Journal of Banking & Finance 48 (2014) 276–291

Contents lists available at ScienceDirect

Journal of Banking & Finance

journal homepage: www.elsevier.com/locate/jbf

State ownership, soft-budget constraints, and cash holdings: Evidence from China's privatized firms[☆]

William L. Megginson[a,b,*], Barkat Ullah[c,1], Zuobao Wei[c,2]

[a] Price College of Business, The University of Oklahoma, 307 West Brooks, 205A Adams Hall, Norman, OK 73019-4005, United States
[b] King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia
[c] College of Business Administration, University of Texas at El Paso, El Paso, TX 79968, United States

ARTICLE INFO

Article history:
Received 22 June 2013
Accepted 13 June 2014
Available online 8 July 2014

JEL classification:
G32
G34
G38

Keywords:
Privatization
State ownership
Soft-budget constraints
Cash holdings
China

ABSTRACT

We study the relation between state ownership and cash holdings in China's share-issue privatized firms from 2000 to 2012. We find that the level of cash holdings increases as state ownership declines. For the average firm in our sample, a 10 percentage-point decline in state ownership leads to an increase of about *RMB* 55 million in cash holdings. This negative relation can be attributable to the soft-budget constraint (SBC) inherent in state ownership. The Chinese financial system is dominated by the state-owned banks, an environment very conducive for the SBC effect. We further examine and quantify the effect of state ownership on the value of cash and find that the marginal value of cash increases as state ownership declines. The next *RMB* added to cash reserves of the average firm is valued at *RMB* 0.96 by the market. The marginal value of cash in firms with zero state ownership is *RMB* 0.36 *higher* than in firms with majority state ownership. The SBC effect exacerbates agency problems inherent in state-controlled enterprises, contributing to their lower value of cash.

1. Introduction

The efficient management of liquidity is essential to the success of any business. Over the past decade or so, financial economists have devoted much attention to the causes and consequences of the large and increasing amount of liquid assets on corporate balance sheets around the world. Scholars have developed various explanations for the cross-section, cross-country, and time-series variations in corporate cash holdings. These explanations encompass motives for holding cash, the need to overcome financial constraints, agency conflicts between various corporate stakeholders, and country level institutional and market development.[3] In this paper, we employ a well-established theory in economics, the soft-budget constraint (SBC) theory, to study the relation between state ownership and cash holdings in China's share-issue privatized (SIP) firms.

SIP firms are an important group of publicly traded firms that has received limited attention so far in the growing body of literature on corporate cash holdings.[4] SIP firms differ from other publicly traded firms (those which were *de novo* private) in one very

☆ We thank Jarrad Harford, Ivalina Kalcheva, Sifei Li, Karl Lins, Chen Liu, Yixin Liu, Yu Liu, Neslihan Ozkan, Meijun Qian, Alejandro Riano, Valerity Sibilkov, and Feixue Xie for helpful comments and suggestions. This study has also benefited from comments offered by participants in the 2013 ECCE-USB Financial Globalization and Sustainable Finance conference at the Stellenbosch Business School, Cape Town, South Africa and the 2012 Financial Management Association meeting in Atlanta, Georgia. Finally, we appreciate the financial support afforded to this project by the University of Oklahoma's Price College of Business and George Lynn Cross Research Professorship, the KFUPM Chair Professor in Finance, and the University of Texas at El Paso's College of Business Administration.

* Corresponding author at: Price College of Business, The University of Oklahoma, 307 West Brooks, 205A Adams Hall, Norman, OK 73019-4005, United States. Tel.: +1 (405) 325 2058; fax: +1 (405) 325 7688.

E-mail addresses: wmegginson@ou.edu (W.L. Megginson), sbullah@utep.edu (B. Ullah), zwei@utep.edu (Z. Wei).

[1] Tel.: +1 (915) 400 8478.

[2] Tel.: +1 (915) 747 5381.

[3] See Kim et al. (1998), Harford (1999), Opler et al. (1999), Dittmar et al. (2003), Almeida et al. (2004), Ozkan and Ozkan (2004), Pinkowitz et al. (2006), Faulkender and Wang (2006), Dittmar and Mahrt-Smith (2007), Kalcheva and Lins (2007), Harford et al. (2008), Bates et al. (2009), Liu and Mauer (2011), and many others.

[4] Over the past four decades, governments around the world have undertaken massive privatization programs (Megginson and Netter, 2001; Megginson, 2005; Bortolotti and Megginson, 2012). The cumulative proceeds raised by privatizing governments since 1977 now exceed $2.5 trillion. Privatization has taken place in developed and developing economies and across all political persuasions. Many governments chose share-issue privatizations (SIPs), as opposed to direct asset sales. Measured by the amount of proceeds raised, SIPs are by far the largest share offerings in history. The share-issue privatization of China's state-owned Industrial and Commercial Bank of China (ICBC) in 2006 raised a staggering US$ 22 billion (McGuiness and Keasey 2010). The biggest IPO of all time by a U.S. company, the November 2010 IPO of General Motors after it emerged from bankruptcy, was also a privatization in that the federal government sold roughly half of the stake it acquired in GM in the 2008 rescue.

http://dx.doi.org/10.1016/j.jbankfin.2014.06.011
0378-4266/

important aspect: the privatizing governments usually continue to wield substantial influence or control in the SIP firms through retained equity ownership. In the case of China, most of the publicly traded companies are former state-owned enterprises (SOEs) that were privatized through share offerings starting in the early 1990s. The Chinese government retains an average (median) of 21.4% (5.7%) equity ownership in our sample firms.[5]

The retained state ownership in China's SIP firms provides an excellent setting to examine the SBC effect on corporate cash holdings. State ownership has long been linked to inefficiency and underperformance (Shleifer and Vishny, 1994; Boycko et al., 1996; Megginson and Netter, 2001). A major cause of this inefficiency is that state ownership is more likely than private ownership to suffer from the soft-budget constraint (SBC) effect first formulated by Kornai (1979, 1980). In a nutshell, an organization with a soft budget constraint can always count on a supporting organization (such as the government) to bail it out when its budget constraint is persistently breached. The SBC theory suggests that state ownership is inherently linked to the SBC effect. Therefore, we employ state ownership as the proxy for the SBC effect in our study: the higher the state ownership the more severe the SBC effect. We further argue that the SBC effect can manifest itself in China's SIP firms through two channels: (1) the relation between the level of cash holdings and state ownership, and (2) the relation between the marginal value of cash and state ownership.

China's financial system is dominated by state-owned banks (Allen et al., 2005). The combination of the dominating state-owned banks and the retained state ownership in China's SIP firms provide fertile ground for the SBC effect to take hold. Lin and Tan (1999) and Cull and Xu (2000, 2003) document that SOEs in China have better access to credit in state-owned banks and can expect to receive financial help in times of distress. Hence, we argue that a firm with a high state ownership does not need to hold high level of cash since credit will be readily available from state-owned banks, even if the company becomes financially distressed and loses access to external private funding. Therefore, we hypothesize that cash holdings and state ownership are negatively related.

High state ownership leads to soft budget constraints, which in turn lead to more agency problems. Agency theory suggests that those who control the firm exploit corporate resources to further their own interests (Jensen 1986). One type of resources, liquid assets, provides a particularly attractive opportunity for managers to expropriate, since liquid assets are readily accessible by managers and do not attract much scrutiny from capital markets or other outside stakeholders. Managers who operate under a SBC have more opportunities to appropriate corporate assets, especially liquid assets. These managers may also be more susceptible to corruption and pressure to invest in politically expedient projects, rather than NPV maximizing projects. Several recent studies show that high agency costs are associated with low marginal values of cash (Pinkowitz et al., 2006; Dittmar and Mahrt-Smith, 2007; Kalcheva and Lins, 2007; Liu and Mauer, 2011). Therefore, we hypothesize a negative relation between state ownership and the marginal value of cash in China's SIP firms.

We choose to study the SBC effect, as proxied by state ownership, on corporate cash holdings in China's SIP firms for several reasons. First, there is a wide cross-sectional variation of state ownership in China's SIP firms, ranging from zero to over 90% in our sample firms. This wide variation allows us to examine the degree of the SBC effect on the level of cash holdings, as well as on the marginal value of cash. Second, cash holdings in China's publicly traded firms are large and increasing. At the end of 2012, the total amount of liquid assets held by China's publicly traded non-financial firms in our sample was approximately *RMB* 2.95 trillion (about US$ 469 billion).[6] Fig. 1 illustrates the mean cash holdings and state ownership over our sample period 2000–2012. Fig. 1 shows dramatic decreases in state ownership over the sample period, from a mean of 34.7% in 2000 to 4.3% in 2012. In contrast, the cash ratio increases significantly over the same time period, from a mean of 18.7% in 2000 to 32.8% in 2012. [7] Fig. 1 illustrates an overall negative relation between state ownership and cash holdings. Third, as pointed out earlier, China's SIP firms operate in a financial system dominated by state-owned banks. Such an environment is very conducive to the SBC effect (Lin and Tan, 1999). However, scholars thus far have paid little attention to the causes and consequences of cash holdings in China's listed sector, even though China has the world's second largest economy and one of the largest stock markets (Allen et al., 2005). In this regard, our study contributes to the cash holding literature by providing the first comprehensive empirical evidence from China.

We first examine the relation between state ownership and cash holdings. We find that state ownership and cash holdings are negatively related, consistent with our hypothesis that high state ownership leads to SBC, and therefore less need to hold high levels of cash. For the average firm in our sample, a 10 percentage-point decline in state ownership leads to an increase of about *RMB* 55 million in cash holdings. This finding is robust to a battery of robustness checks, including year effects, firm fixed effects, and controlling for China's split share structure reform and the potential endogeneity between state ownership and cash holdings. We further find that smaller, more profitable, and high growth firms hold more cash, and that debt and net working capital are negatively related to cash holdings, consistent with findings in U.S. and other international firms.

In the second part of this paper, we examine the effect of state ownership on the marginal value of cash, and find that the marginal value of cash increases as state ownership declines. For the average firm in our sample, the next *RMB* of cash added to its cash reserves is valued at *RMB* 0.96, whereas the next *RMB* of cash is valued *RMB* 0.36 *higher* in firms with zero state ownership than in firms with majority state ownership. As the government reduces its stake in the SIP firms, access to credit in state-owned banks becomes harder, so the budget constraint hardens. Firms with hard budget constraints invest their funds more efficiently and receive higher returns, leading to higher marginal values of cash (Kornai, 2001; Denis and Sibilkov, 2010).

The rest of the paper is organized as follows. Section 2 provides a brief discussion of the SBC theory and a snapshot of the Chinese financial system. Section 3 describes our data and sample, while Section 4 studies the relation between state ownership and the level of cash holdings. Section 5 examines the effect of state ownership on the marginal value of cash, while Section 6 presents conclusions.

[5] Other privatizing governments also retain ownership in SIP firms, as documented by the Jones et al. (1999) study of share-issue privatization programs in 59 countries, which finds evidence of continued political interventions after the first privatizing share sales. The governments in their sample sell an average (median) of 43.9% (35.0%) of the SOE's capital in initial offers and 22.7% (18.1%) in subsequent seasoned issues, suggesting that the governments retain significant equity ownership in the privatized firms. Though these governments often surrender day-to-day management of the firm post-privatization, they can retain influence and control over major corporate decisions, such as top personnel appointments, mergers and acquisitions, and foreign takeovers.

[6] Liquid assets (or cash reserves) include cash and marketable securities at the end of 2012 across all non-financial firms in our database. The Chinese currency is called renminbi (people's money), or *RMB*. The exchange rate at the end of 2012 was *RMB* 6.2896/US$ (IMF International Financial Statistics).

[7] The cash ratio is defined as cash reserves over total book assets minus cash reserves (i.e. noncash assets).