Societal Impact of the Tennessee Small Business Administration: Lowered Barriers to Entry, State Growth, and Economic Freedom

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This paper focuses on the effects of SBA lending and its possible effects on the economic growth in Tennessee. After all, claims about the belief that small business is the driving force behind job creation and economic growth are found throughout political speeches, newspaper columns, and public policy forums. These claims are frequently presented as justification for tax incentives, regulatory policies, and other government programs that favor small business by removing barriers to entry. Access to capital is often the biggest obstacle for an entrepreneur. This research focused on the relationship between guaranteed loans from the SBA and the economic growth of Tennessee. This research found a positive relationship between the SBA 7A lending and state growth in Tennessee. Thus, providing policymakers evidence that pursuing policies which support economic freedom will continue to support Tennessee's state growth.

Keywords: barriers to entry, economic growth, economic freedom, entrepreneurship, SBA lending, United Nations Sustainable Development Goals

INTRODUCTION

What causes economies to grow is one of the most enduring questions in economics. Adam Smith in The Wealth of Nations argued that free markets, the protection of private property rights, and a minimal government presence in the economy leads to prosperity and growth (Smith, 1937). In other words, economic freedom leads to economic growth. Perhaps one of the greatest economic freedoms is starting and owning a business.

In recent years, small business lending has received renewed interest by the commercial banking industry, politicians, and economists, reflecting the growing relative importance of small businesses to the U.S. economy. Previous research has found relationships between states with policies supporting economic freedom and state growth via net migration (Melton, Pearson, &Vernon, 2021). Less than 500 employees classify a business as small (Board of Governors of the Federal Reserve System, 2021). The promotion of small businesses is a cornerstone of economic policy. Right or wrong, there appears to be a widely held

perception that the small business sector is the incubator of growth, the place of entrepreneurs where innovation takes place and new ideas become economically viable business enterprises (U.S. Small Business Administration Office of Advocacy, 2019).Small businesses are nearly half of private-sector employers (Board of Governors of the Federal Reserve System, 2021).

Economists have long recognized the importance of credit markets in the economy. Bank lending is generally viewed as a necessary driver of economic growth. A view held among economists is while markets are the best way to allocate scare resources, sometimes government interventions can improve upon the market outcomes. Small business lending imperfections are among the usual areas cited as rationale for government intervention. An entire stream of literature exists regarding lending imperfections or information asymmetry. Many economists, most notably Joseph Stiglitz and Andrew Weiss (1981), contend that private lending institutions may fail to allocate loans efficiently because of fundamental information problems in the small business lending market. Lack of access to capital due to credit markets is considered a barrier to entry for many entrepreneurs (Kerr and Nanda, 2011). To the extent small firms are credit rationed, government intervention in the form of direct credit or Small Business Administration (SBA) loan guarantees may be justified because of the deadweight losses associated with not funding all the projects in each state that have positive net-present value (Craig, Jackson, and Thomson, 2004; Yu-Lin, Chien-Hui, & Po-Sheng, 2020).

Hence the question is raised as to whether the net benefits of the SBA loan programs are positive and is there a relationship between SBA lending, economic growth, and economic freedom. Previous studies have not been favorable to the SBA. Higgins et al. found that SBA lending activity negatively impacted income growth over time (2021). Higgins et. al used different control variables than Lee (2018) who also found that SBA lending did not positively impact employment growth or income growth. In this paper, focus is on the hypothesis that economic growth of Tennessee depends heavily upon both economic freedom and SBA lending where SBA lending promotes entrepreneurship by lowering barriers to entry. After all, claims about the belief that small business is the driving force behind job creation and economic growth are found throughout political speeches (Higgins, Lacombe, Stenard, and Young, 2021), newspaper columns, and public policy forums. These claims frequently justify tax incentives, regulatory policies, and other government programs that favor small business. This paper is measuring economic growth as per capita gross state product.

ENTREPRENEURSHIP AND BARRIERS TO ENTRY

Entrepreneurship is increasingly becoming recognized as a key factor contributing to economic growth. As argued by Minniti (1999), entrepreneurs are the catalysts for economic growth because they create a networking externality that promotes new ideas and new market formations. However, access to capital is a barrier to entry in the marketplace for many entrepreneurs and small businesses (Porter, 1980; Talaia, Pisoni, & Onetti, 2016; Melton, Damron, McCarthry, & Rupp, 2019). A barrier to entry is an obstacle that prevents or challenges a new business from entering a market. Typically, this obstacle is a one-time fixed event or cost that existing businesses may not incur. For an entrepreneur, startup capital is often difficult and presents as the first barrier to entry (Verdugo, 2018). In 2022, the Small Business Administration released an Equity Action Plan (EAP) to reduce barriers to entry for underserved entrepreneurs. The EAP plans to reduce barriers to entry by addressing four broad categories, (1) capital access, (2) federal government contracting opportunities, (3) disaster assistance, and (4) business consulting (SBA Equity Action Plan, 2022).

SBA HISTORY

Many are surprised to learn that even today; the Tennessee economy is by no means dominated by giant corporations. In 2020, 99.5% percent of businesses in Tennessee were considered small businesses. According to the U.S. SBA Office of Advocacy, these small businesses/enterprises account for 42.1 percent of all Tennessee workers.

A particular strength of small businesses is their ability to respond quickly to changing economic conditions. They often know their customers personally and are especially suited to meet local needs. Of course, however, many small businesses fail. In the United States, a business failure does not carry the social stigma it does in some countries. Often, failure is seen as a valuable learning experience for the entrepreneur, who may succeed on a later try. Failures demonstrate how market forces work to foster greater efficiency, economist say.

So how and when did the SBA get started? To begin with, The SBA was created on 30 July 1953 by the enactment of Public Law 163.However, the SBA's legislative purpose and mission had begun to take shape years earlier in predecessor agencies. These predecessor agencies included the Smaller War Plants Corporation (SWPC), the Small Defense Plants Administration (SDPA) and the Reconstruction Finance Corporation (RFC). All these agencies were created mainly as a response to the pressures of the Great Depression and World War II.

The primary predecessor agency of the SBA was the Reconstruction Finance Corporation (RFC). The RFC was created in 1932 during the Hoover Administration. Its mission was to help mitigate the financial crisis of the Great Depression by providing emergency capital to troubled commercial banks (Rhymes, 1988). In 1934, the powers of the RFC were expanded, and it became a full-fledged federal lending program for all firms hurt by the Depression, both large and small businesses and both financial and non-financial firms. The extension of RFC authority to business lending is often considered the beginning of the present SBA 7(a) loan guarantee program (Rhymes, 1988). The RFC was also given the authority and responsibility to provide relief loans to individuals and organizations severely affected by natural disasters. When the RFC was closed, the SBA was created to assume both the disaster and general business lending functions of the RFC. However, the SBA's business lending function was directed exclusively toward small business. Some suggest that this limitation directly resulted from the banking industry's successful lobbying to reduce the competition of government-provided business lending programs, especially those that aided large businesses (Rhymes, 1988).The enabling legislation empowers the SBA to make loans to small business concerns either directly or in cooperation with banks or other lending institutions.

It is clear from the legislation that created the SBA that Congress perceived small businesses face special problems in obtaining financing and small business is a very important part of the American economy. The Congressional intent is clearly stated distinctly in the Small Business Act (1958)

> *The essence of the American economic system of private enterprise is free competition. Only through full and free competition can free markets, free entry into business, and opportunities for the expression and growth of personal initiative and individual judgment be assured. The preservation and expansion of such competition is not only to the economic well-being but to the security of this Nation. Such security and well-being cannot be realized unless the actual and potential capacity of small business is encouraged and developed. It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect insofar as is possible the interests of small-business concerns in order to preserve free competitive enterprise, to ensure that a fair proportion of the total purchases and contracts for supplies and services for the Government be placed with small-business enterprises, and to maintain and strengthen the overall economy of the Nation.*

By 1954, the SBA was already making direct business loans, guaranteeing bank loans to small businesses, and making loans to victims of natural disasters, working to get government procurement contracts for small businesses and helping business owners with management and technical assistance and business training. Then, in 1958, the Investment Company Act established the Small Business Investment Company (SBIC) Program. This program added directly to the credit granting authority of the SBA. Under the program the SBA licensed, regulated, and helped provide funds for privately owned and operated venture capital investment firms. These firms specialized in providing long-term debt and equity investments to high-risk small businesses. Although the program was established as a temporary remedy to

a specific problem, it should be noted that the program is still alive and fully operational today (Rhymes, 1988).

Over the years, SBA's business lending programs' statutory authority and administrative structure have been remarkably stable. However, within this legal framework the SBA has made at least one major concession to the fact that private financial institutions are typically better at deciding which small business loans to underwrite than are government agencies. This recognition led the SBA, in the mid-1980s, to move away from making direct loans and toward making guaranteed loans. Currently, the SBA makes direct loans only under very special circumstances, and guaranteed lending is the main form of SBA lending. The SBA's main business lending programs are the 7(a) guaranteed loan program, the 504-loan program, and microloans.

The 7(a)-loan program is the most basic and most significant among the SBA's business loan programs. Its name comes from Section 7(a) of the Small Business Act, which authorizes the agency to provide business loans to American small businesses. Loans from the 7(a) program are only available on a guaranty basis. This means that they are provided by lenders who choose to structure loans according to the SBA's requirements and who apply and receive a guarantee from the SBA on a portion of these loan. The SBA does not fully guarantee 7(a) loans. The SBA guaranty is usually 50 percent to 85 percent of the loan amount and depends on the amount and how the loan is being used. The guaranty is a guaranty against payment default; the lender and the SBA share the risk that a borrower will not be able to repay the loan in full. The guaranty does not cover imprudent decisions by the lender or misrepresentation by the borrower (SBA, 2022 October). The guarantee that the SBA provides is available only to the lender. It assures the lender in the event of a payment default, the government will reimburse the lender for its loss, up to the percentage of SBA's guaranty. Under the 7(a) program, the borrower remains obligated for the due amount.

The 504-loan program is a long-term financing tool for economic development within a community (SBA, 2022 October).The 504 program provides growing businesses with long-term, fixed-rate financing for purchasing major fixed assets (such as land or improvements, including new or existing buildings, grading, street improvements, utilities, parking lots, landscaping, the modernization, renovation or conversion of existing facilities, and long-term machinery and equipment). SBA financing is provided through a certified development company (CDC), a nonprofit corporation set up to contribute to the economic development of its community (SBA, 2022 October). The CDC works with the SBA and private-sector lenders to finance small businesses. Based on a search of the National Association of Development Companies (2022), six CDCs are servicing Tennessee.

The SBA microlending program provides smaller loans, up to $50,000 for small businesses and not-for- profit childcare centers (SBA, 2022 October). The microloans can be used for expansion; however, they cannot be used for real estate purchases. As of 2022, interest rates for microloans are 8 to 13 percent and average repayment time is six years. The microloans are provided through an intermediary lender, requirements for the microloans can vary by lender. The SBA website (2022 October) provided the names of four lenders providing microloans for Tennesseans. Of the four lenders provided, only one was in Tennessee. The intermediary lenders for microloans also provide borrowers technical assistance, marketing, and management guidance (Dilger & Cilluffo, 2021). There are many critics of the microloan program (Dilger & Cilluffo, 2022).For at least the past 15 years, the Office of the Inspector General, Presidents, and many members of congress have stated the microlending program duplicates the efforts of other SBA programs (Dilger & Cilluffo, 2022).In comparing the 7(a), 504, and microloan programs, it is important to note the microloan program does not guarantee loans.

This paper contributes to the literature by providing research specific to entrepreneurs, the SBA, and their relationship to economic growth in Tennessee. For this paper, we are measuring economic growth as gross state product per capita. This paper differs from Lee's (2018) research that measured growth by employment or income growth in a metropolitan statistical area (MSA). Additionally, this paper differs from Higgins et al., (2021) which measured lending per capita for both metro and nonmetro areas. Following, the empirical model, description of variables, and results are presented. Next further evidence is explained on the possible relationship between SBA lending, economic freedom, and economic growth. Lastly, concluding remarks are offered.

EMPIRICAL MODEL

To enhance the existing evidence and to examine the combined effects of economic freedom and SBA lending activity on Tennessee state economic growth, data for Tennessee from 1993 through 2019 is analyzed. Data is gathered for Tennessee on economic growth, the degree of economic freedom in the state, two measures of SBA activity (the 7(a) guaranteed loan program and the 504-loan program), and other state control variables previously shown in the literature to be correlated with state economic growth.

The measure of economic growth used for Tennessee is Real Gross State Product per capita (PCGSP). This data is taken from the most current Bureau of Economic Analysis report, published by the U.S. Department of Commerce.

As noted earlier, economic freedom is an essential determinant of the state's ability to grow, and create and attract entrepreneurial activity (Espinosa, Alonso Neira, and Huerta de Soto, 2021).Although economic freedom has been a concept for many years, in the past 20-25 years, its measurement was facilitated by the development of several indices that seek to gauge roughly the degree to which economic freedom exists. The Fraser Institute developed economic freedom indices indicating the degree of economic freedom and broad respect for private property rights for U.S. states, Canadian provinces, and countries worldwide. For the purpose of this study, we have chosen to use the widely cited Fraser Institutes' index Economic Freedom of North America Index (EFNAI) (Stansel, Torra, and McMahon, 2021) for Tennessee as a general measure of the freedom of citizens to pursue economic activities. This index is a composite measure of many state policies that affect the economic freedom of individuals. More specifically, it is based on the size of government, discriminatory taxation, the degree of business regulation, and labor market flexibility. The index gives each state a score on a scale of 1 to 10, with a higher number implying a higher degree of economic freedom. The overall index is comprised of two sub-indexes. The first is the all-government index, which includes the impact of all levels of government, federal, state, and local. The second index, called the subnational index, measures the impact of state and local governments on economic freedom for each state. The economic freedom index is expected to carry a positive sign, showing that more economic freedom will create more state economic wealth and growth.

Economic freedom is important for wealth creation (Friedman, 1980). Using information from the EFNAI, for the period 1993 through 2019, Tennessee, whose economic freedom is in the top five of U.S. states, has an unemployment rate of 3.6%, combining for an average for the top five states of 3.08%, whereas the bottom five states have an average unemployment rate of 4.14%. This amounts to 34.4% lower unemployment rate for the top five states, including Tennessee compared to the bottom five states. The Per Capita Personal Income on average for the top five most economically free states is $56,247 per person, approximately $5,000 more than the bottom five states for an average PC Personal Income of $51,028 per person.

For the same period, states whose economic freedom is in the top states have an average annual growth rate of 2.71 %, compared to a rate of 2.18 % in the bottom five states which amounts to a 24.5% higher growth rate for the top five states. To the extent SBA loan guarantee programs possibly contribute to state growth, there should be a relationship between SBA-guaranteed lending and state economic growth. Therefore, tests for whether SBA loan guarantees, economic freedom and other control variables are related to state economic growth are estimated. The SBA loan data is SBA-guaranteed 7(a) and 504 loans from 1993 through 2019.Definitions and sources for the variables are found in Table 1.

TABLE 1
VARIABLE DEFINITIONS & SOURCES

Variable	Definition	Source
PCGSP	Per Capita Gross State Product	BEA
EFALL	Economic Freedom All-Government Index	Frasier Institute
EFSUB	Economic Freedom Subnational Index	Frasier Institute
SBA7A	SBA guaranteed 7A loans dollar amount	SBA
SBA504	SBA guaranteed 504 loans dollar amount	SBA
Net Mig	Net Migration per US State	US Census Bureau
UNEMP	State unemployment rate	BLS
Manu	Value Added Manufacturing (Capital Investment	US Census Bureau
HSGRAD	High School graduation rate	US Census Bureau

In determining the state control variables, reliance was placed heavily on those variables proposed in the literature. The control variables are divided into demographic characteristics and economic characteristics for each state in the different strands of research aimed at explaining economic growth and/or entrepreneurs. The demographic make-up and the underlying economic characteristics of each state should influence the state's propensity for economic growth.

Bates (1990) shows that an individual's human capital, is a significant determinant in the entrepreneurial process. Cowling (2000) confirms that age, gender, and education are all key variables in explaining which individuals become entrepreneurs. Consistent with the literature, the control variables reflect demographic and economic parameters that may influence state growth.

The variables included to capture the demographic characteristics are the percentage receiving a high school education, and the unemployment rate. The influence of an individual's level of education has had mixed results in the literature. There has been some evidence that entrepreneurial activity is heightened by both low levels of education (high school graduate only) and very high levels of education (advanced degrees, such as doctors and lawyers that are usually classified as proprietors). The sign on the high school graduate variable could be either positive or negative. Evidence could point to the finding that high school education leads to greater entrepreneurial activity, while college education leads to less. The second state demographic variable incorporated in the model is the unemployment rate. The unemployment rate is expected to carry a negative sign due to its negative influence on state economic growth.

In addition to the demographic variables, an economic variable was incorporated in the estimation process to see if it significantly affects the state's ability to generate economic growth. Value added manufacturing was included as a possible influence on the state environment for growth (Pancheco-Lopez and Thirlwall, 2013). Value-added manufacturing is a proxy for capital investment. Environments attracting increases in capital spending are seen as havens for economic growth. The hypothesis is that states with relatively high levels of economic freedom should experience greater growth in value added manufacturing because capital investment and its assets are better protected from taxes, discriminatory regulation, and redistribution. Value-added manufacturing is the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas. The sign on the manufacturing variable is expected to be positive.

Finally, another demographic element of economic theory overlooked is the freedom of movement or net migration. Acemoglu, Johnson and Robinson (2005) suggest that population change, as a result of migration, is both a signal of and a causal factor through the Tiebout (1956) migration hypothesis (i.e., "voting with their feet") and the resulting compositional mix of local populations. It has become evident that persistent positive net migration rates reflect which locations are more-or-less preferred as associated with varying levels of regional and state attractiveness (Melton, Pearson, and Vernon, 2021). Thus, net

migration may be a suitable predictor of location preferences for both individuals and companies. The hypothesis is that there should be a flow of population away from states where economic freedom is relatively restricted and into states where economic freedom is relatively available. Hence, a possible positive statistical relationship between state growth, economic freedom, and net migration should exist.

The formal estimated regression takes the following functional form to explain state growth.

$$Y_i = C + \sum_{j=1}^{k} X_j \beta_j + \varepsilon_i \tag{1}$$

e.g.,

$$Growth_i = C + \beta_1 EF_i + \beta_2 SBA\ 7A_i + \beta_3 SBA\ 504_i + \beta_4 Net\ Mig_i + \beta_5 Unemp_i + \beta_6 Manu_i + \beta_7 HS\ Grad_i + \varepsilon_i \tag{2}$$

In dealing with data from 1993 through 2019, the regression is estimated. Additionally, the definition and sources of the variables used in the empirical analysis are found in Table 1.

To test the hypothesis, the regression model equation is constructed. The first question addressed is the possible effect of economic freedom and the variables for SBA lending on state growth. To gain insight into this question, the first model is the simple model (i.e., simple in that economic growth is estimated in terms of the economic freedom variables lagged one year, the SBA lending variables lagged one year, and the control market structure variables).This is broken down by regressing the subnational government economic freedom, the SBA lending variables, 7(a) loans and 504 loans, and the control variables, on Tennessee state growth. Results for this simple model are reported in Table 2, which provides the estimated coefficients, the standard errors and the t-statistics.

TABLE 2
ESTIMATION FOR EQUATION (2) VARIABLES

Estimated Determinants of U.S. State Economic Growth, 1993-2019 Dependent Variable: Per Capita GSP standard error t-statistics		
	EFALL	EFSUB
	All Government	Subnational Government
Estimation Method	Random Effect	Random Effect
Measure of Economic Freedom	0.009001	0.006193
	0.001748	0.001863
	5.1483	3.3233
SBA Lending Variables		
SBA 7a	7.89E-13	3.5E-12
	6.16E-12	6.69E-12
	1.428261	1.722589
SBA 504	9.92E-13	1.01E-13
	2.87E-11	3.08E-11
	0.034573	0.003285
Net Migration	2.52E-08	2.71E-08
	1.58E-08	2.16E-08
	1.488497	1.6697

Unemployment	-0.000412	-0.000453
	0.00066	0.00072
	-1.624721	-1.629248
Value Added Manufacturing	2.93E-13	1.79E-13
	3.98E-12	4.03E-12
	1.369955	1.542492
Percent High School Graduation	0.00871	0.010312
	0.011181	0.012815
	0.77903	0.804668

Sample 1993 - 2019		
Included Observations	27	
Cross-sections Included	50	
Total Pool (balanced) Observations	1350	
R-squared	0.0896	0.1480

Equation (2) uses Per capita GDP for Tennessee to proxy state economic growth. The primary interest on the right side of the equation is EFALLt-1, EFSUBt-1, SBA7At-1, and SBA504t-1 (the economic freedom all-government index lagged one year, the economic freedom sub-national index lagged one year, the dollar amount of SBA 7(a) loans per state lagged one year, and the dollar amount of SBA 504 loans per state lagged one year.)We also include control variables: Net Mig, Unemp, Manu, and HSgrad. Upon review, economic freedom, at the subnational level, and the control variables net migration, unemployment and value-added manufacturing statistically affect GSP per capita or state growth. For the SBA lending variables, 7(a) loans appear to be significant while the 504 loans variable is not. This preliminary result indicates that state policy makers should pursue policies that ensure growth in Tennessee economic freedom to promote state growth. It is necessary to point out that economic freedom measures a range of variables that determine how free people are to exchange among themselves, how much of their money they can keep, and the security of property rights, and how these properties work collectively not individually.

A second regression model equation relates economic growth to levels and changes in economic freedom, SBA lending, and control variables. Therefore, we investigate whether economic freedom, SBA lending activity, and the control variables relate to economic growth. To do this the following regression equation is estimated:

$$\Delta LnPCGDP_i = C + \beta_1 \Delta LnEF_{i-1} + \beta_2 \Delta LnSBA\ 7A_{i-1} + \beta_3 \Delta LnSBA\ 504_{i-1} + \beta_4 \Delta LnNet\ Mig_{i-1} + \beta_5 \Delta LnUnemp_{i-1} + \beta_6 \Delta LnManu_{i-1} + \beta_7 \Delta LnHS\ Grad_{i-1} + \varepsilon_1 \tag{3}$$

The dependent variable in equation (3) is the log change in per capita gross state product from t-1 to t ($\Delta LnPCGSPt-1$). The primary regressors of interest are the log change in SBA 7(a) loans and 504 loans, and the lagged log in economic freedom. This estimating equation differs from the previous in two ways: it shifts the focus from possible past changes of per capita GSP (that contribute to its current level) to a single contemporary change, it also observes more dynamics in the effects of past SBA lending and economic freedom on that contemporaneous change. Positive and significant coefficients on the SBA lending and economic freedom variables would be evidence consistent with the hypothesis that SBA lending and economic freedom improves state economic growth. As before, we include control variables (Net Mig, Unemp, Manu, and HSgrad) in equation (3). Next, we estimate the model in equation (3) and those results are found in table 3.

TABLE 3
ESTIMATION FOR EQUATION (3) VARIABLES

Estimated Determinants of U.S. State Economic Growth, 1993-2019 Dependent Variable: Per Capita GSP standard error t-statistics		
	EF ALL	EFSUB
Estimation Method	All Government Random Effect	Subnational Government Random Effect
Measure of Economic Freedom	1.149143 0.614266 1.9708	1.016897 0.68952 1.7477
SBA Lending Variables		
SBA 7a	0.075968 0.036861 1.360912	0.081262 0.037369 1.654613
SBA 504	-0.034 0.030738 -1.109279	-0.036859 0.031114 -1.184657
Net Migration	0.000246 0.000167 1.330922	0.000376 0.000209 1.563541
Unemployment	-0.176562 0.1969 -0.896531	-0.165613 0.20855 -0.794118
Value Added Manufacturing	0.0137100 0.0091890 1.492048	0.021262 0.011560 1.739218
Percent High School Graduation	0.3542 0.6699 0.5287	0.30159 0.72615 0.415328
Sample 1993 - 2019 Included Observations Cross-sections Included Total Pool (balanced) Observations R-squared	27 50 1350 0.038341	0.0714

The regression results presented in Table 3 consistently show that economic freedom at the sub-national level strongly impacts state growth. Table 3 also shows that SBA 7(a) lending does affect the growth in per capita GSP. The coefficient on SBA 7(a) is positive and significant for the economic freedom variable,

subnational government. Out of the remaining lending variable and control variables, the only ones found to weakly influence state growth were net migration and value-added manufacturing.

Overall, our regression results are consistent with the hypothesis that economic freedom positively impacts Tennessee state growth, and that SBA lending positively impacts Tennessee state growth. We find little evidence that the level of SBA lending is related to the level of per capita GSP. However, there seems to be a significant relationship between the SBA lending and the future per capita GSP in the second estimated model, while significant the impact on growth is still small.

SOCIETAL IMPACT

This research supports several of the United Nation's 17 Sustainable Development Goals (UN SDG). First, this research supports Goal 8, Decent Work and Economic Growth. This research provides evidence of economic growth being influenced by the guaranteed lending programs of the SBA. Also supported is Goal 9 which encourages "…sustainable industrialization and foster innovation" (UN SDG, 2023). Fostering innovation is at the heart of entrepreneurship (Carland & Carland, 2009). By eliminating barriers to entry for entrepreneurs via the guaranteed lending programs of the SBA, policymakers are creating opportunities for industrialization and innovation. Goal 16 promotes inclusivity in terms of sustainable development and justice (UN SDG, 2023).This research provides evidence that guaranteed lending by the SBA decreases barriers to entry for entrepreneurs by reducing information asymmetry. Furthermore, reduced barriers to entry encourage more entrepreneurs to start small businesses.

LIMITATIONS

We have discussed the three types of loans available from the SBA, however we were unable to obtain information for the microloans. Furthermore, microloans are not guaranteed by the SBA, and they have a high default rate. A study by Lee (2018) stated regional characteristics such as skilled talent, industrial structure, and competition play an equally important role in economic growth; therefore, GSP and SBA lending are not the only factors to consider.

CONCLUSIONS

Overall, our regression results are consistent with the hypothesis that economic freedom positively impacts Tennessee state growth, and that SBA lending positively impacts Tennessee state growth. We find little evidence that the level of SBA lending is related to the level of per capita GSP. However, there seems to be a significant relationship between the SBA lending and the future per capita GSP in the second estimated model, while significant, the impact on growth is still small. SBA lending programs are one of many government interventions into markets to promote small business and state growth. The rationale for these SBA lending programs appears to be that credit market imperfections are barriers to entry and can result in small businesses being unable to secure credit for purposes such as capital expansion and start-up capital. In 2020, Yu-Lin et.al. found that loan guarantees that lower the amount of needed collateral increase economic welfare. Therefore, if SBA lending reduces credit issues in the markets for small business lending, then there should be a relationship between measures of SBA lending activities and state economic growth. This research supports the continued use of the SBA 7(a) loans to support Tennessee state growth. While the data fail to produce a significant positive relationship between all SBA lending variables and Tennessee per capita GSP, a positive relationship exists between the level of SBA 7(a) lending in the market and future Tennessee state growth.

This positive relationship between the SBA 7(a) lending and state growth should be enough evidence to Tennessee state policymakers to embrace policies supportive of guaranteed lending. Furthermore, policymakers pursuing policies supporting economic freedom will assist with Tennessee's state growth. More specifically, pursuing policies determining how free people are to exchange among themselves, how

much of their money they can keep, and the security of property rights, and how these properties work collectively not individually.

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