Is Fiscal Spending Expansionary in a Dual Economy?

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Abstract

A two-region, three-sector, general equilibrium model is utilized to analyze effects of fiscal spending upon a dual economy. We examine the effects of fiscal spending on services prices, the urban unemployment ratio, and national income. The main result of this paper is that fiscal spending may be effective in mitigating unemployment, as Keynesian economists have believe. More importantly, the fiscal policy may even be contractionary under certain plausible conditions.

I. Introduction

In the traditional simple Keynesian models of income determination, it is generally assumed that (1) sectoral outputs are aggregated as a single composite commodity; and (2) wages are uniformly sticky for all sectors, while the level of output and employment adjust in response to changes in aggregate demand. Under these assumptions, a positive multiplier of fiscal spending is generally derived.¹

Helpman (1976, 1977) relaxed the first assumption by studying the relation between the sectoral structure of an economy and the efficacy of its macroeconomic policy. He showed that assuming uniform sticky wages, the mul-

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¹ Recent studies on the effects of fiscal spending focus on situations of developed economy. See, for example, Branson and Rotemberg (1980), Frenkel and Razin (1985), and Devereux (1987).
The multiplier effect of government spending in the presence of nontraded goods is smaller than the well-known Keynesian multiplier, though still positive.

The purpose of the present paper is to consider the income effect of fiscal policy when the second assumption of the Keynesian model is also dropped. So, wage rigidity and, hence, unemployment is sector specific. There is a key distinction between Helpman’s approach and ours. Helpman utilized a two-sector (traded and nontraded) framework for analyzing the effect of fiscal policy. We will develop a three-sector (exportable, importable, and nontraded) economy for deriving the fiscal multiplier. Nontraded goods such as services contribute a substantial share in the national income of most countries. It is modeled as a major sector along with the two traded goods in our two-region, open economy.

Our model is descriptive of a dual economy, e.g., Harris-Todaro type, in which wage rates in rural regions are perfectly flexible, whereas urban wage rates are set institutionally above the market clearing rates. Consequently, full employment entails in the rural region, while unemployment exists in the urban region. This asymmetry in sectoral employment turns out to be crucial in determining the income effect of fiscal spending. In contrast to traditional wisdom, the multiplier of government spending can become negative.

A fiscal expansion necessarily takes resources away from private consumers. In the present framework, two effects will occur. First, prices of the nontraded goods will be altered, and the effect, known in the literature as a transfer-problem criterion, depends upon the spending propensities of both the fiscal authority and private consumers. Second, the urban unemployment condition will be altered as a result of the change in the nontraded goods prices. Each of these two effects of fiscal policy will be elucidated in the subsequent analysis.

The remainder of the paper is organized as follows. Section II describes the basic two-region, three-sector model with sector-specific unemployment. Section III analyzes the effects of fiscal spending. Section IV offers concluding remarks.

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2. The Harris-Todaro (1970) model is a two-sector model with sector-specific unemployment. For recent studies, see Batra and Naqvi (1987), Beladi (1989), and Chao and Yu (1990), among others.