



# The dynamic effects of public expenditure shocks in the United States<sup>☆</sup>



Susana Párraga Rodríguez

Directorate General Economics, Statistics and Research, Banco de España, Alcalá 48, Madrid 28014, Spain

## ARTICLE INFO

### Keywords:

Government expenditures  
Transfer payments  
Social security

### JEL classification:

E2  
E62  
H55  
H56  
I38

## ABSTRACT

This paper estimates the dynamic aggregate effects of exogenous shocks to two key components of public expenditure in the United States, government income transfers and government spending. The identification strategy positions the structural shocks to public expenditure in an SVAR framework with exogenous measures of public expenditure changes. Transfers shocks are based on a new narrative variable of legislated increases in U.S. social security benefits. I demonstrate that shocks to different types of public expenditure do not have the same macroeconomic impact. The estimated government spending multiplier is between 0 and 1, while increases in transfers generate a multiplier effect above 1.

## 1. Introduction

Government spending and government income transfers represent the two key components of public expenditure in the United States. Fig. 1 shows that these categories jointly account for about 80% of the total public expenditure. Within public expenditure, government income transfers have become the most important category over time. However, the existing literature on the aggregate effects of public expenditure shocks has focused on government spending shocks (recent examples include Perotti, 2007; Mountford and Uhlig, 2009; Ramey, 2011a; Fisher and Petters, 2010; Auerbach and Gorodnichenko, 2012; Nakamura and Steinsson, 2014; Wilson, 2012; Suárez-Serrato and Wingender, 2014; Chodorow-Reich et al., 2012). This paper, instead, estimates the dynamic aggregate effect of exogenous shocks to different public expenditure in the United States over a post-WWII sample. Specifically, I estimate the response of aggregate expenditure components and labor market indicators to increases in government spending and government income transfers.

Research on the aggregate effects of government income transfers shocks is scarce and has focused on the effect that changes in income have on private consumption expenditure. In the framework of the permanent income hypothesis, Poterba (1988) estimates that a \$1 increase in transitory income due to the U.S. tax rebates of 1975 raised spending on non-durables and services by about 12 to 24 cents. Wilcox (1989) found that a predictable 10% increase in U.S. social security benefits raises durable goods purchases by 3% in the same month. More recently, Romer and Romer (2016) constructed a series of legislated increases in social security benefits in the U.S. from 1951 to 1991 and studied the effect of innovations to their narrative variable on private consumption. This paper extends Romer and Romer (2016) work along two dimensions. First, I estimate and compare the aggregate effect of exogenous shocks

<sup>☆</sup> The author declares that she has no relevant or material financial interests that relate to the research described in this paper. This work was conducted at University College London before the author joined the Bank of Spain. The views expressed in this paper are therefore those of the author and do not necessarily reflect those of the Bank of Spain. I am very grateful to the Bank of Spain for their financial assistance, and Morten O. Ravn for his valuable comments and advice. This paper was previously circulated as Párraga-Rodríguez (2016b).

E-mail address: [susana.parraga@bde.es](mailto:susana.parraga@bde.es).

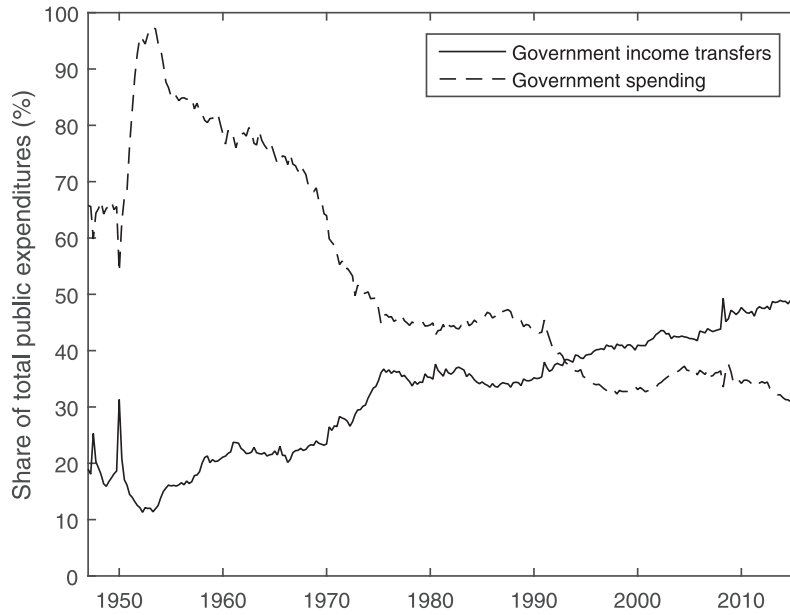


Fig. 1. U.S. federal government main expenditures as percentage of total public expenditures from 1947:I–2015:II.

to different types of public expenditure. Secondly, I expand the set of outcome variables to include output, investment, consumption of durables, non-durables and services, and several labor market indicators. Moreover, this paper complements parallel work in Párraga-Rodríguez (2016a), which estimates the aggregate effects of government income transfer shocks but for a sample of EU countries for the period 2007–2015.

I adopt the identification strategy of Mertens and Ravn (2013) and identify the structural shocks to public expenditure in an SVAR framework with exogenous measures of public expenditure changes. The ‘Proxy SVAR’ is an attractive estimator because it does not impose direct short-run assumptions, as in the SVAR approach of, for example, Perotti (2007). Moreover, the instruments do not need one-to-one mapping with the structural shocks, as in the narrative approach of Ramey (2011a) or Romer and Romer (2016). Structural shocks to government spending are instrumented with a measure of U.S. defense spending shocks by Ramey (2011a), available from 1969:I. Military spending has been widely accepted in the profession as a good source of exogenous variation in government spending in the U.S. because it is induced by geopolitical events most likely unrelated to the state of the U.S. economy. On the other hand, finding a good instrument for the structural shocks to transfers is no trivial task. The strong link between inflation and the narrative variable of Romer and Romer (2016) motivates the estimation of a new measure of exogenous shocks to government income transfers. The new measure is based on the residuals of regressing an extension of the narrative series on inflation. Unlike the original narrative series, the new measure cannot be predicted by aggregate variables representing the state of the economy.

The principal contribution of this paper is an estimate of the fiscal multiplier for different components of public expenditure, especially for government income transfers. The estimated impact multiplier for both types of public expenditure is close to 0.2. However, differences build up over time. Four quarters later, transfers have accumulated a multiplier effect equal to one, while it is only 0.7 for government spending. Moreover, an estimated positive response of output to transfers shocks yields a gradually rising cumulative multiplier, with a maximum effect of 2.8 by the end of the forecast horizon. In contrast, the government spending multiplier reaches its maximum cumulative effect of one between the sixth and twelfth quarters. Thereafter, I find that a government spending shock induces a fall below the trend of output, which translates into an accumulated multiplier effect below unity.

The different estimates could be explained by the different transmission mechanisms that government spending and income transfers have. On the one hand, government spending contributes directly to aggregate demand producing and providing services to the public. However, the estimates indicate that increases in government spending do not sufficiently enhance private spending to generate a multiplier effect larger than one. On the other hand, government income transfers indirectly affect aggregate demand through changing individuals disposable income and their spending decisions. The estimates are consistent with household level evidence that benefits recipients are likely to have higher marginal propensities to consume than other individuals (for example, Hausman, 2016; Bodkin, 1959; Parker et al., 2013; Johnson et al., 2006; Souleles, 1999). I find a positive response of private spending to increases in transfers, especially the consumption of durable goods. I also find a positive response of non-residential investment. Moreover, the estimated transfers multiplier reaches values larger than one despite a neutralizing response of monetary policy, and a negative response of labor supply by labor market participants due to the self-financed nature of increases in transfers.

The remainder of the paper is organized as follows. Section 2 explains the econometric framework and gives details about the narrative variables. Section 3 presents evidence on the effect of shocks to different components of public expenditure; Section 3.3 presents an analysis in terms of multipliers. Section 4 offers concluding remarks.

Download English Version:

<https://daneshyari.com/en/article/7366841>

Download Persian Version:

<https://daneshyari.com/article/7366841>

[Daneshyari.com](https://daneshyari.com)