Success stories for tracking stock

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ABSTRACT

While numerous studies have been conducted on the motivations of tracking stocks, little attention has been placed on the success/failure of tracking stocks or the critical success factors of the tracking stock issue. This paper attempts to determine the factors that affect the success of the tracking stock firm. A parsimonious logit model is proposed. Four factors: beta coefficient, firm size, debt-equity ratio and management ownership are studied in the model as the critical success factors of the tracking stock issue. The success of a tracking stock is measured by earning positive net income.

Using a sample of targeted stocks issued by twenty-five firms from 1984 to 2001, the study shows that the beta coefficient has a negative effect on the firm success after issuing a tracking stock, while the firm size has a positive impact on it. Findings also show that the debt-equity ratio and ownership do not have a significant effect on tracking stock success. The findings suggest that firms should seriously consider before making decisions to issue tracking stock. In order to succeed, the firm needs to have a low beta coefficient and high sales revenue to justify their tracking stock decision. Specific implications to practitioners are also provided.

Keywords: tracking stocks, logit, beta coefficient

INTRODUCTION

The issuance of tracking (targeted) stock is an alternative form of corporate restructuring. A firm issues new shares that the cash flows are tied to the performance of a particular subsidiary. Meanwhile, their old (parent) stock keeps reflecting the performance of remaining divisions of this firm (U. S. Securities and Exchange Commission). After a quiet period that followed the issuance of two General Motors tracking stocks in the mid-1980s, tracking stocks have become a popular form of equity restructuring and the number of tracking stocks has increased steadily since 1991 (Chemmanur and Paeglis, 2001). As of late 2005, more than 50 firms had announced the creation of tracking stocks and/or issued tracking stocks[1].

While the number of tracking stock issuances have been gaining velocity, the motivation behind remains debatable. The most frequently cited argument is "unlocking hidden value" (Logue, Seward, and Walsh, 1996; Chemmanur and Paeglis, 2001; Zuta, 2002), in other words, the separation of the parent and the subsidiary for valuation purposes somehow increases combined firm value. Logue et al. (1996) argue that tracking stocks attracts greater analyst coverage and increases attention from investors interested in different sectors of the firm's business. Chemmanur and Paeglis (2001) find that analyst attention does rise following the issuance of targeted stocks. Furthermore, tracking stocks help in the attraction and retention of top managers, whose compensation can be linked more directly to the market value of their divisions (Zuta, 2002). The second argument relates to the improvements in performance that potentially arises from this form of corporate restructuring. Poor performance is often attributed to corporate diversification known as the diversification discount, i.e., the market value of the diversified firm is, on average, at a discount relative to the sum of values of stand-alone firms comparable to the segments of the diversified firm. Berger and Ofek (1995) find that U.S. conglomerates are priced at a mean discount of about 15 percent. Billet and Mauer (2000) suggest that tracking stock can create value by simultaneously preserving internal capital markets and reducing the diversification discount. Lang and Stulz (1994) show that diversified firms trade at a discount relative to non-diversified firms in their industries.

Before going into more details, it would be useful to distinguish between the three forms of corporate restructuring: tracking stocks, spin-offs, and equity carve-outs. A spin-off is a pro-rata distribution of the subsidiary's shares to the firm's existing shareholders. After restructuring, the spun-off firm becomes an independent company with a separate management team and board of directors. A carve-out is an initial public offering of a subsidiary's stock which usually includes restructuring of asset management and incentive contracts (Chemmanur and Paeglis, 2001). Whereas a spin-off or a carve-out breaks up the old firm into two separate firms with distinct boundaries, a tracking stock leaves it as one combined firm for legal and operational purposes.

The purpose of this paper is an attempt to determine the factors affecting the successfulness of the tracking stock firm. The research question is how the various determinants affect whether the tracking stock firm will be successful or not.

The size of the firm was found to have a positive effect on the firm's success. Larger firms are more likely to thrive or to be successful as larger firms, in general, have the ability to raise cash or capital during a crisis than smaller firms. Also, the riskiness of the firm, as measured by the beta coefficient and debt-to-equity ratio, has a negative effect on the firm's

[1] For an overview of all tracking stock issuances, see Billet and Mauer (2000), D'Souza and Jacob (2000), or Clayton and Qian (2004).

success. The higher the beta coefficient, indicating that the firm is more risky relative to the market, the less likely the firm will be successful. On the other hand, the lower the beta coefficient, the more likely the firm will be successful, ceteris paribus. The higher the debt-to-equity ratio, indicating that the firm is taking more debt for the same level of common equity, the less likely the firm will be successful, all else held constant. No effect of management ownership on firm's success was found.

The remainder of the paper is organized as follows. Section I briefly describes the related literature and hypothesis. Section II describes the data and the procedure used to compile the sample. Section III presents the empirical results and the final section summaries the results and concludes.

LITERATURE REVIEW/HYPOTHESIS

Well-developed literature about the costs and benefits of diversification exists. Chandler (1977) proposes that gains from diversification arise from managerial economies of scale. Lewellen (1971) argues that gains from diversification arise from increased debt capacity. Diversified firms also benefit from more efficient resource allocation through internal capital markets (Stulz, 1990; Stein, 1997). Benefits from diversification also arise from the ability of diversified firms to internalize market failures (Khanna and Palepu, 2000).

There are costs to diversification too. Costs can be the result of inefficient allocation of capital of capital among divisions of a diversified firm (Lamont, 1997; Rajan, Servaes, and Zingales, 2000) as well as from information asymmetries between central management and divisional managers, leading to higher costs of operating in multiple divisions (Harris, Kriebel, and Raviv, 1982). Costs of operating multiple divisions could result from increased incentive for rent seeking by managers (Scharfstein and Stein, 2000).

If the benefits of issuing tracking stock outweigh the costs of doing so, then the parent firm would choose issue a tracking stock. However, does issuing a tracking stock guarantee the future success of the firm? The obvious answer is no. Then, the question is to see which factor has an impact on firm's success. This paper attempts to answer this question using the model show below. Success is measured as the tracking stock firm's ability to generate positive net income for its shareholders. In this simple model, a tracking stock firm's success depends on only four variables: risk, size, debt/equity ratio, and management ownership.

$$Success_{it} = \alpha_1 + \alpha_2 Beta_{it} + \alpha_3 LnSales_{it} + \alpha_4 DERatio_{it} + \alpha_5 Ownership_{it} + \varepsilon_{it}$$

where the dependent variable is 1 when net income is positive or 0 otherwise; Beta is the beta coefficient; LnSales is the natural logarithm of sales; DERatio is the debt-to-equity ratio; Ownership is the percentage of outstanding shares owned by management. The *i* and *t* subscripts indicate different firms and different time periods, respectively.

The coefficient for Beta (α_2) is expected to be negative because firms with higher risk have a higher chance of failure than firms with lower risk, holding all other factors constant. As another measure of firm riskiness, the debt-to-equity ratio provides some insights as to how leveraged a firm is. A higher debt-to-equity ratio indicates that the firm is relatively highly leveraged, which implies that the firm has a higher probability to be unsuccessful. Thus, the coefficient for DERatio (α_4) is expected to be negative. The natural log of sales is used as a proxy for firm size. A larger firm is less likely to be unsuccessful than a smaller firm, everything else being the same. So, the coefficient for LnSales (α_3) is expected to be positive. Management ownership is another determinant of firm success. If management owns a larger proportion of

the stock in the firm, the firm is more likely to be successful because the proportional cost of failure would be borne by management would be more than if management owns a smaller stake in the firm. Lower agency costs are associated with higher management ownership. Hence, the coefficient for Ownership (α_5) is expected to be positive.

SECTION II: DATA/SAMPLE

The sample consists of thirty-five tracking stocks issued by twenty-five firms from 1984 to 2001. Table 1 shows the name of the tracking stocks, the announcement dates, and the issue dates. Tracking stock issues are identified from (1) Billet and Mauer (2000), (2) D'Souza and Jacob (2000), (3) Elder and Westra (2000), and (4) Clayton and Qian (2004).

Net income/loss, sales, total long term debt, common equity, and beta were collected from COMPUSTAT. Management ownership information is obtained from the Compact D/SEC database. When not available from COMPUSTAT, data are obtained from the U.S. Securities and Exchange Commission's (SEC) Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system.

There are three different types of tracking stock issues, each different from one another. (1) A tracking stock is issued to track current divisions and the stock is distributed to current shareholders as dividends; (2) A tracking stock is issued to track current divisions, but the stock is sold to new investors to raise cash through an IPO; and (3) A tracking stock is issued as currency for acquiring a stand-alone firm.

Due to the very nature of tracking stocks mentioned in the previous paragraph, tracking stocks may or may not exist for a period of time depending on the purpose of the issue. Hence, data for tracking stock firms is extremely hard to obtain/verify. Best efforts have been administered to verify the information collected for this paper. As a result, a few data points were dropped.

The final sample consists of 39 data points from 14 companies. Table 2 shows the summary statistics.

SECTION III: RESULTS/DISCUSSION

First, a comment on the appropriateness of the model used. Using the likelihood ratio chi-squared test, the calculated LR Chi-squared is 13.17 (not reported), which is greater than the critical value (7.81) for the chi-square distribution with 3 degrees of freedom. Thus, the model passes the likelihood ratio chi-squared test and we conclude that the model is at least 95% confident that the set of independent variables is related to the dependent variable. The pseudo R-square for this model is 0.2464.

The regression results are then summarized in Table 3. The coefficient for Beta is negative and significant at the 5% significance level. As beta decreases by 1, the probability of the firm being successful increases by 32.79%. Thus, a less risky firm is perceived to have a higher probability of success. The coefficient for LnSales (a proxy for firm size) is positive and significant at the 5% significance level. Being a larger firm increases the likelihood of earning a positive net income, and hence being successful. The coefficient for Ownership is positive, as expected. However, it is not statistically significant and hence inconclusive without more information. Deviating from what was expected, the coefficient for DERatio is positive,

suggesting that firms with higher debt/equity ratio are more likely to be successful. However, this variable is statistically insignificant to draw any inferences.

SECTION IV: SUMMARY/CONCLUSION

The model used here is a simple logit model. The likelihood ratio chi-squared test shows that this model is quite appropriately used here. With more time and resources, a more sophisticated model could be developed in the future. More explanatory variables could be added in the future, which have been assumed to be (1) in the error term (ε) and (2) uncorrelated with any of the independent variables used in this model.

There will be more data and information available as time passes and this will undoubtedly increase the sample size, which will further provide insights into the issues discussed here and make the model more precise.

As expected, all the independent variables have the correct signs and two of them are statistically significant. Management ownership and debt-to-equity ratio do not have an effect on the probability of the firm's success.

In conclusion, based on the results from the model, in order to be a successful tracking stock firm (earning positive net income), the firm needs to have a low beta coefficient and high sales (revenue) which translates to larger size.

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Table 1: List of Tracking Stocks

Company	Tracking Stock	Ann. Date	Issue Date
General Motors	EDS	06/29/1984	11/05/1984
General Motors	Hughes	06/06/1985	12/31/1985
USX	Steel Group	01/31/1991	05/07/1991
USX	Delhi Group	04/14/1992	09/25/1992
Ralston Purina	Continental Baking	02/01/1993	08/02/1993
Pittston	Minerals	03/15/1993	08/06/1993
Pittston	Pittston Bax Group	09/15/1995	01/31/1996
Fletcher Challenge	Forest Division		12/13/1993
Fletcher Challenge	Building Division	02/28/1996	03/25/1996
Fletcher Challenge	Energy Division	02/28/1996	03/25/1996
Fletcher Challenge	Paper Division	02/28/1996	03/25/1996
Genzyme Corp.	Tissue Repair	07/26/1994	12/16/1994
Genzyme Corp.	Molecular Oncology	02/03/1997	11/16/1998
Genzyme Corp.	Surgical Products	03/04/1999	06/28/1999
CMS Energy	CMG Energy G-Class	02/15/1995	07/21/1995
Tele-Communications	Liberty Media	11/16/1994	08/11/1995
Tele-Communications	Venture Group	12/05/1996	09/17/1997
US West	West Media Group	03/01/1995	11/01/1995
INCO Ltd.	Class VBN Stock	03/26/1996	09/09/1996
Circuit City Stores	Carmax Group	11/11/1996	02/04/1997
Georgia Pacific	Timber Group	09/18/1997	12/12/1997
Connectiv	Class A Common	08/12/1996	03/02/1998
Sprint Corp.	Sprint PCS Group	05/18/1998	11/24/1998
Ziff-Davis Inc.	ZDNet	10/08/1998	03/31/1999
Perkin-Elmer	Celera Genomics	09/23/1998	05/06/1999
Donaldson Lufkin	DLJ Direct	03/17/1999	05/26/1999
Quantum Corp.	Tape & Disk Storage System	03/01/1999	08/04/1999
Quantum Corp.	Hard Disks	03/01/1999	08/04/1999
Snyder Corp.	Circle.com	05/12/1999	10/29/1999
Walt Disney	Go.com	06/08/1999	11/18/1999
AT&T	AT&T Wireless	12/06/1999	04/27/2000
Apollo Group	University of Phoenix	03/28/2000	09/28/2000
Alcatel	Optronics	07/27/2000	10/20/2000
Cablevision	Rainbow Media Group	11/22/1999	03/30/2001
Worldcom	MCI Group	11/01/2000	06/08/2001

Table 2: Summary Statistics

Variable	# Observations	Mean	Median	Std. Dev.
Success (Binary)	39	0.4359	-	-
Sales ($ millions)	39	7297.14	4700.59	8222.69
Beta	39	1.571	1.779	0.939
Debt-to-Equity Ratio	39	5.144	0.513	18.001
Ownership	39	0.027	0.012	0.043

Table 3: Regression Results

This table provides results from regressing success on the various independent variables. The model (shown below) is a logistic regression model whereby the dependent variable, success, takes on the value 1 when net income is positive and 0 otherwise. Beta is the beta coefficient; LnSales is the natural logarithm of sales; DERatio is the debt-to-equity ratio, Ownership is the percentage of outstanding shares owned by management. The *i* and *t* subscripts indicate different firms and different time periods, respectively.

$$Success_{it} = \alpha_1 + \alpha_2 Beta_{it} + \alpha_3 LnSales_{it} + \alpha_4 DERatio_{it} + \alpha_5 Ownership_{it} + \varepsilon_{it}$$

Variables	Coefficients
Intercept	-4.9691* (0.060)
Beta	-1.3155** (0.023)
Ln Sales	0.7620** (0.020)
Debt-to-Equity Ratio	0.0026 (0.918)
Ownership	38.9933 (0.260)
Pseudo R-Square	0.2464
Number of Observations	39

Note: * and ** represent significance at 10% and 5% level, respectively.