory of Investment*, Am. Econ. Rev. XLVIII, 268 (1958).
6. See F. Modigliani & M. Miller, *The Cost of Capital, Corporate Finance and Theory of Investment*, Am. Econ. Rev. XLVIII, 271 (1958) where the authors say '*the expected yield of a share of stock is equal to the appropriate capitalization rate p(k) for a pure equity stream in the class, plus a premium related to financial risk equal to the debt-to-equity ratio times the spread between p(k) and r*'.
7. See F. Modigliani & M. Miller, *The Cost of Capital, Corporate Finance and Theory of Investment*, Am. Econ. Rev. XLVIII, 288 (1958).

can be complete debt finance. However, although a firm could generate higher after-tax income by increasing the debt-equity ratio and thus higher pay-out to stockholders and bondholders, the value of the firm need not increase. The explanation for it is that while debt lowers the firm's cost of capital because passive interests are tax deductible, it rises the level of taxation to individual investors, because for an investor taxes are higher on interest payments than on equity returns. The disproportion in taxation resulting from a cheaper tax rate on dividends and capital gains than on interest at the investor level, eliminates or partly offset the tax advantage of debt finance to the firm.[8] Company will persuade the market investors to hold debt instead of shares as long as the corporate tax saving is greater than their personal tax loss.[9]

The fundamental contribution of the M&M theorem is that it structures the debate on why irrelevance of the financial structure fails around the theorem's assumptions, i.e., neutral taxes, no transaction costs, asset trade restrictions or bankruptcy costs; symmetric access to credit markets, symmetric information and firm financial policy. So doing, the theorem identifies exactly where to look for determinants of optimal capital structure and how those factors might affect capital structure.[10] With regard to firm capital structure, the Theorem opened a host of literature on the fundamental nature of debt versus equity. The doctrine has been debating whether and in which ways the distinctions between debt and equity, as two distinct forms of capital, are really substantial in economic terms.[11] Therefore the main questions driving this chapter are: does a clear distinction between equity and debt, as two different opposing methods to contribute finance in a corporation's business exist in law and how hybrid financial instruments fit in this dichotomy? And if yes, since economic theory finds no justification for it, why the law needs to classify investors' claims and why companies issue hybrid instruments?

§2.02 DEFINITION OF EQUITY AND SHARE CAPITAL

The section 548 of the Company Act 2006 defines equity share capital as:

> its issued share capital excluding any part of that capital which, neither as respects dividends nor as respects capital, carries any right to participate beyond a specific amount in a distribution.[12]

8. M.H. Miller, *Debt and Taxes*, J. Fin. 32, 269 and 270 (1977), where the author says the value of the firm in equilibrium will be independent of its capital structure but 'there would be no optimum debt-equity ratio for any individual firm'.
9. D. Farrar & L. Selwyn, *Taxes, Corporate Financial Policy and Return to Investors*, Natl. Tax J. 20, 444–454 (1967); S.C. Myers, *Taxes, Corporate Policy and Returns to Investors: Comment*, Natl. Tax J. 20, 455–462 (1967); S.C. Myers, *Capital Structure*, J. Econ. Perspectives 15, 87–88 (2001); R.C. Stapleton, *Taxes, the Cost of Capital and the Theory of Investment*, Econ. J. 82, 1273–1292 (1972); J.E. Stiglitz, *Taxation, Corporate Financial Policy and the Cost of Capital*, J. Public Econ. 2, 1–34 (1973).
10. P.H. Huang & M.S. Knoll, *Articles and Essays: Corporate Finance, Corporate Law and Finance Theory*, S. Cal. L. Rev. 74, 179 (November 2000).
11. A.P. Villamil, *Modigliani–Miller Theorem*, in *The New Palgrave Dictionary of Economics* (Steven N. Durlauf & Lawrence E. Blume eds., 2d ed., Palgrave Macmillan 2008).
12. Section 548 (ex s. 744 of the CA 1985).

Preference shares are normally, although not always, entitled only to a fixed return by way of both dividends and capital. They do not therefore constitute equity share capital although they may do so if the return on dividend or capital is not fixed or deferrable. In accountancy, a broader notion is the generally accepted definition as reflected in the international accounting standards documents where equity is defined as the residual interest in the assets of an enterprise after deducting its liabilities.[13] The European accounting rules makers have chosen not to make the definition of equity conceptually based, but simply based on an arithmetic calculation: that is, knowing assets and liabilities, equity can be inferred. The purpose of this choice is the desire to include the totality of classes of shares without entering in difficult legal definitions. In fact, some items included in the equity of the balance sheet are merely 'accounting figures' given that they are not based on contracts as the other capital instruments. Instead, these are items sometimes based on statutory requirements, such as retained earnings and sometimes neither based on contracts nor statute such as currency translation adjustments or gains and losses that have been recognized directly 'in equity'. Under current International Financial Reporting Standards (IFRS), these items are not recognized in the income statement (revaluation reserve, cash flow hedging reserve). They are simply figures that exist as a result of certain accounting conventions. Nevertheless, since shareholders may claim them, at least upon liquidation, they still do form capital *interests* that are attached to a capital instrument. Therefore, it can be argued that the capital side of the balance sheet comprises 'claims' that only differ on their intensity. The claims to the company's assets generally feature a combination of certain criteria such as term, type of return and existence of voting rights and their corresponding attributes: *fixed term v. perpetual life*, *fixed v. variable return*, existence of positive or negative covenants etc.[14] Shares and bonds strongly differ in the intensity of their claims. However, in between these two distinct categories, there is a myriad of hybrid financial instruments that mix characteristics, which are generally associated with straight equity and straight debt, making their classification into a dichotomous structure of capital very difficult.[15] Difficulties in distinguishing between equity and liabilities arise especially when the single characteristics of a security point into different directions. For example, a security may assign to its subscribers a right to participate in the company's gains and losses, which is a characteristic generally associated with ordinary shares, but at the same time be repayable at a fixed date, as a plain vanilla bond. As Table 2.1 below shows, it is possible to replicate any typical characteristic of equity or debt with hybrid financial instruments while obtaining a different classification. Therefore, if ambiguity in the accounting constructs is to be accepted as an important conceptual and practical issue, it is necessary to understand how these constructs are utilized by financial statement users and how they potentially

13. IASB, F. 49(c).
14. Pro-active accounting activities in Europe (PAAinE), Discussion Paper *Distinguishing between liability and equity*, January 2008, available at http://www.iasplus.com/efrag/0801liabequitydp.pdf (accessed March 2012).
15. F. Allen, *The Changing Nature of Debt and Equity: A Financial Perspective*, in *Financial Innovation and Risk Sharing* 347 et seq. (Franklin Allen & Douglas M. Gale eds., Massachusetts Institute of Technology (MIT) Press 1994).

have the protections they relied on. At the same time, they have a weaker contractual position compared with creditors. Since, as the analysis shows, there are situations in which the interests of ordinary and preferred shareholders diverge, they may have a strong incentive to contract for their protection. This is particularly true in start-up businesses in private equity and venture capital, where the economic environment of the firm can evolve very quickly.

CHAPTER 5

Significant Corporate Decisions

I begin my analysis in this part by discussing some significant corporate decisions that can create fundamental changes in the relationship between the holders of hybrid financial instruments and the other participants in the firm. These situations need special attention because they are the main source of conflicts of interest among the company's constituencies. I will discuss when the use of hybrid financial contracts reduces the opportunities for conflict and when, by contrast, it enhances them. At the same time, I will analyse how corporate law mitigates the opportunism that can accompany these changes or creates legal risks evaluating whether the conflicts would be better avoided contractually by the parties or by further intervention of the regulator.

This chapter concerns the law in the UK and compares it with the evolution of the corresponding law of the US. The analysis shows that there is a strong rationale for hybrids in private equity and venture capital financing, because the investors in these businesses need to modulate the original (normal) allocation of cash flow rights and control rights. At the same time, the simple standard protection provided by the law, which acts efficiently for minority shareholders, may not be adequate for covering the sophisticate necessities of the parties involved in hybrid financial contracts. The study suggests a careful contractual design.

§5.01 CONTRACTING FOR GOVERNANCE RIGHTS AT A COMPANY'S START-UP

A primary lesson of corporate governance is that interests of the various claimants on a business's cash flow inevitably come into conflicts.[1] Many of the relationships between participants in the firm are structured by contract, including contracts with

1. For example, the interests of creditors and shareholders clash when the firm makes a decision about how to allocate capital, see Enriques L. & J.R. Macey, *Creditors Versus Capital Formation: The Case Against the European Legal Capital Rules*, Cornell L. R. 86, 1166 (2001).

creditors and shareholder agreements, and it is through the articles of association that company law can balance the different interests of the main participants, allowing for flexibility, constitutional commitments and publicity.[2] The role of bargaining is clearly observable at the time a business is incorporated in a venture capital start-up. The contractual arrangements for venture capital are much more complex than for most types of finance. Normally, they involve the both sides sharing the up-side potential of the project, providing for both equity-type characteristics.[3] The entrepreneur and the venture capitalist are only concerned with the effective allocation of cash flow and control rights between them and not the formal labels attached to these rights. Whether they invest in a business through equity or debt is something they care about only if something depends on it. Venture capitalists often invest in several different countries each of which has its own legal systems. The details of these legal systems are important only insofar as the investment contracts must consider them.[4]

Start-up firms display a high degree of 'informational opacity'.[5] Investors in this sector face severe information asymmetries. This asymmetric information generates a great 'adverse selection' problem. Therefore entrepreneurs, who are generally better informed than outside investors as to the true level of skills and abilities to take on a given task, may misrepresent their abilities to them and, these misrepresentations may go undetected. Banks, financial intermediates and investment funds lacking the information to identify firms with the highest expected returns relative to the degree of risk, find it difficult to use the price mechanism to distinguish between firms[6] and ask for higher interest rates to offset the risk incurred in lending money to a company in the absence of collateral. This problem may constrain the market for finance of technology-based firms.[7]

The adverse selection problem is enhanced in small private companies because they are generally unable to provide collateral or adequate guarantees for the funds they require and, unlike public companies, they are characterized by lock-in capital for

2. M. Kahan & E. Rock, *Corporate Constitutionalism: Antitakeover Charter Provisions as Precommitment*, U. Pa. L. Rev. 152, 473 (2003).
3. See S.N. Kaplan & P. Strömberg, *Financial Contracting Meets the Real World: An Empirical Analysis of Venture Capital Contracts*, Rev. Econ. Stud. 70, 281 and 306-308 (2003).
4. S.N. Kaplan, P.J. Strömberg & M. Frederic, *How Do Legal Differences and Learning Affect Financial Contracts?* (16 Jun. 2004), available at SSRN: http://ssrn.com/abstract=557007. In contrast to the empirical research carried out by La Porta et al., the variable measuring law and order is negatively related to the importance of venture capital finance. The authors found that venture capital grows in countries with less law and order.
5. A.N. Berger & G.F. Udell, *The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle*, J. Banking & Fin. 22, 613–673 (1998).
6. Prior to advancing funds, if the investor offers average terms these will be attractive to low-quality entrepreneurs, and unattractive to high-quality entrepreneurs, see S.C. Myers & N.S. Majluf, *Corporate Financing and Investment Decision When Firms Have Information That Investors Do Not Have*, J. Fin. Econ. 13, 187–221 (1984).
7. As M. Lund & J. Write of the Bank of England Domestic Finance Division stated: 'It has frequently been argued in economics literature that such problems can lead to credit rationing for small and medium-sized enterprises, that is, finance is not made available to all firms with viable projects whose net present value is positive', *The Financing of Small Firms in the United Kingdom*, Q. Bull. 195 (May 1999). See also J.E. Stiglitz & A. Weiss, *Credit Rationing in Markets with Imperfect Information*, Am. Econ. Rev. 71(3), 407–408 (1981).

a long period of time. The transferability of shares – an essential mechanism in public companies for imposing discipline upon managers – is strongly limited in private firms, where the rights of exit may be non-existent. Non-management purchasers of stock in public companies are passive investors; if they do not like the way the company is being run, their solution is to sell their shares. However, venture capital operates on an entirely different set of principles. The entrepreneur possesses the idea and so he has the incentives and the know-how to develop the concept and bring it to market. For this reason, he generally likes to maintain control of the business and is unwilling to cede it to outsiders.[8] While an entrepreneur is strongly motivated by private benefits of control, the venture capitalist is more concerned about future revenues. However, the typical founder is an incomplete businessman, with gaps in experience in matters such as financial management and marketing. These gaps are expected to be filled by the venture capitalist or by the venture pool of funds, who are generally professional managers and can provide access to networks and foster credibility through the signal of their reputation. Indeed, the venture capitalist benefits from every potential efficiencies improvement when the firm is performing well.[9]

The lock-in feature, added to the company's limited liability, is a source of conflict between the entrepreneur-shareholder and the venture capital fund.[10] This phenomenon is also known as the 'moral hazard' problem. If the firm's income realized is inadequate because the business does not succeed, the investor may not be able to recognize whether this was due to the entrepreneur's lack of effort or pursuit of private benefits, or simply by bad cyclical economic conditions.[11] Such a scenario will reduce the entrepreneur's incentives to apply effort and pursue joint benefits, while it will increase his motivation to misallocate the raised funds by spending on items that disproportionately benefit him.[12] For instance, an entrepreneur-scientist may choose to invest finance in research activities that increase the fame of the scientist, but produce little return for the investor.[13]

Thus, asymmetric information at the time of start-up, and moral hazard, can also lead to costly agency conflicts between transacting parties in the form of ex ante

8. Managing the firm confers private non-verifiable benefits to the entrepreneur that are related to a reputation that he may use in other business situations. Of course, private benefits accrue only in good states of nature given that an entrepreneur does not gain in reputation running a poorly performing company.
9. B. Black & R. Gilson, *Venture Capital and the Structure of Capital Markets: Bank versus Stock Markets*, J. Fin. Econ. 47, 243–277 (1998); J.W. Bartlett, *Equity Finance: Venture Capital, Buyouts, Restructurings and Reorganizations* 229–230 (Aspen Publishers 1995).
10. See O.E. Williamson, *Corporate Finance and Corporate Governance*, J. Fin. 43 567–591 (1988); B. Klein, R.G. Crawford & A.A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, J. L. & Econ. 21, 297–326 (1978). For a practical example see P. Joskow, *Vertical Integration and Long-Term Contracts: The Case of Coal-Burning Electric Generating Plants*, J. L. Econ., & Organizations, Fall. 33, 32–80 (1985), where the decision to locate a coal-fired power plant next to a coal mine left the owners of the power plant vulnerable to expropriation and ex post renegotiation.
11. M. Jensen & W. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, J. Fin. Econ. 3, 348 (1976).
12. R. Green, *Investment Incentives Debt and Warrants*, J. Fin. Econ. 13, 115–117 (1984).
13. D.J. Denis, *Entrepreneurial Finance: An Overview of the Issues and Evidence*, J. Corp. Fin. 10, 301–326 (2004).

underinvestment and ex post opportunistic behaviour, also known as 'hold-up' problems. Knowledge-based start-up firms on a rapid growth trajectory and in the need of external finance face a clear trade-off. On one hand, they are often unable to issue long-term debt on economic terms due to high financial distress costs, especially when these are highly innovative technology-based firms supposed to generate a negative cash flow for several years. On the other hand, if plain vanilla bonds can be very costly in these circumstances, pure ordinary shares could also have significant costs. The management of firms in the early stage of a potential successful and innovative business may believe that the current stock price fairly reflects the firm's growth opportunities. Therefore, the issuance of equity would be expected to cause an excessive dilution of existing stockholders' claims and the owner-manager may be reluctant to carve in outside investors at today's stock price. At the same time, the venture capitalist invests at risk in situations where a high degree of uncertainty exists as to how the venture will develop over time and the aptitude and intentions of the entrepreneur cannot be gauged with accuracy.[14]

The financing provided for start-up firms differ in risk from the funds lent to public companies. This is due to two main factors: first, start-up firms investing in high-technology usually hold intangible and illiquid assets; second, the investors in this sector contribute, in proportion, most of the funds needed to run the business without holding the related ownership interests. Therefore, even if these funds are provided as senior debt, they generally face the same risk as shares being locked in the company for the entire duration of the business development's cycle and having no collateral for satisfying their credit. The absence of collateral means the investors cannot simply leave the entrepreneurs to their own devices. Investing in risky assets can generate incremental distress costs for sponsoring firms, a problem which is referred to as risk-management. When these indirect or collateral distress costs are sufficiently large, at least in expectation, they can exceed the asset's net present value, thereby turning a positive project into a negative investment. Not surprisingly, venture capital funds are concerned about resolving the uncertainty of cash flows and they prefer to retain at least residual rights of control in the business' strategy. For these reasons, in venture capital there is a much greater involvement of the providers of funds than is the case with other forms of lending in an attempt to avoid the problems arising from asymmetric information and agency relationships.[15]

14. M. Jensen & W. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, J. Fin. Econ. 3, 349–350 (1976).
15. The argument that financial innovation helps to complete financial markets is an uneasy case to beat when the novel security can be priced by equating it to a combination of existing securities. See N.H. Hakanssan, *The Fantastic World of Finance: Progress and The Free Lunch*, J. Fin. & Quantitative Analysis 14, 717 and 722–724 (1979). It may be, however, that the firm can combine existing claims to satisfy investor tastes at a lower cost than financial intermediaries providing this service and this would suggest a transaction cost explanation for hybrid instruments. See R.C. Merton, *On the Application of the Continuous-Time Theory of Finance to Financial Intermediation and Insurance*, Geneva Paper Risk & Insurance, 14, 225 (July 1989), where the author sets forth a transaction cost explanation for the role of intermediaries in financial derivatives markets. Furthermore the development by Merrill Lynch of liquid yield option notes (LYONs), which are puttable convertible zero coupon bonds, seems to have been motivated by such an attempt to provide retail investors with an attractive package of debt and

Initially, by isolating the asset in a stand-alone special purpose vehicle, the venture capitalist reduces the possibility of risk contamination, the phenomenon where a failing asset drags an otherwise healthy sponsoring firm into distress. It also reduces the possibility that a risky asset will impose indirect distress costs on a sponsoring firm even short of actual default. However, ordinary limited liability is not sufficient to solve agency problems and the uncertainty of future cash flows. The corporate finance literature in this area has underlined two important issues: first, incentive contracts must be designed in a way that optimizes the sensitivity of the entrepreneur's wealth to some observable signals of the entrepreneur's effort (e.g., output or profits); second, this contract has to include a decision, not only on how claims on cash flows should be prioritized among all the participants, but also on who has to take control in the various states of nature.[16]

[A] Limits to the Control Power of a Lender

There are two limits on the role that lenders can be expected to play as monitors of corporate management that, as I have already mentioned, also depend on the type of company they are investing in. The first is their self-interest, meaning the lenders' pursued aims. Where lenders perform the mere function of investors, they will probably opt not to monitor but instead to employ other risk-management techniques such as portfolio diversification principles. In fact, since shareholders rather than creditors benefit from capital growth, a lender has no incentive to invest resources in employing and training staff to monitor a corporate borrower beyond the extent necessary to satisfy itself that the company's ability to meet its obligations under the loan is not impaired or placed under threat. However, it is a different case when a lender invests in private equity or venture capital. In fact, in private start-up firms, the amount of money a financier may contribute is generally the largest share of the company's capital and the incentive to be involved in the governance of the company is usually great.[17]

stock options. See J.J. McConnell & E.S. Schwartz, *The Origin of LYONs: A Case Study in Financial Innovation*, J. Applied Corp. Fin. 40 and 41–42 (Winter 1992); A.J. Triantis & G.G. Triantis, *Conversion Rights and the Design of Financial Contracts*, Wash. U. L. Q. 72 1236 et seq. (1994); *Contra* G.W. DENT, *The Role of Convertible Securities in Corporate Finance*, J. Corp. L. 21, 250 et seq. (1996).
16. See D.J. Denis, *Entrepreneurial Finance: An Overview of the Issues and Evidence*, J. Corp. Fin. 10, 310 (2004); compare with S.N. Kaplan & P. Strömberg, *Financial Contracting Meets the Real World: An Empirical Analysis of Venture Capital Contracts*, Rev. Econ. Stud. 70, 286–295 (2003); P. Aghion & P. Bolton, *An 'Incomplete Contract' Approach to Financial Contracting*, Rev. Econ. Stud. 59, 473 (1992); O. Hart, *Financial Contracting*, J. Econ. Literature 39, 1081–1085 (2001).
17. In the UK, various commentators have described the British banks' role in corporate governance to be negligible as compared with the banks' involvement in other countries such as Germany and Japan where, according to the conventional view, closer relationships tend to exist between banks and industrial companies and banks are more willing than within the British model to provide long-term debt and equity finance and to participate in the monitoring of management through supervisory board structures. Compare J. Edwards & K. Fischer, *Bank*

CHAPTER 7

Control Transactions

In this chapter, I discuss the legal remedies and strategies available to preference shareholders for addressing the principal-agent problems that arise when a person – the acquirer – attempts, through offers to the company's shareholders, to acquire sufficient voting shares in a company to gain control of the company. These agency issues refer to the shareholder-board conflict in companies with dispersed shareholdings and the majority-minority conflict in firm in which there is a controlling shareholder or shareholding group. The difference between control transactions and mergers and acquisitions is that while a merger involves corporate decisions, control transactions are effected by private contract between the acquirer and the shareholders individually.[1]

The usefulness of hybrids in private equity and venture capital is most evident in control transactions, where the parties must design the firm's capital structure not only to align ex ante the right incentives to achieve the target, but also to resolve distributional conflicts and make use of the right to sell control in the event of a future sale of the firm. IPO and sale of the start-up firm are two of the main exit mechanisms adopted by private equity and venture capital investors. However, since this kind of businesses is developed in high uncertainty, these events may occur prematurely or in bad economic conditions, when least desired. As a result it is possible that a hostile takeover bidder will approach the firm with the sole aim of expropriating wealth from the parties involved. For this reason, it is essential that whoever has the power to sell makes the decision that is most efficient for all the parties. This is possible with hybrid instruments, because they provide an asset-specific governance system that allows an optimal allocation of control rights and financial rights in the firm. Contractual design through the use of hybrids also seems the most efficient way of protecting investors'

1. Of course, the acquirer often has a free choice regarding whether to structure the bid as a contractual offer or as a merger proposal. In the UK, the rules for control shifts can be applied to acquisitions through statutory mergers on the grounds that many of the principles are applicable for both control shifts and statutory mergers.

rights in private equity financing and in start-up businesses, which have great unexploited potential and very uncertain conditions. The issues discussed in this chapter are discussed in a UK and US context, since certain particular clauses have international application.

§7.01 THE AGENCY CONFLICT IN CONTROL TRANSACTIONS

The shareholders of the target company, both as a class and as non-controlling shareholders, mainly suffer from agency and coordination costs. Consequently, with respect to the acquirer, they face significant coordination problems, because the decision to accept or reject the bid is normally made by the shareholders individually, rather than by way of a collective decision that binds everyone. With respect to the target management, the shareholders still face agency issues, since the board's recommendation to them, for or against the offer, may not be disinterested. In particular for the preference shareholders, who are a non-voting class of shareholders, the overwhelming problems are related to price: a preference shareholder as well as a minority shareholder can miss the opportunity to sell shares at a high price or can be forced to sell at too low a price.[2]

The coordination problems of shareholders may be mitigated to some degree through the board's negotiations with the potential acquirer. The agency costs may be reduced by the mandatory bid rule introduced by the EU Takeover Directive,[3] which obliges the acquirer of shares to make a general offer to the other shareholders once it has acquired sufficient shares by private contract, whether on or off market, to obtain control of the target.[4] In fact, although the acquirer's offer may be value-increasing for the target company's shareholders as a whole, the non-controlling shareholders may not obtain their pro rata share of that value in the future. However, the mandatory bid rule, by prohibiting partial offers for the acquisition of control over the whole of the company's assets, constitutes a pre-emptive strike at majority oppression of minority shareholders.[5] By extension, the law requires comparable offers to be made for all classes of equity shares in the target, whether those classes carry voting rights or not.[6]

In closely held companies, however, the application of the mandatory bid rule is questioned as it can result in high costs for minority shareholders. It is arguable

2. For an analysis of these costs and the related legal strategies, see P. Davies & K. Hopt, *Control Transactions*, in *The Anatomy of Corporate Law: A Comparative and Functional Approach* 225–273 (2d ed., R. Kraakman et al. eds., Oxford U. Press, 2009),.
3. EU Takeover Directive 2004/25/EC.
4. See Art. 5 of the Takeover Directive. The Directive leaves the triggering threshold to be decided by the Member States, most of which, including the UK, put the triggering percentage near 30%, while Latvia, Malta and Poland put it at 50% or higher.
5. One argument in favour of the mandatory bid rule is that it may force the buyer to end up with a larger block of shares, producing a greater incentive alignment between the buyer and the remaining dispersed shareholders. This would result in a smaller extraction of private benefits. See D. Gromb, M. Burkart, & F. Panunzi, *Agency Conflicts in Public and Negotiated Transfers of Corporate Control*, J. Fin. 55, 647–677 (2000).
6. The City Code contains both such rules. See Rules 14 (offers where more than one class of equity share) and 36 (partial offers).

whether this rule should be applied to a transfer of a controlling position, so as to require the acquirer to make a public offer, where they would otherwise not wish to do so, and on the same terms as those accepted by the controlling seller.[7] Indeed, some privately negotiated trades may occur because the buyer expects to extract more private benefits than the seller does in spite of the fact that the firm is expected to be worth less under the control of the buyer. Such transactions would not occur under the mandatory bid rule because the dispersed shareholders would have to be paid the same as the seller, which is more than their shares were worth before the trade. However, the rule may deter value-increasing takeovers because the takeover price fails to compensate the block owner for their private benefits.[8]

Since it is very difficult to establish ex ante whether the minority shareholders will be disadvantaged by the sale of the controlling block, the regulatory choice hesitates between reliance on general corporate law to protect the minority against unfairness in the future and giving the minority an exit right at the time of the control shift.[9] Nevertheless, mandatory exit rights and mandatory sharing of bid premiums for minority shareholders are a strong disincentive for any controlling shareholder to sell the control stake if the private benefits of control are high. In fact, the acquirer will have to bid for the whole share capital and will generally be reluctant to offer the transferor any premium for control if he or she does not want to overpay for the share capital taken as a whole. Accordingly, some systems do allow variations between the price offered to the minority and that paid for the controlling shares, or permit partial bids in certain cases. The UK City Code is unusual in applying the mandatory bid rule to any acquisition of voting shares by a shareholder holding between 30% and 50% of the voting shares.[10]

These problems are particularly enhanced in venture capital control transactions. When an outside competitor – the acquirer – who possesses both adequate capital and knowledge, appears and takes over the firm, considerable majority/minority distributional conflicts can arise, generated by the inefficient allocation of the private benefits of control in the firm.[11] Two main agency conflicts can be identified in this case: the expropriation of managerial quasi-rents, also known as the entrepreneur's private benefits of control and asset stripping, which is a potential abuse by the controlling

7. The Directive leaves the Member States with scope for specific exceptions. Some, but by no means all, takeover regimes have responded to these concerns, either in the formulation of the rules relating to the fixing of the price for the general offer or by extending the list of exceptions to the rule.
8. L. Bebchuk, *Efficient and Inefficient Sales of Corporate Control*, Q. J. Econ. 109, 957–993 (1994); A. Pacces, *Rethinking Corporate Governance: The Law and Economics of Control Powers* 332 (Routledge 2012). See also A. Dyck & L. Zingales, *Private Benefits of Control: An International Comparison*, J. Fin. 59, 537–599 (2004) where the Authors extricate the private benefits of control from the increase in the share value due to the change in control, in order to perform an empirical evaluation of the costs and benefits of the mandatory bid rule.
9. See P. Davies & K. Hopt, *Control Transactions'* in *The Anatomy of Corporate Law: A Comparative and Functional Approach* 256–263 (Kraakman R. et al. eds., 2d ed. Oxford U. Press 2009).
10. See Commission of European Communities, *Report on the Implementation of the Directive on Takeover Bids, 2007* 268, 6 (SEC 2007).
11. E. Berglof, *A Control Theory of Venture Capital Finance*, J. L. Econ. & Org. 10, 248 (1994).

parties of the non-controlling parties. For instance, the acquirer may be more efficient in running the firm, but may also fire management without compensation and dilute firm value by transferring assets to themselves in connection with liquidation.[12] Furthermore, even if the parties – investor and entrepreneur – agree ex ante to allow for a future sale of the business, they may disagree ex post. Therefore, there is a trade-off between, on the one hand, the wish of the initial contracting parties to benefit from potential efficiency improvements performed by a potential future competitor who buys the firm and, on the other hand, their desire to protect themselves against dilution. These problems are related to two generic state-contingent conflicts in entrepreneurial finance: one relates to private benefits in good 'state of nature' and the other involves the value of the firm in bad states.[13]

It seems that since the sale of the firm is a verifiable event, contracts could be made contingent on a sale. However, because the parties' willingness to sell may be affected by the 'state of nature', that is how the company is performing and the type of buyer, just making the contract contingent on the event of a sale is not sufficient.[14] This is also why the allocation of control rights and incentives should not be separated. When private benefits are an important part of managerial compensation schemes, state-contingent conflicts may arise and this separation may not hold. In order to mitigate these conflicts the decision to trade should be given to the party most vulnerable to dilution, namely the residual claimants.[15]

[A] The Exit Event in Venture Capital Start-Up Firms

Young growth-oriented firms, particularly in high-technology industries, frequently require substantial capital to develop and deploy their ideas. Several factors limit their access to capital: uncertainty, asymmetric information, the nature of firm assets and conditions in the relevant financial and product markets. As the firm develops and growths over time, these factors can change in rapid and anticipated ways. Thus, the ability to change dynamically is an essential skill to remain competitive in the market, but also a major problem for those contributing the finance. Careful designing of financial contracts and firm strategies can alleviate many potential obstacles. Therefore, the manner in which firms are financed is important; each source and type of investor may be appropriate for a firm at different points in its life. But the form of financing is crucial to reducing conflicts. As long as the endeavour progresses well, entrepreneurs are well-positioned to make the decisions. Control rights remain largely

12. M.C. Jensen, *The Takeover Controversy: Analysis and Evidence*, The Midland Corp. Fin. J. 12 (1986).
13. Asset stripping is more likely when a firm's assets are worth more in alternative uses outside the firm.
14. P. Aghion & P. Bolton, *An 'Incomplete Contract' Approach to Financial Contracting*, Rev. Econ. Stud. 59, 476 (1992); E. Berglof, *A Control Theory of Venture Capital Finance*, J. L. Econ. & Org. 10, 249 (1994).
15. E. Berglof, A Control Theory of Venture Capital Finance, J. L. Econ. & Org. 10 256 (1994); A. Pacces, *Rethinking Corporate Governance: The Law and Economics of Control Powers* 346 (Routledge 2012).

vested in them and their management teams. The venture capital fund is content with a minority of the board. If during the stages of financing the entrepreneur faces situations of financial distress, they can always decide to dilute their control, letting the venture capital fund convert some of its securities to equity or to subscribe to new rounds.[16]

However, a control 'flip' should be provided as and when the company gets in trouble, meaning that the venture capital fund gains outright control of the board in such cases, leaving the entrepreneur with a great incentive to operate for the company's success. For instance, control flips can occur when certain standards are not met or because certain negative covenants in a stock purchase agreement have been violated. The optimal allocation of control between inside and outside shareholders is determined by the trade-off between protecting the private benefits of the entrepreneur and the free riding of the venture capital fund.[17] The parties to venture capital arrangements must design the firm's capital structure to resolve distributional conflicts and make use of the right to sell control, which is itself a fundamental property right influencing compensation to the initial contracting parties in the event of a future sale of the firm.[18]

In economic terms, no problems arise if trading with the acquirer can improve the situation for both initial contracting parties or, vice versa, if both parties are made worse off by trading with the acquirer and they will not trade in that case. However, when there are constraints on the ex post side contracting, the acquirer may collude with one of the initial contracting parties to extract surplus from the other. For example, an outside investor could take over a firm that is performing well and fire its entrepreneur if he does not have the right to sell control of the firm without compensating him for his private benefits. Alternatively, a new owner could acquire a firm which is performing badly or is insolvent for a small price and take out assets from the firm without paying their full market value, thus harming the interests of the venture capital fund if its financial rights are not protected contractually or it does not control the firm. Furthermore, in the absence of adequate investment protections when ownership and management are transferred, venture capital funds will hardly contribute new finance or at will least demand much higher shares of revenue.[19]

The solution would be to write a perfectly contingent contract. Such a contract would ensure that the proper action is taken by allocating decision-making authority to the person with the right incentives, depending on the 'state of nature'. The difficulties involved in writing such comprehensive contracts include the verifiability of the state

16. P. Aghion & P. Bolton, *An 'Incomplete Contract' Approach to Financial Contracting*, Rev. Econ. Stud. 59, 473–494 (1992).
17. S. Grossman & O. Hart, *One-Share One-Vote and the Market for Corporate Control*, J. Fin. Econ. 20, 175–202 (1988); L. Zingales, *Insider Ownership and the Decision to Go Public*, Rev. Econ. Stud. 62, 425–448 (1995).
18. A. Alchian & H. Demsetz, *Production, Information Costs and Economic Organization*, Am. Econ. Rev. 62, 777–795 (1972).
19. See the importance of control allocation in E. Berglof, *A Control Theory of Venture Capital Finance*, J. L. Econ. & Org. 10, 249 (1994).