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The Impact of the Recent Recession on U.S. Lodging Firms: An Examination Based on Ratio Analysis

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Introduction

Recession is known as one of the most significant exogenous events that threatens a firm's existence and continued profitability (Mascarenhas & Aaker, 1989). Since 1990, more than 500,000 firms have filed for bankruptcy in the U.S. as a result of economic recessions (Pearce & Michael, 2006). While a recession affects firms in almost all economic sectors, the hospitality firms appear to be more susceptible to economic downturns because they derive revenues mostly from people's discretionary consumptions (Youn & Gu, 2009). During the economic crisis, the lodging industry faces significant challenges as both business and consumers cut back on travel expenditures. The vulnerability of the lodging industry to economic downturns is often reflected in the high business failure rate in recessions. For example, during the 1990-1991 recession, two third of U.S. hotels went bankrupt (Romeo, 1997).

Casino hotels, which combine lodging with gaming operations, are a particular sector in the lodging industry. For many years, the casino hotel industry has been considered 'recession-proof' as many believed that those who gamble will spend even more in times of economic downturn as an attempt to increase their chances of winning much needed money (Jones, 2008). Recent data, however, show that casino firms, which appeared immune to previous recessions, have also suffered setbacks in the most recent recession. Many casino companies in the U.S. have experienced a sharp decline in revenue during the recent recession. In Atlantic City, every casino has reported a drop in revenue in 2009 (Wittkowski, 2010). In Las Vegas, casino companies' earnings plummeted by double digits due to the significant increase in debt costs and drop in their customers' spending (Benston, 2008). The U.S. casino industry has experienced a record number of defaults in 2008 driven by multiple factors such as weak industry fundamentals based on weak economic conditions; highly leveraged capital structures stemming from the abundance of debt capital that was available to these companies prior to summer 2007; and the tough credit markets with more demanding lenders (S&P, 2008).

According to the U.S. Bureau of Economic Analysis, the 2007-2010 recession, the longest economic downturn since the Great Depression, finally ended in March 2010 (Jubak, 2010). However, many experts believe that the effects of the recession are a long way from over and expect the recovery to be slow and painful (Isidore, 2009). What should lodging firms do to expedite their recovery and make operations more resilient to future economic downturns? To find an answer to this question, this study will conduct a financial ratio analysis for lodging firms with and without gaming operations, respectively and determine

how their financial conditions and performances were impacted by the recent economic recession. Comparing the financial situations of the lodging firms before and during the recession, this study attempts to identify areas that have been significantly deteriorated by the recession. Findings will be used to develop strategies and policies that may help the lodging industry overcome the recession impact and better cope with future recessions.

The Impact of Recessions on Lodging Firms

The negative impacts of economic recession on lodging firms have been well documented. During the 1990-1991 recession, the hotel room occupancy in the U.S. fell well below the breakeven point and eventually led to bankruptcy filings of many hotel firms (Romeo, 1997). The 2001 recession that lasted for eight months placed hardships on many of well-known U.S. lodging properties including Wyndham International and Park Place Entertainment Corporation (Hotel *&* Motel Management, 2001). The most recent recession that began in December 2007 has affected many hospitality firms. According to Sharkey (2008), even the upscale four- and five-star properties have suffered due to declining corporate travel and rising cancellations. According to a recent report by Smith Travel Research, both occupancy and room rates fell about 10% from the previous year and many hotels no longer generate operating profits (Haughey, 2009). Property & Portfolio Research expects 13% drop in overall occupancy and a 23% lower revenue per available room in 2010 (Haughey, 2009).

The recent global recession has also taken its toll on some of the biggest casino hotel operations in Las Vegas. Share prices of the three companies that dominate gaming operations in the city – Wynn Resorts, MGM Mirage, and Las Vegas Sands – declined for more than 40% in 2008 (La Monica, 2009). In 2009, two of the biggest casino hotels in Las Vegas, namely Trump Entertainment Resorts, Inc. and Station Casinos Inc., filed for bankruptcy protection. During the same year, the Fontainebleau Las Vegas and two of its affiliates filed for Chapter 11 bankruptcy and shut down their $3 billion development project (Audi, 2009). In 2009, Atlantic City's gaming revenues were down 15.3% while casinos in Nevada witnessed 13.7% decrease in gaming revenue from previous year (Parry, 2009). More recently in July 2010, Riviera Holdings Corporation, which owned casinos and casino hotels in Las Vegas and Colorado, declared bankruptcy. Other high-profile bankruptcies of casino hotels include Tropicana Entertainment, Herbst Gaming, Majestic Star Casino, Planet Hollywood Las Vegas, Hooters Las Vegas, the Greek Isles, and Black Gaming, LLC. (Green, 2010).

It has been reported that many casino firms struggled with a high level of debt and declining cash flows during the economic recession. This is because consumers avoid taking big vacations that involve gambling (La Monica, 2009). In addition, these casino firms struggle with a continuing proliferation of new competitors (Parry, 2009). While the North American gaming industry in general had performed favorably up until mid-2007, the risk of default had always been there due to the industry's highly leveraged financial structure, intensive capital investments, high reliance on customers' discretionary spending, and increasing competition (S&P, 2008). Gaming revenue has been down at unprecedented levels and the industry is struggling in the most significant consumer-driven downturns since 1990-1991 (S&P, 2008).

Previous Hospitality Studies Involving Ratio Analysis

To the best of our knowledge, there exist only a handful of studies employing financial ratios as a means to assess hospitality firms' financial conditions and performances. In 1994, Gu and McCool examined financial ratios across different sectors of the U.S. restaurant industry to investigate whether the financial characteristics of restaurant firms differ based on the restaurant types. Employing 17 financial ratios representing four groups of financial positions, namely liquidity, solvency, efficiency, and profitability, they compared the average financial ratios by the types of restaurants. The findings indicated that only the solvency ratios were significantly different across the four types of restaurants. The study found that heavily relying on long-term debts may shrink the firms' profitability and this is especially true when the sales are volatile. Aggressive use of leverage financing may also worsen the negative impact of an unfavorable economy (Gu & McCool, 1994).

In 2005, Kim and Ayoun carried out a cross-sectional analysis to investigate financial trends of four major sectors in the hospitality industry, namely lodging, restaurants, airlines and amusement sectors. In that study, they computed a set of financial ratios for all four sectors and compared each sector's financial performance against the others. Among the 13 ratios in the study, significant differences were found in eight of them, namely, current ratio, quick ratio, debt ratio, average collection period, inventory turnover, total assets turnover, net profit margin, and return on assets. The findings indicated that the lodging sector had better ability to manage its assets and generate profit while airline companies had higher level of liquidity than the rest. The study also found that external factors such as the state of economy or volatility of market had significant impact on how the companies financed their operations.

Despite the significance of the casino industry in terms of its size and scope, only a few studies investigated this sector's overall financial performance. Using a set of financial ratios, Gu (2002b) examined operating efficiency and profitability of U.S. casinos in a comparison with Dutch and French casinos based on their 1998 financial data. The study found significant performance gaps, attributable to different market environments and level of competition. The noncompetitive market conditions in Europe contributed to Dutch and French casinos better performance while cutthroat competition among casinos in the U.S. resulted in comparatively lower efficiency and profitability. To improve the performance, Gu (2002b) urged U.S. casino operators to curb the overcapacity and alleviate market saturation.

According to Gu (2002a), U.S. gaming markets have been facing great challenges since 1995 due to market saturation and high competition. The September 11, 2001 terrorist attack paired with sluggish U.S. economy negatively affected gaming revenue and worsened the situation. To overcome the unfavorable market condition, Gu (2002a) suggested casinos to diversify overseas. Diversification into different countries, if done properly, would both increase gaming revenue and stabilize operation results (Gu, 2002a).

Recently Youn and Gu (2009) investigated the impact of the 2007 recession on U.S. restaurant firms in three different sectors, namely full service, economy/buffet, and fast-food. The study examined changes in firms' financial conditions and performances using a set of financial ratios in 2006, the pre-recession year, and in 2008, the during-recession year. The findings indicate that the U.S. restaurant firms in all three sectors were negatively affected by the recession and significant deteriorations were found in ratios measuring liquidity, leverage, solvency, efficiency, and profitability. While changes were observed in numerous ratios within each restaurant sector, the changes in debt ratio was the most significant as it almost doubled over the two-year period for all three sectors. Youn and Gu (2009) suggested restaurant firms to reduce their heavy reliance on debt-financing and locate a new source of capital to survive through the recession.

To this date, there has not been any study investigating the impact of the recent recession on financial performance of the U.S. hotel firms. The recent study by Youn and Gu (2009) solely focused on the restaurant sector. This study attempts to investigate the hotel sector exclusively as characteristics pertaining to hotel firms are likely to differ from those representing restaurant firms. Although hotels and restaurants are both hospitality businesses, they bear some distinguished characteristics. For example, the hotel industry is more fixed assets intensive and involves larger capital investments thus inclining to more debt

financing. This recent recession was ignited by a financial crisis from mortgage lending. It may have an even greater financial impact on hotels than on restaurants. Use of an industry-specific sample is recommended whenever it is possible (Brigham & Gapenski, 1994). A separate study of the impact of recent recession on the hotel industry is indeed necessary.

Ratios Examined, Sample Firms and Data Period

Financial ratios have been used to analyze and compare financial characteristics of companies both within the same industry and across different industries (Kim & Ayoun, 2005). Ratio analysis is especially useful when a firm compares its current performance to that of a previous time period (Dopson & Hayes, 2009). Keown, Martin, Petty, and Scott (2006) also reported that ratios help the users make meaningful comparisons of a firm's financial performance across different time periods making underlying changes and trends apparent. To identify the changes in the financial performances of both non-gaming and gaming lodging industries as a result of the recent economic recession, this study compares the financial ratios in 2006, the year immediately prior to the recession, to those in 2008, the year during which the recession was in full swing.

This study examined financial ratios representing liquidity, leverage, solvency, profitability, and efficiency to assess financial performance of sample firms. Liquidity ratios indicate a firm's ability to pay its current financial obligations on time while leverage ratios measure the extent to which a company is relying on external financing. On the other hand, solvency ratios evaluate a firm's ability to pay all of its financial charges. Efficiency ratios assess the productivity of a firm for a given level of inputs while profitability ratios measure the management's ability to generate profits. These five groups of ratios reflect the overall financial condition and performance of a firm. In this study, ten key financial ratios across these five categories are used as measures of various financial characteristics of companies. This study used current ratio and quick ratio to measure liquidity, debt ratio and long-term debt to total capitalization (LTD to TC) ratio to measure leverage, interest coverage ratio to measure solvency, accounts receivable (AR) turnover and total assets (TA) turnover to measure operating efficiency, and profit margin (PM), return on assets (ROA), and return on equity (ROE) to measure profitability (Table 1).

(Table 1 here)

The sample consists of firms with their primary North American Industry Classification System (NAICS) code numbers 721110 (i.e., Hotels except Casino

Hotels) and 721120 (i.e., Casino Hotels). The search for sample firms came back with 17 non-gaming hotels and 11 casino hotels (Table 2). The accounting and financial information of those firms in 2006 and 2008 were obtained from Standard & Poor's COMPUSTAT database and the ten financial ratios listed in Table 1 were computed for each firm for the respective two years.

(Table 2 here)

The National Bureau of Economic Research officially declared that the U.S. economy was in a recession since December 2007 (Andrews, 2008). While the Business Cycle Dating Committee has yet to declare that the recession is over, many economists believe that it ended in early 2010 (Jubak, 2010). To assess the impact of the recession on the lodging industry, this study examined the sample firms' financial ratios in 2006 and 2008 to compare the overall financial performance of these firms in 2006, the year prior to the recent recession, to that in 2008 when the recession was at its peak.

Findings from the Non-gaming Hotel Sector

The mean values of all ratios in the sector, except AR turnover, show deterioration in 2008. The sector averages in Table 3 indicate that in 2008, non-gaming hotels were less liquid, more indebted, less solvent, less efficient in using assets to generate revenues, and less profitable. In particular, the negative interest coverage demonstrates that an average hotel firm's operating income was insufficient to cover the interest expense. Paired sample t-tests were employed to test the difference between the group means of each ratio. The t-test statistics and related significance levels are also reported in Table 3.

(Table 3 here)

Based on the paired sample t-tests, the two years were significantly different in three ratios at the 0.01 level – current ratio, debt ratio, and long-term debt to total capitalization (LTD to TC). At the 0.05 level, quick ratio became significant and at the 0.10 level, profit margin (PM) and return on assets (ROA) also turned out to be significant. In summary, among the 10 ratios examined in this study, six of them changed significantly after the U.S. economy entered into the recession. In 2008, non-gaming hotels experienced considerable deterioration in almost all five categories of ratios, indicating the negative impact of an adverse economy on overall financial performance and conditions. It appears that non-gaming hotels were weakened the most in their liquidity and leverage conditions. Both current ratio and quick ratio dropped significantly. In 2006, those firms were

in a much better position to cover its short-term liabilities using the liquid assets. In addition, the ratios in 2008 showed significantly higher indebtedness along with poor interest coverage. The analysis reveals that an average hotel firm in 2006 was financed by 38 percent of debts and 62 percent of equity whereas in 2008, debt became 50 percent of total financing. Between the two years, debt ratio went up by almost 30 percent. On the other hand, the LTD to TC ratio went up to 0.43 in 2006 from 0.64 in 2008. In 2008, the heavier reliance on debt financing was obvious. As pointed out by Altman, Eom, and Kim (1995), the risk of default is always high to firms with heavy borrowings. The financial structure of non-gaming hotel firms in 2008 became riskier in comparison to 2006.

In 2008, two of the profitability ratios turned significantly negative implying that an average non-gaming lodging firm in the U.S. experienced loss. The profit margin ratio measures the portion of sales revenue contributing to the net income of a firm. A negative profit margin in 2008 is indicative of net loss incurred during the year. This profitability measure dropped from 5 cents net income per dollar of revenue to 10 cents loss per dollar of revenue. This was a significant decrease in profitability from operation perspective. The ROA ratio assesses the amount of net income generated from each dollar invested in the firm's assets. In 2006, an average non-gaming lodging firm generated $0.02 for every dollar invested in its assets. Two years later, these firms generated a negative return on the assets. Compared to the profit margin ratio, ROA experienced only a mild deterioration from 0.02 to -0.02, indicating possible substantial assets augmentation in 2008. For these lodging firms, average total asset was $1,739.70 million in 2006 and $1,806.06 million in 2008. The enlargement of lodging assets was likely to lessen the net loss on a per dollar assets basis.

Findings for the Casino Hotel Sector

The mean values of all the ratios examined indicate deterioration in 2008. Table 4 compares the averages of the 10 financial ratios between the two years for casino hotels. The mean values of all ratios in the sector, except ROE, show deterioration in 2008. The mean ratios in Table 4 show that in 2008, casino hotels were less liquid, more indebted, less solvent, less efficient in generating revenues using total assets, and less profitable. The paired sample t-test statistic results are summarized in Table 4.

(Table 4 here)

While the averages of the ratios appeared to differ considerably between the two years, the statistical tests showed that only two financial ratios were significantly different – total assets (TA) turnover at the 0.05 level and ROA at the 0.10 level, respectively. This suggests that the casino hotel sector may not be affected by the recession as badly as the non-gaming hotel sector.

TA turnover ratio assesses the amount of sales revenue generated from each dollar of assets. In other words, this ratio determines the effectiveness of management in using the total assets to generate sales revenue. It is apparent that these casino hotel firms were able to generate higher sales dollars using the existing assets in 2006. During the recession, the efficiency of management in using its total assets to produce sales revenue declined, probably due to decreased number of customers taking vacations that involve gambling. On the other hand, average total asset increased substantially from $5,865.70 million in 2006 to $7,989.92 million in 2008. On average, a casino-hotel firm witnessed more than 36 percent increase in its asset value over the two years. Declining sales in the recession accompanied by augmented assets certainly should have a downward pressure on the TA turnover ratio.

Casino hotels are typically fixed assets intensive and new investment in fixed assets or expansion of the operation involve large amount of capital. Excessive expansion in a saturated market may force operators into heavy borrowing and result in higher debt ratio and lower assets turnover ratio, thus adversely affecting firm profitability. The relatively high debt ratio in both years, though not significantly different from each other, appears to be troublesome. In 2006, an average casino hotel firm was financed by 52 percent of debt. Two years later, these firms' reliance on debt financing increased to 58 percent. It has been reported that debt ratio over 0.50 is risky as higher debt is associated with smaller margins for error and higher interest rates ultimately leading to decreased profitability of the operation (Schwei, 1996). Up until the summer of 2007, obtaining debt capital was both easy and inexpensive. As a result, many casino firms took out additional loans for expansions and acquisitions, substantially increasing their balance sheet debts to levels that could not tolerate dips in visitor demand to the extent now being experienced (S&P, 2008).

At the 0.10 level, the ROA ratio fell significantly in 2008. In 2006, an average casino hotel firm produced $0.05 for every dollar invested in its assets. Two years later, these casino hotel firms on average experienced a negative return. Both the negative net income and the substantial increase in total assets may have contributed to the significantly lowered ROA ratio in 2008. While no significant differences were found for the remaining ratios, it is apparent that the casino hotel

firms were in a better position in 2006 than they were two years later. When these findings were compared to the summary ratio statistics for the non-gaming hotel firms (Table 3), it became obvious that non-gaming hotel firms had more significant changes in their ratios, compared to casino hotel firms. The non-gaming hotels demonstrated statistically significant differences in six out of the 10 financial ratios. On the other hand, only two ratios showed significant deterioration between the two years for the casino hotel firms, indicating that casino hotel firms are maybe more resilient to the recession.

Summary, Suggestions and Limitation

The averages of the ratios examined in this study show that both non-gaming hotels and casino hotels experienced deterioration in all five aspects of their financials, namely liquidity, leverage, solvency, efficiency and profitability. However, the statistical tests of the ratio lead us to conclude that the non-gaming hotels were more adversely and significantly affected by the recession. While non-gaming hotels appeared more vulnerable to economic downturns, casino hotels seemed a little more resilient to the recession, supporting the belief that the casino sector is more 'recession-proof' than the hospitality industry in general (Jones, 2008). Why was the casino hotel sector less affected by the recession? It is likely that the overseas operations in Macau of some casino giants, especially Las Vegas Sands Corp., Wynn Resorts, Ltd. and MGM Mirage, may have helped offset the negative impact of the recession at home. Gu (2002a) has found that diversifying into other countries helps casino firms increase revenue and stabilize their operations. Macau casinos have their visitors mainly from China, which managed to maintain high economic growth even during the recent world financial crisis, and this could have helped those Las Vegas-based companies greatly.

The return on assets ratios of both sectors deteriorated significantly, from positive in 2006 to negative in 2008. While the adverse market condition was certainly to blame for the negative net incomes and hence the negative return on assets for these firms in 2008, expansions may have made the situation worse. Both sectors had significant increase in assets in 2008. Especially, in 2008 the average assets of a casino hotel increased by 36 percent in comparison to 2006. Expanded assets and operations are associated with increased operating expenses and fixed charges, exerting further pressure on net income in a recession when the sales revenue is stagnant or declining.

Therefore, the first suggestion derived from this study is that in difficult economic times, hotel firms should strive to use existing assets to maximize sales

revenue and avoid excessive expansions. Increasing the assets turnover, rather than decreasing it as what happened to the casino hotels in our study, can help lodging firms to cope with the impact of a recession. U.S. hotel operators must be very careful when making decisions on investing in new assets and expanding the operations. In a saturated market with intense competition, expansion by investing in new hotel assets is likely to cause overcapacity. The industry should be extremely cautious with assets expansion projects. While assets maintenance and upgrading are necessary to remain competitive, excessive investment in new fixed assets or expansion should be avoided.

The assets expansion during the recession for both sectors must have led to heavy borrowing and resulted in deeper indebtedness and weaker solvency. In a slowdown and volatile operational environment, heavy financial leverage will greatly increase the risk of the firm. Therefore, both regular hotel firms and casino hotel firms need to move away from heavy debt financing. Leverage causes additional fluctuations in net income and over leveraging may exaggerate the negative impact of an adverse economy on hospitality firms' profitability (Gu & McCool, 1994). Hotel firms should restrict their reliance on debt financing. Here, a prudent and conservative assets growth policy is necessary for them to curb the leverage and increase solvency.

Among the 17 non-gaming hotel firms in this study, only six of them generated positive net income in 2008. This study computed an average current ratio of these firms in 2006 and compared it to that of the remaining firms that had loss in 2008. In 2006, the average current ratio of profitable group was 1.54 whereas that of non-profitable group was 1.30. For casino hotels, an average current ratio of profitable firms (n=3) in 2006 was 1.70. During the same year, the average current ratio of non-profitable firms (n=8) was 1.10. It is evident that hotel firms in U.S. may benefit from financial slack during economic hardship. Therefore, the second suggestion derived from this study is that hotel firms should strive for sensibly higher current ratio to increase their financial slack. This financial slack can be used as reserves to pay some debt as soon as recession expectations come into view.

Lathan and Braun (2008) examined the role of financial slack on firm performance during economic recession and recovery for firms in the software industry. In that study, financial slack was measured by the current ratio. Higher current ratio represented higher financial slack while lower value of the ratio indicated otherwise. Their study examined the relationship between financial slack and firm performance and found that financial slack had a positive effect on firm performance during both recession and initial recovery period. Financial

slack not only acted as a cushion protecting the companies from the external shock but also helped expedite recovery process. Lathan and Braun (2008) suggest that effective management of currents assets and current liabilities is the first step in securing the financial slack. Alternatively, firms may reduce dividend payment or retrench non-core assets and expenses. The same should be true for hotels. Maintaining a reasonably high current ratio and selling off non-core properties may help increase a hotel firm's financial slack to tide over hardships during a recession.

According to the portfolio theory, diversification can lower the risk profile of a portfolio without adversely affecting the aggregate return (Chan & Leung, 1990). U.S. hotel firms may diversify overseas and build a portfolio of hotels in different countries to ward off severe recessions. Diversifying into countries with fast rising economies, such as China and India, should help the U.S. firms lower the risk. Alternatively, hotels may construct a portfolio of hotels of both high- and low-end operations. Low-end hotels may be less affected by a recession due to consumers' increased price-sensitivity in a bad economy time. During an economic recession, consumers are more sensitive to prices due to higher unemployment and lower disposable income (Youn & Gu, 2009) and low-end operation may serve as a buffer to cope with tough market conditions. Hotel firms should consider constructing a well-diversified portfolio across countries and/or across market segments to make their operations more market condition-resilient to ward off future recessions.

A major limitation of this study is the small sample size of hotels. In particular, we had only 11 casino firms. This could have made it difficult to observe significant differences between the ratios (Berenson, Levine, & Krehbiel, 2003). Future studies on recession impact may expand the data set by looking into databases other than COMPUTAT. While most of the previous studies in the hospitality industry use financial ratio analysis to evaluate firm performance, this technique fails to discriminate best practices or reflect the firm's multidimensional nature (Neves & Lourenco, 2009). Recently, new methodologies, such as data envelopment analysis, have emerged to overcome these pitfalls. Future studies may use a newer method to incorporate the company's multidimensional nature in the performance measurement.

References

Altman, E.I., Eom, Y.H. & Kim, D.W. (1995). Failure prediction: Evidence from Korea. *Journal of International Financial Management & Accounting, 6*(3), 230-249.

Andrews, E.L. (2008, December 2). U.S. recession began last December, economists say. *The New York Times*. Retrieved from http://www.nytimes.com/2008/12/02/business/worldbusiness/02iht-02econ.18315318.html

Audi, T. (2009, June 10). Las Vegas construction industry faces deeper hit. *The Wall Street Journal.* Retrieved from http://online.wsj.com/article/SB124460975477101279.html

Benston, L. (2008, October 21). Vegas casinos trying to weather economic downturn. *Las Vegas Sun*. Retrieved from http://www.scrippsnews.com/node/37284

Berenson, M.L., Levine, D.M., & Krehbiel, T.C. (2003). *Basic business statistics: Concepts and applications* (9th ed.). Upper Saddle River, NJ: Prentice-Hall Inc.

Brigham, E. F., & Gapenski, L. C. (1994). *Financial management: Theory and practice* (7th ed.). Orlando, FL: The Dryden Press.

Chan, D.S., & Leung, R.K. (1990). Portfolio diversification into the Asia-Pacific capital markets: A currency perspective. *Asia Pacific Journal of Management, 7*(2), 153-163.

Dopson, L.R., & Hayes, D.K. (2009). *Managerial accounting for the hospitality industry*. Hoboken, NJ: Wiley & Sons, Inc.

Green, S. (2010, July 12). Riviera files for Chapter 11 bankruptcy reorganization. *Las Vegas Sun*. Retrieved from http://www.lasvegassun.com/

Gu, Z., & McCool, A. (1994). Financial conditions and performances: A sector analysis of the restaurant industry. *The Journal of Hospitality Financial Management, 3*(1), 1-14.

Gu, Z. (2002a). Diversify into European markets to enhance revenue: A strategy proposed for the Las Vegas strip and Atlantic City. *UNLV Gaming Research & Review Journal, 6*(20), 34-52.

Gu, Z. (2002b). Performance gaps between U.S. and European casinos: A comparative study. *UNLV Gaming Research & Review Journal, 6*(20), 53-62.

Haughey, J. (2009, May 28). Hotel recession deepens. *Reed Construction Data.* Retrieved from
http://www.reedconstructiondata.com/news/2009/05/hotel-recession-deepens/

Hotel & Motel Management (2001). Wake-up call. *Hotel & Motel Management, 216*(15), 1.

Isidore, C. (2009, October 12). Recession may be over, but recovery is painful. *CNN Money*. Retrieved from
http://money.cnn.com/2009/10/12/news/economy/recession_nabe/index.htm

Jones, H. (2008, October 27). Conn. gambling industry not so 'recession-proof.' *NPR.* Retrieved from
http://www.npr.org/templates/story/story.php?storyId=96172250

Jubak, J. (2010, April 30). The recession is over? *Jubak's Journal.* Retrieved from http://articles.moneycentral.msn.com/Investing/JubaksJournal/the-recession-is-over-yeah-right.aspx

Keown, A. J., Martin, J. D., Petty, J. W., & Scott, D. F. (2006). *Foundations of Finance.* Upper Saddle River, NJ: Pearson Prentice Hall.

Kim, W.G., & Ayoun, B. (2005). Ratio analysis for the hospitality industry: A cross sector comparison of financial trends in the lodging, restaurant, airline and amusement sectors. *Journal of Hospitality Financial Management*, *13*(1), 59-78.

La Monica, P.R. (2009, February 17). Casinos crap out. *CNN Money*. Retrieved from http://money.cnn.com/2009/02/17/markets/thebuzz/index.htm

Latham, S. F., & Braun, M. R. (2008). The performance implications of financial slack during economic recession and recovery: Observations from the software industry (2001-2003). *Journal of Managerial Issues, 20*(1), 30-50.

Mascarenhas, B., & Aaker, D. (1989). Strategy over the business cycle. *Strategic Management Journal, 10* (3), 199-210.

Neves, J.C., & Lourenco, S. (2009). Using data envelopment analysis to select strategies that improve the performance of hotel companies. *International Journal of Contemporary Hospitality Management, 21*(6), 698-712.

Parry, W. (2009, July 21). Many casino companies cut execs pay in recession. *ABC News.* Retrieved from http://abcnews.go.com

Pearce, J., & Michael, S. (2006). Strategies to prevent economic recession from causing business failure. *Business Horizons, 49*, 201-209.

Romeo, P. (1997). Strange time upon us. *Restaurant Business, July, 96*(14), 6.

Schwei, T. (1996). Key financial statement ratios. *Small Business Forum*, *14*(2), 54-55.

Sharkey, J. (2008, October 6). Travel industry shaken by economic downturn. *New York Times.* Retrieved from http://www.htrends.com/trends-detail-sid-34963.html

Standard and Poor's. (2008, October 3). U.S. gaming defaults reach record levels: What happened to this "recession-resistant" industry? *Standard & Poor's Ratings Direct.* Retrieved from http://www.netadvantage.standardandpoors.com/

Wittkowski, D. (2010, January 11). Atlantic City casino revenue off 13 percent in 2009, third straight year of decline. *Press of Atlantic City.* Retrieved from http://www.pressofatlanticcity.com/news/breaking/article_19f64eaa-fee5-11de-9532-001cc4c002e0.html

Youn, H.W., & Gu, Z. (2009). U.S. restaurant firm performance check: An examination of the impact of the recent recession. *Journal of Hospitality Financial Management, 17*(2), 4.

Table 1
Summary of Financial Ratios Examined

Category	Ratio	Formula
Liquidity	Current ratio (CR)	Current assets / Current liabilities
	Quick ratio (QR)	(Current assets – inventories – prepaid expenses) / Current liabilities
Leverage	Debt ratio	Total liabilities / Total assets
	Long term debt to total capitalization ratio (LTD to TC)	Long term debt/ (Long term debt + Total stockholder's equity)
Solvency	Interest coverage ratio	EBIT / Interest expense
Efficiency	Accounts receivable (AR) turnover	Total revenues/ Average accounts receivable
	Total assets (TA) turnover	Total revenues / Average total assets
Profitability	Profit margin (PM)	Net income / Total revenues
	Return on assets (ROA)	Net income / Total assets
	Return on equity (ROE)	Net income / Equity

Table 2
Sample Firms in the Two Hotel Sectors

Lodging Operations (17 firms)	Casino Operations (11 firms)
Starwood Hotels & Resorts World	Archon Corp.
Maui Land & Pineapple Co.	MGM Mirage
Intergroup Corp.	Harrahs Entertainment Inc.
Lodgian Inc.	Monarch Casino & Resort Inc.
Sonesta Intl Hotels – CLA	Thunderbird Resorts Inc.
Intercontinental Hotels Grp.	Boyd Gaming Corp.
Gaylord Entertainment Co.	Ameristar Casinos Inc.
Santa Fe Financial Corp.	Century Casinos Inc.
Marriott Intl Inc.	Trump Entertainment Resorts
Pacrim Intl Capital Inc.	Wynn Resorts Ltd.
Allied Hotel Pptys Inc.	Las Vegas Sands Corp.
Red Lion Hotels Corp.	
Interstate Hotels & Resorts	
Orient-Express Hotels	
Great Wolf Resorts Inc.	
Morgans Hotel Group Co.	
Home Inns & Hotels Mngt - ADR	

Table 3
Summary of Ratio Statistics for Non-gaming Hotel Firms

Ratios	Average in 2008	Average in 2006	t-value	Sig.
Liquidity				
CR (n=17)	0.9018	1.3876	-3.1490	.0060***
QR (n=17)	0.5788	0.8894	-2.5280	.0220**
Leverage				
Debt Ratio (n=17)	0.4996	0.3837	3.3550	.0040***
LTD to TC (n=17)	0.6365	0.4329	3.2740	.0050***
Solvency				
Interest coverage (n=17)	-0.6759	2.6000	-1.4620	.1630
Efficiency				
AR turnover (n=17)	20.9682	20.7571	0.0670	.9480
TA turnover (n=17)	0.5376	0.6294	-0.9200	.3710
Profitability				
Profit Margin (n=17)	-0.1039	0.0583	-1.9200	.0730*
Return on Assets (n=17)	-0.0216	0.0213	-1.9860	.0640*
Return on Equity (n=17)	-2.7993	0.0352	-1.0960	.2890

Note. * indicates $p < 0.1$, ** indicates $p < 0.05$, *** indicates $p < 0.01$

Table 4
Summary of Ratio Statistics for Casino Hotel Firms

Ratios	Average in 2008	Average in 2006	t-value	Sig.
Liquidity				
CR (n=11)	1.1118	1.2691	-0.5600	.5870
QR (n=11)	0.8500	1.0618	-0.7820	.4520
Leverage				
Debt Ratio (n=11)	0.5772	0.5157	1.7300	.1140
LTD to TC (n=11)	0.6764	0.6364	0.6820	.5110
Solvency				
Interest coverage (n=11)	1.6382	33.5609	-1.0650	.3120
Efficiency				
AR turnover (n=11)	38.2991	43.1800	-0.7260	.4850
TA turnover (n=11)	0.4355	0.5491	-2.6780	.0230**
Profitability				
Profit Margin (n=11)	-0.0179	0.0950	-0.7000	.5000
Return on Assets (n=11)	-0.0286	0.0450	-1.9060	.0860*
Return on Equity (n=11)	-0.2050	-0.2101	0.0120	.9910

Note. * indicates $p < 0.1$, ** indicates $p < 0.05$