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Taxes and Entrepreneurship: A Literature Review and Research Agenda

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Taxes and Entrepreneurship: A Literature Review and Research Agenda

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ABSTRACT

The potential impacts of tax policies on entrepreneurial activity have attracted the attention of researchers and policy makers for several decades. Entrepreneurship and innovation are critical elements of the macroeconomy and small businesses contribute significantly to employment and economic growth. Recognizing this, policy makers have a long history of attempting to encourage small business activity through a variety of attractive tax policies. The effectiveness of these policies hinges critically on the extent to which entrepreneurs actually respond to taxes. The theoretical literature has recognized that taxing the returns to risky activity can actually increase risk-taking, especially in the presence of progressive marginal tax rates and loss offset provisions (Domar and Musgrave, 1944). The empirical literature has been inconclusive, with some studies finding a

positive relationship between tax rates and small business activity, others finding a negative relationship, and still others finding no significant relationship at all. In this monograph, we review the existing empirical literature in this area and lay out an agenda for future research. We discuss the many ways in which researchers have measured entrepreneurship and small business activity, as well as the variety of tax rates and other policies that have been explored in prior studies.

1

Introduction

The potential impacts of tax policies on entrepreneurial activity have attracted the attention of researchers and policy makers for several decades. Entrepreneurship and innovation are critical elements of the macroeconomy and small businesses contribute significantly to employment and economic growth. Recognizing this, policy makers at all levels of government have a long history of attempting to encourage small business activity through a variety of attractive tax policies.¹ The extent to which these policies can be effective hinges critically on the extent to which entrepreneurs actually respond to taxes. In this monograph, we review the existing empirical literature in this area and lay out an agenda for future research.

On the surface, it is not clear whether tax policies enhance entrepreneurial opportunity, detract from entrepreneurial success, or have no effect at all. Traditional forms of practical income taxation create potentially offsetting incentives. Progressive tax rates reduce the returns to entrepreneurial success, but also provide insurance against losses.

¹Holtz-Eakin (1995) provides a useful discussion of the possible arguments in favor of targeted subsidies for small or innovative businesses.

Additionally, the traditional income tax structure provides greater opportunities for tax avoidance and evasion for self-employed individuals or others whose income is not reported by a third party, potentially increasing returns to entrepreneurship. Alternatively, complexities in the tax code create significant administrative and compliance costs, which are likely exacerbated by frequent changes in the tax code (Aghion *et al.*, 2017; Braunerhjelm and Eklund, 2014; Braunerhjelm *et al.*, 2019; Lignier and Evans, 2012; Nelson, 2008; Weber, 2015). The bottom line is that while it may be tempting to assume that incentives such as reductions in tax rates would have positive effects on small business activity, both the theoretical and empirical literatures have been inconclusive.

The U.S. experience provides several useful examples of the use of broad-based tax systems to encourage entrepreneurial activity (Gurley-Calvez and Bruce, 2013). For starters, non-corporate business entities typically remit their income taxes through the individual income tax as “pass-through” entities. While wage income is reported to tax authorities by employers, the general lack of third-party income reporting for entrepreneurs creates a potentially-meaningful tax wedge even if the statutory tax rate schedules are the same for all types of earnings. Limitations in the deductibility of fringe benefits and other business expenses have been enacted to reduce this potential wedge, but a tax advantage remains at least as far as income taxes are concerned.

The same is not true for payroll taxes in the U.S., where statutory rates have varied considerably between wage workers and small business owners (Bruce, 2000). Before an effort was made to equalize the payroll tax treatment in 1984, self-employed workers enjoyed a payroll tax rate that was less than the combined employee and employer payroll tax rate applied to wages and salaries. Importantly, these broad efforts to level the federal income and payroll tax playing field between wage workers and small business owners has created substantial exogenous variation that has been used to identify effects in a growing number of empirical studies. Before we turn to an exhaustive review of those studies, we briefly consider the theory behind them.

The combination of deductibility of business purchases and the lack of a third party to report income or expenses to tax authorities can make small business activity attractive relative to wage employment

(Goode, 1949). Business purchases often convey consumption benefits to the small business owner. While this has prompted rules to limit the deductibility of such things as automobiles, meals, and travel expenses, it remains possible to combine personal consumption and business expenses, especially given the absence of third-party reporting. Payments in cash, both in terms of revenues and expenditures, can also make it easier for a small business owner to reduce reported net income for tax purposes (Nelson, 2008). New information reporting requirements such as 1099-MISC forms, meant to increase compliance, are only effective to the extent that business owners are aware of these requirements and file accordingly.

Recent theoretical evidence provides some rationale for different effective tax rates by entrepreneurial status. Gersbach *et al.* (2018) find that higher taxes on labor earnings and lower taxes on firm profits lead to more entrepreneurship in the economy. However, even if marginal tax rates and incomes are identical between wage employees and small business owners, tax burdens can vary for several behavioral reasons. As discussed by Gurley-Calvez and Bruce (2013), small business owners might be unaware of various tax rules and might mistakenly underreport income or fail to disclose other information. They might also face higher compliance costs given the absence of third-party reporting. On the other hand, they are potentially more likely to seek out professional tax-filing assistance and thus might be more aware of various provisions to enable legal tax avoidance (e.g., a home office deduction). And to be sure, they can engage in tax evasion by simply underreporting income or overstating expenses.

Gurley-Calvez and Bruce (2008) provide a useful summary of the theoretical literature, which has generally yielded ambiguous conclusions regarding the effects of tax rates or burdens on small business activity. Considering only the level and variance of self-employment earnings, Fossen (2007) shows that self-employment is negatively related to tax rates and the variance in self-employment earnings. Incorporating loss offsets, but still setting aside the issue of compliance, Bruce (2000, 2002) and Cullen and Gordon (2007) build upon the more general work of Domar and Musgrave (1944), who showed that increasing tax rates can encourage risk-taking in the presence of loss offsets. Specifically, these

models of relative risk begin with the assumption that wage employment brings a certain income while small business or entrepreneurial activity yields unknown income. An increase in the relative tax rate on entrepreneurial income has two potentially offsetting effects. On one hand, it reduces the relative return to (and thus discourages) riskier entrepreneurial activity. On the other hand, the ability to use entrepreneurial losses to offset other sources of income compresses the post-tax distribution of entrepreneurial income and provides implicit insurance against the risk. The extent to which one of these effects outweighs the other depends on the worker's preferences over risk and return. Gordon and Sarada (2018) take the concept of loss offsets further by showing that *refundable* loss offsets are the best way to support entrepreneurial efforts with substantial risk.

Some theoretical studies have focused on the lack of third-party reporting for income and/or expenses in entrepreneurial activities, which provides greater opportunity for legal tax avoidance and/or illegal tax evasion activity. Watson (1985) and Kesselman (1989) are two early examples of this work, and both find ambiguous effects of tax rates on small business activity.

Gurley (2005) combined these two broad areas of the theoretical literature and produced unambiguous conclusions. In her model of relative risk with opportunities for evasion, she showed that increasing the relative marginal tax rate on wage income (by increasing the wage tax rate and/or decreasing the entrepreneurial tax rate) increased one's likelihood of reporting entrepreneurial income on a tax return. The interesting conclusion from her model is that the U.S. tax reforms of the 1980s should have reduced entrepreneurial income as reported on tax returns.

The empirical literature has been inconclusive, with some studies finding a positive relationship between tax rates and small business activity, others finding a negative relationship, and still others finding no significant relationship at all. In this monograph, we review those studies with the goal of identifying themes from their results and laying out an agenda for future research.

We first discuss the many ways in which researchers have measured entrepreneurship and small business activity. We explore the various

strengths and weaknesses of measures of stocks vs. flows, individual vs. aggregate analyses, survey vs. administrative data, and extensive vs. intensive margin indicators of entrepreneurship. We consider the pros and cons of each and demonstrate that no single measure can capture every interested person's preferred concept of entrepreneurship. This should not be a deterrent to good empirical analysis, however, and we provide several points of advice and encouragement for those wishing to contribute to the literature. We then discuss the various tax rates and other tax policies that have been considered in the literature, again considering their advantages and disadvantages.

Next, we discuss a few of the major empirical issues facing research on taxes and entrepreneurship. We begin with a consideration of the various efforts that have been made to deal with the possible endogeneity or simultaneity of tax rates. Following a brief discussion of the importance of timing issues (including the length of available time series or longitudinal data sources), we consider the latest econometric attempts to account for pre-existing trends in entrepreneurship and tax data.

We then present an exhaustive and inclusive summary of the large and growing empirical literature on taxes and entrepreneurship. In an effort to enhance the usefulness of the monograph, we segment the literature into (a) U.S. federal studies, (b) U.S. state and local studies, and (c) international studies, and further subdivide each of these three groups into time series, cross-sectional, and longitudinal analyses. The literature review concludes with a synthesis of findings spanning all of the above categories and focusing on what we think are the most conclusive studies in each area. The monograph concludes with a discussion of what we view to be the most fruitful avenues for future empirical research in this area, based on the identified gaps in the existing literature.

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