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Government guaranteed small business loans and regional growth

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A B S T R A C T

This paper examines the impact of government guaranteed small business loans on regional growth. I construct a metro-level panel of the Small Business Administration's guaranteed loans and examine economic growth between 1993 and 2002, across 316 metro areas in the US. A simple OLS regression finds a significant positive relationship between small business loans and regional growth. However, first-difference and instrumental variable regressions that mitigate endogeneity find no significant employment or income growth effects from small business loans. At least from an efficiency perspective, there seems to be no net gains to the regional economy from guaranteed small business loans.

1. Executive summary

Despite the prevalence of financial policies that support small businesses, there is surprisingly little research that examines how such policies affect regional economic growth. One of the most widely used policy in this regard is the guaranteed loan program, whereby the government guarantees a portion of the loans that financial institutions lend to small businesses. Given the considerable interest policy makers have in supporting small businesses and creating jobs, the lack of academic research on this topic is unfortunate. Scholars have examined the regional growth consequences of entrepreneurship and how finance policies affect new venture creation. However, we know little of how financial policies that promote new venture creation affect regional growth. This paper's main objective is to empirically examine whether government guaranteed small business loans indeed promote regional employment and income growth in the United States.

A main challenge in empirically assessing the impact of small business loans on regional economic growth is the fact that entrepreneurs tend to start businesses when the region's economy is doing well. In other words, a positive relationship between the number of small business loans and regional growth may be driven by the good economic prospects of that region, and it may not necessarily imply that the small business loans are causing regional growth. This study addresses this empirical challenge by incorporating different econometric strategies – OLS regressions, first-difference regressions, and instrumental variable regressions.

I match the Small Business Administration (SBA) loans data to each Metropolitan Statistical Area (MSA) by year to create a metro-year level panel. I merge in various regional economic data to this panel, and examine how SBA guaranteed loans affect regional employment and income growth between 1993 and 2002 across 316 metro areas. A simple regression indicates that the number of SBA loans to new businesses significantly and positively affects employment and income growth. I then examine OLS regressions that control for initial regional characteristics and Census Division fixed effects, first-difference growth regressions that control for metro level fixed characteristics, and instrumental variable regressions using a variety of instrumental variables. Despite using multiple econometric specifications, the results are surprisingly robust. In all specifications, I consistently find that the impact of SBA

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guaranteed loans on regional employment and income growth is statistically indistinguishable from zero, and if any tends towards a negative effect.

This paper offers several contributions to the literature. First of all, this is one of the few papers that examine the impact of guaranteed small business loans on regional growth. Moreover, to the best of my understanding, I believe this is the first paper that aims to estimate the causal effects. The findings from this paper indicate that there may be no net efficiency gains from government guaranteed small business loans, but these results do not speak to the general value of SBA loans. The main objective of SBA loans is to support small businesses that have difficulty getting loans through conventional means because of the lack of collateral, inequality in the lending market, and asymmetric information. Researchers have found that other finance methods or policies, such as venture capital or government programs that support technology startups do promote regional growth. The literature that examines the economic growth effects of entrepreneurship finance policy is relatively nascent. Future research on this topic, together with findings from this paper and extant research, would help better inform the policy implications of entrepreneurship finance policies.

2. Introduction

Guaranteed loan programs are widely used to support small businesses around the world (Parker, 2009; Beck et al., 2008, 2010a; Lelarge et al., 2010; Mullins and Toro, 2017). In these programs, governments encourage banks to lend to small businesses by guaranteeing a portion of the principal in case the debtor defaults. Though the principal aim of guaranteed loan programs is to support small business creation and growth, they could have an effect on regional growth. The literature has documented the positive relationship between entrepreneurship and regional growth (Fritsch, 1997; Audretsch and Fritsch, 2002; Fritsch and Mueller, 2008; Glaeser et al., 2010, 2015; Lee, 2017), and between guaranteed loans and entrepreneurship (Riding and Haines Jr, 2001; Riding et al., 2007). However, there is surprisingly little research that examines whether a finance policy that supports small businesses indeed promote regional growth. Entrepreneurship is widely considered as an important source of job creation. Many governments have utilized finance policies, such as the guaranteed loan programs, to help create new ventures in hopes of adding jobs to the regional economy. However, a substantial number of new ventures actually do not survive, and ex-ante it is not clear whether a finance policy that promotes start-ups would create jobs on net. Given the considerable interest policy makers have in supporting small businesses and creating jobs, it would be valuable to know whether a finance policy that supports small businesses indeed promote regional growth. To this end, this paper examines whether guaranteed loans approved by the Small Business Administration (SBA) promote regional employment and income growth in the United States.

Guaranteed small business loans could impact regional growth through their effect on the quality and quantity of new ventures. The loans could support the creation of high quality new ventures that could not get funding from conventional banks. However, there could be negative selection as well. Loan guarantees could encourage banks to finance more low quality ventures in expectation of being bailed out by the government, and could attract entrepreneurs with lower entrepreneurial ability. In terms of quantity, guaranteed loans could add new ventures to the regional economy, or could replace or crowd out ventures that would have gotten loans through conventional means. Conceptually, guaranteed loans can have both a positive and negative effect on the quality and quantity of new ventures. Hence, the impact of guaranteed small business loans on regional growth would ultimately depend on the net quality and quantity of new ventures, and how those new ventures relate to factors relevant for regional growth, e.g., knowledge spillover, agglomeration effects, competition between new ventures and incumbents, and pre-existing regional characteristics.

The transmission of knowledge has become an increasingly important source of economic growth. Scholars have found that new ventures are better at exploiting knowledge and entrepreneurs serve as the link that facilitates the spillover of knowledge within the regional economy (Audretsch and Taylor Aldridge, 2009; Acs et al., 2009, 2013a). New ventures contribute to the agglomeration benefits of input sharing and improved matching between firms and workers (Jacobs, 1969; Carlino et al., 2007). Also, new firms compete with incumbents in the region, and such competition could affect aggregate economic growth (Fritsch, 2013). Finally, the regional environment can influence how new ventures affect regional growth. The skill level of the region's workforce affects how firms utilize new knowledge and technology, and how incumbents adapt to new entry and competition. The pre-existing industrial structure also affects new venture creation and regional growth (Sternberg, 2009). The net result from all these different channels would determine how the new ventures created through SBA loans affect regional growth. In this regard, identifying the net impact of SBA loans on regional growth ultimately becomes an empirical exercise.

However, there is surprisingly little empirical research that causally examines this question, and justifiably so - endogeneity hinders causal interpretation. This paper's main objective is to examine the aggregate impact of small business loans on regional employment and income growth, while alleviating the endogeneity concerns that typically arise in such analysis. Specifically, I match the SBA loans data to each Metropolitan Statistical Area (MSA) by year and create an MSA-year level panel of new SBA loans. I then examine how the SBA guaranteed loans affect regional employment and income growth between 1993 and 2002. A standard OLS regression indicates that the number of new SBA loans significantly and positively affects employment and income growth. However, if cities with higher growth potential have more SBA loan applications and approvals, then the OLS estimates would overstate the true impact of SBA loans on urban growth. To the contrary, if cities that were declining see higher SBA loan applications and approvals, then the OLS estimates would be biased downwards. Including variables that control for initial regional characteristics and Census Division fixed effects substantially reduces the positive effect and the statistical significance of the coefficient estimates. To further alleviate endogeneity, I examine the first-difference and instrumental variable regressions and compare the results to the OLS estimates. The results indicate that the impact of SBA guaranteed loans on regional employment, payroll, and wage growth are statistically indistinguishable from zero, and if any tend towards a negative effect. Though fully resolving endogeneity is difficult, comparing results from the different estimation methods shed light on what the true impact might be, and this paper consistently find no