



COVENANT DESIGN IN FINANCIAL CONTRACTS: A CASE STUDY OF THE PRIVATE EQUITY ACQUISITION OF HCA

Tzu-Wen WEI ^a, Jyh-An LEE ^b, Chi-Jui Huang ^c, Tse-Ping DONG ^{d,*}

^a Graduate Institute of Business Administration, National Taiwan University, Taiwan

^b Faculty of Law, The Chinese University of Hong Kong, Hong Kong

^c Department of Finance and Cooperative Management, National Taipei University, Taiwan

^d Graduate Institute of Global Business and Strategy, National Taiwan Normal University, Taiwan

Received 10 April 2013; accepted 12 December 2014

ABSTRACT. A buyout deal involves several parties, including private equity firms, the target company, and lending banks. All these parties are legally connected by contractual arrangements, and covenants among all interest parties are important. However, a comprehensive study on designing covenants among parties in a buyout deal to achieve commitment and avoid risk in closing a deal is seldom seen in current literature. By investigating one of the world's largest buyout deals – the acquisition of Hospital Corporation of America (HCA), this paper not only probes into the design of contracts and covenant, but also provides several managerial implications. This paper concludes that well-designed covenants in buy-out deals can appropriately align all participants' diversified interests.

KEYWORDS: Private equity; Leveraged buyout; Covenants; Acquisition; Financial contracts

1. INTRODUCTION

A lot of evidence from many studies suggest that the incidence of attaining private equity significantly improves a firm's subsequent ability to attract financial capital, research partners, and commercial partners (Folta, Janney 2004); moreover, from the viewpoint of such business transactions, well-designed covenants are of great importance in facilitating buyout and relevant deals. Argyres and Mayer (2007) offer a framework for research into how transaction costs and property rights impact opportunity discovery and sustainable advantage, thereby linking entrepreneurship and strategic management research. Covenants are contractual provisions that obligate a contracting party to take certain actions (affirmative covenants) or restrict the party from taking certain actions (negative covenants). They reflect contracting parties' difficulties in anticipating unknown future events and opportunistic behavior by other parties. Covenants have played a crucial role in financial buyout and other PE-involved contracts. However, despite the increasingly important role of the covenant design in PE deals in recent years, there has been a serious lack of in-depth rigorous inquiries into

comprehensive covenant design. To bridge this gap, this article studies the covenant design in the buyout deal of Hospital Corporation of America (HCA). HCA, mainly located in the United States, is the largest hospital chain in the world. The \$33 billion buyout of HCA by Bain Capital, KKR, and Merrill Lynch Private Equity has been the world's largest deal up to 2006. As the HCA buyout deal is a representative case among others, we believe that the covenant designs for this transaction is worthwhile to explore in depth. In this study, the main research questions are the following: What kinds of covenants are required in a buyout deal, and what mechanisms PE firms use to constrain potential risks with the counter parties, the target company (including the management), and the lending banks? In the first part of this article, we review the relevant literature about covenant in financial deals, especially those involving PE as a contracting party. Based on the literature review, we thereafter propose a conceptual framework. In the second part, we describe the methodology, investigate the HCA case, and probe the mechanisms of covenant design. In the final part, we discuss our findings and a number of managerial implications.

* Corresponding author. E-mail: tpdong@ntnu.edu.tw

2. LITERATURE REVIEW AND CONCEPT DEVELOPMENT

Covenants are ubiquitous in financial contracts such as public debt, private debt, and private equity (Kaplan, Stromberg 2003). Covenants are used in financial contracts to mitigate agency problems and help secure financing through the pledging of contingent control rights (Dewatripont, Tirole 1994). Singer and Donoso (2011) develops an agency model subject to moral hazard to study the general structure of the contract offered by a firm (the principal) to several contractors (agents) that perform the same task. Covenants can also prevent value reduction and define control rights (Gorton, Winton 2003). Debt covenants and repayment requirements provide clear constraints and guidelines for managers (Lichtenberg, Siegel 1990). Therefore, covenants and monitoring are occasionally viewed as the least pricey way for lenders to mitigate credit risk in the absence of alternatives (Whitehead 2009). Because of repeated buyout transactions, PE firms have accumulated significant expertise in designing covenants. Therefore, empirical study suggests that PE-sponsored loans include more financial covenants than non-sponsored ones (Achleitner *et al.* 2012).

Covenant levels are determined partly by the amount of borrower information that a lender possesses or can inexpensively acquire (Denis, Mihov 2003). Debt can also help limit the waste of free cash flow by forcing managers to make debt payments, resulting in reduced agency costs (Smith 1990). Moreover, research on the complexity of contracts argues and finds that asset specificity is an important transactional attribute affecting contract design (e.g., Joskow 1988). K. Foss and N. J. Foss (2008) found that individuals or firms that introduce new improved contractual designs, sorting systems, organization structures, etc., may realize an entrepreneurial return based on the lowering of transaction costs. And other research findings reveal that contractual complexity varies a great deal from one alliance to another (Reuer, Ariño 2007).

Agency theory is occasionally used to understand how PE firms may design covenant mechanisms to overcome existing management problems and create value, and previous research has provided a strong indication that ownership concentration and presence of private equity investors can be powerful tools in corporate governance (Bruton *et al.* 2010). Tieva and Junnonen (2009) note that essential features of proactive contracting on con-

tract management are also risks and risk management. Therefore, contract preparation and negotiations are salient poles. Straub (2009) shows that performance-based maintenance contracts reduce both direct and indirect costs compared to a competitive tendering approach. Deligonul *et al.* (2008) examine entrepreneurship as a puzzle where entrepreneurs venture at a risk-return level that is worse than that of the private equity index and much worse than the public equity index. Scellato and Ughetto (2013) found that private equity funds might have incentives to undertake and exit deals, pointing to practices that allow them to extract fees and raise new funds more quickly. Used for studying buyout deals, agency theory emphasizes controlling and motivating managers' behavior to improve performance (Wright *et al.* 2001). Solutions to agency cost problems in buyouts primarily focus on reducing cost (Jensen 1989) and maximizing profit (Delmar *et al.* 2003) and "control," which arises from financial monitoring through sophisticated contracts to eliminate managerial discretion and costs (Jensen, Meckling 1976). Besides, as environments become increasingly competitive, the political context of organizational contracting decisions becomes a central determinant of the organization's ability to achieve greater flexibility and ultimately greater efficiency (Goodstein *et al.* 1996).

In addition to agency costs, the private equity acquisition must also deal with asymmetric information, incentives mechanism, a long-term relationship with imperfect contracting and other issues. The contracting of a buyout deal represents great business and legal skills in reducing information asymmetry between transacting parties, and high-quality contracting can occasionally facilitate deal negotiations (Gilson 1984). Doornik (2006) notes that when performance is not verifiable, firms in a long-term relationship may rely on incentive contracts that are self-enforced or "relational". Optimal contracts look the same in each period as long as the relationship continues, but may require termination of the relationship after bad outcomes. Payments between the partners depend on their relative performance. In essence, contract terms that are aimed at reducing agency problems take account of the following (Cullen, Hickman 2001): How much the agent's work contributes to the principal's marginal profits; The extent that 'noisy', (i.e. incomplete) information, distorts the principal's ability to accurately monitor the agent's performance; Factors which reward or penalize behavior that is required or not; As-

sess the optimal value of the agent's contribution for the principal, having considered the extent that the agent is averse to carrying risks. Furthermore, when contracts cannot be fully state-contingent, delegated contracting gains a potential advantage over centralization. Ultimately, however, a satisfactory theory of organization design must address both incentive considerations and limited information-processing capabilities (Melumad *et al.* 1997).

2.1. A conceptual framework of covenants in a buyout deal

Drawing from the literature, this study proposes a conceptual framework for the covenants designed for different counter parties. This study analyzes covenants designed for PE firms, banks, and the target company. Between PE firms and target companies, several important contracts are involved, including a term sheet, a purchase agreement, and management or employment agreements. These agreements imply interests and concerns behind both parties, and a careful examination of these agreements is important to discover both parties' thoughts.

Among PE firms, target companies, and banks, loan agreements are essential. Using a sample of 180 public-to-private LBOs in the U.S. between 1997 and 2007, Demiroglu and James (2010) found that reputable private equity firms pay fewer loan spreads, have longer loan maturities, and use less "traditional" bank debt. In addition, the reputation of the PE firm is positively related to buyout leverage. Favorable loans rely on well-designed covenants. Covenants between banks and borrowers use cash flow control, strategy control, the default trigger, balance sheet maintenance, and asset preservation (Arnold 1982). The conceptual framework of covenant design in a PE deal is illustrated in Figure 1.

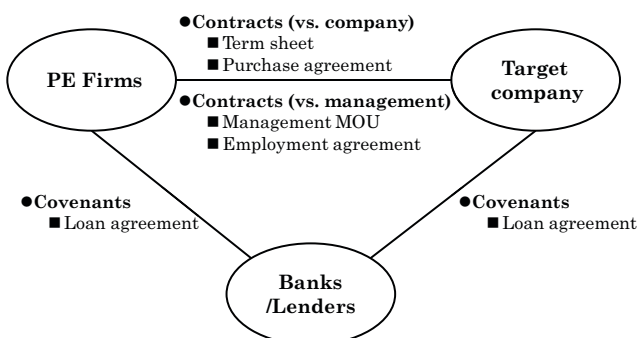


Fig. 1. A conceptual framework of covenants in a buyout deal

3. METHODOLOGY

As the above literature review reveals, some academic attention on PE covenant design probe into the transactions from pure theoretic lens, whereas others treat covenant as a general financial contracting phenomenon and neglect the important details in the real business transactions. Therefore, we believe observing and analyzing a real deal structure and contractual design can help fill a gap in current literature. To obtain rich data and insight into the context, actors, and processes of covenant design, we used a classic single case approach (Yin 1984). We believe the case study approach, different from approaches adopted by current literature, can help illustrate the real business concerns and managerial implications associated with covenant design.

We chose HCA, the biggest buyout transaction in the years up to and including 2006, as our sample firm (and the unit of analysis) to address the unique covenant mechanism in the hospital industry. An in-depth case study enabled us to understand how PE firms designed covenants to create value for HCA. Starting from a descriptive and explanatory angle to the HCA deal, we identified the key actors involved in the buyout and examined their rationale for mechanisms relating to financial strategies, processes, and management practice.

Data for the case was searched in two categories: 1) academic publications and 2) selected business publications, including the Economist, Harvard Business Press, etc. In addition, the following electronic databases were searched: ProQuest ABI, SSRN, and EBSCOhost. This study also obtained public information such as company web sites, press releases, and information disclosed under SEC regulations (e.g., prospectuses). To ensure the completeness of the data search, we also selected articles focusing on PE and buyout aspects and practices for covenant design and value creation. In deciding whether to include a particular contractual arrangement in our research, we focused on whether the contract stipulated important obligations by one of the contracting parties, rather than whether it was literally named a "covenant" in legal documents.

4. CASE STUDY

In this section, HCA's history, debt restructuring, and covenant mechanisms are discussed.

4.1. The history of HCA

Hospital Corporation of America (HCA) was founded in Nashville in 1968 by Dr Thomas Frist, Sr., Henry Hooker, and Jack Massey to provide communities with better-quality healthcare. HCA's chairman, Thomas J. Frist, is an innovative entrepreneur and initiated several financial operations, including a \$5.3 billion management buyout in 1988 and acquisition of the Louisville-based Columbia Hospital Corporation in a stock swap worth \$5.7 billion in 1994. In early 2006, Thomas Frist met with his financial advisor, Merrill Lynch, and initiated a leveraged buyout idea. On November 17, 2006, HCA entered into a buyout agreement with a PE consortium (Bain Capital, KKR, and Merrill Lynch Private Equity) worth \$33 billion.

4.2. Debt restructuring

Among the total amount of acquisition funds (\$32,970 million), the debt (accounted for \$27,813 million). The debt included senior secured credit facilities, outstanding notes, and retained indebtedness. Senior secured credit facilities amounted to \$14,364 million and contained an asset-based revolving credit facility and three term loans. These credit facilities had a maturity period of 6 to 7 years. The outstanding notes amounted to \$5,700 million. HCA issued new notes, due in 2014 to 2016, listed in the public market to exchange for the existing notes. In the notes exchange offers, HCA did not receive any cash proceeds from the exchange issued. As for the retained unsecured indebtedness, it consisted of term notes ranging from 4 to 8 years with a weighted average interest rate of 6.91% to 8.75%. Table 1 lists the sources of the funds from the debt for the buyout deal.

Table 1. The sources of the funds from the indebtedness

Sources of funds (\$ Million)	
Senior secured credit facilities	–
Asset-based revolving credit facility	1,535
Revolving credit facility	–
Term loan A facility	2,750
Term loan B facility	8,800
European term loan facility	1,279
Outstanding notes	5,700
Retained existing secured indebtedness	230
Retained existing unsecured indebtedness	7,519
Other sources	5,157
Total sources of funds	32,970

Source: Adapted from the S-4 prospectus filed on September 25, 2007.

4.3. The covenant mechanisms

Contracts with covenants in a buyout deal mainly include a term sheet, a purchase agreement, management and employee agreements, and loan agreements. Contracts between PE firms and the target company include a term sheet and a purchase agreement. Contracts between PE firms and people in the target company include management and employee agreements. Contracts between lending banks and PE firms and the target company are loan agreements. In this study, we explore and analyze the covenant mechanisms among all parties as follows.

4.3.1. Covenants between PE firms and the target company: a term sheet and a purchase agreement

According to Jensen and Meckling (1976), PE firms design covenants regarding cash flow rights, control rights, and liquidation rights. The authors found that if the target company performs poorly, the PE firms would obtain full control of these rights. As the company performance improves, the target company obtains more control rights. If the target company performs very well, the PE firms would retain only their cash flow rights, but waive most of their control and liquidation rights. The cash flow, control, and liquidation rights allocations shift gradually with performance and are interrelated. In other words, if the target company performs better, then the PE firm has less control. Contracts between the target company and PE firms mainly contain a term sheet and a purchase agreement. In this section, we first analyze key elements of the covenants and then discuss the HCA case study.

4.3.1.1. Term sheet

In a term sheet, some key elements must be included. In the beginning of a term sheet, the opening information and new securities offered are set forth. The agreement describes a summary of terms, new securities issued, total amount raised, number of shares, and purchase price per share. In addition, dividend provisions, liquidation preference, redemption right, auto conversion right, anti-dilution, right of first refusal, information right, and other rights are included.

4.3.1.2. Analysis

The details of the term sheet are usually not released publicly, and only some information is available. Therefore, we summarized and analyzed the key issues of a term sheet. HCA's term sheet emphasized a special shareholder meeting, the

purchase agreement, and other important considerations.

A special meeting was held for the vote on a proposal to adopt the buyout agreement. All holders of HCA Common Stock as of the close of business on October 6, 2006, the record date for the special meeting, were entitled to vote at this meeting. Other important considerations mainly referred to the special committee and its recommendation. The special committee was a committee composed of HCA's board of directors formed on June 30, 2006, that reviewed, evaluated, and, as appropriate, negotiated a possible transaction relating to the sale of the company. The special committee, comprising five independent and disinterested directors, determined that the merger agreement and the transactions contemplated, including the merger, were fair to and in the best interests of the shareholders except the Frists and their affiliates. The committee recommended to HCA's board of directors that the merger be approved and declared. The board of directors then recommended the purchase agreement be adopted by the shareholders.

4.3.1.3. Purchase agreement

The purchase agreement normally contains key factors of the term sheet. A buyout agreement lays out when an owner can sell his major interest in the business to outside investors or management teams in the business. In addition to some normal terms, PE firms request additional covenants to complete a transaction in a buyout agreement. The covenants include regulatory filings, shareholder meetings, notification of certain matters, closing date and financial statements, real estate, further assurances, and services provided by the PE firm. 1) Regulatory filings force the PE firm and the target company to cooperate with each other and follow applicable laws to consummate the transactions as promptly as practicable. Both parties must, upon request by any other party, deliver to the other party, including the PE firm's affiliates, directors, officers, and shareholders, all information connected to any statement, filing, or notice. 2) A shareholder meeting ensures that the target company must take all necessary actions to gain approvals from shareholders. The approval items include the purchase agreement, the transaction, the debt documents if any, the support service agreement by the PE firm, and the election of new directors nominated by the PE firm. 3) Each party in the transaction must promptly notify its counter party if there is any material adverse change,

or any circumstance that could be expected to cause a warranty from the PE firm to be untrue or inaccurate. 4) Regarding the closing date and financial statements, the target company must deliver a completed portfolio file and an un-audited balance sheet as at the last day in the calendar month in which the transaction is completed. 5) Some PE firms request the target company sell its real estate or assets to fulfill the required working capital. 6) Further assurances require the PE firm and the target company to make their best efforts to complete the transaction. 7) Services provided by the PE firm to the target company before the closing date indicate that the PE firm will provide personnel and related expertise to complete the deal, and sometimes, the PE firm charges for these services.

4.3.1.4. Analysis

The purchase agreement contains the purchase consideration, treatment of options and awards, representations and warranties, conduct of business, additional agreements, conditions to the purchase, and termination. HCA Inc., a leading health care service company in the US, was the target company. PE firms including Bain, KKR, and Merrill Lynch Global Private Equity formed a company called Hercules Holding II, LLC (Hercules Holding) as a special purpose vehicle (SPV) for the merger. The company has not engaged in any business. Hercules Acquisition Corporation (Hercules Acquisition), a direct wholly-owned subsidiary of Hercules Holding II, LLC, was also formed solely for the merger. The sponsors of Hercules Holding II, LLC, include not only the PE firms but also HCA founder Thomas Frist and entities affiliated with Thomas Frist. The Frists committed to contribute a portion of their shares of HCA Common Stock to Hercules Holding. On July 24, 2006, Hercules Acquisition merged with HCA, Inc., which acted as the surviving corporation and executed the purchase of HCA.

After the merger was completed, common stock shareholders were entitled to receive \$51 in cash for each share, without interest and less any applicable withholding taxes. All outstanding stock options and restricted shares became fully vested and immediately exercisable. All such options not exercised before the merger were cancelled and converted into the right to receive a cash payment equal to the number of shares of HCA common stock underlying the options multiplied by the amount by which \$51.00 exceeded the option exercise price, without interest and less

any applicable withholding taxes. Certain options held by some of the management rollover holders would be converted into options to acquire shares of common stock of the surviving corporation. In addition to the purchase considerations and treatment of options and awards analyzed above, we focus on covenants regarding representations and warranties, termination, and some important additional agreements. HCA made representations and warranties to the PE firms and the PE firms to HCA. From HCA's perspective, representations and warranties related to capital structure, documents filed with the SEC, undisclosed liabilities, litigation, tax matters, compliance with applicable laws, contracts with affiliates, and state takeover statutes. Many of HCA's warranties were qualified by a material adverse effect standard, and violations of these warranties thus enable PE firms to legally withdraw from the transaction. For the merger agreement, "material adverse effect"¹ prevented downside risks for the PE firms. Representations and warranties can be viewed as a contractual mechanism that solves the problem of adverse selection. As HCA had better information about the quality of the asset to be sold than the PE firms did, significant information asymmetry existed between the seller and the buyers. In this sense, the voluminous and detailed representations and warranties can bridge the information gap by conveying to the buyers, the PE firms, many details regarding HCA's business assets, liabilities, and potential liabilities. HCA, on the other hand, may be able to make the information it provided credible by promising in the termination clause to compensate the PE firms if the information turned out to be false. In this sense, representations and warranties are designed as inexpensive techniques for PE firms to verify the accuracy of information provided by HCA.

As to the termination of the purchase agreement, if the agreement failed to be approved by the shareholders meeting, the PE firms would reimburse HCA's expenses up to \$50 million. If any party, HCA or the PE firms, terminated the agreement, the party had to pay a termination fee amounting to \$500 million or \$300 million, respectively. HCA Inc. had to pay a termination fee to PE firms if 1) HCA received another acquisition proposal that was superior, 2) the board of direc-

tors recommended to the shareholders a superior proposal, 3) HCA's shareholders failed to adopt the merger agreement, or 4) HCA provided material breach of representations, warranties, or covenants such that the closing conditions would not be satisfied. However, the PE firms were obligated to pay a termination fee to HCA Inc. if 1) the merger was not completed on or before December 19, 2006, or January 31, 2007, if the marketing period had not ended, 2) PE firms committed material breach of representations, warranties, or covenants such that the closing conditions would not be satisfied, or 3) certain conditions to the obligations of the PE firms had been satisfied and PE firms failed to consummate the merger no later than five calendar days after the final day of the marketing period.

The PE firms agreed to arrange debt financing to fund the proposed merger and relevant expenses. HCA agreed to cooperate in connection with the refinancing. HCA also agreed to redeem certain existing notes with interest rates between 5.25% and 8.85% due from 2007 to 2009 and to issue new notes on terms and conditions as required by the terms of the indenture governing such notes. The completion of such offers was contingent upon the completion of the proposed merger. Regarding expenses in relation to refinancing, the PE firms would reimburse HCA. The parties may have amended the merger agreement after the shareholders approved the merge, but cannot amend the one that required further approval by shareholders. The amendments included extending the time for performing obligations and waiving inaccuracies in the representations and warranties.

4.3.2. Covenants between PE firms and the management: management and employment agreements

The PE firms carefully designed management incentive programs and structured a mechanism for "pay to performance". The firms therefore successfully turned agency problems into profitable results. Covenant design has been an important approach for reducing agency costs and moral hazard in many transactions. Put more clearly, this approach to reducing moral hazard involves designing a contract under which the agent receives a financial reward for working in ways that promote the principal's interest.

The incentive programs fell into three categories: base salary, short-term target incentives, and long-term incentive grants. The average base salary remained unchanged as before. Regarding the

¹ Material adverse effect is defined to mean any event, state of facts, and change that is materially adverse to the business or results of operations of HCA and its subsidiaries, other than changes in general economic, industry, or political conditions.

short-term incentive program, the purpose was to reward participating managers and employees for annual financial and nonfinancial performance, to provide high-quality health care for patients and increase shareholder value. A target performance award was set in the senior management incentive program. Each participant in the program was assigned an annual award target expressed as a percentage of salary ranging from 30% to 120%. HCA also set a threshold: meeting 50% of the target was the minimum, and reaching 200% of the target was the maximum limit. The purpose of the long-term incentive program was to retain key executive talent, to link executive compensation to long-term performance, and to deliver value to employees in a manner that maximized economic and tax effectiveness for HCA. HCA had separate programs for executive officers and employees. In addition to the consummation of the recapitalization, HCA implemented a stock incentive plan for approximately 1,500 employees to receive options covering up to 10% of the fully diluted equity.

PE firms encourage managers to earn bonuses by obtaining outstanding operation results rather than carrying out daily operations. Regarding short-term target incentives, the management teams under study were reviewed based on EBITDA only instead of purely EPS or a combination of EPS and EBITDA. One reason is that EPS is a less meaningful measure to a company focusing on long-term development. Another reason may be that, due to the nature of private equity, cash flow is more important than profit performance since, for a normal buyout deal completed at an enormous amount of outside capital, being able to pay back interest has become extremely important. This kind of short-term design forces management teams to focus more on cash flow management. Regarding the long-term program, PE firms prefer stock options to be vested in shorter periods of 5 years. PE firms normally hold portfolio companies for 3 to 5 years, which implies that the PE

group intended to divest HCA 5 years later and was eager to help the target company reach its highest value within the holding period. For the vesting schedule, HCA used three criteria: time vesting, a normal approach in other companies; the EBITDA-based approach, again indicating that private equity firms put significant emphasis on the management teams' cash-generating abilities; and an approach aligned with the PE's investment returns. As long as the management teams achieved the PE firms' investment return objective, the teams would be rewarded. Table 2 summarizes the incentive programs and their implications.

4.3.3. Covenants between lending banks and PE firms with the target company:

Loan agreements

The covenants in the loan agreements we studied were primarily promises that HCA made about its continuing financial condition. Those covenants include maintaining the target company's assets, restrictions on fundamental changes in the company, dividend payments, transactions with affiliates, and incurring additional indebtedness. To a certain degree, lenders can monitor their loans by verifying compliance with these covenants.

Arnold (1982) suggested that loan lenders are most concerned about borrowers' earning power, cash flow generation, and business risks. To make sure a borrower will pay down its borrowings, banks often use several types of restrictions to control it. The types of restrictions include cash flow control, strategy control, the default trigger, balance sheet maintenance, and asset preservation. Cash flow control permits bankers to monitor borrowers' cash flow and limits borrowers from doing excessive dividends and stock repurchases. Bankers normally monitor EBIT to monitor a borrower's cash flow. Strategy control occurs if a borrower's resources are ill-matched with its opportunities and risks. In such cases, bankers normally reduce

Table 2. HCA's incentive program and its implications in 2007

	Post buyout	Implications
Base salary	– The same as before	– Compensation is not based on an increase in base salary but on short- and long-term performance
Short-term incentive	– Depends only on EBITDA	– Cash flow generation abilities are more important than I/S performance
Long-term incentive	– Only the stock options: 5 years – 1/3: time – 1/3: EBITDA – 1/3: PE's investment returns	– The vesting period is shorter and in consistent with PE's holding period – PE firms focus more on cash generation with EBITDA as a performance criterion

Source: Adapted from the 2007 annual report and adjusted for this study.

investments in certain products or technology by limiting capital expenditures and acquisitions or writing in a debt-to-equity test. Default trigger means the lender's rights to call back the loans or ask for corrective actions. Lenders seldom use default triggers, and this mechanism is mainly to protect lenders from losses or borrowers' misbehavior. Lenders keep an eye on the strength of the balance sheet and the degree of business risk. Balance sheet maintenance is to ascertain that a borrower does not harm its balance sheet by excessive leveraging or by financing fixed assets with short-term loans, which reduce the borrower's net working capital. To reach the goals, lenders impose a current ratio, a net working-capital minimum, and a debt-to-equity ratio. Assets are deemed the ultimate source of repayment by lenders, and hence, they do not want to see assets sold or pledged to other creditors. Preserving assets is also very important to lenders. After understanding what loan lenders care about borrowers, the research could use it as a basic covenant framework to discover what interests and concerns beyond banks or other institutional lenders while designing loan facilities and covenants with private equity firms together with the target company in a buyout deal. The following summarizes the covenant analytical framework. In Table 3, the objectivities and approaches for loan covenants are summarized.

To complete the HCA buyout, several banks committed to make loans to PE firms with HCA and its subsidiaries as guarantors. The debt commitments included senior secured credit facilities and senior secured second lien loans under a bridge facility. For the senior secured credit facilities, Bank of America (BOA), JPMorgan Chase Bank (JPMCB), Citigroup Global Markets Inc. (CGMI), and Merrill Lynch Capital Corporation (MLCC) committed to provide (each committing

to 25%) to HCA and its European subsidiaries up to \$16.80 billion of senior secured credit facilities. The purpose of these facilities was to finance the buyout, refinance certain existing indebtedness of HCA and its subsidiaries, pay transaction fees for this buyout, and provide ongoing working capital. When the merger was completed, HCA made only \$14,365 million of loans including facilities of asset-based revolving credit, revolving credit, term loan A, term loan B, and European term loan. As for the senior secured second lien loans under a bridge loan, Citigroup Global Markets Inc., Bank of America Bridge, JPMorgan Chase Bank (JPMCB), and Merrill Lynch Capital Corporation committed to provide (each committing to 25%) to HCA up to \$5.70 billion of senior secured second lien loans under a bridge facility. This bridge facility would be made only if the offering of secured second lien notes by HCA was not completed substantially concurrently with the buyout. The purpose of the bridge facility was similar to the senior secured credit facilities except for the working capital.

The interest rate for the senior secured credit facilities should be an applicable margin plus either London Interbank Offered Rate (LIBOR) or the higher of the prime rate of Bank of America and the federal funds rate (FFR) plus 0.50%. As for the bridge facility, it had a floating interest rate equal to LIBOR plus a spread that increased over time, up to \$1.5 billion, by issuing additional loans or exchange notes.

The debt guarantors of senior secured credit facilities except the European term facilities were each existing and future direct and indirect, wholly-owned material domestic subsidiaries of HCA and the European term facility, which would be guaranteed by each existing and future wholly-owned European subsidiary of HCA. The asset-based revolving credit facility was secured

Table 3. The objectivities and approaches for loan covenants

Restrictions	Objectivities	Approaches
Cash flow control	– Secure debt and interest payment	– EBIT
Strategy control	– Prevent from ill-matched strategies	– Limiting capital expenditures and acquisitions – Debt-to-equity test
Default trigger	– Provide rights to call the loan or ask for correction	– Healthy balance sheet – Controllable business risks
Balance sheet maintenance	– Prevent from excessive leveraging or financing fixed assets with short-term loans	– Current ratio, net working capital minimum, D/E limit, no additional borrowings
Asset preservation	– Prevent from significant assets sold or pledged to other creditors.	– Negative pledge clause

Source: Adapted from Arnold (1982) and adjusted for this study.

by a first-priority lien on all present and future accounts receivable (AR) of the guarantors. Other senior secured credit facilities were secured by a second-priority lien on accounts receivable, a first-priority lien on capital stocks, and substantially all present and future assets of guarantors. However, the debt guarantors of senior secured second lien facilities were HCA and its domestic subsidiaries. The debts were secured by a second-priority lien on the non-accounts-receivable and by a third-priority lien on certain of the accounts receivable.

The senior secured credit facilities contained several affirmative and negative covenants. The covenants included restrictions on indebtedness, investments, sales of assets, and mergers, meeting the restriction of strategy control and asset preservation. A minimum interest coverage ratio was also included and reached the restriction of cash flow control. The maximum total leverage ratio represented the restriction of the balance sheet balance. The covenant of customary events of defaults referred to the default trigger. As a result, the covenants of this loan agreement contained all the loan restrictions suggested by Arnold (1982). The bridge facility was required to pay in full on or before the first anniversary of the merger. If not, the bridge facility would have converted into term loans maturing on the 10th year of the merger. The covenants of the bridge loans restricted HCA to incur or repay certain debts, to make dividends, distributions or redemptions, and to incur liens.

The covenants mainly represented a restriction of balance sheet maintenance. In Table 4, two debt facilities provided by banks are compared.

5. MANAGERIAL IMPLICATIONS AND CONCLUSIONS

The HCA case highlights the importance of understanding the covenant designs of a buyout deal among all counter parties, including PE firms, the target company (and its management), and lending banks. When initiating a buyout deal, PE firms and the target company negotiated the term sheet and the purchase agreement. In HCA's term sheet, the function of the special committee was strongly emphasized. The committee was composed of independent and disinterested directors and was established to determine the merger agreement was fair to and in the best interests of all and unaffiliated shareholders of HCA. The purchase agreement emphasized the covenants of representations and warranties and termination. The representations and warranties were based on a material adverse effect to prevent from the downside risks of the deal. Moreover, the representation and warranties were important in mitigating the adverse selection problem that involved pre-contractual information asymmetry. The termination covenant saved the regret possibilities for PE firms and the target company but also regulated both sides. From the PE firms' perspectives, the termination prevented

Table 4. The comparisons of two facilities

	Senior secured credit facilities	Senior secured second lien loans
Lending banks	BOA, JPMCB, CGMI, and MLCC	CGMI, Banc of America Bridge, JPMCB, and MLCC
Interest rate	– LIBOR or higher of BOA prime rate and FFR+0.5%	– LIBOR plus a increasing spread
Loan amounts	– \$16.8 billion	– \$5.7 billion
Loan objectivities	– Financing the buyout, refinancing certain existing indebtedness, paying transaction fees, and providing ongoing working capital	– Financing the buyout, refinancing certain existing indebtedness, and paying transaction fees
Guarantors	– All except European term facilities: HCA and its domestic subsidiaries – European term loans: HCA's European subsidiaries	– HCA and its domestic subsidiaries
Guarantees	– Asset-based revolving credit facility: Secured by a first-priority lien on all present and future AR – Others: Secured by a second-priority lien on AR, a first-priority lien on capital stocks, and all present and future assets	– Second-priority lien on the non-AR and a third-priority lien on certain AR
Covenants	– Restrictions of cash flow control, strategy control, default trigger, balance sheet maintenance, and asset preservation	– Restrictions of balance sheet maintenance

Source: This research.

the failure of the deal, set up high penalties for the target company, and, at the same time, covered the expenses of the target company if it was not blamed for the failure. As for the target company, the termination clause also effectively prevented PE firms from withdrawal or breaking promises.

To ensure that the target company continues performing well, the management agreement is of great importance. Under the management agreement, to effectively align management incentives with HCA's interests, pay-to-performance programs were designed. The incentive program after the buyout deal showed that PE firms may keep intact the base salary for the management but change the short- and long-term incentives. In the short-term incentive design, the PE firms evaluated performance based on EBITDA rather than EPS. In the long-term incentive design, they still emphasized EBITDA since part of stock options cannot be vested before the EBITDA goal is reached. Different from common investors' practice, using EPS as an evaluation standard of performance, PE firms designed EBITDA as a performance criterion. With EBITDA representing cash flow generation, PE firms hinged their incentive programs on cash generation as a performance criterion. As it is not easy for the PE firms to detect whether management acting in the PE firms' interests, covenants between PE firms and the management can effectively reduce agency cost problems and moral hazard that involves asymmetry in post-contractual information.

When considering the loan agreement between banks and PE firms along with the target company, this study categorized the covenants based on the categories of cash flow control, strategy control, the default trigger, balance sheet maintenance, and asset preservation suggested by Arnold (1982). HCA's loan agreement mainly contained two debt categories, senior secured credit facilities and senior secured second lien loans under a bridge facility. Both debts were offered to finance the buyout, refinance certain existing indebtedness, and pay transaction fees, but the funds of the senior secured credit loans could have been used for ongoing working capital. The senior secured credit loans held a lower interest rate than the bridge facilities. As for the covenants, the study found that senior secured credit facilities were designed to follow all the restrictions, including cash flow control, strategy control, default trigger, balance sheet maintenance, and asset preservation; while senior secured second lien loans mainly focused on maintaining the balance sheet. The reason might be that senior

secured credit loans belong to long-term debts and the well-designed restrictions are prerequisite for securing ongoing operations and repayments.

This study provides comprehensive empirical evidence and an analytical framework including all the important contracts among all counter parties. Furthermore, we used public information to perform a rigorous analysis and bridged the gap between theory and practice. The buyout case of the 2006 acquisition of HCA, which was also the biggest transaction in the US healthcare industry, yields insight into buyout covenants and analyzes interests behind each counter party. The covenant analytical model can be applied in several different arenas.

ACKNOWLEDGEMENTS

The authors would like to thank Professor Jong-Tsong Chiang and the anonymous reviewers for their insightful comments and suggestions. And this paper is mainly supported by Ministry of Science & Technology, Taiwan (MOST 104-2410-H-003-120 & MOST 103-2410-H-003-103).

REFERENCES

- Achleitner, A.; Braun, R.; Hinterramskogler, B.; Tappeiner, F. 2012. Structure and determinants of financial covenants in leveraged buyouts, *Review of Finance* 16(3): 647–684. <http://dx.doi.org/10.1093/rof/rfq031>
- Argyres, N.; Mayer, K. J. 2007. Contract design as a firm capability: an integration of learning and transaction cost perspectives, *Academy of Management Review* 32(4): 1060–1077. <http://dx.doi.org/10.5465/AMR.2007.26585739>
- Arnold, J. H. 1982. How to negotiate a term loan, *Harvard Business Review* 60(March-April): 131–138.
- Bruton, G. D.; Filatotchev, I.; Chahine, S.; Wright, M. 2010. Governance, ownership structure, and performance of IPO firms: the impact of different types of private equity investors and institutional environments, *Strategic Management Journal* 31: 491–509. <http://dx.doi.org/10.1002/smj.822>
- Cullen, P.-A.; Hickman, R. 2001. Contracting and economics alliances in the aerospace sector: do formal contact arrangements support or impede efficient supply chain relationships?, *Technovation* 21(8): 525–533. [http://dx.doi.org/10.1016/S0166-4972\(00\)00073-0](http://dx.doi.org/10.1016/S0166-4972(00)00073-0)
- Deligonul, Z. S.; Hult, G. T. M.; Cavusgil, S. T. 2008. Entrepreneurship as a puzzle: an attempt to its explanation with truncation of subjective probability distribution of prospects, *Strategic Entrepreneurship Journal* 2(2): 155–167. <http://dx.doi.org/10.1002/sej.44>
- Delmar, F.; Davidsson, P.; Gartner, W. B. 2003. Arriving at the high-growth firm, *Journal of Business Venturing* 18(2): 189–216. [http://dx.doi.org/10.1016/S0883-9026\(02\)00080-0](http://dx.doi.org/10.1016/S0883-9026(02)00080-0)

- Demiroglu, C.; James, C. M. 2010. The role of private equity group reputation in LBO financing, *Journal of Financial Economics* 96(2): 306–330. <http://dx.doi.org/10.1016/j.jfineco.2010.02.001>
- Denis, D. J.; Mihov, V. T. 2003. The choice among bank debt, non-bank private debt, and public debt: evidence from new corporate borrowings, *Journal of Financial Economics* 70(1): 3–28. [http://dx.doi.org/10.1016/S0304-405X\(03\)00140-5](http://dx.doi.org/10.1016/S0304-405X(03)00140-5)
- Dewatripont, M.; Tirole, J. 1994. A theory of debt and equity: diversity of securities and manager-shareholder congruence, *The Quarterly Journal of Economics* 109(4): 1027–1054. <http://dx.doi.org/10.2307/2118355>
- Doornik, K. 2006. Relational contracting in partnerships, *Journal of Economics and Management Strategy* 15(2): 517–548. <http://dx.doi.org/10.1111/j.1530-9134.2006.00109.x>
- Folta, T. B.; Janney, J. J. 2004. Strategic benefits to firms issuing private equity placements, *Strategic Management Journal* 25(3): 223–242. <http://dx.doi.org/10.1002/smj.373>
- Foss, K.; Foss, N. J. 2008. Understanding opportunity discovery and sustainable advantage: the role of transaction costs and property rights, *Strategic Entrepreneurship Journal* 2(3): 191–207. <http://dx.doi.org/10.1002/sej.49>
- Gilson, R. J. 1984. Value creation by business lawyers: legal skills and asset pricing, *The Yale Law Journal* 94(2): 239–313. <http://dx.doi.org/10.2307/796226>
- Goodstein, J.; Boeker, W.; Stephan, J. 1996. Professional interests and strategic flexibility: a political perspective on organizational contracting, *Strategic Management Journal* 17(7): 577–586. [http://dx.doi.org/10.1002/\(SICI\)1097-0266\(199607\)17:7<577::AID-SMJ828>3.0.CO;2-R](http://dx.doi.org/10.1002/(SICI)1097-0266(199607)17:7<577::AID-SMJ828>3.0.CO;2-R)
- Gorton, G.; Winton, A. 2003. Financial intermediation, *Handbook of the Economics of Finance* 1: 431–552. [http://dx.doi.org/10.1016/S1574-0102\(03\)01012-4](http://dx.doi.org/10.1016/S1574-0102(03)01012-4)
- Jensen, M. C. 1989. Active investors, LBOs, and the privatization of bankruptcy, *Journal of Applied Corporate Finance* 2(1): 35–44. <http://dx.doi.org/10.1111/j.1745-6622.1989.tb00551.x>
- Jensen, M. C.; Meckling, W. H. 1976. Theory of the firm: managerial behavior, agency costs and ownership structure, *Journal of Financial Economics* 3(4): 305–360. [http://dx.doi.org/10.1016/0304-405X\(76\)90026-X](http://dx.doi.org/10.1016/0304-405X(76)90026-X)
- Joskow, P. 1988. Asset specificity and the structure of vertical relationships: empirical evidence, *Journal of Law, Economics, and Organization* 4(1): 95–117.
- Kaplan, S.; Strömberg, P. 2003. Financial contracting theory meets the real world: evidence from venture capital contracts, *Review of Economic Studies* 70: 281–315. <http://dx.doi.org/10.1111/1467-937X.00245>
- Lichtenberg, F. R.; Siegel, D. 1990. The effects of leveraged buyouts on productivity and related aspects of firm behavior, *Journal of Financial Economics* 27(1): 165–194. [http://dx.doi.org/10.1016/0304-405X\(90\)90025-U](http://dx.doi.org/10.1016/0304-405X(90)90025-U)
- Melumad, N.; Mookherjee, D.; Reichelstein, S. 1997. Contract complexity, incentives, and the value of delegation, *Journal of Economics and Management Strategy* 6(1): 257–289. <http://dx.doi.org/10.1162/105864097567101>
- Reuer, J. J.; Ariño, A. 2007. Strategic alliance contracts: dimensions and determinants of contractual complexity, *Strategic Management Journal* 28(3): 313–330. <http://dx.doi.org/10.1002/smj.581>
- Scellato, G.; Ughetto, E. 2013. Real effects of private equity investments: evidence from European buyouts, *Journal of Business Research* 66(12): 2642–2649. <http://dx.doi.org/10.1016/j.jbusres.2012.06.001>
- Singer, M.; Donoso, P. 2011. Contracting contractors, *Journal of Business Research* 64(3): 338–343. <http://dx.doi.org/10.1016/j.jbusres.2009.11.022>
- Smith, A. J. 1990. Corporate ownership structure and performance: the case of management buyouts, *Journal of Financial Economics* 27(1): 143–164. [http://dx.doi.org/10.1016/0304-405X\(90\)90024-T](http://dx.doi.org/10.1016/0304-405X(90)90024-T)
- Straub, A. 2009. Cost savings from performance-based maintenance contracting, *International Journal of Strategic Property Management* 13(3): 205–217. <http://dx.doi.org/10.3846/1648-715X.2009.13.205-217>
- Tieva, A.; Junnonen, J. M. 2009. Proactive contracting in Finnish PPP projects, *International Journal of Strategic Property Management* 13(3): 219–228. <http://dx.doi.org/10.3846/1648-715X.2009.13.219-228>
- Whitehead, C. 2009. The evolution of debt: covenants, the credit market, and corporate governance, *The Journal of Corporation Law* 34(3): 641–677.
- Wright, M.; Hoskisson, R. E.; Busenitz, L. W.; Dial, J. 2001. Finance and management buyouts: agency versus entrepreneurship perspectives, *Venture Capital: an International Journal of Entrepreneurial Finance* 3(3): 239–261.
- Yin, R. K. 1984. *Case study research: design and methods*. Beverly Hills, CA: Sage Publications.