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**Commitment to Marketing Spending through Recessions:
Better or Worse Stock Market Returns?**

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Commitment to Marketing Spending through Recessions: Better or Worse Stock Market Returns?

Abstract

- Purpose –This study addresses two unique and important questions. First, how do recessions directly affect firms' marketing spending decisions? Second, and more importantly, do firms which are more committed to marketing spending through past recessions achieve better stock market returns?

- Design/Methodology/Approach – Based on a combination of NBER, COMPUSTAT and CRSP data on 6,000 firms between 1982 and 2009 which are analyzed employing panel data based regression models.

- Findings – Firms cut marketing spending during recessions. However, firms committed to marketing spending during past recessions achieve better stock market returns. The findings are found to be robust across B2B and B2C industries, different time periods, and U.S. firms which vary on the proportion of their global revenue from non U.S. sales.

- Research/Practical Implications – Top executives cut marketing budgets during recessions, however, if they can resist the pressures, and strategically continue to make marketing investments during recessions, they will achieve higher stock market returns.

- Originality – This is the first paper to establish the longer-term (not short-term) positive stock market performance of continuous (not episodic) marketing spending through past recessions, i.e., the view that marketing spending is necessary (not discretionary) for stock returns.

Keywords: Economic Cycles; Marketing Spending; Stock Market Return

"Even if the economy does not recover, and to grow more if a recovery does take place, our best days are ahead." Jeff Immelt (commenting on investing during recessions).

Introduction

Economic cycles consist of recessions and expansions. The National Bureau of Economic Research (NBER) defines a recession as a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, production, and wholesale-retail sales. A recession begins just after the economy reaches a peak of activity and ends as the economy reaches its trough. Between the trough and peak, the economy is in an expansion (http://www.nber.org/ cycles.html). It is widely acknowledged in the popular press that recessions strongly influence firms' marketing spending decisions and stock market returns; however the marketing academic literature is surprisingly silent on empirical studies of such relationships. One problem is that great changes in the economy over the century make it difficult to compare the severity of modern recessions to early recessions (Moore and Zarnowitz, 1986). However, after 1986 there were three recessions, one in 1990 and one in 2001, each of which lasted 8 months, and one during 2008-2009 lasting 18 months (http://www.nber.org/cycles.html), as a result it is now timely to ask (1) whether and how recessions affect firms' marketing spending decisions and (2) whether commitment to marketing spending through past recessions is associated with better or worse stock market returns.

In response to concerns about marketing's accountability (e.g., Lehmann, 2004) and its reduced stature in the firm (Verhoef and Leeflang, 2009), the Marketing Science Institute (MSI Research Priorities 1998 through 2012 every two years) and the Institute for the Study of Business Markets (ISBM B-To-B Marketing Trends 2010 and 2012 reports) have continuously advocated linking marketing spending decisions to financial outcomes. Marketing scholars have

responded by establishing that marketing spending decisions, especially those which support

brand building, can be linked to stock market return (Srinivasan and Hanssens, 2009; Kimbrough

and Mcalister, 2009). In contrast, we are interested in exploring *antecedents* of marketing

spending, in particular, *non-marketing* drivers of marketing spending.

In large part, the marketing literature has focused on *marketing* drivers of marketing

spending decisions such as a firm's marketing goals, efforts and outcomes, and the marketing

efforts and outcomes of its competitors (Danaher, 2008; Kotler and Keller, 2009; Leeflang *et al.*,

2000; Lilien *et al.*, 1992). A couple studies consider *non-marketing* or financial drivers of

marketing spending such as the influence of free cash flow and agency costs on advertising

spending (Joseph and Richardson, 2002), how a seasonal equity offering affects marketing

spending (Mizik and Jacobson, 2007), how investor expectations of stock returns affect

advertising spending (Chakravarty and Grewal, 2011), and how top executives' compensation

structure affects advertising spending (Currim *et al.*, 2012). We study a different non-marketing

variable that potentially drives firms' marketing spending decisions, the effect of the economic

cycle. If a non-marketing driver, such as the economic cycle, influences firms' marketing

spending decisions and stock market returns and this driver is not considered, our understanding

of managerial marketing spending decisions and how such decisions drive stock market returns

could be substantially incomplete.

Consequently, the theoretical and empirical contributions relative to extant work are in

asking two research questions. The first research question is whether and how recessions directly

affect firms' marketing spending decisions in the short-term. Marketing spending is defined

relative to predicted spending in order to consider the abnormal increase or decrease in

marketing spending during the period (Mizik, 2010; Mizik and Jacobson, 2007), and recession is

defined based on NBER's labeling of each quarter in U.S. economic history as a recession or expansion. Based on a combination of NBER, COMPUSTAT and Center for Research in Security Prices (CRSP) data on 6,000 firms between 1982 and 2009, we establish that firms exhibit economic-cycle based management by cutting marketing spending during recessions. Second, and more importantly, we introduce a longer-term strategic variable, commitment to marketing spending through past recessions, and investigate whether firms which exhibit counter economic-cycle based management by remaining more committed to marketing spending through past recessions achieve higher stock market returns. We employ signaling and marketing theories to suggest a rationale for why commitment to marketing spending through past recessions should result in higher stock market returns. Commitment to marketing spending through past recessions is defined based on the extent to which actual marketing spending is greater than predicted marketing spending during recession periods. We establish that firms which remain more committed to marketing spending through past recessions achieve better stock market performance, enabling longer-term support for signaling and marketing theories.

In other words, the theoretical contributions are twofold. First, we validate that firms follow the economic cycle based theory of management by cutting marketing spending during recessions. Second, we demonstrate that firms which defy the economic cycle based theory of management by remaining committed to marketing spending during recessions achieve higher stock returns, which allows us to validate signaling and other marketing theories which support the commitment hypothesis. The background section demonstrates that this is the first study which directly enables these two theoretical contributions.

Taken together these results enable an important managerial contribution relative to extant work in suggesting that when top executives such as CEOs and CFOs are cutting

marketing budgets in the short-term during recessions, there should, at minimum, be a cautionary pause to consider the loss in longer-term stock market performance resulting from reduced commitment to marketing spending. Firms interested in such better stock market performance will need to ensure that top executives are not being pressured by recessions to employ marketing resources in ways that could be counter-productive for longer-term performance (Lodish and Mela, 2007). The board of directors and compensation committees will need to develop correct advice and compensation incentives for top executives so that the firm does not reduce its potential for better stock market performance (Currim *et al*., 2012).

To the best of our knowledge this is the first paper in the marketing literature to address both research questions in order to establish that top executives pause before they proceed to cut marketing spending in the short-term during recessions, a practice which we find is indeed pervasive across the 6,000 firms during the three recessions between 1982 and 2009. Why do we need this research now? Demonstration that a commitment to marketing spending or investment strategy (Kumar, 2015) during recessions is rewarded by the stock market is fundamental to establishing longer-term accountability and the financial value of marketing spending, particularly for CEOs and CFOs (Varadarajan, 2010) who are likely to advocate cutting marketing spending during recessions, and hence a crucial step in marketing improving its "status in the firm" (Verhoef and Leeflang, 2009) and "regaining a seat at the table" (Boulding *et al.*, 1994; Deshpande and Zaltman, 1982; Reibstein *et al.*, 2009).

Background

In this section we provide brief background from the marketing literature on what is known about the effects of recessions on marketing decisions and outcomes.

Yang (1964) showed a relationship between the cyclical nature of advertising spending and the cyclical nature of sales during business cycles. He studied these relationships at the aggregate-level of advertising spending and sales across firms (not at the firm-level), did not explicitly connect sales cycles to recessions or expansions, nor did he study the effects of maintaining commitment to advertising spending during recessions. Eleven years later, Cundiff (1975), in response to the 1974 recession wrote an editorial titled "What is the Role of Marketing in a Recession?" He indicated "Little attention has been given to the effect of the business cycle on the role of marketing in the firm…it is to be hoped that marketers will use this situation as an opportunity to reassess the marketing task." Four years later, Coulson (1979), recognized the "overriding effect general economic conditions have on businesses" and called for a strategy to be ready with "alternative plans for periods of economic distortion". However, there has been very little published in response to these calls for research.

More recently, based on telephone interviews with chief marketing officers, Barwise and Styler (2002) find that some firms either maintain or increase advertising spending during difficult times, although most firms cut back on marketing spending during difficult times; however, they do not show the effects of cutting back, maintaining or increasing advertising on stock market returns. Based on PIMS database firms (mostly B2B), there are two studies. One study by Hillier (1999) shows that firms that decreased, maintained or increased advertising spending did not observe any differences in profit during the recession. However there were differences in profit during and after the recovery of -0.8%, +0.6%, and +4.3%, respectively. The other study by Kamber (2002) finds a positive relationship between advertising spending during the 1991 recession and sales growth post-recession. Srinivasan *et al.* (2005) conduct a survey of marketing executives subsequent to the 2001 recession to show that some firms adopt proactive

6

marketing during a recession. Proactive marketing is based on a variety of scale items to measure whether the firm interprets the recession as a competitive opportunity and develops marketing plans to capitalize on the opportunity. They find that firms that have a strategic emphasis on marketing, an entrepreneurial culture, and slack resources, all measured using multiple scale items, demonstrate proactive marketing in a recession and achieve superior business performance during the recession. Business performance is also defined using multiple-scale items on firm performance during the downturn. Srinivasan *et al.* (2005) reviewed three leading journals (*Journal of Marketing*, *Journal of Marketing Research*, and *Marketing Science*) and found only 3 citations on the topic related to economic recessions or expansions with the most recent one published in 1979.

Since 2005 there are eight additional articles, only two of which are more relevant to our goals. The first is by Srinivasan *et al.* (2011), who investigate the moderating effect of several variables (market share, financial leverage, and B2B vs. B2C) on the relationship between advertising spending during recession and profit/stock return. The second is by Steenkamp and Fang (2011), who investigate the moderating effect of expansions and contractions on the relationship between advertising spending and market share/profit. There are two main differences between the goals of these two studies and our study. First, both studies do not focus on the direct effect of the recession on marketing spending, which is our first unique interest. Both studies begin with advertising spending and do not consider or establish how recessions or expansions affect marketing spending, whether recessions or expansions are antecedents or drivers of marketing spending. Second, both studies focus on the short-term effect of advertising in a particular year in contrast to the longer-term effect of a firm's commitment to marketing spending through past recessions, which is our unique second interest. Consequently, both

studies do not consider or establish the stock market performance that accrues from firms

remaining committed to marketing spending through past recessions. As a result, this paper is the

first to make the theoretical and managerial contributions claimed in the introduction section.

Specifically, while Srinivasan *et al.* (2011) demonstrate the short-term value of (episodic)

marketing spending during recessions, our work provides important evidence on the longer-term

value of (continuous) marketing investments though past recessions. The differences in results

are important for two reasons. First, despite the short-term results, CEOs and CFOs continue to

cut back marketing spending during recessions for a variety of reasons (profitability pressures,

compensation structure, etc.). One potential reason is that they may not view continuity in

marketing spending to be important and expect that short-term (episodic) reductions in marketing

spending during recessions can be compensated for by short-term (episodic) increases in

marketing spending during expansions. Such an expectation is based on a view of marketing

spending being discretionary, i.e., it can be cut back and increased at the discretion of chief

officers. Second, continuity in marketing spending though recessions represents a "higher bar"

for CEOs and CFOs than the short-term view. Demonstrating that continuity in marketing

spending through recessions is associated with higher future financial market returns,

complements results on the short-term in an important way, because it presents a view that

marketing is necessary, not discretionary, for future financial market returns.

Six other articles in the marketing literature relevant to the general topic of the effects of

recessions but less related to our goals are as follows. Two articles study the effect of business-

cycle fluctuations on private-label share of frequently purchased CPG product categories (Lamey

et al., 2007; Lamey *et al.*, 2012) and find private-label share moves counter cyclically, i.e.,

private-label share increases (decreases) during recessions (expansions). Deleersnyder *et al.*

(2004) study the effects of business-cycle fluctuations on the evolution of sales of consumer durables and find pronounced effects relative to the effects of cycles on general economic activity. Deleersnyder *et al.* (2009) study the role of national culture in advertising spending's sensitivity to business cycles and find that advertising spending behaves less cyclically in countries high in long-term orientation and power distance and more cyclically in countries high in uncertainty avoidance.

All four articles do not study the direct effect of recessions on firms' marketing spending decisions, or the stock returns associated with commitment to marketing spending over past recessions. Although Deleersnyder et al. (2009) and Lamey *et al.* (2012) study the effects of GDP on advertising spending and marketing mix instruments respectively, the data in the latter study are at the product category level (aggregated across retailer firms), not at the firm level. The data in the former study are at the country level aggregated across firms. While their units of analyses are appropriate for their goals, our unit of analysis at the firm level is different from theirs and appropriate for our different goals.

Based on a sample of 275 firms (148 family and 127 non-family), Kashmiri and Mahajan (2014) find family firms outperform non-family firms during periods of economic contraction due to their emphases on proactive marketing and corporate social responsibility. Özturan *et al.* (2014) find positive shifts in advertising during the 2001 collapse in Turkey predict better subsequent performance. While the research goals of these studies appropriately limit their scope, i.e., their sample size of companies, setting, and time period, most importantly, none of these six articles or any other article in any literature studies the stock market effects of firms' commitment to marketing spending through past recessions. Deleersnyder *et al.* (2004) note: "The general neglect of economic-cycle effects in the marketing literature is surprising, as they

may affect consumers' and companies' activities". This quote and the literature review above underscore the unmet need in the marketing literature for a study on (i) the direct short-term effect of the economy on firms' marketing spending decisions and, more importantly, (ii) the longer-term stock market returns associated with firms maintaining a commitment to marketing spending through past recessions, employing published secondary data sources across a large number of firms, industries, and a long time period, which includes modern recessions, and analyses which are firm-based rather than product category or country-based.

In summary, the marketing literature does not provide clear guidance on the short-term direct effect of recessions on firm marketing spending decisions. More importantly, the literature is silent on longer-term stock market returns of firms' commitment to marketing spending through past recessions. This paper attempts to address this void.

Hypotheses

In this section we develop two hypotheses. The first hypothesis is on the effect of recessions on firms' short-term marketing spending decisions (i.e., in the current year) and follows the economic-cycle based theory of management (Latham and Braun, 2011). This theory suggests that firms will react to recessions by reducing marketing spending because managers view recessions as threats to meeting performance benchmarks. In contrast, the second hypothesis is on the longer-term positive effect of proactive commitment to marketing spending through past recessions on stock market return. The second hypothesis is based on signaling theory (Spence, 1973, 2002), which suggests that agents (firm executives in our setting) who behave counter to the economic-cycle based theory of management by maintaining or increasing marketing spending during recessions, send a credible information signal to other parties (investors and

employees in our setting) that they view recessions as an opportunity to create a competitive

advantage.

Effect of the Recession on Marketing Spending

The economic cycle-based theory of management suggests that recessions generally result in

declining demand which is expected to affect firm spending decisions in the short-term based on

two different effects, (i) the effect of the recession on consumer spending and (ii) the effect of

consumer spending on firm decisions. First, recessions reduce demand, revenue, and cash flow

of firms. Demand is reduced because consumers experience or expect to experience a wealth

reduction effect based on reduction of their income level (Katona, 1975; Mehra, 2001), which

can decrease consumption (Stock and Watson, 1999). Consumer expectations, as in the

Consumer Sentiment and Consumer Confidence Indexes are found to be good predictors of sales

(Allenby *et al.*, 1996; Katona, 1975; Kamakura and Gessner, 1986; Kumar *et al.*, 1995).

Consumer debt is also found to decrease during recessions supporting the idea that consumers

are less able (or willing) to finance purchases using credit (Ang *et al.*, 2000; Stock and Watson,

1999), and have to rely on their personal funding (Petersen and Strongin, 1996). Consumers may

also attempt to lengthen the life of products by repairing rather than replacing them (Bayus, 1988;

Clark *et al.*, 1984) and consumer price consciousness also increases during adverse economic

conditions (Estelami *et al.*, 2001).

Second, if firms reduce prices (Green and Porter, 1984; Tirole, 2001) to benefit from

such price consciousness, revenues are negatively affected. If firms increase prices (Rotemberg

and Saloner, 1986), as the current empirical evidence suggests (Chevalier and Scharfstein, 1996;

Taylor, 1999), reduction in revenues could be attenuated. If firms cut other expenses such as

payrolls, reduction in cash flow could be attenuated as well. At the very minimum many

11

managers may decide that it is legitimate to temporarily cut back on marketing spending in the short-term because demand and cash flow has declined, and costs need to be managed so that the firm remains profitable. Many managers may also expect that competition is experiencing a decline in demand and cash flow, and are likely to cut back on marketing spending. Consequently, it is unlikely that their cuts will result in a competitive disadvantage. In addition, managers may also expect that recessions are not the best time to introduce and market new products (Bayus, 1988; Clark et al., 1984)**,** because demand has reduced, consequently, the need to continue marketing spending during recessions at levels prevalent during economic expansions is reduced. In addition, firms often reduce costs by layoffs so that managers may expect limited tenure in the firm if other costs such as marketing are not managed commensurate with declining revenues. Finally, if sales during a recession are likely to be lower than during an expansion and firms' marketing spending during the previous expansion was optimal, then the optimal level of marketing spending may well be lower in the subsequent recession because sales are lower (Tellis and Tellis, 2009). In summary, because (i) recessions reduce consumer spending, and because (ii) reduced consumer spending can lead to reduced firm spending in order to maintain firm profitability, the economic-cycle based theory of management suggests that:

H1*: Economic recessions will be associated with a short-term (current year) decrease in firms' marketing spending.*

Effect of Commitment to Marketing Spending through past Recessions on Stock Market Return

In contrast to cutting short-term marketing spending during a recession as hypothesized under H1, managers could take a longer-term proactive (vs. short-term reactive) view and maintain if

not increase marketing spending, since during recessions, costs of marketing (e.g., advertising) usually decline (Kotler and Keller, 2009), there is increased availability of marketing talent at lower prices (Greer *et al.*, 2001), and competitors may decrease marketing spending. Consequently managers taking a longer-term proactive view may believe there is an opportunity to efficiently create a competitive advantage (Latham and Braun, 2011).

Signaling theory suggests that such managers can credibly convey information to investors, about their firms' longer-term view of recessions as an opportunity to create competitive advantage, by maintaining if not increasing marketing spending during recessions. Briefly, continuity in marketing spending under some of the most difficult economic times (recessions) serves as a signal to several stakeholders such as investors and employees, that the firm expects marketing investments to have future financial market payoffs, and is willing to engage in marketing investments counter to the prevailing practice of cutting back marketing spending during recessions, for future financial market returns. The signal is important because of asymmetric information, or a deviation from perfect information, between executives on the one hand (who expect marketing investments to pay off with higher future financial returns) and investors (who expect marketing spending to increase costs and reduce financial returns). When such investments actually payoff with higher future financial market returns, the signal from executives to investors becomes credible, resulting in reduction of asymmetry, i.e., investors positively interpret the signal and adjust their assessment of firms' spending behavior to reward firms' future investments in marketing spending during recessions. The second hypothesis suggests that greater commitment to marketing spending through past recessions will be associated with better longer-term stock market performance.

There are studies in the marketing literature which link marketing assets to capital market returns and provide background to support the effects of commitment to marketing spending on stock market returns. These studies begin with the marketing asset rather than marketing spending, and find associations between capital market returns on the one hand, and on the other hand, a variety of marketing assets such as brand equity (e.g., Barth *et al.*, 1998; Madden *et al.*, 2006); perceived product quality (Aaker and Jacobson, 1994); brand attitude (Aaker and Jacobson, 2001); customer satisfaction (Gupta and Zeithaml, 2006); and customer lifetime values (see Gupta *et al.*, 2004).

The underlying theory is that such marketing assets protect the firm from price competition of lower equity brands (Blattberg *et al.*, 1995), because they lower price sensitivity (Kaul and Wittink, 1995), reduce product substitutability (Mela *et al.*, 1997), and increase the price premium the customer is willing to pay (Ailawadi *et al.*, 2003). These assets can also improve loyalty and receptiveness of consumers and distributors to new product introductions in existing markets (Kaufman *et al.*, 2006), help up-sell and cross-sell existing customers (Kamakura *et al.*, 2003), and help the firm when it enters new markets (Srivastava *et al.*, 1998). Consequently, commitment to marketing spending can create, reinforce, and maintain marketing assets which improve financial performance (Barth et al., 1998). In contrast, lack of commitment to marketing spending can lead to brand erosion and price discounting (Neslin, 2002) which lowers reference prices (Kalyanaram and Winer, 1995) and financial performance (Barth et al., 1998). In summary, there is substantial empirical evidence and supporting theory in the marketing literature for executives to adopt a longer-term proactive view of recessions as an opportunity to create a competitive advantage. Such a view can be credibly signaled to investors

and employees through maintaining, if not increasing marketing spending based investments,

during recessions. Consequently, we expect:

H2*: Firms' commitment to marketing spending through past recessions will be positively*

associated with future stock market returns.

Model

The model section is organized in two sub-sections (i) model to test H1 and (ii) model to test H2.

Both models are based on the marketing literature which links marketing efforts and investments

to stock return (e.g., Mizik and Jacobson, 2003; Dekimpe and Hanssens, 2004). A more recent

useful review is provided by Srinivasan and Hanssens (2009).

Model to Test H1

H1 will be tested using the following difference model[1]:

(1)

$$\Delta\left(M_{it} - \hat{M}_{it}\right) = \alpha + \beta_1 \Delta\left(M_{it-1} - \hat{M}_{it-1}\right) + \beta_2 \Delta REC_t + \gamma_1 \Delta MTB_{it-1} + \gamma_2 \Delta SLACK_{it-1} + \gamma_3 \Delta ROA_{it-1} + \gamma_4 \Delta SALES_{it-1} + \gamma_{5t} YEAR_t + \varepsilon_{it}$$

$M_{it} - \hat{M}_{it}$ is the difference between a firm's actual marketing spending and the normal (expected

or predicted) marketing spending to asset ratio in order to consider the unexpected marketing

spending during the period (Mizik, 2010; Mizik and Jacobson, 2007)[2]. The actual minus

predicted spending measure captures the deviation of actual from expected spending because the

actual spending does not convey the change in marketing spending nor the firm's commitment to

marketing spending. The objective of using the actual – predicted spending measure is to better

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[1] The corresponding level model is specified without Δ the difference operator but includes firm and year based fixed effects. When differences are taken firm fixed effects are differenced away while time based fixed effects remain.
[2] Following Cooper *et al.* (2008) who identified potential measurement issues related to asset based ratios, we validate results based on the marketing spending to sales ratio.

control for firm effects (e.g., company size) by subtracting the predicted spending in a certain

year which is essentially based on spending in previous years. Table 1 outlines precedence in the

literature for employing the actual – predicted measure of spending (see column 5). Table 2 lists

all variables. Δ is the difference operator between the current period t (or t-1) and one period

earlier t-1 (or t-2). Difference models address the correlated omitted variables problem in level

based models under the assumption that correlated omitted variables are stationary from period

to period (Kimbrough and Mcalister, 2009). A potential concern for taking first differences is

that the effects of measurement error may be exacerbated (Griliches and Hausman, 1986) and

hence the signal to noise ratio will be lower for the differenced data than for the levels data.

However, when the analysis is focused on assessing the information content of a specific metric

(such as whether changes in the metric are reflected in changes in an outcome variable)

measurement error becomes less of an issue (Mizik and Jacobson, 2009). A lower signal to noise

ratio allows a conservative test of the relationship. Both Kimbrough and Mcalister (2009) and

Mizik and Jacobson (2009) advocate difference over level models. In addition, while firm fixed

effects are included in the underlying level model these effects are not required when the data are

differenced.

<div align="center">PLACE TABLE 1 ABOUT HERE</div>

<div align="center">PLACE TABLE 2 ABOUT HERE</div>

The normal (predicted or expected) marketing spending to assets ratio is predicted using

a time-series panel data model based on the Anderson and Hsiao (1982) procedure:

$$(M_{it} - \overline{M}_t) = \lambda_{mi} + \delta_1(M_{it-1} - \overline{M}_{t-1}) + \delta_2(M_{it-2} - \overline{M}_{t-2}) + \delta_3(ROA_{it-1} - \overline{ROA}_{t-1})$$
$$+ \delta_4(ROA_{it-2} - \overline{ROA}_{t-2}) + \varepsilon_{it}$$

where M_{it} = marketing spending, defined as SG&A excluding R&D spending to assets ratio of firm i at year t. Table 1 outlines precedence in the literature for employing the SG&A based marketing spending measure (see column 4). Although the SG&A based spending measure has limitations, two primary advantages over advertising spending are that SG&A (and R&D) spending (i) is reported more frequently than advertising spending and (ii) includes other promotion or commercialization effects, e.g. direct sales, distribution, market research, trade promotions, and related activities, which are important because commercialization is accomplished in most if not all industries through means other than advertising (Brower and Mahajan, 2013). Limitations of the SG&A based marketing measure are noted in the final section. $\overline{M}_t$ = mean for M_{it} series at year t, ROA_{it} = return on assets of firm i at year t, and $\overline{ROA}_t$ = mean for ROA_{it} series at year t. We then predict $\widehat{M}_{it}$ using the estimated coefficients of the earlier equation

$$(\widehat{M}_{it} - \overline{M}_t) = \hat{\lambda}_{mi} + \hat{\delta}_1(M_{it-1} - \overline{M}_{t-1}) + \hat{\delta}_2(M_{it-2} - \overline{M}_{t-2}) + \hat{\delta}_3(ROA_{it-1} - \overline{ROA}_{t-1}) + \hat{\delta}_4(ROA_{it-2} - \overline{ROA}_{t-2})$$

The main independent variable REC_t is the recession dummy variable which equals 1 if NBER indicated two recession quarters in the year. As a validation check we consider the recession dummy variable equals 1 if NBER indicated three recession quarters in the year. In addition we consider control variables market-to-book (MTB), financial slack (SLACK), return-on-assets (ROA) and sales described later. Notice that model 1 tests the short-term (i.e., current year) effect of the recession on marketing spending, consequently both variables are measured at time t.

Model to Test H2

H2 is tested using use the following differenced model[3]:

(2) $\Delta \text{TSR}_{it+1} = \varphi + \zeta_1 \Delta \text{MCmt}_{it} + \theta_1 \Delta \text{MTB}_{it} + \theta_2 \Delta \text{SLACK}_{it} + \theta_3 \Delta \text{ROA}_{it} + \theta_4 \Delta \text{SALES}_{it}$

$$+ \theta_{2t} \text{YEAR}_t + \mu_{it}$$

Dependent Variable. TSR_{it+1} is cumulative or total stock returns, one year later (Mizik, 2010; Mizik and Jacobson, 2007). Omitted information between t and t+1 may exist, but such information between year t and t+1 cannot be observed at time t hence we do not employ such information at time t to predict future return between time t and t+1. This is also consistent with Mizik (2010). In any event, if important information is missing H2 is less likely to be supported. In addition to TSR, as a validation check for H2 we employ unexpected stock returns suggested by Barber and Lyon (1997), CTSR_1, in the next one year (Mizik and Jacobson, 2007; Mizik, 2010), where $\text{CTSR}_1 = \text{StkR}_{it+1} - \text{StkR}_{cit+1}$ and StkR_{it+1} is the 1 period ahead cumulative stock return for firm i at year t, and StkR_{cit+1} is the 1 period ahead cumulative stock return for firm i's control firm. The measure proposed by Barber and Lyon (1997) requires choosing a control firm for each sample firm, from all firms in the same time period and two-digit standard industrial classification (SIC), with a market value of equity between 70% and 130% of that of the sample firm, and book-to-market ratio closest to that of the sample firm. We then calculate the unexpected return measure as the difference between the year-ahead cumulative stock market returns of the sample and matched firms. In addition to TSR and CTSR, as another validation check for H2 we consider CAR, the compounded unexpected stock return (Mizik, 2010) defined as follows:

$$\text{CAR}_{it} = \log \prod_{m=1}^{12} [1 + (\text{Ret}_{im} - \text{expRet}_{it})]$$

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[3] Like model 1, the corresponding level model is specified without Δ the difference operator but includes firm and year based fixed effects. When differences are taken firm fixed effects are differenced away while time based fixed effects remain.

where $\text{expRet}_{im} = \hat{\phi}_{1i}\left(\text{Ret}_{\text{market,m}} - \text{Ret}_{\text{risk-free,m}}\right) + \hat{\phi}_{2i}\text{SMB}_m + \hat{\phi}_{3i}\text{HML}_m + \hat{\phi}_{4i}\text{MOM}_m$.

$\left(\text{Ret}_{\text{market,m}} - \text{Ret}_{\text{risk-free,m}}\right)$ is the risk-free market return; SMB_m is the difference between the

return on a value-weighted portfolio of small stocks and the return on a value-weighted portfolio

of big stocks; HML_m is the difference between a value-weighted portfolio of high book-to-

market stocks and the return on a value-weighted portfolio of low book-to-market stocks;

MOM_m is the momentum factor, the difference between the average return on the two [small

and large size] high-prior-return portfolios and the average return on the two [small and large

size] low-prior-return portfolios computed in month m; which are available from Kenneth

French's data library posted on his Web site. $\phi_{1i}, \phi_{2i}, \phi_{3i}, \text{and} \phi_{4i}$ are generated from estimating the

(Fama and French, 1992; Fama and French, 1996) three-factor model augmented with the

momentum factor as in the Carhart model (Carhart, 1997) for each firm i:

$$\text{Ret}_{im} - \text{Ret}_{\text{risk-free,m}} = \phi_{0i} + \phi_{1i}\left(\text{Ret}_{\text{market,m}} - \text{Ret}_{\text{risk-free,m}}\right) + \phi_{2i}\text{SMB}_m + \phi_{3i}\text{HML}_m + \phi_{4i}\text{MOM}_m + \varphi_{im}$$

CAR_1 is the 1 year forward compounded unexpected stock market returns, as a result,

control variables are from past periods.

Independent Variables. MCmt_{it} is the commitment of firm i at time t to marketing

spending though past recessions:

$$\text{MCmt}_{it} = \sum_{p=0}^{P} d_{it-p}\left|M_{it-p} - \hat{M}_{it-p}\right|e^{-p}$$

$$\text{where } d_{it-p} = \begin{cases} 1 \text{ if } (M_{it-p} - \hat{M}_{it-p}) \geq 0 \text{ and } \text{REC}_{it-p} > 0 \\ 0 \text{ otherwise} \end{cases}$$

where p is defined as all periods in the firm's history during which it demonstrates commitment

19

to marketing spending ($M_{it} - \widehat{M}_{it}) \geq 0$ under recession ($REC_{it} > 0$)[4]. In such periods, d_{it-p} will

take on a value of 1 and 0 otherwise. For each of the periods during which d_{it-p} takes on a value

of 1, we consider the magnitude of unexpected marketing spending, i.e., deviation of actual

marketing spending from the expected marketing spending to asset ratio (Mizik and Jacobson,

2007; Mizik, 2010) because a higher level of marketing spending relative to what is expected

during the time period represent a higher level of the firm's commitment to marketing spending,

and accumulate the resulting commitment over past recessionary periods in the firm's history.

We employ exponential discounting because past research has indicated that the benefit of

accumulated investments by organizations may decay over time (Argote *et al.*, 1990). However,

we note in the results section that the results of testing H2 are not sensitive to exponential

discounting (the value of p). Since marketing commitment is defined over past periods and stock

market returns are assessed over the future period there is no simultaneity in model 2. In addition

note that model 2 tests the longer-term stock market impact of commitment to marketing

spending during past recessions because the commitment variable is defined over past periods

while the stock market return variable is defined over a future period.

Controls for Models 1 and 2

Following convention in accounting and finance literatures we employ the following

control variables, market-to-book (MTB), financial slack (SLACK), return-on-asset (ROA), and

sales (SALES) which appear in one period lagged form[5], because budgeting decisions including

marketing are made based on performance observed in the previous period (Markovitch *et al.*,

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[4] Following the definition, all such periods in the firm's history between 1982 and 2009 are considered. Periods during which the firm does not exhibit commitment to marketing spending when under recession or when there is no recession are not considered under the summation sign. We conduct additional analyses related to such periods in the results section to investigate whether consideration of such periods affects results of hypothesis testing and confirm the robustness of the results.

[5] For example, Lakonishok, Shleifer, and Vishny (1994) use lagged MTB and SALES controls. Opler and Titman (1994) use lagged SLACK controls. Richardson, Sloan, Soliman, and Tuna (2005) used lagged ROA controls.

2005; Rappaport, 1987). Consequently, there is no simultaneity due to control variables in models 1 and 2. First, we use the market-to-book (MTB) ratio to control for the firm's growth opportunity. A firm with a high MTB ratio may have more investment opportunities and invest more (Kaplan and Zingales, 1997), thus have higher potential of future earnings growth and stock return (Fama and French, 1995). However the firm may also be overvalued and yield lower future returns (Lakonishok *et al.*, 1994). The variable is calculated as the firm's market value divided by total book value of assets.

Second, we use the reverse of the debt-to-equity ratio to control for the financial slack (SLACK) or cash position of the firm (Jensen, 1986). Firms with more financial slack may be better able to invest (Hubbard, 1998) and avail of new market opportunities to get better future performance (Opler and Titman, 1994), however they may also suffer from higher agency costs (or waste) due to abundant resources and have lower future returns (Jensen, 1986). Slack is calculated as 1 minus the ratio of the firm's total book value of long-term debt to equity. Third, we use return-on-assets (ROA) to control for the firm's past financial performance. Firms with better past financial performance may have more resources and better capabilities to invest (Hubbard, 1998; Kaplan and Zingales, 1997), thus have higher future performance and stock return, however such firms can also be subject to the reversion to the mean effect and have lower future performance (Richardson *et al.*, 2005). The variable is calculated as the firm's net income divided by total book value of assets. Fourth, we use sales to control for size and past product market performance of the firm. Prior research has found mixed results on the relationship between firm size, corporate investment (Oliner and Rudebusch, 1992; Vogt, 1994), and future stock returns (Banz, 1981; Fama and French, 1995). The variable is calculated as the firm's total sales by the end of the fiscal year.

There are many reasons for cutting marketing spending and reduced stock market returns

which are unrelated to the economic cycle and which vary across firms or time, such as

downsizing, pursuing niche segments, other marketing reasons referenced in the background

section, responding to stock market analysts' pressures, etc. In general, to control for such

differences in unobserved heterogeneity due to omitted variables which affect marketing

spending, recessions, commitment and stock market return, FIRM and YEAR fixed effects are

employed in underlying level models (Boulding, 1990; Himmelberg *et al.*, 1999). When the

difference model is employed, firm fixed effects are differenced out while year fixed effects

remain.

Results

Our database is compiled from NBER, COMPUSTAT, and CRSP databases. NBER labels each

quarter in U.S. economic history as a recession or expansion quarter. Standard & Poor's

COMPUSTAT database comprises 10K based financial information for all U.S. publicly traded

companies, including marketing spending. CRSP's database maintains stock price, return, and

volume data for the NYSE, AMEX and NASDAQ stock markets. We combined the

COMPUSTAT and CRSP databases by year employing the CUSIP/GVKEY match assigned to

each firm. We combine the databases by year because firm budgetary decisions including overall

marketing budgets are decided yearly (Markovitch *et al.*, 2005). Mizik and Jacobson (2007) and

Mizik (2010) also employ annual data on marketing spending. We build our sample from all

companies that were in the COMPUSTAT database during the period of 1982-2009.

During 1990, 2001, and 2008-2009, there were recessions during which 59.5%, 64.8%,

and 82.7% of firms respectively demonstrated lack of commitment to marketing spending, which

are substantial numbers, yet the marketing literature as reviewed earlier is surprisingly silent on

this direct effect. The means, standard deviations and ranges for the variables in models 1 and 2

are presented in Table 3 and have face validity. A correlation matrix for all variables employed

in the study is presented in Table 4. None of the 20 pairs of correlations between the differenced

independent variables in models 1 and 2 are over 0.35, as a result multicollinearity is not a

problem for testing H1 or H2.

<div align="center">PLACE TABLE 3 ABOUT HERE</div>

<div align="center">PLACE TABLE 4 ABOUT HERE</div>

Results of Testing H1

We begin with the results of testing H1 (Table 5 Panel A). As hypothesized in H1, the

recession is found to be associated with a short-term (i.e., current year) decrease in the marketing

spending to assets ratio relative to the expected marketing spending to assets ratio, based on

NBER's 2- and 3-quarter definition of a recession ($p<.05$) based on the difference model (1). The

results hold when we consider the marketing spending to sales ratio. Of the controls utilized, a

firm's financial performance as measured by return-on-assets (ROA) and its cash position

(Slack), both variables from the previous period, are found to be negatively associated with

marketing spending (both $p<.01$), indicating that neither the firm's previous period financial

performance or its ability to spend result in a higher marketing spending to assets ratio than what

is expected. Only a firm's Market-to-Book ratio is positively associated with a higher marketing

spending to assets ratio than what is expected, indicating that firms marketing spending decisions

are based on firms' growth potential as judged by the financial market.

<div align="center">PLACE TABLE 5 ABOUT HERE</div>

In addition, we conducted three analyses to test the robustness of the H1 result (Table 5 Panel B), (i) B2B versus B2C industries, which were defined based on Srinivasan et al. (2011)[6], and controlling for (ii) Pre versus post 2006 because as of 2006 companies were required to expense stock options which impacts SG&A, and (iii) U.S. Revenue because we consider U.S. firms which vary on their proportions of revenue from non U.S. sales. The results indicate that the H1 result in Panel A is supported for each of the three analyses.

Results of Testing H2

Next, as hypothesized in H2, commitment to marketing spending through past recessions is found (Table 6 Panel A) to have a longer-term impact, i.e., be positively associated with stock market returns, TSR_1 (p<.01), $CTSR_1$ (p<.05), and CAR_1 (p<.01), consequently H2 is supported. We obtained similar results employing GDP contractions to define recessions (Steenkamp and Fang, 2011). We used the Hausman-Wu endogeneity test (Baum *et al.*, 2003) to test whether marketing commitment is independent from remaining contemporaneous errors. We implemented the test using instruments that are lagged one and two periods beyond the error term. The F-statistic was not significant ($F_{1,31071} = 0.766, \ p > 0.1$). This indicates that marketing commitment is not correlated with remaining contemporaneous errors, and therefore, we do not need to use instruments to control for endogeneity.

PLACE TABLE 6 ABOUT HERE

Regarding control variables, the effect of financial slack in the previous period is negative for future CAR indicating that firms' cash positions do not result in better longer term stock market returns because of higher agency costs or waste due to abundant resources (Jensen, 1986). The effect of ROA in the previous period is positive for future TSR and negative for future CAR indicating that firm performance in the previous period contributes to future stock

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[6] We thank Raji Srinivasan for her help through personal communications.

market returns but not when such returns are measured relative to what is expected of the firm. Similarly, the effect of MTB in the previous period is negative for future CAR and CTSR indicating that firm valuation in the previous period contributes negatively to future stock market returns because of overvaluation.

In addition, like we did for H1, we conducted three analyses to test the robustness of the H2 result (Table 6 Panel B), (i) B2B versus B2C industries, and controlling for (ii) Pre versus post 2006, and (iii) U.S. Revenue as a percentage of global sales. The results indicate that the H2 result in Table 6 Panel A is supported for each of the three analyses, although the result is stronger for B2B than B2C industries.

In summary the two main results are as follows. First, economic recessions are found to be directly associated with a short-term decrease in marketing spending relative to expected spending, consequently H1 is supported. Second, however, and more importantly, commitment to marketing spending relative to expected marketing spending through past recessions is found to be positively associated with longer-term stock market returns, consequently H2 is supported.

Discussion, Managerial Implications, Limitations, and Future Research

In addition to the considerable concern about marketing's reduced stature in the firm (Rust *et al.*, 2004), there is concern about marketing's decreasing influence at the corporate strategy level (Mcgovern *et al.*, 2004) and in the boardroom (Webster *et al.*, 2005). Increasingly, marketing is being viewed as a cost and not as an investment (Morgan and Rego, 2009), strategically important aspects of marketing are moving to other functions in the organization (Sheth and Sisodia, 2005), the roles of financial managers are becoming more important than marketing managers (Nath and Mahajan, 2008), and the tenure of chief marketing officers only averages 22.9 months (Hyde *et al.*, 2004). One main reason identified for marketing's decline in influence

is lack of accountability (Verhoef and Leeflang, 2009). In addition, recession, global competition

and stock market pressures have only increased demands for marketing accountability (Lehmann

and Reibstein, 2006).

One of the main contexts in which we observe that marketing is viewed by top executives

such as CEOs and CFOs as a cost rather than an investment is when firms are faced with a

recession. Most firms cut marketing spending in the short-term, during a recession, consistent

with the accounting view that marketing is a cost on firms' income statements and not an

investment reflected on firms' balance sheets. In other words, the accounting view presumes that

all the benefits of marketing are expected in the current period and that there are no longer-term

benefits. Consequently, many CEOs and CFOs believe that marketing spending is fungible and

can easily be cut in recessionary times to protect profits and stock market returns. Demonstrating

that longer-term commitment to marketing spending through past recessions is rewarded by

stock market returns based on data from NBER, COMPUSTAT and CRSP on 6,000 firms across

a variety of industries during three recessions 1982-2009 is an important step towards

establishing accountability, that marketing spending should be viewed by CEOs and CFOs as a

necessary investment (Kumar, 2015) rather than a discretionary cost, and improving marketing's

influence at the corporate strategy level and in the boardroom (Varadarajan, 2010).

However, presently, many top executives are found to cut marketing spending during

recessions and will continue to behave in this manner unless there are some interventions. In fact,

during the 1990, 2001, and 2008-2009 recessions, 59.5%, 64.8%, and 82.7% of firms

respectively demonstrated lack of commitment to marketing spending which is quite substantial

and increasing over time. In order to generate interventions one must understand the reasons for

the behavior. First, cuts in marketing spending improve the income statement and do not

typically affect the balance sheet negatively because marketing is not viewed as an asset. FASB

GAAP based policies require all marketing spending to be generally expensed in the current year

following the assumption that no future benefits are expected. Second, during recessions, many

top executives observe that competition is also cutting marketing spending, so that if they cut

marketing spending, it may not result in a competitive disadvantage. Third, firms typically cut

labor costs during recessions through layoffs, so that managers and top executives may be

concerned about their own tenure in the firm, if marketing spending during recessions is not

reduced commensurate with reduction in revenues. Fourth, evidence on the longer-term stock

market payoffs for commitment to marketing spending through recessions has been missing

heretofore, which is what this paper provides.

The board of directors will need to explicitly recognize the four factors above and begin a

conversation with top executives such as CEOs and CFOs regarding firm spending strategy

during recessions which recognizes the tradeoffs involved in (a) reactively cutting marketing

spending during recessions to improve the bottom line versus (b) proactively maintaining or

increasing marketing spending through recessions to efficiently create a competitive advantage,

and later reaping the stock market rewards associated with commitment to marketing spending

during recessions. Once decisions are made, compensation committees will need to structure

long vs. short-term or equity-to-bonus compensation ratios so that marketing spending decisions

are implemented.

This paper, like any other, is not without limitations. First, there are limitations to

employing the SG&A based measure (like any other measure, e.g., advertising). SG&A may

contain some expenses which are non-marketing related (e.g., stock-based compensation

expense), i.e., the variable may overestimate marketing spending just as advertising

underestimates it. For example, for Coke during 2012-14 stock based compensation expense varied from $209 million to $259 million, while SG&A varied between $17,218 million to $17, 738 million, indicating that although stock based compensation expense is significant in dollars, it is a small proportion of SG&A. Second, we do not explicitly consider the length and depth of recessions, an aspect which is relatively straightforward for future research to address. Third, we employ secondary data to infer the short-term effect of recessions on marketing spending and the longer-term impact of commitment to marketing spending through past recessions on stock market return. Secondary data can be augmented in future research with survey based primary data for validation purposes. Fourth, we have not performed marginal effect analysis because our interest was on hypothesis testing across firms, in contrast to determining, for any particular firm, the marginal effect of the recession on marketing spending, or commitment to marketing spending on stock market return.

There are several additional directions for future research. First, the economy is not the only non-marketing variable that drives marketing spending decisions. Top executive turnover and analysts' earnings expectations can also drive marketing spending decisions. Second, because this is the first paper in the marketing literature to investigate (1) the direct effect of recessions on marketing spending decisions and (2) the effects of commitment to marketing spending through past recessions on longer-term stock market returns we have focused on establishing the main effects. Future research can explore interaction effects or effects of moderators, which explain whether and why (1) the direct effect of recessions on marketing spending and (2) the effects of commitment to marketing spending through recessions on stock market returns are larger for certain firms, industries, or time periods over others. Third, marketing spending decisions are not the only interesting outcome of recessionary pressures,

future research can investigate the effects of recessions on R&D spending decisions as well to

enable a more complete picture of how recessions impact value creation (R&D) and value

appropriation (marketing) investments by the firm.

Fourth, stock market returns are not the only interesting outcome of commitment to

marketing spending, one can explore whether such commitment can be linked to marketing and

company assets such as perceived product quality, brand attitude, customer satisfaction, loyalty,

customer lifetime value, and brand equity, which we do not have data on. However, these

relationships could be explored in the future based on limited samples. Fifth, commitment to

marketing spending need not be conceptualized only as an independent variable; it can be

thought of as a dependent variable and one can study why certain firms are more committed than

others. Sixth, overall marketing spending can be decomposed to consider spending on each of the

4Ps to provide insights into which of the 4Ps are most affected by recessionary pressures, and

whether commitment to spending on certain 4Ps receives great stock market rewards. We do not

have access to data on the 4Ps; however such relationships could also be explored in the future

based on limited samples. Seventh, it would be useful to validate the results in this paper based

on alternative methodologies such as time series models (Dekimpe and Hanssens, 1995;

Dekimpe and Hanssens, 2000)**.** We hope future research on such questions will build on our

efforts.

Table 1. Precedence in the Literature for Employing the SG&A Based and the Actual – Predicted Measure for Marketing Spending

Authors	Journal[*]	Adopted Measure for Marketing Spending	Was SG&A employed for Marketing Spending?	Was Actual-Predicted Measure employed for Marketing Spending?	Sample Characteristics
Brower and Mahajan (2013)	JBE	(SG&A-R&D)/Total Revenue	YES	NO	447 firms from 2000 to 2007 yielding 3,198 firm-year observations across 54 two-digit SIC codes.
Chakravarty and Grewal (2011)	MgmtSci	Advertising from TNS Media Intelligence	NO	YES	Total 8,915 observations of an unbalanced panel from 309 firms from four high-technology manufacturing industry groups for 1995-2009.
Currim, Lim, and Kim (2012)	JM	Advertising from COMPUSTAT	NO	NO	842 companies during the 1993–2005 period.
Deleersnyder, Dekimpe, Steemkamp, and Leeflang (2009)	JMR	Annual advertising data through the World Advertising Research Center and ZenithOptimedia.	NO	NO	More than two decades of advertising spending in 37 countries on four key media.
Dutta, Narasimhan, and Rajiv (1999)	MktgSci	(SG&A - R&D)/total assets	YES	NO	92 firms in SIC 3674 for the period 1985-1994
Fischer, Shin, and Hanssens (2016)	MgmtSci	Spending on detailing, journal advertising, and communication media in the pharmaceutical industry collected by IMS Health.	NO	NO	99 pharmaceutical brands in four clinical categories and four European countries
Kim and McAlister (2011)	JM	A signal of marketing which includes advertising and sales	NO	NO	17,077 firm-year observations in total, however, only 512 (3%) of the observations include

		force			marketing measures from all data sources used in the study.
Luo (2008)	JM	(SG&A - R&D)/total assets	YES	NO	1981 IPOs during the period of 1996 – 2005.
McAlister, Srinivasan, and Kim (2007)	JM	Advertising from COMPUSTAT	NO	NO	3198 observations from 644 firms.
Mizik (2010)	JMR	(SG&A - R&D)/total assets	YES	YES	Indicates that it reflects all marketing related expenditures although some of them can be considered non-marketing expense categories.
Mizik and Jacobson (2003)	JM	Advertising from COMPUSTAT	NO	YES	3480 observations from 566 different firms for the period of 1980 – 98.
Mizik and Jacobson (2007)	MktgSci	(SG&A - R&D)/total assets	YES	YES	2238 SEO year events
Srinivasan, Lilien, and Sridhar (2011)	JM	Advertising from COMPUSTAT	NO	NO	5,145 in the stock return model from the period of 1969 – 2008
Steenkamp and Fang (2011)	MktgSci	Advertising from COMPUSTAT	NO	NO	1,175 firms from the period of 1971 – 2005

* JBE: *Journal of Business Ethics*, JM: *Journal of Marketing*, JMR: *Journal of Marketing Research*, MktgSci: *Marketing Science*, MgmtSci: *Management Science*

Table 2. Definition of variables

Variable Name	Definition	Operational Definition	Data Source
CAR	Compounded Unexpected Stock Return	Defined under Model to Test H2	Calculated using data from CRSP
CTSR	Comparative TSR using Barber and Lyon's matched-firm approach (1997)	$StkR_{it+1} - StkR_{cit+1}$ where $StkR_{it+1}$ is the 1 period ahead cumulative stock return for firm i at year t, and $StkR_{cit+1}$ is the 1 period ahead cumulative stock return for firm i's control firm	Calculated using data from CRSP
HML	High Minus Low	The difference between a value-weighted portfolio of high and low book-to-markets stocks	Kenneth French's data library
M	Actual marketing spending to asset ratio	(SG&A-R&D)/Asset	COMPUSTAT
$\widehat{M}$	Normal (expected or predicted) marketing spending to asset ratio	Estimated using the equations under the Model to Test H1	Estimated using data from COMPUSTAT
$\overline{M}$	Average marketing spending to asset ratios across firms	Mean for M_{it} series at year t	Calculated from COMPUSTAT
MCmt	Commitment to marketing spending during recessions	The magnitude of unexpected marketing spending during recessions, i.e., deviation between the actual and expected marketing spending to asset ratio. Defined under Model to Test H1	Calculated using data from COMPUSTAT
MOM	Momentum	The difference between the average return on two high- and low-prior-return portfolios	Kenneth French's data library
MTB	Market-to-book ratio	Same as Definition	COMPUSTAT
REC	The recession dummy	1 if NBER indicates two recession quarters in the year	NBER
ROA	Return on assets	Same as definition	COMPUSTAT
$\overline{ROA}$	Mean Return on Assets across firms	Same as definition	COMPUSTAT
SLACK	The reverse of the Debt-to-equity ratio	Same as definition	COMPUSTAT
Sales	Total sales by the end of the fiscal year	Same as definition	COMPUSTAT
SMB	Small Minus Big	Difference between the return on a value-weighted portfolio of small and big stocks	Kenneth French's data library
TSR	Cumulative or Total Stock Return	Defined under Model to Test H2	CRSP

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Table 3. Descriptive Statistics

Variables		Number of observations	M	SD
Total Stock Market Returns (TSR)	TSR_1	46,046	1.35	1.84
Controlled Total Stock Returns (CTSR)	$CTSR_1$	39,584	0.03	3.03
Compounded Abnormal Stock Market Returns (CAR)	CAR_1	45,408	-0.02	0.80
Episodic Variables	Observed – predicted marketing	46,523	-0.003	0.22
	Recession dummy variable	52,724	0.11	0.02
Commitment Variable	$MCmt_{tt}$:commitment to marketing spending through recessions	52,724	0.01	0.02
Controls	Market-to-Book Ratio	52,724	1.60	2.89
	Slack	52,655	1.03	0.41
	ROA	52,675	-0.05	0.52
	Sales (million $)	52,676	1,896.00	9,190.00

Table 4. Correlation Matrix

	TSR_1	$CTSR_1$	CAR_1	$M - \hat{M}$	REC	$MCmt_{it}$	MTB	Slack	ROA	Sales
TSR_1	1.000									
$CTSR_1$	0.349	1.000								
CAR_1	0.256	0.097	1.000							
$M - \hat{M}$	-0.032	-0.017	0.052	1.000						
REC	0.089	-0.008	-0.062	0.088	1.000					
$MCmt_{it}$	0.049	0.011	0.005	-0.003	0.103	1.000				
MTB	0.131	0.008	-0.136	-0.068	0.011	0.104	1.000			
Slack	0.068	-0.014	-0.064	-0.055	0.055	0.061	0.310	1.000		
ROA	0.068	0.028	-0.074	-0.137	-0.023	-0.105	-0.025	-0.020	1.000	
Sales	-0.032	-0.002	0.003	-0.018	0.005	-0.044	-0.052	-0.099	0.044	1.000

(C)TSR is (Controlled) Total Stock Return; CAR is compounded abnormal stock return; $M - \hat{M}$ is Unexpected Marketing Spending; REC is the Recession dummy variable; $MCmt_{it}$ is Commitment to Marketing Spending through Past Recessions; MTB is market-to-book ratio; ROA is Return on Assets; SLACK is 1-ratio of the firm's total book value of long-term debt to equity

Table 5. Effects of Recession on Marketing Spending Decisions

Panel A: Main Tests

Main Variables	Δ(Unexpected Marketing Spending (Observed-Predicted))	
	NBER 2 qtr Diff	NBER 3 qtr Diff
ΔRecession (ΔREC)	-0.02**	-0.05**
	(0.004)	(0.01)
Control Variables		
ΔMarket-to-Book (ΔMTB)	0.01**	0.01**
	(0.0004)	(0.0004)
ΔSlack	-0.10**	-0.10**
	(0.004)	(0.004)
ΔROA	-0.24**	-0.24**
	(0.002)	(0.002)
ΔSales	3.9E-07	3.9E-07
	(5.3E-07)	(5.3E-07)
Intercept and Dummies		
Intercept	-0.02	0.01
	(0.004)	(0.01)
Year Fixed Effects	Included	Included
Number of Observations	45,843	45,843
Adj. R-sq (%)	0.24	0.24

Panel B: Robustness Check

Main Variables	B2B	B2C	Pre-2006	US Revenue
ΔRecession (ΔREC)	-0.02**	-0.01*	-0.02**	-0.02**
	(0.005)	(0.006)	(0.004)	(0.004)
Control Variables				
ΔMarket-to-Book (ΔMTB)	0.004**	0.01**	0.01**	0.004**
	(0.000)	(0.000)	(0.000)	(0.000)
ΔSlack	-0.02**	-0.01**	-0.04**	-0.02**
	(0.002)	(0.004)	(0.003)	(0.002)
ΔROA	-0.23**	-0.25**	-0.24**	-0.24**
	(0.000)	(0.004)	(0.002)	(0.002)
ΔSales	1.9E-07	9.6E-07	6.6E-06**	3.3E-07
	(0.000)	(0.000)	(0.000)	(0.000)
Pre-2006 Dummy			0.01	
			(0.004)	
US-revenue				0.0005
				(0.002)
Intercept and Dummies				
Intercept	0.02**	0.01*	0.02**	0.02**
	(0.004)	(0.005)	(0.003)	(0.003)
Year Fixed Effects	Included	Included	Included	Included
Number of Observations	28,600	17,205	45,805	45,805
Adj. R-sq (%)	0.276	0.249	0.272	0.268

* $p<.05$, and **$p<.01$, respectively, in a two-tailed test. Recession is an indicator variable.
Control Variables enter in a lagged form. Details are under Model 1 in text.

Table 6 Relationship between Commitment to Marketing Spending through Past Recessions and Stock Market Return

Panel A: Main Tests

	ΔTSR_1	$\Delta CTSR_1$	ΔCAR_1
Main Variables			
$\Delta MCmt_{it}$	2.962**	3.705*	1.780**
	(0.781)	(1.548)	(0.368)
Control Variables			
ΔMarket-to-Book	0.002	-0.066**	-0.101**
	(0.005)	(0.009)	(0.002)
ΔSlack	-0.075	-0.081	-0.067**
	(0.048)	(0.086)	(0.024)
ΔROA	0.139**	0.070	-0.348**
	(0.034)	(0.078)	(0.017)
ΔSales	-0.000013	-0.000012	-0.000006
	(0.000008)	(0.000014)	(0.000004)
Intercept and Dummy Variables			
Intercept	-0.063**	-0.004	-0.016**
	(0.012)	(0.023)	(0.006)
Number of Observations	40,154	30,070	39,760
Number of Firms	4,825	4,499	4,816
Adj. R^2	0.039	0.002	0.058

* $p < .05$ ** $p<.01$. $MCmt_{it}$ is commitment to marketing spending through past recessions. All models include year dummies. Δ represents a change from t-1 (t-2) to t (t-1). TSR is total stock return. CTSR is unexpected stock return. CAR is compounded unexpected stock return. Control variables are from past periods.

36

Panel B: Robustness Check

	B2B			B2C			Pre-2006			US Revenue		
	ΔTSR_1	$\Delta CTSR_1$	ΔCAR_1	ΔTSR_1	$\Delta CTSR_1$	ΔCAR_1	ΔTSR_1	$\Delta CTSR_1$	ΔCAR_1	ΔTSR_1	$\Delta CTSR_1$	ΔCAR_1
Main Variable												
$\Delta MCmt_{it}$	8.05**	11.00**	3.04**	5.09*	0.64	1.66	7.07**	7.87**	2.28**	7.05**	8.05**	2.79**
	(1.438)	(2.305)	(0.677)	(2.191)	(5.487)	(1.050)	(1.189)	(2.311)	(0.556)	(1.189)	(2.310)	(0.566)
Control Variables												
ΔMTB	0.01	-0.06**	-0.09**	-0.08**	-0.13**	-0.21**	0.01	-0.11**	-0.23**	0.0009	-0.07**	-0.10**
	(0.005)	(0.008)	(0.003)	(0.014)	(0.042)	(0.007)	(0.009)	(0.018)	(0.004)	(0.005)	(0.009)	(0.002)
$\Delta Slack$	-0.0005	-0.04	-0.15**	-0.15	-0.002	-0.02	-0.13	-0.13	-0.16**	-0.03	-0.05	-0.15**
	(0.052)	(0.074)	(0.025)	(0.118)	(0.296)	(0.059)	(0.077)	(0.152)	(0.036)	(0.046)	(0.081)	(0.022)
ΔROA	0.03	-0.25*	-0.84**	0.79**	0.30	-1.15**	0.23**	-0.07	-0.85**	0.22**	-0.12	-0.91**
	(0.074)	(0.123)	(0.035)	(0.117)	(0.311)	(0.057)	(0.062)	(0.126)	(0.029)	(0.062)	(0.125)	(0.029)
$\Delta Sales$	-1E-05	-1E-05	-6E-06	-1.2E-05	-1.1E-05	-2E-06	-9.5E-05**	-9.2E-05*	-4.6E-05**	-1.3E-05	-1.2E-05	-5E-06
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Pre-2006							0.02	0.18	-0.09**			
							(0.059)	(0.110)	(0.027)			
US Revenue										0.02	0.06	-0.03
										(0.039)	(0.072)	(0.018)
Intercept	-0.06***	-0.025	-0.01*	-0.06**	0.03	-0.03**	-0.07	-0.15	0.05*	-0.08*	-0.05	0.01
	(0.016)	(0.025)	(0.007)	(0.018)	(0.043)	(0.008)	(0.052)	(0.096)	(0.024)	(0.037)	(0.068)	(0.017)
Model Summary												
# of Obs	24,995	18,535	24,671	15,159	11,535	15,089	40,154	30,070	39,760	40,154	30,070	39,760
Adj. R^2	0.046	0.005	0.076	0.039	0.0003	0.089	0.04	0.001	0.103	0.04	0.002	0.07

All coefficients are unstandardized.

References

Aaker, D. A. and Jacobson, R. (1994), "The financial information content of perceived quality", *Journal of Marketing Research,* Vol. 31 No. 2, pp. 191-201.

Aaker, D. A. and Jacobson, R. (2001), "The value relevance of brand attitude in high-technology markets", *Journal of Marketing Research,* Vol. 38 No. 4, pp. 485-493.

Ailawadi, K. L., Lehmann, D. R., and Neslin, S. (2003), "Revenue premium as an outcome measure of brand equity", *Journal of Marketing,* Vol. 67 No. 4, pp. 1-17.

Allenby, G. M., Jen, L., and Leone, R. P. (1996), "Economic trends and being trendy: The influence of consumer confidence on retail fashion sales", *Journal of Business & Economic Statistics,* Vol. 14 No. 1, pp. 103-111.

Anderson, T. W. and Hsiao, C. (1982), "Formulation and estimation of dynamic models using panel data", *Journal of Econometrics,* Vol. 18 No. 1, pp. 47-82.

Ang, S. H., Leong, S. M., and Kotler, P. (2000), "The asian apocalypse: Crisis marketing for consumers and businesses", *Long Range Planning,* Vol. 33 No. 1, pp. 97-119.

Argote, L., Beckman, S. L., and Epple, D. (1990), "The persistence and transfer of learning in industrial settings", *Management Science,* Vol. 36 No. 2, pp. 140-154.

Banz, R. W. (1981), "The relationship between return and market value of common stocks", *Journal of Financial Economics,* Vol. 9 No. 1, pp. 3-18.

Barber, B. M. and Lyon, J. D. (1997), "Detecting long-run abnormal stock returns: The empirical power and specification of test statistics", *Journal of Financial Economics,* Vol. 43 No. 3, pp. 341-372.

Barth, M., Clement, M., Foster, G., and Kasznik, R. (1998), "Brand values and capital market valuation", *Review of Accounting Studies,* Vol. 3 No. 1-2, pp. 41-68.

Barwise, P. and Styler, A. (2002), "Marketing expenditure trends", *London business school/Havas marketing report UK*, pp. 1-77.

Baum, C. F., Schaffer, M. E., and Stillman, S. (2003), "Instrumental variables and gmm: Estimation and testing", *Stata Journal,* Vol. 3 No. 1, pp. 1-31.

Bayus, B. L. (1988), "Accelerating the durable replacement cycle with marketing mix variables", *Journal of Product Innovation Management,* Vol. 5 No. 3, pp. 216-226.

Blattberg, R. C., Briesch, R., and Fox, E. J. (1995), "How promotions work", *Marketing Science,* Vol. 14 No. 3, pp. G122-G132.

Boulding, W. (1990), "Commentary on "unobservable effects and business performance: Do fixed effects matter?"", *Marketing Science,* Vol. 9 No. 1, pp. 88-91.

Boulding, W., Moore, M., Staelin, R., Corfman, K., Dickson, P., Fitzsimons, G., Gupta, S., Lehmann, D., Mitchell, D., Urbany, J., and Weitz, B. (1994), "Understanding managers' strategic decision-making process", *Marketing Letters,* Vol. 5 No. 4, pp. 413-426.

Brower, J. and Mahajan, V. (2013), "Driven to be good: A stakeholder theory perspective on the drivers of corporate social performance", *Journal of business ethics,* Vol. 117 No. 2, pp. 313-331.

Carhart, M. M. (1997), "On persistence in mutual fund performance", *The Journal of Finance,* Vol. 52 No. 1, pp. 57-82.

Chakravarty, A. and Grewal, R. (2011), "The stock market in the driver's seat! Implications for R&D and marketing", *Management Science,* Vol. 57 No. 9, pp. 1594-1609.

Chevalier, J. A. and Scharfstein, D. S. (1996), "Capital-market imperfections and countercyclical markups: Theory and evidence", *The American Economic Review,* Vol. 86 No. 4, pp. 703.

Clark, W. A. V., Freeman, H. E., and Hanssens, D. M. (1984), "Opportunities for revitalizing stagnant markets: An analysis of household appliances", *Journal of Product Innovation Management,* Vol. 1 No. 4, pp. 242-254.

Cooper, M., Gulen, H. and Schill, M. J. (2008), "Asset Growth and the Cross-Section of Stock Returns," *Journal of Finance*, Vol 63 No. 4, pp. 1609-51.

Coulson, J. (1979), "Marketing issues", *Journal of Marketing,* Vol. 43 No. 4, pp. 132-134.

Cundiff, E. W. (1975), "What is the role of marketing in a recession?", *Journal of Marketing,* Vol. 39 No. 2, pp. 1.

Currim, I. S., Lim, J., and Kim, J. W. (2012), "You get what you pay for: The effect of top executives' compensation on advertising and r&d spending decisions and stock market return", *Journal of Marketing,* Vol. 76 No. 5, pp. 33-48.

Danaher, P. (2008). "Advertising models," B. Wierenga. (Ed.), *Handbook of marketing decision models.* Springer, NY, pp. 81-106.

Dekimpe, M. G. and Hanssens, D. M. (1995), "The persistence of marketing effects on sales", *Marketing Science,* Vol. 14 No. 1, pp. 1-21.

Dekimpe, M. G. and Hanssens, D. M. (2000), "Time-series models in marketing: Past, present and future", *International Journal of Research in Marketing,* Vol. 17 No. 2–3, pp. 183-193.

Deleersnyder, B., Dekimpe, M. G., Sarvary, M., and Parker, P. M. (2004), "Weathering tight economic times: The sales evolution of consumer durables over the business cycle", *Quantitative Marketing and Economics,* Vol. 2 No. 4, pp. 347-383.

Deleersnyder, B., Dekimpe, M. G., Steenkamp, J.-B. E. M., and Leeflang, P. S. H. (2009), "The role of national culture in advertising's sensitivity to business cycles: An investigation across continents", *Journal of Marketing Research,* Vol. 46 No. 5, pp. 623-636.

Deshpande, R. and Zaltman, G. (1982), "Factors affecting the use of market research information: A path analysis", *Journal of Marketing Research,* Vol. 19 No. 1, pp. 14-31.

Estelami, H., Lehmann, D. R., and Holden, A. C. (2001), "Macro-economic determinants of consumer price knowledge: A meta-analysis of four decades of research", *International Journal of Research in Marketing,* Vol. 18 No. 4, pp. 341-355.

Fama, E. F. and French, K. R. (1992), "The cross-section of expected stock returns", *The Journal of Finance,* Vol. 47 No. 2, pp. 427-465.

Fama, E. F. and French, K. R. (1995), "Size and book-to-market factors in earnings and returns", *The Journal of Finance,* Vol. 50 No. 1, pp. 131-155.

Fama, E. F. and French, K. R. (1996), "Multifactor explanations of asset pricing anomalies", *The Journal of Finance,* Vol. 51 No. 1, pp. 55-84.

Green, E. J. and Porter, R. H. (1984), "Noncooperative collusion under imperfect price information", *Econometrica,* Vol. 52 No. 1, pp. 87-100.

Greer, C. R., Ireland, T. C., and Wingender, J. R. (2001), "Contrarian human resource investments and financial performance after economic downturns", *Journal of Business Research,* Vol. 52 No. 3, pp. 249-261.

Griliches, Z. and Hausman, J. A. (1986), "Errors in variables in panel data", *Journal of Econometrics,* Vol. 31 No. 1, pp. 93-118.

Gupta, S., Lehmann, D. R., and Stuart, J. A. (2004), "Valuing customers", *Journal of Marketing Research,* Vol. 41 No. 1, pp. 7-18.

Gupta, S. and Zeithaml, V. (2006), "Customer metrics and their impact on financial performance", *Marketing Science,* Vol. 25 No. 6, pp. 718-739.

Hillier, T. (1999). "Successful competitive strategies for recessions and recovery: Evidence from pims," B. Patrick. (Ed.), *Advertising in a recession: The benefits of investing for the long run.* NTC Publications Ltd, Henley-on-Thames, UK, pp. 43-51.

Himmelberg, C. P., Hubbard, R. G., and Palia, D. (1999), "Understanding the determinants of managerial ownership and the link between ownership and performance", *Journal of Financial Economics,* Vol. 53 No. 3, pp. 353-384.

Hubbard, R. G. (1998), "Capital-market imperfections and investment", *Journal of Economic Literature*, pp. 193-225.

Hyde, P., Landry, E., and Tipping, A. (2004), "Making the perfect marketer: A study from the association of national advertisers and booz allen hamilton suggests five ways to make marketing more relevant than ever", *Strategy & Business,* Vol. 37 No. Winter, pp. 36-43.

Jensen, M. C. (1986). The takeover controversy: Analysis and evidence. *Midland Corporate Finance Journal*, 4 No. 2. Available: http://ssrn.com/abstract=173452 or http://dx.doi.org/10.2139/ssrn.173452.

Joseph, K. and Richardson, V. J. (2002), "Free cash flow, agency costs, and the affordability method of advertising budgeting", *Journal of Marketing,* Vol. 66 No. 1, pp. 94-107.

Kalyanaram, G. and Winer, R. S. (1995), "Empirical generalizations from reference price research", *Marketing Science,* Vol. 14 No. 3, pp. G161-G169.

Kamakura, W. A. and Gessner, G. (1986), "Consumer sentiment and buying intentions revisited: A comparison of predictive usefulness", *Journal of Economic Psychology,* Vol. 7 No. 2, pp. 197-220.

Kamakura, W. A., Wedel, M., de Rosa, F., and Mazzon, J. A. (2003), "Cross-selling through database marketing: A mixed data factor analyzer for data augmentation and prediction", *International Journal of Research in Marketing,* Vol. 20 No. 1, pp. 45-65.

Kamber, T. (2002), "The brand manager's dilemma: Understanding how advertising expenditures affect sales growth during a recession", *The Journal of Brand Management,* Vol. 10 No. 2, pp. 106-120.

Kaplan, S. N. and Zingales, L. (1997), "Do investment-cash flow sensitivities provide useful measures of financing constraints?", *The Quarterly Journal of Economics,* Vol. 112 No. 1, pp. 169-215.

Kashmiri, S. and Mahajan, V. (2014), "Beating the recession blues: Exploring the link between family ownership, strategic marketing behavior and firm performance during recessions", *International Journal of Research in Marketing,* Vol. 31 No. 1, pp. 78-93.

Katona, G. (1975), *Psychological economics,* Elsevier Scientific Publishing, New York.

Kaufman, P., Jayachandran, S., and Rose, R. L. (2006), "The role of relational embeddedness in retail buyers' selection of new products", *Journal of Marketing Research,* Vol. 43 No. 4, pp. 580-587.

Kaul, A. and Wittink, D. R. (1995), "Empirical generalizations about the impact of advertising on price sensitivity and price", *Marketing Science,* Vol. 14 No. 3, pp. G151-G160.

Kimbrough, M. D. and McAlister, L. (2009), "Linking marketing actions to value creation and firm value: Insights from accounting research", *Journal of Marketing Research,* Vol. 46 No. 3, pp. 313-329.

Kotler, P. and Keller, K. L. (2009), *Marketing management,* Prentice Hall, Upper Saddle River, New Jersey.

Kumar, V. (2015), "Evolution of marketing as a discipline: What has happened and what to look out for", *Journal of Marketing,* Vol. 79 No. 1, pp. 1-9.

Kumar, V., Leone, R. P., and Gaskins, J. N. (1995), "Aggregate and disaggregate sector forecasting using consumer confidence measures", *International Journal of Forecasting,* Vol. 11 No. 3, pp. 361-377.

Lakonishok, J., Shleifer, A., and Vishny, R. W. (1994), "Contrarian investment, extrapolation, and risk", *The Journal of Finance,* Vol. 49 No. 5, pp. 1541-1578.

Lamey, L., Deleersnyder, B., Dekimpe, M. G., and Steenkamp, J.-B. E. M. (2007), "How business cycles contribute to private-label success: Evidence from the united states and europe", *Journal of Marketing,* Vol. 71 No. 1, pp. 1-15.

Lamey, L., Deleersnyder, B., Steenkamp, J.-B. E. M., and Dekimpe, M. G. (2012), "The effect of business-cycle fluctuations on private-label share: What has marketing conduct got to do with it?", *Journal of Marketing,* Vol. 76 No. 1, pp. 1-19.

Latham, S. and Braun, M. (2011), "Economic recessions, strategy, and performance: A synthesis", *Journal of Strategy and Management,* Vol. 4 No. 2, pp. 96-115.

Leeflang, P. S. H., Wittink, D. R., Wedel, M., and Naert, P. (2000), *Building models for marketing decisions,* Kluwer Academic Publishers, Boston, MA. .

Lehmann, D. R. (2004), "Metrics for making marketing matter", *Journal of Marketing,* Vol. 68 No. 4, pp. 73-75.

Lehmann, D. R. and Reibstein, D. J. (2006), *Marketing metrics and financial performance,* Marketing Science Institute, Cambridge, MA.

Lilien, G. L., Kotler, P., and Moorthy, K. S. (1992), *Marketing models,* Prentice Hall, Engelwood Cliffs, NJ.

Lodish, L. M. and Mela, C. F. (2007), "If brands are built over years, why are they managed over quarters?", *Harvard Business Review,* Vol. 85 No. 7/8, pp. 104-112.

Madden, T., Fehle, F., and Fournier, S. (2006), "Brands matter: An empirical demonstration of the creation of shareholder value through branding", *Journal of the Academy of Marketing Science,* Vol. 34 No. 2, pp. 224-235.

Markovitch, D. G., Steckel, J. H., and Yeung, B. (2005), "Using capital markets as market intelligence: Evidence from the pharmaceutical industry", *Management Science,* Vol. 51 No. 10, pp. 1467-1480.

McGovern, G. J., Quelch, J. A., and Crawford, B. (2004), "Bringing customers into the boardroom", *Harvard Business Review,* Vol. 82 No. 11, pp. 70-80.

Mehra, Y. P. (2001), "The wealth effect in empirical life-cycle aggregate consumption equations", *FRB Richmond Economic Quarterly,* Vol. 87 No. 2, pp. 45-68.

Mela, C. F., Gupta, S., and Lehmann, D. R. (1997), "The long-term impact of promotion and advertising on consumer brand choice", *Journal of Marketing Research,* Vol. 34 No. 2, pp. 248-261.

Mizik, N. (2010), "The theory and practice of myopic management", *Journal of Marketing Research,* Vol. 47 No. 4, pp. 594-611.

Mizik, N. and Jacobson, R. (2007), "Myopic marketing management: Evidence of the phenomenon and its long-term performance consequences in the seo context", *Marketing Science,* Vol. 26 No. 3, pp. 361-379.

Mizik, N. and Jacobson, R. (2009), "Financial markets research in marketing", *Journal of Marketing Research,* Vol. 46 No. 3, pp. 320-324.

Moore, G. H. and Zarnowitz, V. (1986). "The development and role of the national bureau's business cycle chronologies," R. Gordon. (Ed.), *American business cycles: Continuity and change.* University of Chicago Press, Chicago, IL, pp. 735-779.

Morgan, N. A. and Rego, L. L. (2009), "Brand portfolio strategy and firm performance", *Journal of Marketing,* Vol. 73 No. 1, pp. 59-74.

Nath, P. and Mahajan, V. (2008), "Chief marketing officers: A study of their presence in firms'top management teams", *Journal of Marketing,* Vol. 72 No. 1, pp. 65-81.

Neslin, S. (2002), *Sales promotion,* Marketing Science Institute, Cambridge, MA.

Oliner, S. D. and Rudebusch, G. D. (1992), "Sources of the financing hierarchy for business investment", *The Review of Economics and Statistics,* Vol. 74 No. 4, pp. 643-654.

Opler, T. C. and Titman, S. (1994), "Financial distress and corporate performance", *The Journal of Finance,* Vol. 49 No. 3, pp. 1015-1040.

Özturan, P., Özsomer, A., and Pieters, R. (2014), "The role of market orientation in advertising spending during economic collapse: The case of turkey in 2001", *Journal of Marketing Research,* Vol. 51 No. 2, pp. 139-152.

Petersen, B. and Strongin, S. (1996), "Why are some industries more cyclical than others?", *Journal of Business & Economic Statistics,* Vol. 14 No. 2, pp. 189-198.

Rappaport, A. (1987), "Stock market signals to managers", *Harvard Business Review,* Vol. 65 No. 6, pp. 57-62.

Reibstein, D. J., Day, G., and Wind, J. (2009), "Guest editorial: Is marketing academia losing its way?", *Journal of Marketing,* Vol. 73 No. 4, pp. 1-3.

Richardson, S. A., Sloan, R. G., Soliman, M. T., and Tuna, İ. (2005), "Accrual reliability, earnings persistence and stock prices", *Journal of Accounting and Economics,* Vol. 39 No. 3, pp. 437-485.

Rotemberg, J. J. and Saloner, G. (1986), "A supergame-theoretic model of price wars during booms", *The American Economic Review,* Vol. 76 No. 3, pp. 390-407.

Rust, R. T., Ambler, T., Carpenter, G. S., Kumar, V., and Srivastava, R. K. (2004), "Measuring marketing productivity: Current knowledge and future directions", *Journal of Marketing,* Vol. 68 No. 4, pp. 76-89.

Sheth, J. N. and Sisodia, R. S. (2005), "A dangerous divergence: Marketing and society", *Journal of Public Policy & Marketing,* Vol. 24 No. 1, pp. 160-162.

Srinivasan, R., Lilien, G. L., and Sridhar, S. (2011), "Should firms spend more on research and development and advertising during recessions?", *Journal of Marketing,* Vol. 75 No. 3, pp. 49-65.

Srinivasan, R., Rangaswamy, A., and Lilien, G. L. (2005), "Turning adversity into advantage: Does proactive marketing during a recession pay off?", *International Journal of Research in Marketing,* Vol. 22 No. 2, pp. 109-125.

Srinivasan, S. and Hanssens, D. M. (2009), "Marketing and firm value: Metrics, methods, findings, and future directions", *Journal of Marketing Research,* Vol. 46 No. 3, pp. 293-312.

Srivastava, R. K., Shervani, T. A., and Fahey, L. (1998), "Market-based assets and shareholder value: A framework for analysis", *Journal of Marketing,* Vol. 62 No. 1, pp. 2-18.

Steenkamp, J.-B. E. M. and Fang, E. (2011), "The impact of economic contractions on the effectiveness of r&d and advertising: Evidence from u.S. Companies spanning three decades", *Marketing Science,* Vol. 30 No. 4, pp. 628-645.

Stock, J. H. and Watson, M. W. (1999). "Business cycle fluctuations in us macroeconomic time series," B. T. John & W. Michael. (Ed.), *Handbook of macroeconomics.* Elsevier, Amsterdam, pp. 3-64.

Taylor, J. B. (1999). "Staggered price and wage setting in macroeconomics," B. T. John & W. Michael. (Ed.), *Handbook of macroeconomics.* Elsevier, Amsterdam, pp. 1009-1050.

Tellis, G. J. and Tellis, K. (2009), "A critical review and synthesis of research on advertising in a recession", *Journal Of Advertising Research,* Vol. 49 No. 3, pp. 304-327.

Tirole, J. (2001), "Corporate governance", *Econometrica,* Vol. 69 No. 1, pp. 1-35.

Varadarajan, R. (2010), "Strategic marketing and marketing strategy: Domain, definition, fundamental issues and foundational premises", *Journal of the Academy of Marketing Science,* Vol. 38 No. 2, pp. 119-140.

Verhoef, P. C. and Leeflang, P. S. H. (2009), "Understanding the marketing department's influence within the firm", *Journal of Marketing,* Vol. 73 No. 2, pp. 14-37.

Vogt, S. C. (1994), "The cash flow/investment relationship: Evidence from u.S. Manufacturing firms", *Financial Management,* Vol. 23 No. 2, pp. 3-20.

Webster, F. E. J., Malter, A. J., and Ganesan, S. (2005), "The decline and dispersion of marketing competence", *MIT Sloan Management Review,* Vol. 46 No. 6, pp. 35-43.

Yang, C. Y. (1964), "Variations in the cyclical behavior of advertising", *Journal of Marketing,* Vol. 28 No. 2, pp. 25-30.