

HOSTED BY



ELSEVIER

Contents lists available at ScienceDirect

China Journal of Accounting Research

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

Banking deregulation and corporate tax avoidance

Bill B. Francis^a, Ning Ren^b, Qiang Wu^{a,*}^a Lally School of Management, Rensselaer Polytechnic Institute, United States^b College of Management, Long Island University, Post, United States

ARTICLE INFO

Article history:

Received 1 March 2016

Accepted 27 September 2016

Available online xxxx

Keywords:

Tax avoidance

Interstate banking deregulation

External financing

ABSTRACT

We investigate whether tax avoidance substitutes for external financing. We exploit interstate banking deregulation as a quasi-external shock to examine whether firms engage in less tax avoidance after banking deregulation, because of cheaper and easier access to credit from banks. We find no empirical evidence to support this substitutive relation, even for firms with higher financial constraints or firms with higher external financing dependence.

© 2016 Sun Yat-sen University. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

This study examines the substitutive relation between corporate tax avoidance and firms' use of debt. Corporate tax avoidance activities can increase a firm's tax savings, and consequently decrease its reliance on external funding such as debt. The substitution between debt tax shields and non-debt tax shields is modeled theoretically (DeAngelo and Masulis, 1980). However, empirical evidence on this issue is very mixed. Using a sample of 44 tax shelter firms, Graham and Tucker (2006) find empirical evidence that is consistent with the substitutive relation between these two. However, Edwards et al. (2013) find that only firms facing financial constraints exhibit a higher level of tax avoidance. Further, Bradley et al. (1984) find that non-debt tax shields and leverage are positively related, casting doubt on the existence of a significant avoidance-debt-substitution effect.

A major challenge in determining the empirical relation between tax avoidance and the use of debt is that both are endogenous in nature (Graham and Tucker, 2006). We alleviate this concern by exploiting the staggered interstate banking deregulation events in the United States. The Interstate Banking and Branching Efficiency Act (IBBEA) was passed in 1994 and became effective as of 1 June 1997. As described by Rice and Strahan (2010), during this period, states were allowed to erect up to four barriers to protect their local bank-

* Corresponding author.

E-mail addresses: francb@rpi.edu (B.B. Francis), ning.ren@liu.edu (N. Ren), wuq2@rpi.edu (Q. Wu).

<http://dx.doi.org/10.1016/j.cjar.2016.09.004>

1755-3091/© 2016 Sun Yat-sen University. Production and hosting by Elsevier B.V.

This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

ing industry from out-of-state competition. Prior studies find that in states where the restrictions are relaxed, because of increased banking competition, firms have cheaper bank loans and easier access to credit (e.g., Rice and Strahan, 2010; Amore et al., 2013).¹ Therefore, interstate bank deregulation provides an ideal quasi-experiment to examine the substitutive relation between the use of credit and corporate tax avoidance.

Following Rice and Strahan (2010) and Cornaggia et al. (2015), we use *RSindex* to capture the degree of deregulation in different states and at different times. *RSindex* ranges from 0 to 4, indicating how many barriers the state erected after interstate banking deregulation. Firms in states that are open to competition (e.g., *RSindex* value is 0) have easier and cheaper access to bank loans than firms in less open states (e.g., *RSindex* value is 4).

We construct tests using staggered interstate banking deregulation events as exogenous shocks to the credit supply and the cost of bank loans. If the substitutive relation between cash savings from tax avoidance and external financing holds, we expect to observe a decrease in firms' tax avoidance practices after interstate deregulation when they have easier and cheaper access to external financing (i.e., bank loans). Therefore, we expect *RSindex* to be positively associated with tax avoidance.

Given that we are interested in broad tax avoidance strategies that could reduce the firm's explicit taxes, following Dyreng et al. (2010), Hope et al. (2013) and Hasan et al. (2014), among others, we use the effective tax rate (*GAAP ETR*), cash effective tax rate (*Cash ETR*), discretionary book-tax difference (*Discretionary BT*, as in Desai and Dharmapala (2006)) and discretionary permanent book-tax difference (*DTAX*, as in Frank et al. (2009)), as our measures of tax avoidance.

In our baseline model, we collect all available observations around interstate deregulation events (pooled sample) and control for standard determinants of tax avoidance. We find that the coefficients on *RSindex* are not statistically significant for all four measures of tax avoidance. Therefore, our results do not provide supportive evidence for the substitutive relation between tax avoidance practices and external financing. We further constrain our sample to different event windows and find similar results.

According to Edwards et al. (2013), firms with higher financial constraints are more likely to exploit cash savings from tax avoidance practices. To examine whether the substitutive relation holds for firms with higher financial constraints, we divide our sample into two subgroups based on firms' financial constraint levels and perform the baseline model using these subsamples.² We find that interstate banking deregulation has no significant effect on corporate tax avoidance even for firms that are facing higher financial constraints.

We further examine whether the extent to which companies depend on external finance affects the substitutive relation between tax avoidance and external financing. We assume that firms with higher dependence on external finance are more likely to be affected by interstate banking deregulation. The easier access to and lower cost of bank loans should make it easier for firms to access external funding, especially firms that are highly dependent on external financing. We perform subsample tests based on the measure of firms' external finance dependence developed by Duchin et al. (2010). We find that the coefficients on *RSindex* are not statistically significant, even for firms with higher dependence on external financing. In summary, we fail to find that interstate banking deregulation has a significant effect on firms' tax avoidance behavior, even when firms are facing financial constraints or highly dependent on external financing.

This study contributes to a growing stream of literature that examines the determinants of tax avoidance. Previous studies find very mixed results with regard to the relation between the use of debt and corporate tax avoidance. In our paper, we use banking deregulation as a natural experiment to better identify the effect of external financing shocks on tax avoidance behavior. Our empirical evidence fails to find a significant substitutive relation between tax avoidance and the use of debt, even for firms with financial constraints. Our paper sheds light on the debate in this research field. Our paper also contributes to the banking literature that examines the real effects of banking deregulation on corporate decision-making.

¹ Using DealScan dataset, we examine how interstate banking deregulation affects the costs and amounts of bank loans for US public firms. We find that bank loan spreads are significantly reduced and bank loan amounts are significantly increased after banking deregulation.

² We also perform an interaction model, interacting *RSindex* with the dummy variable *high_KZ* score. The results are consistent with the subsample regressions.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات