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## FINANCIAL ECONOMICS | RESEARCH ARTICLE

# Design and impacts of securitized leveraged buyouts

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**Abstract:** Private equity investors have traditionally used innovative financial methods in structuring their leveraged buyouts (LBO) deals. In recent years, they have frequently employed securitization to raise funds on the back of their acquisitions' operating assets. A distinctive feature of these transactions is that they aim to enhance the securitizing LBO's debt pay capacity through a set of structural enhancements including operating debt covenants. Operating covenants—supported by legal security arrangements—mitigate an LBO's financial and operating risks and improve its cash generation potential. We test this hypothesis by examining changes in the operating income of Hertz LBO. The results show that, within the operating framework adopted by Hertz LBO, securitization improved the transaction's debt service capacity.

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**Keywords:** leveraged buyouts; securitization; operating management covenants; Hertz

**JEL classifications:** G32; G34; L20

### 1. Introduction

In recent years, private equity firms have raised funds from structured credit markets to finance their acquisitions. There are many benefits of using securitization in a leveraged buyout (LBO) transaction. Private equity sponsors can reduce their cost of acquisition by pricing the acquired company's

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### PUBLIC INTEREST STATEMENT

Asset-based securitization first became prevalent in the 1980s. It creates special security mechanisms that enable the creditors to gain control of the securitized assets in the event of a default. However, in a securitized LBO transaction, full isolation of the cash-generating assets from the originator's credit risk via SPV is not achievable, because of the operating nature of the securitized assets. As a consequence, operating covenants are introduced to monitor and control the operating performance of these assets. The method does not materially alter the core business model of the securitizing firm. Rather, the goal is to enhance the firm's debt service capacity. The paper explores the design and impacts of these financial methods using the experience of a securitized LBO transaction. It fully sheds light on the nature of these regulatory processes and considers their effectiveness in LBO-related financial markets.

operating assets more efficiently. Through securitization Dunkin Brands and Domino's Pizza were able to expand their market operations than would have been possible via traditional debt markets. Such benefits generally accrue because securitization reduces transaction and information costs between borrowers and lenders. The creation of a more cost-effective capital structure is a goal that all companies strive to achieve through various innovative means. More important is the opportunity that a securitization transaction provides to optimize the performance of the securitized assets.

A securitized LBO usually involves raising significant amounts of debt, which means that the transaction must carefully consider the capacity of the securitized assets to generate a sustainable level of cash flows (S&P, 2006). Furthermore, given the type of the assets involved, an LBO's debt can be much greater than the conventional financial leverage. There is thus greater likelihood that a private equity acquisition is insufficiently supported to make scheduled principal and interest payments. To alleviate such concerns, a number of credit support measures may be included in such transactions ranging from specific security features and credit protections to a variety of structural enhancements and emergency funds for stabilizing cash flows. These measures will also aim to preserve the existing operating assets (e.g. brands, specific supply chain management systems, and distributions agreements) as well as new investment in them to increase their value. Consequently, a securitized LBO is supported by a structure that combines restrictive operating covenants with credit and liquidity enhancements. The nature of covenants and enhancements may vary depending upon the volatility of the business (S&P, 2006). More volatile the business, the greater is the likelihood that the transaction will add new structural features, reflecting both the inherent business and financial risks of the securitizing firm's key operating assets and their capacity to service debt. In a securitized LBO, the amount of debt issued, its average life and its respective ranking within the payment waterfall of individual debt tranches, and the final maturity of the debt are dependent on many such considerations.

Structured finance products have recently gained the attention of both policy-makers and academics examining the causes of the credit crunch. However, as observed by Shivdasani and Wang (2011), financing from structured credit markets are not necessarily associated with lower quality LBO transactions. This article contributes to this debate by investigating the specific features of a securitized LBO. Using a case study of Hertz, a US-based car rental firm, we analyze the transactional features of its LBO securitization and examine the extent to which its inherent business and financial risks are sufficiently mitigated through structural enhancements and various other support mechanisms. We draw on performance reports submitted by Hertz to the rating agencies, as well as creditors' evaluations and analyses. We also obtain information from company annual reports and information data-sets such as Orbis and LexisNexis for official announcements and other business-related data. Our event time analysis of Hertz's performance indicates a positive relationship between firm performance and asset restructuring in the form of disposal and acquisition activity. Our findings relating to LBO management structures and performance are thus consistent with the works of Shivdasani and Wang (2011) who show that securitized corporate loans in the past decade did not lead to weaker corporate lending standards. These results refute the suggestion that structured credit markets were responsible for the overheated LBO market during mid-2000s. Moreover, our findings shed further light on the recent LBO trends as noted by Guo, Hotchkiss, and Song (2011).

We proceed as follows. Section 2 briefly discusses the past literature on leveraged buyouts. Section 3 provides a brief introduction to securitized LBOs and their different structural components. The following Section 4 provides a case study of Hertz LBO. The final Section 6 summarizes our main conclusions and briefly outlines areas for future research.

## 2. Leveraged buyouts and performance: A brief literature survey

The idea that dominates current discourse on LBOs comes from the free cash flow hypothesis advanced earlier by Jensen (1986) and others<sup>1</sup>. Essentially, this suggests that the more a firm is levered, the more it acts as a disciplining mechanism. Managers must pay down interest and principal when due as otherwise there is a substantial default risk; so the greater this effect is, the greater the likelihood that

firm management will be disciplined in how it employs its resources. In practice, this is translated into restricted levels of opportunities for managers to use free cash flows in those projects that do not add value. Following this line of argument, a great deal of research in finance and management has examined the effects of high levels of debt on company management and organization, and the extent to which it creates an alignment of interests between managers and owners (Cumming et al., 2007; Kaplan & Strömberg, 2009). For example, as noted by a number of studies on LBOs, after a company is taken over by a private equity sponsor, it usually undergoes an extensive program of cost restructuring and rationalization (Harris, Siegel, & Wright, 2005; Muscarella & Vetsuypens, 1990). LBOs are thus characterized by cost-cutting and “pruning” strategies, which often mean companies shedding their marginally profitable divisions or subsidiaries (Kaplan & Strömberg, 2009). The objective of such cost-cutting programs appears mainly to be enhancement in plant productivity (Lichtenberg & Siegel, 1990).

Buyouts may also introduce measures that increase a post-LBO company’s capital productivity and/or reduce its capital requirements. This may entail cutting off unproductive capital, be it fixed assets or working capital, through redeploying or selling altogether underperforming assets. Easterwood, Seth, and Singer (1989) and Singh (1990) point to the significantly lower levels of inventory and receivables requirements of post-LBO firms, resulting from tightened management of working capital, inventory control and accounts receivable. Compared to their industry peers, post-LBO firms, on average, have considerably lower amounts of working capital (Holthausen & Larcker, 1996). Easterwood et al. (1989) suggest that reducing the number of staff enabling quicker decision-making leading to less bureaucracy in the target firm and creating better mechanisms of communication are the measures buyouts adopt as part of their cost-reduction programs aimed at decreasing overhead costs and improving overall efficiency.

While still maintaining interest in mature industries, recent waves of LBOs are more likely to be found in growth and emerging industries (Cumming et al., 2007; Kaplan & Strömberg, 2009). As a result, it is sometimes argued that LBOs act as a vehicle for entrepreneurial initiative (Bruining & Wright, 2002) and promote technological innovation and growth (Lerner, Sorensen, & Stromberg, 2008). For example, Lerner et al. (2008) examine the nature of innovative activities in firms backed by private equity groups. They investigate patents filed by 495 firms that received private equity backing between 1983 and 2005, and find that these firms’ patents are more frequently cited and that they experience no deterioration after the investments in patent originality and generality. Moreover, in growth-oriented LBOs, revenue growth by diversification is given a priority and attention is devoted to new product development and the strengthening of the company’s business capabilities in order to achieve a high-sale price for the portfolio company (Long & Ravenscraft, 1993; Muscarella & Vetsuypens, 1990).

LBOs are also known to create favorable incentive conditions for aligning management interests with that of investor owners. The main channel through which this alignment is created is the management contribution of equity financing for the buyout (Phan & Hill, 1995). For example, Guo et al. (2011) find that management contributed on average 12.8% of the equity for the deals completed between 1990 and 2006. Another mechanism through which LBOs demonstrate improved alignment structures is better governance and monitoring. Private equity investors hold board seats in their portfolio companies and select management for them (Cumming et al., 2007). There is evidence that they frequently replace the CEO at the time of the buyout or within the first year (Guo et al., 2011).

### 3. Securitized LBOs and new security arrangements

A securitized LBO can be understood as a form of structured finance product that allows companies to realize the full value of their operating assets, including intangibles such as brand names, business formats, and intellectual capital (Hill, 2002; OECD, 2011). The transaction will first create a special purpose vehicle (SPV), which can be a trust or limited liability company. This is very similar to a traditional securitization, in which a true asset sale is achieved by de-linking a borrower’s risks from the risk of the securitized assets. As a consequence, the borrower’s insolvency

does not affect the cash flow used for debt servicing. In a securitized LBO, the involvement of the operating assets means that special arrangements must be made to ensure continuing control of bond-holders (via an SPV) over the operating assets in case the originator becomes insolvent. Therefore, SPVs are structured in order to ring fence the securitized assets from the rest of the business group; the purpose is to shield these assets from any higher risk activity within the wider group (S&P, 2006). For example, in a manufacturing sector LBO securitization, an SPV may be owned by an operating company, which, in turn, may be owned by a special purpose holding company.

The information about the debt payment capacity of an LBO is embedded in its amortizing, rather than bullet, debt structure, a characteristic feature of LBO securitization. When excess cash flow is available, the transaction may provide for an early amortization of the bonds, rather than cash being used for dividends or capital expenditure. Bondholders are therefore protected from any deterioration in the company's financial condition. Furthermore, under a securitized structure, all loans need to make timely interest and principal payments.

When designing specific security features including different sets of financial covenants, a securitization may envisage a broad range of borrower default events. This is to ensure that cash is trapped, and control given to the bondholders, before the loan is jeopardized. One such event is the breach of a DSCR (debt service coverage ratio) covenant, or there can be the breach of a minimum net worth covenant or the breach of a dividend trigger. These events may result in a prepayment of the debt or, otherwise, trapped cash may be used to repay the debt. There can be other financial covenants such as a minimum tangible net worth and/or minimum funding requirements of reserve accounts. The net worth covenant requires the borrower to keep her net worth above the covenant threshold. If the borrower's net worth falls below this threshold, creditors can then use the threat of accelerating the loan to discipline managers, including taking actions such as shortening the maturity of the loan or reducing the available funds. Financial covenants thus serve as a warning signal in situations where there is a debt service difficulty faced by a securitizing entity.

A securitized LBO usually carries extremely high levels of debt, supported in part by the transaction's structural features designed to minimize business and financial risks. Mitigating the underlying business risk of the securitized assets is thus an overriding concern of both the originators and the creditors. It may involve an assessment of the drivers that generate predictable cash flows, including those factors that are likely to affect the performance of the securitized assets such as its overall business environment. For example, in the case of car rental LBO securitizations, travel industry risk assessment is a key element of insolvency considerations. An ability to generate more predictable cash flows enhances a securitized asset's chances of repaying a higher level of investment-grade debt, with longer maturities than more-focused, niche-oriented credits. It is assumed that stable and more diversified businesses will be in a better position to realize this goal effectively. A stable business is also less likely to face unforeseen risks, reducing the need for structural support and credit enhancements.

Whether a mature business operating in a low-risk environment is subject to an LBO securitization, or businesses in more risky industrial and service sectors are targeted, involving greater amounts of unpredictable streams of cash flows, some degree of business support will be provided in a transaction. For example, weaker businesses may be required to implement a more stringent set of covenants and credit enhancements. Special support mechanisms, such as liquidity facilities, reserve funds and swaps are set up to support the continuing operation of the business during any cash shortfall an LBO may experience, including the need to pay debt. Liquidity facilities are usually sized at between 15 and 18 months' debt service, and they need to be at the bankruptcy-remote issuer level. A capital expense reserve account may be established to fund a capital-intensive business. Interest swaps are designed to mitigate the risk of having flat operating cash flows in a high interest

rate environment, a common occurrence in the early 2000s. The role of structural enhancements is thus explicit in all securitization transactions, reflecting the specific business risks of an LBO firm securitizing its assets.

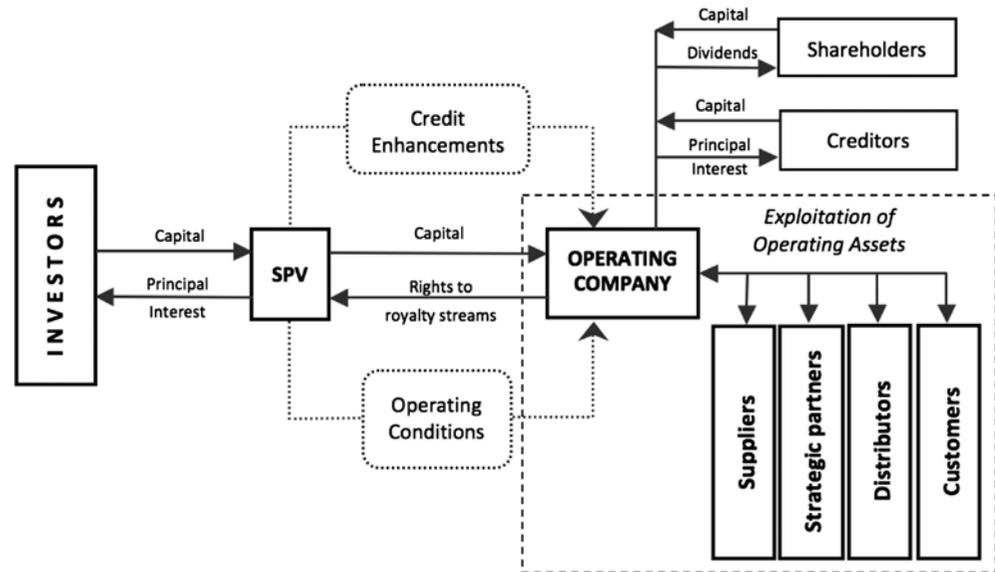
Although cash-flow-driven business risk assessments form a key part of the securitization structure, there may be other specific measures to support the transaction. One such measure is the requirement to make equity contributions by shareholders and management. This is because of the need to optimize asset performance by creating risk-sharing opportunities. In the case of leisure and hospitality industry LBO securitizations, calculations of risk capital involve the difference between the total debt, rated and unrated, and minimum capital requirements that may range between 15 and 20%. The transaction may also provide incentives to managers for the optimum exploitation of the securitized assets. Any misalignment between the interests of bondholders and the interests of managers is potentially a critical source of operational risk. Therefore, in order to minimize these risks, a transaction may offer a suitable package of executive incentives, as well as establishing elaborate monitoring and control systems such as independent board directors to ensure the integrity of the process.

Operating management restrictions may prohibit the firm from changing the underlying fundamentals of the business, as well as imposing restrictions on acquisitions and/or divestments that increase (or limit) its scope of operations. There may also be a set of maintenance and capital expenditure restrictions designed to ensure that the firm continues to develop in line with its historical development trends. These structural measures principally reflect the corporate entity's business risk profile and are intended to enhance its debt service capacity (S&P, 2006).

The precise nature of restrictive management conditions may vary depending upon the volatility of the business. The more volatile the business, the greater the likelihood that the transaction will add more restrictive conditions, reflecting both the inherent business and financial risks of the securitizing firm's operating assets and their capacity to service debt. For example, in the case of Hertz LBO, its securitization transaction requires the company to limit the percentage of cars bought from any one manufacturer. Factors that are taken into account when deciding on these limits are the physical characteristics of the cars, the identity, or credit ratings of the cars' manufacturers, and the existence of satisfactory repurchase or guaranteed depreciation arrangements for the cars. Consider also the example of firm operations in the hospitality industry: to retain the impression of retail outlets as leisure venues, firms must maintain high-quality estates, which mean that they must restructure their assets as part of an ongoing program of maintenance and development. For instance, they must not shy away from disposing of assets (e.g. venues) that are not capable of meeting high customer standards. In addition to disposing of unviable assets (e.g. retail outlets), operator firms must also acquire new venues to rejuvenate their quality offerings. Furthermore, firms need to adapt their offers to their specific market's needs to reflect their flight to value, and to increase investment in strategically important growth categories. In a securitized LBO, therefore, explicit capital expenditure and maintenance expenditure conditions are used that specify minimum levels of investment in all such areas over the transaction period<sup>2</sup>.

It is in this context that a securitized LBO sets minimum performance thresholds that must be achieved before the firm can engage in any long-term management activity (e.g. acquisitions or disposals). A securitized LBO must first realize a performance target, usually expressed as a debt coverage ratio, before it is allowed to make new asset investments (or dispose of existing ones). This means that the company management must ensure the efficient utilization of its existing assets in terms of consistently achieving a minimum level of performance as part of its ongoing management of the company affairs. Overlaying this is the requirement to make the required level of capital and maintenance expenditures so that existing assets are fully maintained and re-vitalized.

**Figure 1. Securitized LBO relationships.**



As our above discussion shows, in contrast to a traditional LBO, all parties to a securitized LBO transaction are required to take full responsibility for the running and management of the business. Figure 1 presents a structure of these relationships to clarify all relevant linkages and relationships. To follow through the conditions stated in a performance plan, a securitized LBO structure allows all creditors including private equity sponsors to adopt an intensive interactive approach with the operators of the securitized assets. This may take the form of investors appointing board members, designating special advisers or experts, or holding regular meetings with the operators of the securitized business to exchange information (S&P, 2006). Another important aspect of a securitized LBO is that it restricts dividend pay-outs to private equity sponsors or other investors. The reason for such a restriction is that dividend payments can create performance risks to the operation of the securitized assets. Therefore, under a securitization plan, dividend pay is subject to the achievement of a cash flow target, measured as a ratio of free cash flows to debt service cover. Dividend provisions are thus derived from high-performance threshold values, implying that private equity investors can expect a share of the rewards only if performance is strong. This is also the reason that there is often a full dividend lock-up during the first two to five years of a securitization.

#### 4. Hertz LBO

In the rental car industry, Hertz is a well-known operator firm. Hertz's business model is primarily based on a worldwide network of car and equipment rental operations. Hertz also has an extensive network of independent licensees spread over 140 countries and jurisdictions (Auto Rental News, 2010). Hertz does not take any investment interest in the licensees, leaving them to purchase and operate vehicles themselves. Under franchise arrangements, licensees either pay fees based on a percentage of their revenues or the number of cars they operate. System licensees share in the cost of Hertz's advertising program, sales force, reservations system, and certain other services. In return, they enjoy the use of the Hertz brand name, training and management, and administrative assistance and reservations through its reservations channels. A private equity consortium led by Clayton, Dubilier & Rice (CDR) acquired Hertz in 2005, and raised almost \$5 billion through the issuance of securities backed by the Hertz brand and its auto rental fleet. Hertz's SPV named Hertz Vehicle Financing paid \$15 billion for the buyout, but in a quick flip in November 2006, the private equity owners sold part of their stakes in Hertz through an initial public offering.

##### 4.1. Financial performance

To evaluate operating performance of a securitized LBO, EBITDA is the key performance metric. The use of EBITDA in securitization is also important, because the sponsor must incur operating expenses to generate cash flows that are used to service debt. The metric can also be used for internal monitoring

and planning purposes, and to facilitate analysis of investment decisions. An analysis of Hertz operating performance is presented in Table 1. It depicts changes in the EBITDA and other variables performance since the last fiscal year before the securitization (Year-1). We do not consider the results for Year 0, because it includes both pre- and post-securitization operations. By comparing the Year-1 performance with the each year of securitization (years + 1, + 2, and + 3), we can have an assessment of how Hertz performed over the whole securitization program period. Overall, the information provides a mixed picture of Hertz’s performance. Panel A of Table 1 shows that industry-adjusted increases in Hertz’s EBITDA are 6.89 and 1.39 in years + 1, and + 2 relative to Year-1. Measured net of industry change, EBITDA to assets performance is 27.55 and 13.21 in years + 1, and + 2 relative to Year-1. Similarly, increases in EBITDA to sales are significantly greater than those of its industry counterparts, by 5.73 and 12.82% in the first two years after the securitization. Panel B, C, and D provide information on changes in operating performance ratios, changes in assets, and changes in profitability ratios, respectively. Although improvements in Hertz’s operating performance are comparatively less than those reported for post-LBOs operating performance, it is important to note that during this period Hertz was operating in a severe credit crunch environment. However, there are other signs of improvement such as a substantial increase in EBITDA margin from Year + 1 to Year + 2, increases in cash flow to turnover ratios, and investment in new cars. In terms of debt performance, Hertz has total debt outstanding of \$12.8 billion. Since year-end 2008, it has reduced total net debt to \$8.8 billion.

For example, in early 2010, strong return of corporate traveler scheme meant opportunities for fleet expansion. Hertz was also able to maintain strong liquidity. At the end of 2009, Hertz had \$4.8 billion liquidity, of which \$594 million were unrestricted cash. Hertz also kept \$4.2 billion unused borrowing capacity. Hertz’s resilience in keeping an unblemished record of its balances is remarkable given the challenging macro-economic and industry conditions it faced post-credit crunch. Frozen credit markets were accompanied by higher fuel costs, reduced airline capacity, and increased airfares. In late 2008, US airline passenger traffic was down by about 10%, and US hotel occupancy fell by 8%. Hertz also faced the specter of increased depreciation and fleet-related costs as its US total commercial transactions fell by 16%. In addition, worldwide car rental volume, measured by transactions, declined by about 11% in the last quarter of 2008. In the same period, lower prices on declining

**Table 1. Operating returns following Hertz’s securitization**

	Year-1	Year 1	Year 2
<i>Panel A: Changes in operating performance</i>			
EBITDA	1.08	-1.15	-16.87
Industry-adjusted ratio <sup>a</sup>	11.78	6.89	1.39
<i>Panel B: Changes in operating performance ratios</i>			
EBITDA/assets	0.15	11.76	-3.26
Industry-adjusted ratio <sup>a</sup>	17.62	27.55	13.21
EBITDA/sales	0.35	-6.40	-3.341
Industry adjusted ratio <sup>a</sup>	14.78	5.73	2.82
<i>Panel C: Changes in assets</i>			
Total assets	18,677,401	-11.91	-14.33
Cars	8,003,781	-4.60	2.52
Employees	29,350	-15.16	-21.46
<i>Panel D: Profitability ratios</i>			
EBITDA margin	40.36	22.24	36.64
EBIT margin	13.67	-6.31	6.26
Cash flow/turnover	23.25	25.29	25.42

Notes: Year-1 is the fiscal year ending prior to securitization transaction completion. Year 1 is the fiscal year of securitization transaction completion.

<sup>a</sup>Industry-adjusted ratio for a given period equals the difference between the ratio for Hertz’s and the median ratio for a sample of companies in the same industry that period.

volume and a tighter fleet drove worldwide car rental revenue down by 15%, or 11 excluding currency effects. These trends continued through the first half of 2009 as it faced a decrease in business travel demand and equipment rental volume. As a consequence, Hertz’s EBITDA was impacted by lower pricing and declining volumes. Supported by its securitization, Hertz met these challenges by adopting a restructuring program with cost reduction, cash management, and incremental revenue-generating initiatives that particularly emphasized customer support as its main elements.

Table 2 provides both quarterly and yearly (fiscal year) data on changes in Hertz’s fleet, including maintenance capex and growth capex. Although investment in new fleet (growth capex) declined between 2008 and 2009, this was also the period that bore the brunt of worldwide economic recession. As Hertz undertook major cost restructuring as part of its securitization, it enabled the company to offset increases in operating costs with gains in efficiency.

#### 4.2. Enhanced operations management

LBO securitization crucially depends on the securitized firm keeping intact key components of its overall business strategy, while at the same time enhancing its revenue growth potential. It is required to maintain a level of cash flows from operating activities sufficient to permit it to meet its debt service obligations. This means that it may have to focus on, where necessary, efficient cost management as well as restructuring and streamlining operations. Likewise, emphasis is placed on maintaining a consistent level of re-investment in business to continue with its successful track record in performance. In line with these principles, the re-organization at Hertz took three distinctive directions: implementation of a business process re-engineering program; evaluation of workforce; and back-office restructuring, including evaluation of potential outsourcing opportunities. These initiatives were aimed at optimizing workflow at rental locations and maintenance facilities, achieving headcount reductions and realizing cost savings in operations. Table 3 provides specific information on these restructuring measures.

As the table shows, during the first three years of its securitization, Hertz LBO made substantial adjustments to its workforce and operations. These adjustments were carried out under the premise that the benefit of a more efficient workforce and operating structure would increase its long-term competitiveness. The measureable outcomes included firm-wide wage and benefit reductions; closing down unprofitable locations in both rental car and equipment rental; and reducing headcount by delayering and restructuring operations. Organizational optimization and back office re-engineering resulted in improved operating efficiencies, sales effectiveness, and pricing optimization. Customer support initiatives included strategic fleet management that emphasized optimizing fleet to match demand, deliberate risk car deletions, and alternative car sales channels (e.g. 37% of car sales in the third quarter of 2008). Hertz took these measures to ensure costs remain closely aligned with demand and that they position the company to grow profitably. There was also an extensive global restructuring involving streamlined regional operations by delayering organizational structure and centralizing work functions. As a result, \$187 millions savings were realized in 2007, which increased to \$313 millions in 2008, followed by \$760 millions in 2009, and then \$800 millions (target) in 2010.

**Table 2. Re-investment in business—Fleet change (net book value basis) \$ in millions**

	Q409	Q408	FY09	FY08
<i>Beginning fleet</i>	\$1,869.7	\$2,362.3	\$2,154.9	\$2,639.9
Additions	29.5	25.8	88.6	267.3
Disposals	(21.9)	(160.6)	(137.6)	(447.6)
Depreciation, net (Maintenance capex)	(65.8)	(80.3)	(294.4)	(312.3)
<i>Ending fleet</i>	\$1,811.5	\$2,147.2	\$1,811.5	\$2,147.2
<i>Fleet capex, net (Growth capex)</i>	(\$58.2)	(\$215.1)	(\$343.4)	(\$492.7)
<i>Disposals (1st cost basis)</i>	(\$56.4)	(\$196.5)	(\$399.4)	(\$591.5)

**Table 3. Measures to streamline operations and services**

Year	Priority areas	Specific management initiatives
2007	Cost savings via reductions in workforce	Job reductions affecting approximately 2,030 employees worldwide. Most reductions occurred in the US car rental corporate headquarters.
	Organizational restructuring initiatives	Actions taken to right size business included outsourcing select functions globally, including information technology, real estate facilities management, and construction and procurement. Project Alpha was implemented to reduce costs. The project defined 200 + sub-processes and 15 domains.
2008	Cost savings via reductions in workforce	Implemented job reductions affecting approximately 7,000 employees in the US and European car rental operations (19% of global workforce). There were much smaller reductions occurring in the US-based operations.
	Asset efficiency management	Closed approximately 248 off-airport locations, and the US equipment rental business initiated the closure of 22 branch locations.
	Organizational restructuring initiatives	Business Process Reengineering (BPR) projects were launched in nearly all areas. <ul style="list-style-type: none"> <li>• Implemented Lean and Six Sigma to reengineer processes for increased efficiency</li> <li>• Merged back office operations</li> <li>• Renegotiated third-party vendor contracts</li> <li>• Standardized, streamlined, and globalized processes</li> <li>• Identified &amp; implemented global best practices</li> </ul> Business process outsourcing (BPO) partnerships were established with IBM, CBRE, ICGC, CDI, ACS, and OCE.
	Customer support	Provided rental services from those locations that had a loyal customer base. Also introduced self-service kiosks at airport locations
2009	Cost savings via reductions in workforce	Headcount reduced by more than 4,000 employees. Incurred job reductions with an emphasis on eliminating non-customer facing jobs.
	Organizational restructuring initiatives	<ul style="list-style-type: none"> <li>• Continued rolling out BPR projects</li> <li>• Developed culture of continuous improvement</li> <li>• Instilled process &amp; project discipline</li> </ul>
	Asset efficiency management	Accelerated fleet reductions as fleet 4.5% smaller year-over-year. Rationalized location footprint, including closing down locations
	Customer support	<ul style="list-style-type: none"> <li>• Optimized mix—richer mix of fleet (BWM, Mercedes, Audi, etc.)</li> <li>• Captured longer length transactions to reduce vehicle turnover and associated maintenance and customer service costs</li> </ul>

Asset-backed financing is the means by which Hertz purchases cars for its domestic and international car rental fleets. Hertz is one of the largest private sector purchasers of new cars in the world. Hertz has attempted to diversify its fleets to meet customer demands and minimize overall costs, although there are conditions that prevent it from purchasing, or retaining in its fleet, cars on some specific terms, as noted above. The percentage of the fleet, which Hertz purchases from Ford has declined over the years. The car purchase data over the five years ended 31 December 2009 show that approximately 31% of the cars acquired by Hertz for its US car rental fleet and approximately 27% of the cars acquired for its international fleet were manufactured by Ford and its subsidiaries. However, for the year ended 31 December 2009, this percentage came down to approximately 12% of the cars acquired domestically and approximately 24% of the cars acquired for its international fleet.

To broaden customer base, Hertz added a number of innovative offerings, including expansion of *Simply Wheelz* (rental car service for budget travelers), multi-month rentals, pre-paid rentals for value conscious customers and partnership incentives. *Connect by Hertz*, the company's car sharing initiative launched in December 2008, signed over 2,100 members in a short space of time and expanded into several additional markets including contracts with universities and schools. During the program period, Hertz also invested in technology to enhance customer experience by developing

*Eileo*, a technology for global car sharing. Hertz also acquired Advantage leisure brand in April 2009 to augment its brand offering. It provides a strong growth potential in leisure-market and there is also an opportunity to capitalize on synergies. This is demonstrated in how Hertz achieved 1.3% of US airport market share after 11 months in operations.

#### **4.3. Governance and incentives**

There were no changes in the set of individuals occupying the top two management positions—CEO and Chairman—during the course of Hertz LBO securitization. Hertz currently has 12 directors, who, between them, share appointments on Audit, Compensation and Executive and Governance committees. The committees' composition and functions are on the whole similar to other corporate boards of the same size and functions. However, Hertz is a controlled company under NYSE rules, as CD&R, Carlyle, and MLGPE collectively own over 50% of Hertz outstanding common stock. Therefore, it has not made a determination of independence with respect to any of its directors not serving on its Audit Committee. It has determined that each member of its Audit Committee is “independent” as defined in the federal securities laws and NYSE rules. Hertz board held nine meetings during the year 2009, and each of its directors attended 75% or more of these meetings. Board director compensation is based on the stated aim of aligning director interests with the interests of stockholders. In 2009, each director received a \$150,000 annual retainer fee, of which \$60,000 was payable in cash and \$90,000 was payable in the form of common stock. Hertz does not pay additional fees for attending board or committee meetings. Hertz executives receive both short- and long-term incentives, depending on their meeting a set of financial performance targets. As an example, these targets were adjusted pre-tax income (referred to as “API”) and total net cash flow in FY2009, as dictated by Hertz's securitization. However, actual incentive payments were put on hold for some period due to the current difficult financial circumstances (Hertz, 2010).

#### **5. Discussion**

A typical LBO securitization incorporates significant risks as it involves both the risk of underperformance and the risk of default. Hence, there are a multitude of structural enhancements including operating management conditions designed solely to support the operations of the securitized assets. A securitized LBO approach is thus underpinned by an assessment of the predictability of key cash flow variables, monitoring and operational control, and the structure's flexibility.

In the long-term, Hertz's restructuring program may potentially have a negative impact on the firm's reputation should customers perceive the quality of service worse than before. The restrictions imposed by operating covenants with regard to vehicle supply from manufacturers can also have negative effects on the supplier-firm relationships concerned. This may have far-reaching consequences for Hertz even after the securitization period ends, and could be detrimental to the level of service standards achieved in future. Furthermore, outsourcing service functions to third parties could in the worst case also deteriorate customer service, as Hertz no longer can control the entire value chain.

However, Hertz successfully implemented a targeted policy of growth initiatives through re-investment in business to maintain leverage power of its brands and support future expansion. Hertz had limited ability to incur additional secured indebtedness or to sell or dispose of assets to raise capital, potentially affecting the efficiency of its operations and internal controls. However, it was still able to right size and re-focus to improve its debt service capacity. As a securitized LBO is vulnerable to an inadequate operating framework, management must take responsibility not only to preserve the integrity of the process but also to continue with its task of creating value. Specific measures may thus need to be taken to improve the incentive structures within the securitized entities, such as providing cash incentives instead of equity-based incentives. In the Hertz case, this is apparent when bonuses were specifically linked to cash flow metric, an overwhelming concern of bondholders. More important, there remains the issue of the extent to which managers/servicers are able and willing to perform within a framework that also limits their choices through risk-mitigating covenants and structural enhancements.

## 6. Conclusion

When private equity firms finance LBO through securitization bonds, it involves securitizing the acquired company's ongoing assets and supporting the business operator in managing its performance risk. This means that the LBO firm must adhere to a specified minimum level of performance, as well as adopting other specified operational plans and targets. In this paper, we examined the incidence and effects of these various management restrictions.

Our main results suggest that management restrictions involved in a securitized LBO transaction are associated with better performance outcomes. Such restrictions emphasizing the full exploitation of the available investment opportunities enabled Hertz to fully commit to the development of its existing assets. These results are further confirmed by an event time analysis that finds that the securitized LBO exhibited superior post-securitization operating performance relative to the year prior to the securitization agreement. On the whole, our results suggest that securitization does not materially alter the core business model of the securitized LBO. Rather, it enhances the debt service capacity of LBO firms by strengthening their asset profiles, and thus reducing the agency costs of debt.

The above findings suggest that securitized LBOs are not merely a re-run of the LBOs of the 1980s and 1990s. For example, recognizing the significant potential for growth, securitized LBOs are likely to accelerate their plans to invest in their intellectual capital, brands and other operating assets. These investments may in turn allow them to increase the range of product offers and successfully convert their existing assets into high quality product offerings. However, the key enabling factor in such restructuring environments is that securitized LBOs must obtain a minimum threshold performance as a precondition before they can engage in further investment programs. This means that securitized LBOs must first improve the efficiency of their existing capabilities and production systems. The more they can achieve these cost efficiencies, the more they can increase their efforts to realize the full potential of company growth in line with their preexisting operational plans. In these respects, securitized LBOs are very different from traditional LBO structures where no management principles exist to guide the firm through a period of change and development.

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### Notes

1. For example, Guo et al. (2011) in their study of the recent wave of LBOs suggest: "Firms with greater increases in leverage as a result of the buyout consistently show better cash flow performance. These results are consistent with the disciplining effect of higher debt for the post-buyout firm." For a discussion of the other so-called LBO hypotheses such as interest tax benefits or deal value discrepancy, see Cumming, Seigal, and Wright (2007).
2. Domino Pizza's securitization, for example, specifies a normalized cap-ex in the \$20–30 million range annually. Minimum cap-ex requirements are designed to ensure the competitive position of the business remains at least as good as at closing. Like Domino's, the emphasis in a

securitized LBO is on increasing the securitized assets' inherent resilience by making investments in capital replacement projects, along with creating new growth opportunities.

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