Journal of Hospitality Financial Management

The Professional Refereed Journal of the International Association of Hospitality Financial Management Educators

Volume 13 | Issue 1 Article 24

2005

The Effect of Financial Leverage on Profitability and Risk of Restaurant Firms

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THE EFFECT OF FINANCIAL LEVERAGE ON PROFITABILITY AND RISK OF RESTAURANT FIRMS

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ABSTRACT

This study presents an empirical insight into the relationship between return on equity (ROE), financial leverage and size of firms in the restaurant industry for the period 1998 to 2003 using OLS regressions. Research results suggest that at least during the test period firm size had a more dominant effect on ROE of restaurant firms than debt use, larger firms earning significantly higher equity returns. Results also suggest that regardless of having lower financial leverage, smaller restaurant firms were significantly more risky than larger firms.
As such, the dominance of size effect in the ROE-financial leverage relationship within the restaurant industry is better understood.

INTRODUCTION

It has been reported that many new restaurants start up but one of three new restaurants in the United States fails within 2 years (Ernst, 2002). According to Ernst (2002), the lack of a financial plan is one of the most common reasons for restaurant business failure, following choosing the wrong location. Financial planning is an important part in the restaurant business because the restaurant industry has higher percentage of cost of sale than other industries. A national survey in 2000 evidenced that 61 cents was consumed as food and labor costs for every dollar earned in full-service hotel restaurants, excluding other costs such as interest expense and rent (Ernst, 2002). Because of the high-cost nature of the business, the profitability of restaurant firms may be related to the level of interest expenses that are incurred due to the firms' debt use.

According to previous studies, financial leverage affects cost of capital, ultimately influencing firms' profitability and stock prices (Higgins, 1977; Miller, 1977; Myers, 1984;

Sheel, 1994). Also, several researchers have studied firms' debt use and suggested the determinants of financial leverage by reporting that firm's debt-equity decision is generally based on a trade-off between interest tax shields and the costs of financial stress (Kim, 1997; Sheel, 1994; Sunder & Myers, 1999; Titman & Wessles, 1988; Upneja & Dalbor, 2001). According to the trade-off theory of capital structure, the optimal debt level balances the benefits of debt against the costs of debt (Gu, 1993). The tax benefits of debt dominate up to a certain debt ratio, resulting in higher return on equity, but the benefit would be less than the cost after the level of debt ratio. In other words, the more a company uses debt, the less income tax the company pays, but the greater its financial risk. Elgonemy (2002) mentioned that hotel investors must consider four basic elements debt-financing: business risk, the need for financial flexibility, the degree of ownerships' risk aversion, and tax considerations. Based on the trade-off theory for capital structure, firms can take advantage of debt to make a better return on equity. Since Modigliani and Miller (1958) investigated a balancing theory of optimal capital structure between the tax advantages of debt and the cost of debt to maximize the value of firms, many subsequent studies have attempted to find the determinants of capital structures in the hospitality industry (Upneja & Dalbor, 2001; Kim, 1997; Sheel, 1994). Despite the importance of capital structure, there are few studies, particularly in the restaurant industry, on the relationship between internal performance measures based on the firm's financial statements and external appraisal based on stock price changes. The main objective of this study was to investigate the effect of financial leverage on restaurant firms' profitability and risk. Since the aim of this study was not to discover the determinants of profitability and risk in restaurant firms but to examine whether financial leverage is significantly related to firm's performance and risk, only one predicting variable, financial leverage, was used in regression analyses along with one control

variable, the firms' total assets. Total asset of the restaurant companies was used as a proxy of the firm size (Kim 1997, Sheel 1994). Both accounting-based measures and market-based measures were examined to see whether these two different types of measures held the same information on the level of debt use and to provide practical information to both managers and investors in restaurant companies.

LITERATURE REVIEW

There have been several capital structure studies conducted in the hospitality industry. Sheel (1994) was one of the pioneers, reporting that collateral value of assets would be the most significant determinant of long-term debt in his research on hotel and manufacturing firms. Kim (1997) investigated the determinants of restaurant capital structure. In the study, seven variables (size, earning volatility, profitability, growth opportunities, non-debt tax-shield, percentage of franchise, and lease expense) were regressed against short-term, long-term and total debt of restaurant firms. The significant determinants for long-term debt were firm size, growth opportunities, and lease expenses. All three predictors were negative. In other words, smaller restaurant firms having fewer growth opportunities and spending less on leases were more likely to use long-term debt (Kim, 1997). Using a pooled regression analysis, Dalber and Upneja (2002) summarized theories related to debt maturity and debt selection (contracting costs of debt, signaling effects, and tax effects). Firms with growth opportunities should need less long-term debt because they make more discretionary investments and they are not willing to pay the relatively high fixed costs of high interest payments. Long-term debt tends to send the wrong signal about a firm's market value; low-quality firms may take advantage of mispricing because investors are not able to distinguish them from high-quality firms. In terms of tax effects, a firm

with a higher tax rate tends to use more long-term and more risky debt. Tax rates also can be used as a proxy for the firm's financial stress or distress. In empirically testing these theories, results showed that larger restaurant firms with low growth opportunities and with a higher probability of bankruptcy use more long-term debt because they don't want benefits to accrue to bondholders, they can afford the higher fixed costs of long-term debt, and they are willing to take advantage of mispricing. Moreover, riskier restaurant firms tend to use more long-term debt (Dalber & Upneja, 2002).

Most studies of capital structure used a basic assumption of the trade-off theory. Once firms find a certain optimal combination of financing sources, that is, the mix of debt and equity sources that balance the benefits of the tax shield provided by debt with the increased costs of financial distress to the firm's equity holders, firms should maintain this target capital structure. However, two empirical studies indicated that this is not valid. Although the two studies surveyed different samples, the interpretation of the results was similar. Pinegar and Wilbricht (1989) surveyed Fortune 500 firms, only 31 % of the firms reported that they used target capital structure. Hittle, Haddad, and Gitman (1992) surveyed the 500 largest Over-The-Counter firms and found that only 11 % of the surveyed firms used target capital structure. Furthermore, when both taxes for corporate and equity holders were considered at the same time, financial leverage appeared not to bring significant benefits to the investors at the end (Myers, 2001). Although this is difficult to explain under the agency cost/tax shield trade-off theory, Sunder and Myers (1999) explained that the most profitable firms in many industries often have the lowest debt ratio, which is very different from predictions using the trade-off theory. Dann (1981) and James (1987) also noted that large positive abnormal returns for a firm's stockholders are associated with leverage increasing events such as stock repurchases or debt-for-equity exchanges instead of

leverage-decreasing events such as issuing stock. Few American companies issue new stock as frequently as once per decade (Megginson, 1997). In contrast to the trade-off theory, the pecking order theory of capital structure states that firms have a preferred hierarchy for financing decisions. The highest preference is to use internal financing such as retained earning, before resorting to any form of external funding. If a firm uses external funding, the order of preference is debt, convertible securities, preferred stock, and common stock (Myers, 1984). This order reflects the motivation of a financial manager to reduce the agency costs of equity, retain control of the firm, and avoid the seemingly inevitable negative market reaction to an announcement of a new equity issue (Hawawini & Viallet, 1999). However, the pecking order theory also has some limitations. It does not explain the influence of taxes, financial distress, security issuance costs, or the set of investment opportunities available to a firm in that firm's actual capital structure. In reality, it is impossible to explain real situations with one or two theories.

Titman and Wessels (1988) observed that highly profitable firms have lower levels of leverage than less profitable firms because they first use their earnings before seeking outside capital. In addition, stock prices reflect how the firm performs. Firms tend to issue equity rather than use debt when their stock price increases, so that their leverage levels stay lower than firms using debt. Similar findings were reported more recently in Gu (1993), Sheel (1994), Sunder & Myers (1999) and Wald (1999). According to Wald (1999), profitability, which is the most significant determinant of firms' financial leverage, negatively affects the debt to asset ratios in the heteroskedastic tobit regression model. Sheel (1994) also supported the negative relationship between debt-to-asset ratio and non-debt tax shield or/and between firm's leverage behavior and its past profitability. Specific to the restaurant industry, Gu (1993) found that the fine dining restaurant segment, which uses debt lightly compared to the fast-food restaurant and the

economy/family restaurant segments, has the highest percentage of profit margin and of return on assets. The research concluded that medium debt use may not be the optimal capital structure but little or no debt use may be optimal. Because of the characteristics of the food service industry, such as its vulnerability to seasonality and economic adversity, using debt could bring greater risk than for those firms in industries where cost of debt may be lower than restaurant industry (Gu, 1993).

HYPOTHESES

In order to achieve the objective of this study, which was to investigate the association between financial leverage and restaurant firms' profitability and risk, three hypotheses were developed. Both accounting-based measures and market-based measures were examined to see whether these two different types of measures held same information on the level of debt use and to provide practical information to both managers of and investors in restaurant companies.

Despite the conflict with the general expectation, based on the findings of Gu (1993), profitability should be higher for firms using less or no debt than those using more debt in the restaurant industry. Thus, Hypothesis 1 was proposed: restaurant firms using a lower level of financial leverage have higher profitability.

When a restaurant has a higher level of financial leverage, it should spend a large interest expense regardless of business situations. Thus, profitability of the restaurant would be volatile if business environments change. Thus, Hypothesis 2 was: restaurant firms with a higher level of financial leverage are riskier than those with a lower level of financial leverage.

Both accounting measures and market measures are expected to result in similar outcomes regarding the effect of financial leverage on restaurant firms' profitability and risk,

because both measures are basically rooted in a company's financial performance. Thus, Hypothesis 3 was: market-based measures and accounting-based measures are positively correlated to each other.

METHODOLOGY

Standard Industrial Classification (SIC) 5812 (eating and drinking places) was used to represent the restaurant industry in this study. Financial statements and stock prices of sixty-two restaurant firms in the United States for the years 1998 through 2003 were collected from the Mergent Online database and the Yahoo Finance. Thus, the total observation (company-year) was 372. The restaurant firms used for the analysis are listed in the Appendix A.

Financial leverage (FL) was measured with long-term debt (LTD) to total asset (TA). Long-term debt in this study was defined as any debt that has maturity of more than one year.

$$FL = LTD / TA,$$

where FL = financial leverage, LTD = long-term debt, and TA = Total Asset.

Accounting-based profitability was measured using return on equity (ROE) ratio. ROE is a comprehensive indicator of a firm's performance because it provides information as to how well managers are using the funds invested by the firms' shareholders to generate returns. Market based profitability was assessed using changes in stock price (SP).

$$ROE = NI / ET$$

$$SP = [(Pr_t - Pr_{t-1}) / Pr_{t-1}] *100,$$

where ROE = return on equity, NI = net income (after tax) for the year, ET = equity for the year, SP = stock price change in percentage, Pr_t = stock price of the month, and Pr_{t-1} = stock price of the previous month.

Standard deviation among quarterly ROE for a year was used as the risk associated with accounting-based measures while standard deviation of monthly stock price changes was calculated for market-based risk measures. There are several different ways of estimating risk. Dalbor and Upneja (2002) used Ohlson's revised *O* score indicating the probability of bankruptcy and Skalpe (2002) used percentage change in return on investment (ROA) as their accounting-based risk measure while many other researchers used standard deviation or variance of profitability measures. For example, Sheel (1994) estimated the accounting-based risk using standard deviation of profit and Kim (1997) using standard deviation of EBIT, and Borde (1998) estimated market risk using stock-return variance and Gu (1994) using standard deviation of monthly return on stock. Because this study investigated both accounting and market measures, standard deviations of profitability measures were used as risk.

It was impossible to calculate ROEs of some companies because of missing data for several periods. As a result, the total ROE observations were 340. When a company has net loss, rather than net income, ROE was negative. Fifty-four had negative ROEs. Twelve among these 54 ROEs were from 2002 and twelve from 1999. In 2001, however, only five negative ROEs were detected, which was the smallest number of observations in the six-year study period. In fact, overall sales of the foodservice industry grew after the terrorist attack in 2001 (Peters, 2002). Especially, revenues of 46 publicly traded casual-dining chain sector increased averaging 11.5 percent for the first seven months of 2002 when compared to the same period in 2001. Therefore, it was presumed that 54 negative ROEs were derived from the restaurant firms which were other than casual-dining chains or which depended their sales largely on the travelers rather than local customers.

One hundred forty-two negative percentage changes in stock price were found among 363 observations. Approximately, two thirds of these negative numbers were from 1998 to 2000 (65.5 %). Less than 10 % of the 142 negative values were from 2001 (9.2%). In 2002, twenty-seven companies' stock prices decreased. To satisfy basic assumptions for the regression analysis, the variables were checked for normality and linearity between dependent and independent variables, and were then transformed. The note of Table 1 shows the transformation functions that were used for the subsequent analysis.

(Insert Table 1 About Here)

Four regression analyses, having financial leverage (FL) as an independent variable and total assets (TA) as a control variable, were performed for each profitability and risk measure to test the proposed hypotheses. SPSS 11.5 was used to statistical tests performed in this study. The four regression models can be expressed as follows:

$ROE = \beta_0 + \beta_1 FL + \beta_2 TA + \varepsilon$

$SP = \beta_0 + \beta_1 FL + \beta_2 TA + \varepsilon$

Standard deviation of $ROE = \beta_0 + \beta_1 FL + \beta_2 TA + \varepsilon$

Standard deviation of $SP = \beta_0 + \beta_1 FL + \beta_2 TA + \varepsilon$

In addition to these four regression analyses, correlations among each measure were examined to test hypothesis three.

RESULTS AND DISCUSSION

The results of the regression analysis related to hypothesis one (restaurant firms using a lower level of financial leverage have higher profitability) are presented in Table 2.

Multicollinearity was checked with Variance Inflation Factor (VIF), and no evidence of a multicollinearity problem was found in the model. When the significance level was set at $\alpha = 0.05$, the model for the accounting-based profitability ratio, which was measured by ROE in this study, was significant (F-statistics= 14.219, p-value = 0.000, variance explained = 8.3%) while one for the market-based profitability measure, which was determined by stock price change in percentage, was not significant (F-statistics = 2.526, p-value = 0.082, variance explained = 0.9%). However, ROE was mostly predicted by the control variable, total assets (t-test = 5.154, p-value = 0.000), rather than the expected predictor, financial leverage (t-test = 1.301, p-value = 0.194). This result suggests that the restaurant firms with larger assets were more profitable. But the above findings indicate that financial leverage does not influence the restaurant firms' profitability, not supporting the hypothesis one. On the other hand, it is noteworthy that the sign of financial leverage is positive; meaning that more leveraged firms had more profits on average even though it was not statistically significant. This is somewhat consistent with the findings of Upneja and Dalbor (2001). Their study reported that publicly traded restaurant firms with high cash flows tend to use more debt. The researchers explained the reason as opportunities for growth. Based on their explanation, a firm that is able to generate more cash has greater opportunity for growth. Furthermore, it will be easier for them to borrow money from creditors than for those with less profitable restaurant firms.

However, the models in this study were not strong enough to examine the relationship between financial leverage and profitability because the models explained only 8.3 % of the variance for accounting-based profitability and 0.9 % for market-based profitability. Inclusion of more control variables, such as tax rates, growth opportunities, and probability of bankruptcy

might suppress nuisance more effectively to better identify the relationship between financial leverage and profitability. Future study is recommended to include more control variables.

(Insert Table 2 About Here)

The regression results for hypothesis two are shown in Table 3. There was no collinearity problem between FL (VIF = 1.001) and TA (VIF = 1.001). Both accounting-based and market-based risk measures turned out to be significant when alpha was set at 0.05. As shown in Table 3, volatility in ROE could be predicted by financial leverage in the presence of total assets in the model (F-statistics = 28.738, p-value = 0.000, variance explained = 16.2%). Investor risk was also predictable using a firm's leverage level (F-statistics = 31.212, p-value = 0.000, variance explained = 15.7%).

(Insert Table 3 About Here)

The results for the second hypothesis seems not to be rational since the sign of the betas were opposite to our expectation. Financial leverage had a significant negative sign at an alpha level of 0.05 for both models. In other words, a firm with a higher level of financial leverage had less volatility in its ROE, and stock prices changed in a narrower range than for firms with less financial leverage. One possible explanation may be related to the result of the first hypothesis. It was observed that the sign of financial leverage was positive, which means that firms with higher debt rates were, on average, more profitable. It is logical that more profitable firms are less risky in business, so that they could have less volatile in accounting and market measures. Thus, the

restaurant business with higher debt rate was turned out to be less volatile in the analysis. This is a unique finding from this study about the restaurant industry. This result is also supported by the correlation analyses for the hypothesis three. Table 4 presents the results of the correlation analyses. ROE and the standard deviation of ROE were negatively correlated (R = -.16, p-value = .01) and ROE and the standard deviation of SP had negative correlation as well (R = -.22, p-value = .00), which implies that restaurant firms with high returns on equity have less volatility in their ROE and SP. Another explanation may be found on Sheel's study (1994). Relative to the manufacturing industry, in the hotel industry, a volatility of earnings on the long-term debt levels had significantly larger negative influence. The reduction in debt level leads to smaller total capitalization. However, the hotel industry has higher levels of operating leverage as well as financial leverage than the manufacturing industry. Therefore, cutting down the level of debt will result in an increase in earning volatility (Sheel, 1994). The hotel industry and the restaurant industry could be presumed to have a lot in common. However, to verify these possible reasons, further investigation is necessary.

Table 4 shows the results of the correlation analysis among the variables. Financial leverage was not significantly related to the profitability variables. The correlation between financial leverage and volatility on ROE (R=-.30, p-value = .00) and between financial leverage and volatility on stock price change (R = -.11, p-value = .05) were significant. Total assets were significantly related to the accounting-based profitability measure (R = .24, p = .00), accounting-based risk measure (R = -.28, p-value = .00), and market-based risk measure (R = -.41, p-value = .00). Volatility of ROE was statistically significantly correlated to all other variables used in this study. This accounting-based risk measure was negatively correlated to the two profit proxies, ROE (R = -.16, p-value = .01) and SP (R = -.13, p-value = .02), and two exploratory

variables, FL (R = -.30, p-value = .00) and TA (R = -.28, p-value = .00). In connection with hypothesis three, both profitability measures (R = .14, p-value = .01) and risk measures (R = .25, p-value = .00) were positively correlated to each other. This result indicates that the accounting-based profitability measure and risk measure are projected correctly to those in market-based measures. However, correlation coefficients were not very high, so the results need to be validated in the future studies as well.

(Insert Table 4 About Here)

CONCLUSION AND IMPLICATIONS FOR FUTURE STUDY

This study investigated the relationship between financial leverage and profitability and risk. Accounting-based profit and risk measures and market-based profit and risk measures were examined. It was hypothesized that highly leveraged restaurant firms have lower profitability. However, this research failed to support the hypothesized positive relationship between financial leverage and both profit measures. It was also hypothesized that highly leveraged restaurant firms are riskier in terms of their return on equity and investment. The results indicated that high leveraged firms were less risky in both market-based and accounting-based measures, which is the opposite of hypothesis two. Industry specific variables may help explain these unexpected findings. Lastly, for hypothesis three, the correlation between accounting-based measures and market-based measures was tested and found to be positively significant. The accounting-based profit measure, ROE in this study, and the market-based profit measure, stock price change percentage in this study, moved in the same direction. Moreover, the results showed that there were risk correlations between the two measures; when ROE fluctuated, so did the stock price change.

This study is not free from limitations. This study only used one independent variable, financial leverage, along with one covariate variable, firm size. Because there are various factors affecting firms' profitability and level of debt use besides these variables, in order to more effectively investigate the relationship between firms' level of debt use and their profitability and risk, inclusion of covariates besides the firm size is recommended for future study. Also, there are more than 878,000 restaurants in this country serving more than 70 billion meal and snack occasions (NRA, 2004). However, only 62 restaurant companies were included in this study because only a small number of restaurant firms are publicly traded. The restaurants used in this study are generally large, multi-unit companies. Most restaurant firms are not publicly traded but should be included to examine the true financial picture of the restaurant business. In addition, future studies should include more control variables related to both industry-specific variables, such as operating leverage and economy-related variables to create better models.

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Table 1
Descriptive Information of Variables

	N	Minimum	Maximum	Mean	Std.
Dependent variable					
ROE[a]	323	-76.2	38.37	8.80	11.72
SP[b]	363	-11.35	14.04	0.79	4.09
ROE std[c]	320	0	22.70	1.88	2.71
SP std[d]	369	0	71.05	15.82	10.36
Independent variable					
FL[e]	332	0	4.22	0.29	0.32
Control variable					
TA[f] (million)	359	0.38	25525.10	802.20	2932.459

Note: 1. The above numbers are before-transformation information
2. Transformation function
[a.] $ROE = (ROE + 30)^{1.4}$
[b.] $SP = (SP+12)^{1.02}$
[c.] $ROE\ std = (ROE\ std)^{1.27}$
[d.] SP std= LN(SP std)
[e.] $FL= (FL+1)^{-2}$
[f.] TA = LN(TA)

Table 2
Regression Analysis results – Profitability (ROE and SP)

	β	Std. Error	t-stat.	p	VIF	F (sig.)	R^2 (Adj R^2)
ROE						14.219	0.089
Intercept	104.820	17.007	6.163**	.000		(.000)	(.083)
FL	26.236	20.170	1.301	.194	1.000		
TA	10.145	1.968	5.154**	.000	1.000		
SP						2.526	0.016
Intercept	10.875	1.091	9.964**	.000		(.082)	(.009)
FL	2.206	1.280	1.723	.086	1.001		
TA	.188	.126	1.488	.138	1.001		

** p< .01

Table 3
Regression Analysis results – Risk (ROE std and SP std)

	β	Std. Error	t-stat.	p	VIF	F (sig.)	R^2 (Adj R^2)
ROE std						28.738	0.168
Intercept	1.735	.094	18.393**	.000		(.000)	(0.162)
FL	-.616	.108	-5.687**	.000	1.001		
TA	-.057	.011	-5.192**	.000	1.001		
SP std						31.212	0.162
Intercept	3.356	.125	26.748**	.000		(.000)	(0.157)
FL	-.371	.147	-2.517*	.012	1.001		
TA	-.109	.014	-7.575**	.000	1.001		

Note: * p< .05, **p< .01

Table 4
Pearson Correlation of variables (2-tailed)

		ROE	SP	ROE std	SP std	FL	TA
ROE	Pearson's r	1.00	.14*	-.16**	-.22**	.07	.24**
	Sig.	.	.01	.01	.00	.22	.00
	N	322	318	292	321	295	320
SP	Pearson's r	.14*	1.00	-.13*	.04	.10	.10
	Sig.	.01	.	.02	.51	.07	.07
	N	318	363	316	362	325	351
ROE std	Pearson's r	-.16*	-.13*	1.00	.25**	-.30**	-.28**
	Sig.	.01	.02	.	.00	.00	.00
	N	292	316	320	317	288	314
SP std	Pearson's r	-.22**	.04	.25**	1.00	-.11*	-.41**
	Sig.	.00	.51	.00	.	.05	.00
	N	321	362	317	368	329	355
FL	Pearson's r	.07	.10	-.30**	-.11*	1.00	-.03
	Sig.	.22	.07	.00	.05		.61
	N	295	325	288	329	332	329
TA	Pearson's r	.24**	.10	-.28**	-.41**	-.03	1.00
	Sig.	.00	.07	.00	.00	.61	
	N	320	351	314	355	329	359

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

APPENDIX A.
Companies included in data analysis

Company Name	Exchange	Company Name	Exchange
Applebee's International, Inc.	NMS[a]	Ark Restaurants Corp.	NMS
Back Yard Burgers, Inc.	NAS[b]	Benihana Inc.	NMS
Bob Evans Farms, Inc.	NMS	Boston Restaurant Associates, Inc.	OTC[c]
Brinker International, Inc.	NYS[d]	CBRL Group, Inc.	NMS
CEC Entertainment, Inc.	NYS	Champion Sports, Inc.	OTC
Champps Entertainment, Inc.	NMS	Checkers Drive-In Restaurants, Inc.	NMS
Cheesecake Factory Inc. (The)	NMS	Chefs International, Inc.	OTC
Chicago Pizza & Brewery Inc.	NMS	CKE Restaurants, Inc.	NYS
Creative Host Services, Inc.	NAS	Darden Restaurants, Inc.	NYS
Dave & Busters, Inc.	NYS	Denny's Corp	OTC
Eat At Joes Ltd.	OTC	Elmer's Restaurants, Inc.	NAS
ELXSI Corporation	NMS	Empire Resorts Inc	NAS
Famous Dave's of America Inc.	NMS	Flanigan's Enterprises, Inc.	ASE[e]
Fresh Choice, Inc.	NMS	Friendly Ice Cream Corp	ASE
Frisch's Restaurants, Inc.	ASE	Grill Concepts Inc.	NAS
J. Alexander's Corp	ASE	Jack in the Box, Inc.	NYS
Landry's Restaurants, Inc.	NYS	Lone Star Steakhouse & Saloon, Inc.	NMS
Luby's, Inc.	NYS	Main Street & Main, Inc.	NMS
Max & Erma's Restaurants, Inc.	NMS	McDonald's Corp	NYS
Mexican Restaurants, Inc.	NAS	Million Dollar Saloon Inc	OTC
Morgan's Foods, Inc.	ASE	Nathan's Famous, Inc.	NMS
Nutrition Management Services Co.	OTC	O'Charley's Inc.	NMS
Outback Steakhouse, Inc.	NYS	Panera Bread Co.	NMS
Papa John's International, Inc.	NMS	Quality Dining, Inc.	NMS
Rare Hospitality International, Inc.	NMS	Rick's Cabaret International Inc.	NAS
Ruby Tuesday, Inc.	NYS	Ryan's Family Steak Houses, Inc.	NMS
Schlotzsky's, Inc.	NMS	Shells Seafood Restaurants Inc.	OTC
Sonic Corp.	NMS	Star Buffet, Inc.	NAS
Steak n Shake Co. (The)	NYS	Total Entertainment Restaurant Corp.	NMS
Triarc Companies, Inc.	NYS	Wendy's International, Inc.	NYS
Worldwide Restaurant Concepts, Inc.	NYS	Yum! Brands, Inc.	NYS

[a.] NMS = National Market System Stock Exchange
[b.] NAS = NASDAQ Stock Exchange
[c.] OTC = Over-The-Counter Stock Exchange
[d.] NYS = New York Stock Exchange
[e.] ASE = American Stock Exchange