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Tax structure and state economic growth during the Great Recession

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ABSTRACT

Concern about the effect of taxes on economic growth and development in the United States is longstanding. While most studies are concerned with the growth impacts of tax burden, marginal rates, or the impact of a particular tax, there are few works that examine the impact of tax structure in the way it is defined in this work. Here, tax structure is defined as the shares of revenue collected by various taxes. Using a pool of data on the 50 states between 2004 and 2010, this paper explores the relationship between state and local tax structure and growth of real per-capita GDP through the Great Recession centered in 2008. The results are used to generate estimates of the growth impacts of revenue neutral changes in tax shares.

1. Introduction

Most residents of the American states are interested in the level of economic activity and rate of economic growth in their state. In partial response, states undertake activities aimed at increasing economic growth or other measures of economic development. As conditions are discussed and policies developed, it is nearly certain that one important topic will be the state's tax system and its relation to economic activity. Are taxes too high or too low? Is the state tax system too progressive or too regressive? Is the state too reliant on one tax or the other and subsequently business "unfriendly?" The answers to such questions are seldom if ever definitive and perhaps more often based on conventional wisdom and/or ideology than fact (Reese & Rosenfeld, 2001; Mazcrov, 2013). "Anecdotal stories about the U.S. tax code can sometimes have a larger impact on the policy debate than a stack of statistical studies" (Engen & Skinner, 1996, p. 622).

Economic cycles are not equally felt across the fifty American states. Fig. 1 shows the growth impacts of the Great Recession at the national level and the business cycle trough in 2008.[1] Fig. 1 also demonstrates that the growth experience of states varies substantially – before, after, and during the recession.

The purpose of this paper is to explore the empirical relationship between the structure of state and local taxes and states' relative economic performance through 2004 and 2010. Economic performance is measured as growth in real per-capita gross domestic product (GDP). The focus is on determining the impacts of tax structure, and in particular, the extent to which marginal, revenue-neutral changes in tax shares relate to state growth rates, through this recessionary period. The null hypothesis is that tax structure

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[1] The National Bureau of Economic Research (NBER) identifies the trough as June 2009 however the annual data provided here masks this. See http://www.nber.org/cycles.html.

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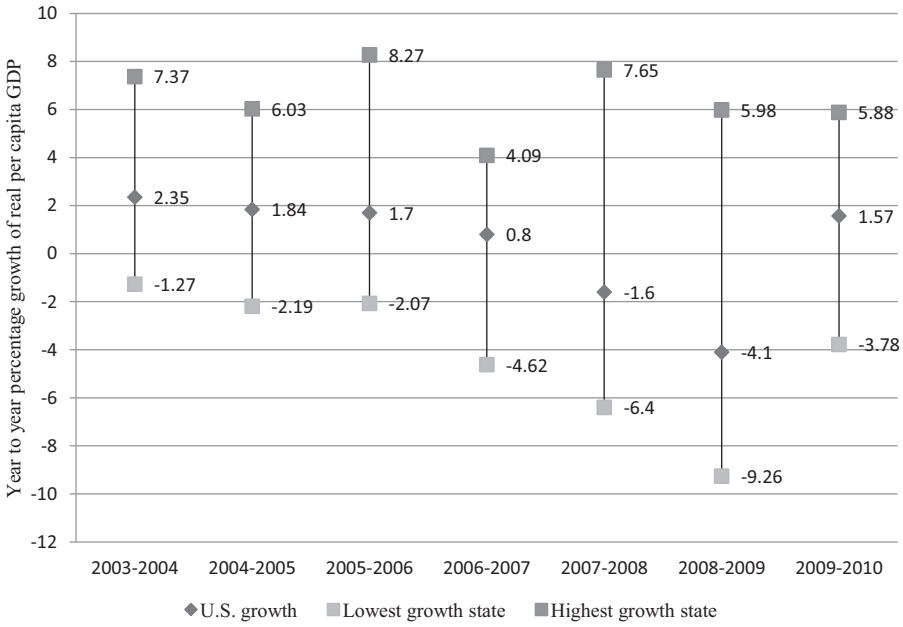

Fig. 1. Range of real per capita GDP growth rates, U.S. and 50 states 2004–2010.
Source: Bureau of Economic Analysis

does affect economic growth and performance through the business cycle,[2] although the analysis begins with no a priori hypotheses as the nature of the effects.

2. Literature review

2.1. Fiscal impacts on growth and development: empirical models

Several researchers have studied the relationship between fiscal policy and economic growth, and both neoclassical and endogenous growth models provide the theoretical foundations for these studies. Barro (1990, 1991), King and Rebelo (1990), Mendoza, Milesi-Ferretti, and Asea (1997), and Lucas (1990) use endogenous growth models to examine both the positive and normative taxation effects. To test predictions of these models with respect to the structure of both taxation and expenditure, Kneller, Bleaney, and Gemmell (1999) classify elements of the government budget into one of four categories: distortionary (taxes on income and property) or non-distortionary (taxes on consumption) taxation, and productive or non-productive expenditures. They find that shifting revenue away from distortionary forms of taxation and toward non-distortionary forms has a growth-enhancing effect and switching expenditures from productive toward unproductive forms is growth-retarding.

Others explore international differences in taxes and tax structure. Koester and Kormendi (1989) use cross-country data to examine the impact of average and marginal rates on the level and growth of economic activities. Rabuska and Bartlett (1985) find that a reduction in marginal tax rates in excess of 50% improves the economies of developing countries. Koch, Schoeman and van Tonder (2005) find that decreased tax burdens are strongly associated with increased economic growth potential in South Africa. In general, cross-country studies on the effects of taxes on economic growth suggest that higher taxes impede growth.

Miller and Russek (1997) find that for developing countries, debt-financed increases in government expenditure retard growth and tax-financed increases stimulate growth, while the opposite is the case for developed countries. Lee and Gordon (2005) examine the effects of statutory corporate tax rates on the growth of per capita gross domestic product (GDP), using a cross-section data set of countries and find that increased corporate tax rates retard future growth rates within countries. Similarly, Arnold (2008, 2011) observes 21 Organization for Economic Co-operation and Development (OECD) countries and finds property taxes to be the most growth-friendly, followed by consumption taxes and then by personal income taxes. Corporate income taxes appear to have the most negative effect on GPD per capita.

Dye and Feiock (1995) study the impact of state personal income tax adoption on growth and find a negative relationship, although most changes are attributable to national conditions. Boskin (1988) analyze the effects of tax changes in the 1980s and draws several conclusions but finds no 'smoking gun' with respect the impact of tax policy on national growth. Phillips and Goss (1995) conduct a meta-analysis of empirical papers that examine the impact of state and local taxes on development. While they find evidence to suggest that tax policy can impact state

[2] A gap in data availability limits the choice of beginning year thus limiting the ability to infer long-term growth impacts in the present work.