Journal of Business Research 69 (2016) 4242–4248

Contents lists available at ScienceDirect

Journal of Business Research

Is cash king? Market performance and cash during a recession

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ARTICLE INFO

Article history:
Received 4 January 2015
Received in revised form 29 February 2016
Accepted 1 March 2016
Available online 16 March 2016

Keywords:
Cash holdings
Economic recession
Firm market performance
Curvilinear effects

ABSTRACT

During a recession firms face a dilemma between investing cash to take advantage of emerging opportunities and holding cash to buffer against the crisis. Given this tension, we ask: Is cash king during a recession? Using a sample of publicly traded manufacturing firms between 2004 and 2010, we use peer cash holdings to instrument for cash and examine whether the curvilinear relationship between cash and stock market performance (Tobin's Q) changes during the economic crisis. We find that the before-recession benefits of cash decline at very high levels of cash holdings (.9 of total assets), whereas the during-recession benefits begin to decline at medium levels of cash holdings (.4 of total assets). Our results reveal that the nature of the curvilinear relationship between cash and market performance shifts from a diminishing returns curve before-recession to a more pronounced inverse U-shaped relationship during-recession.

1. Introduction

Holding cash has both benefits and costs. Depending on the theoretical lens used, cash holdings are either positively or negatively related to performance. On one hand, cash increases flexibility in strategic response and provides deterrence (Haushalter, Klasa, & Maxwell, 2007). When external financing is too costly, cash allows firms to invest in opportunities and reduces the risk of underinvesting in strategic opportunities (Garvey, 1992). On the other hand, excess cash leads to overinvesting in less profitable opportunities (Richardson, 2006), increases entrenchment (Jensen, 1986; Shleifer & Vishny, 1989), and results in poor governance (Kalcheva & Lins, 2007). More recently, Kim and Bettis (2014) found that Tobin's Q, a proxy for market performance, has an inverted-U type relationship with cash holdings, with the inflection point at very high levels of cash holdings (.89 of total assets).

Prior literature, however, has largely examined the cash–performance relationship during stable economic conditions. The decision to hold or use cash is particularly salient during a recession given increasing calls on firms to expend accumulated cash (Gulati, Nohria, & Wohlgezogen, 2010). Economic crisis brings both threats and opportunities, creating a dilemma for managers to either hold cash to buffer against threats or to expend cash to exploit emerging opportunities. Recent work has argued that firms making strategic investments during a recession improve their financial performance and emerge stronger out of the recession (Gulati et al., 2010). However, holding cash during a recession could also allow a firm to remain flexible, limit risk-taking in the face of an uncertain and unpredictable environment, and hold cash as a potential strategic deterrent.

These facts beg the question: Does the stock market value cash holdings during a recession? Given the benefits and costs of holding cash during a recession, we examine the quadratic relationship between cash and market performance during a period of recession. Answering this research question is particularly relevant given that corporations were holding $5 trillion in cash at the beginning of 2014, six years after the Great Recession of 2008 (Woodhill, 2014). Our study contributes to interdisciplinary streams of literature in both strategy and finance on the cash and market performance relationship.

2. Theoretical development and hypotheses

Cash has both transaction and precautionary benefits (Keynes, 1934). The transaction benefits of cash refer to savings from potentially costly efforts to raise capital, lower cost of capital, and greater liquidity (Keynes, 1934). As a precautionary benefit cash preserves the ability to invest in opportunities when other sources of financing are unavailable or when cash flows are volatile (Opler, Pinkowitz, Stulz, & Williamson, 1999).

The benefits of cash holdings are discussed both directly and indirectly in the strategy literature. Firms with excess cash take a real options approach to pursue multiple strategic alternatives (Courtney, 2001) and maintain credible threats without making irreversible resource commitments (cf. Ghemawat, 1991; Ghemawat & del Sol, 1998). As for the indirect evidence on benefits of holding cash, studies on unabsorbed slack in strategic management show that cash promotes

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http://dx.doi.org/10.1016/j.jbusres.2016.03.001
0148-2963/

innovation (Greve, 2003, 2007), facilitates adaptation (Courtney, 2001), and strengthens deterrence (Kim & Bettis, 2014). Unabsorbed slack stimulates research and development (Greve, 2003), experimentation (Nohria & Gulati, 1996), and exploration (Greve, 2007; Voss, Sirdeshmukh, & Voss, 2008).

Yet the influence of holding cash on performance has been debated widely. Hoarding cash on balance sheets has been lambasted as "dead money" and drawn the ire of politicians and activist investors who desire to see cash reserves put to productive use (Ablan & Gupta, 2013).

Beyond these arguments, research has also shown that cash holdings are associated with managerial entrenchment (Shleifer & Vishny, 1989), overinvestments (Richardson, 2006), and higher agency costs (Jensen, 1986). Managers prefer to hold cash to increase their discretion and influence (Opler et al., 1999), but cash holdings also lead to inefficient use of capital (Opler et al., 1999) and increased opportunity costs from missed investment opportunities (Garvey, 1992).

For these reasons, and in line with Kim and Bettis (2014), we propose the following:

Hypothesis 1. Cash has a quadratic relationship to firm market performance with a positive linear term and negative squared term.

2.1. Cash holdings during a recession

The relationship between cash and market performance, however, may not be the same during a recession. A period of recession realigns the strategic landscape and presents unpredictable environmental conditions for firms (cf. Wholey & Brittain, 1989). These tumultuous environmental conditions present both threats and opportunities. Crisis provides opportunities (Starbuck, Greve, & Hedberg, 1978) to reconfigure resources in novel ways (cf. Schumpeter, 1934) and exploit the growth opportunities (Haushalter et al., 2007). At the same time, the recession presents a major threat that reduces performance, constricts available growth opportunities, and weakens extant capabilities.

Research and popular discourse have prescribed alternative strategies, with conflicting prescriptions for cash holdings. We refer to the first major strategy as "innovate out" of a recession by using cash reserves. This approach calls on firms to go on a strategic offense to change "fundamental patterns of present and planned resource deployment" (Hofer & Schendel, 1978, page 25) and develop new competencies (Gulati et al., 2010). In the times of upheaval during a recession, organizational capabilities must be renewed to match the evolving industry landscape (cf. Amit & Schoemaker, 1993) (cf. Inkpen & Choudhury, 1995). By investing cash during a crisis, firms can develop new products, enter new markets, and orchestrate resources to increase growth and profitability (cf. Pearce & Robbins, 1993; Barker & Duhaime, 1997). Hoarding cash, in the "innovate out" view, decreases the firm's sensitivity to environmental pressures (cf. George, 2005) and insulates a firm from making necessary changes during the turbulent recessionary period (Bromiley, 1991). Furthermore, cash holdings have clear opportunity costs and may result in threat rigidity (Staw, Sandelands, & Dutton, 1981) and managerial entrenchment (Jensen, 1986).

We refer to the second major strategy as "retrench and recover." This defensive approach calls on firms to reduce investments, cut costs, and focus on increasing efficiency. According to this view, a recession is a threat and the gamble of strategic change could be too costly for a firm. With a significant number of firms facing decline and others filing for bankruptcy, investing cash to improve the firm's strategic position could be risky. Increasing organizational control (Staw et al., 1981) and reducing risky actions (Sitkin & Pablo, 1992) could be realized through a greater focus on accumulating cash. According to "retrench and recover" view, committing resources to a course of action during a recession locks-in a firm (Ghemawat, 1991) and stifles its ability to react to quickly changing conditions during recession (Porac, Thomas, Wilson, Paton, & Kanfer, 1995). Cash holdings could act as a safety net during recession, and provide financial flexibility in the face of unknown environments.

The foregoing discussion illustrates the conflicting motivations and prescriptions for firms seeking to navigate the changing landscape of a recession. We integrate these perspectives by suggesting that during a recession, the market will both reward and punish cash holdings according to the logic above, but these forces will be stronger than in prerecession periods.

Firms with low levels of cash holdings during a recession will be susceptible to failure. In this condition, the market will interpret lower levels of cash as a pre-cursor to insolvency. Cash will signal the availability of resources required to develop new capabilities, ward off competitors who seek to infringe on firm territory, and weather the tumultuous recessionary environment (Kim & Bettis, 2014).

At high levels of cash holdings during a recession, firms are well past the cash necessary for deterrence and investments in opportunities. The stock market will consider these firms as too threat rigid and unwilling to make important strategic changes (Staw et al., 1981). Investors will be concerned with strategic stagnation, despite the availability of cash, and strongly weigh the opportunity cost of cash holdings (Leibenstein, 1966; Fama, 1980). Excess cash will be further seen as promoting inefficiencies (Jensen, 1986). These firms may be criticized for having managers who are more sensitive to threats than to opportunities (Jackson & Dutton, 1988). Self-interested managers may be construed as attempting to preserve firm-specific human capital, maintain executive compensation, and reduce employment risk during a recession (Shleifer & Vishny, 1997; Wiseman & Gomez-Mejia, 1998). These factors will cause the market to react more strongly against firms holding excessive cash levels.

The above arguments suggest that during a recession the benefits to cash will be stronger at low levels, and the costs to cash will be stronger at high levels. At moderate levels, firms will receive higher market valuation. Firms with moderate levels of cash holdings will have the resources to invest in new capabilities and seize emergent growth opportunities. In addition, these firms will be construed as innovative rather than construed as threat rigid. Although firm valuations will generally be less favorable during a recession, our theoretical arguments suggest that the curvilinear relationship between cash and market performance will differ during a recession. Specifically, the inflection point of the curve will be at medium levels of cash compared to the diminishing returns model in Kim and Bettis (2014), where returns decline at 0.89—very high levels of cash holdings. In addition, due to lower valuations during a recession, the curve will be below the curve during a non-recession period, and the slope will be more positive at low levels of cash and more negative at high levels of cash (i.e., more inverted-U shaped). This leads to our second hypothesis:

Hypothesis 2. Cash has a more pronounced curvilinear relationship to firm market performance during a recession than pre-recession, such that the upward slope will be more positive and the downward slope more negative.

3. Methods and data

3.1. Sampling strategy and analytical setup

We draw on the entire population of 1733 publically traded US manufacturing firms as listed in COMPUSTAT (two-digit SIC codes 20–39) representing 6752 firm-year observations during the period 2004 to 2010. The fields in the parentheses in the variable description section are the variable names in COMPUSTAT. For several reasons, manufacturing firms represent a particularly salient set of firms to test our hypotheses. Compared to utilities and service firms, manufacturing firms are less likely to be subject to government regulations, which may alter firms' strategic activities. Manufacturing firms invest in tangible assets,