Finance Research Letters xxx (xxxx) xxx–xxx

Contents lists available at ScienceDirect

Finance Research Letters

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

Signaling through government subsidy: Certification or endorsement[☆]

Yan Ziqiao[a,*], Li Yue[b]

[a] School of Accounting, Shanghai University of International Business and Economics, Shanghai, 201620, China
[b] School of Management, Xi'an Jiaotong University, Shaanxi, 710049, China

ARTICLE INFO

Keywords:
Government subsidy
Signaling effect
Monetary policy

JEL classification:
E52
G32
H25

ABSTRACT

We document the credit transmission channel of monetary policy in China by examining the signaling effect of government subsidies on the credit transmission process. We divide the signaling effect of government subsidies into a certification effect (indicating that firms have good quality) and an endorsement effect (indicating that firms have the recessive guarantee of government). Our results show that banks pay more attention to the endorsement effect of government subsidies when they make credit decisions, especially during tight money periods.

1. Introduction

This study investigates the signaling effects of government subsidies in China. We test two possible explanations for the signaling effects. First, obtaining a government subsidy facilitates a firm's access to external financing because the subsidy provides a positive signal of the firm's quality (Lerner, 1999; Takalo and Tanayama, 2010). We refer to this as the certification effect. Second, government subsidies are assumed to involve recessive guarantees and protection from politicians, which can enhance firms' access to external financing. We refer to this as the endorsement effect.

The motivation for our study is based on two observations. First, evidence from developed countries confirms the certification effect of government subsidies. Lerner (1999) and Meuleman and Maeseneire (2012) find that R&D grants can enhance a firm's access to external financing. Second, due to the imperfect institutional environment and general existence of political connections in China, the receipt of government subsidies depends not only on a firm's quality, but also its special relationship with government officers (Chen et al., 2011). Therefore, receiving subsidies through abnormal means can transmit endorsement signal that the firm has the government as its recessive guarantee, which can encourage banks to lend to it. These two points suggest that the government subsidy signaling effect mechanism could differ quite dramatically between China and developed countries.

We examine the effect of government subsidies on bank loans under different monetary policies in China and address two main questions. First, how do government subsidies affect the credit transmission process? Second, what kind of government subsidy signal effects do banks prefer when they make credit decisions under different monetary policies?

We manually collected government subsidy data on privately-owned listed companies in China between 2008 and 2013. We find that the endorsement effect of government subsidies plays an important role in the credit transmission mechanism of monetary policy. Our findings contribute to the existing literature in the following respects. First, we supplement the literature on the credit

☆ This paper was presented at the 2016 Cross Country Perspectives of Finance conferences held in Taiyuan and Pu'er, China. We gratefully acknowledge financial support from the Shanghai Planning Program of Philosophy and Social Science (Grant no. 2017EGL004).

* Corresponding author.
E-mail address: yan_ziqiao@sina.com (Z. Yan).

http://dx.doi.org/10.1016/j.frl.2017.10.007
Received 30 September 2017; Accepted 11 October 2017

transmission mechanism of monetary policy by analyzing the effect of government subsidies on bank credit under different monetary policies. Second, our findings extend the literature on the signal transmission effect of government subsidies. Adding to studies that identify the positive effect of government subsidies in certifying firm quality and project preponderance, our study divides the signal effect of government subsidies into two categories: the certification and endorsement effects. We find that the endorsement effect is more important, which indicates that banks display pro-government behavior in China.

The remainder of this paper is organized as follows. Section 2 presents a literature review and develops our hypotheses. Section 3 lays out the methodology. Section 4 presents a discussion of our results. Section 5 concludes the paper.

2. Hypothesis development

Government subsidies are cash payments and intermediate goods and services supplied freely or at nominal prices from governments to particular producers (Robinson, 1967). The literature suggests that the receipt of a subsidy may serve as an observable indicator of the unobservable firm's quality because knowledgeable government officials can certify firms (Lerner, 1999). Therefore, government subsidies can help firms to signal that they are of good quality and thus enhance their access to external financing (Meuleman and Maeseneire, 2012). We refer to this as the certification signal of government subsidies.

Assuming that government assessments are independent and technically sophisticated, a subsidy carries a certification signal (Lerner, 2002). However, whether a firm can receive a government subsidy can depend on the relationship between the government and firms, especially in countries such as China where government departments have high discretionary power (Chen et al., 2010). Subsidy allocation is often not a matter of government policy but rather a result of decisions made by individual officials. Therefore, establishing political connections with officials who make decisions about subsidies is an important way for firms to obtain this form of financial aid.

Firms can thus use unofficial ways to obtain government subsidies that they are not necessarily qualified for. Such subsidies are more of a signal of government support than an indication of the unobservable applicant's quality. The special relationship between firms and government is assumed to provide a recessive guarantee and protection for subsidy receivers. Thus, government subsidies received via political relationships can signal that a firm is government-backed, which can increase its access to bank loans (Claessens et al., 2008; Li et al., 2008; Zheng et al., 2013). We refer to this as the endorsement effect of government subsidies.

Given China's imperfect institutional environment and the government's high discretionary power (Chen et al., 2010), it is necessary to examine the existence of government subsidy endorsement and certification signals and to distinguish their effects on bank credit under different monetary policies.

We first focus on the effect of technical government subsidies on bank credit. A technical government subsidy is a special grant to encourage innovation, energy conservation and environmental protection. Governments subsidize high technological firms to increase private-sector spending on innovative activities (Gonzalez and Pazo, 2008; Aerts and Schmidt, 2008). Considering the external effect of these projects, the review of project feasibility and prospects is stricter when government officers make decisions about the allocation of technical government subsidies (Feldman and Kelley, 2006). Even if we cannot rule out the possibility of misallocation, we believe that a technical government subsidy is more a certification signal than an endorsement signal (Meuleman and Maeseneire, 2012). Hence, comparing the roles of technical government subsidies and other kinds of government subsidies can help us determine whether banks have a preference between certification and endorsement signals. If banks prefer certification signals, technical government subsidies will play a positive role in helping firms to obtain bank loans in tight money periods. However, if certification signals make no sense for banks, this phenomenon is not observed. Based on these arguments, our hypotheses are stated as follows:

H1a: During tight money periods, technical government subsidies can enhance enterprises' access to bank loans.

H1b: During tight money periods, technical government subsidies do not enhance enterprises' access to bank loans.

We also test the endorsement signal of government subsidies directly by constructing a new measurement of endorsement effects. As individual officials can determine the allocation of subsidies in their everyday management of these resources, firms that have close relationships with government can get abnormally high government subsidies (Lin et al., 2015). We refer to these as discretionary government subsidies. Unlike normal government subsidies, discretionary government subsidies are assumed to have a recessive guarantee and protection from politicians, which indicates a significant endorsement effect. If banks pay more attention to the endorsement effect of government subsidies than the certification effect, discretionary government subsidies will play an important role in the banks' credit decisions. Given these arguments, we develop the following hypotheses:

H2a: During tight money periods, discretionary government subsidies can enhance enterprises' access to bank loans.

H2b: During tight money periods, discretionary government subsidies cannot enhance enterprises' access to bank loans.

3. Methodology

3.1. Sample and data

The sample in this study encompasses private Chinese companies trading on the Shanghai and Shenzhen Stock Exchanges between 2008 and 2013. We obtained financial information from the CSMAR database. We hand-collected government subsidy data