Journal of Economic Dynamics & Control 79 (2017) 21–47

Contents lists available at ScienceDirect

Journal of Economic Dynamics & Control

journal homepage: www.elsevier.com/locate/jedc

The government wage bill and private activity

Dimitrios Bermperoglou[a], Evi Pappa[b,*], Eugenia Vella[c]

[a] Département d'Econométrie et Economie Politique, Ecole des Hautes Etudes Commerciales, Université de Lausanne, Internef, Quartier Dorigny, CH-1015 Lausanne, Switzerland
[b] Department of Economics, European University Institute, Villa La Fonte Via delle Fontanelle 18, 50014 San Domenico di Fiesole, Italy
[c] Department of Economics, University of Sheffield, 9 Mappin Street, Sheffield S1 4DT, UK

ARTICLE INFO

Article history:
Received 22 June 2016
Revised 17 March 2017
Accepted 17 March 2017
Available online 31 March 2017

JEL classification:
C22
E12
E32
E62

Keywords:
Government wage bill
Fiscal multipliers
VARs
Sign restrictions
DSGE model
Search and matching frictions

ABSTRACT

We estimate the macroeconomic effects of public wage expenditures in U.S. data by identifying shocks to public employment and public wages using sign restrictions. We find that public employment shocks are mildly expansionary at the federal level and strongly expansionary at the state and local level by crowding in private consumption and increasing labor force participation and private sector employment. Similarly, state and local government wage shocks lead to increases in consumption and output, while shocks to federal government wages induce significant contractionary effects. In a stylized DSGE model we show that the degree of complementarity between public and private goods in the consumption bundle is key for explaining the observed heterogeneity.

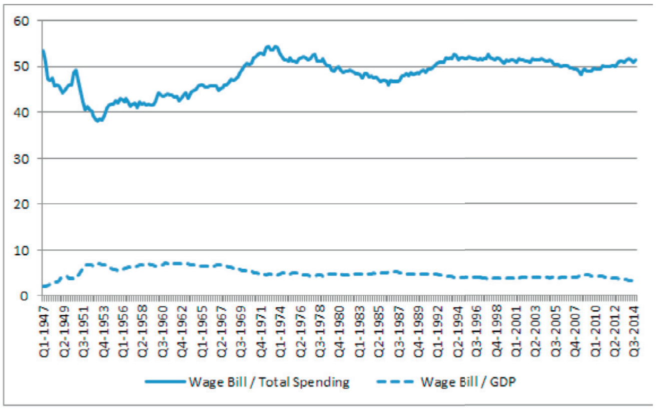
1. Introduction

The last financial crisis and the subsequent Great Recession still take their toll on many advanced economies. They have posed a serious threat on output and the labor markets, leading to an unusually slow recovery. This fact has revived the debate on the effectiveness of discretionary fiscal policy as a tool to stimulate private activity, establish sustainable growth and recover lost jobs. Another relevant question that naturally arises in this context is which fiscal instruments are the most effective for fueling economic activity.

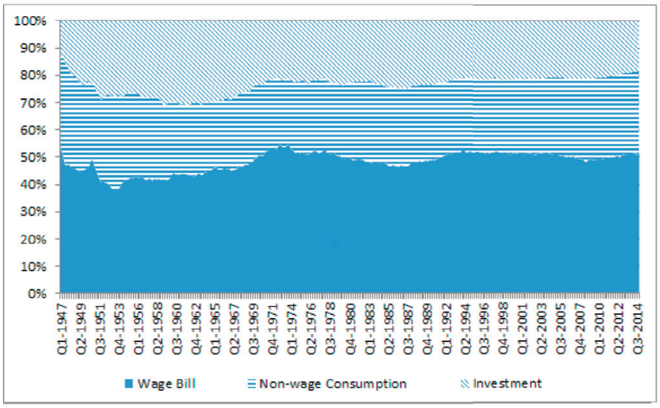
Most of the empirical VAR literature on the macroeconomics of fiscal policy does not distinguish between different types of government spending, and treats total government spending as a single fiscal instrument. Needless to say, not all types of government spending are expected to induce the same effects on the macroeconomy. Furthermore, most of the literature interprets the empirical effects of this total government spending instrument as if they were the result of changes in government consumption of goods and services. However, government spending is not only consumption of goods and services. Wage and salary payments account for a large share of public expenditure in the U.S. During the postwar period,

* Corresponding author.
E-mail addresses: dimitrios.bermperoglou@unil.ch (D. Bermperoglou), evi.pappa@eui.eu, evi.pappa73@gmail.com (E. Pappa), e.vella@sheffield.ac.uk (E. Vella).

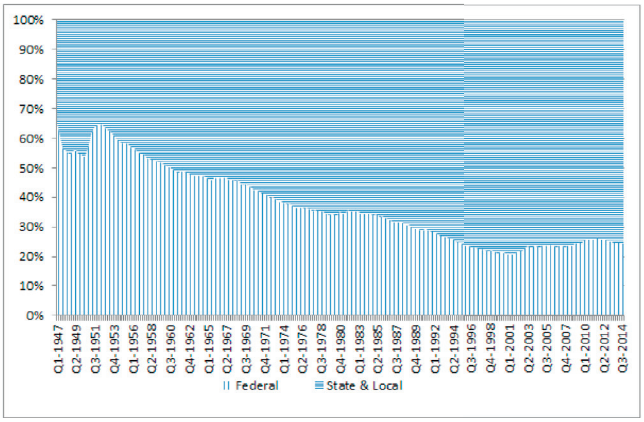
http://dx.doi.org/10.1016/j.jedc.2017.03.006



(a) Historical evolution



(b) Comparison with the other spending components (as % of total spending)



(c) Disaggregation by government level

Fig. 1. The government wage bill in the U.S. (Data source: BEA).

government wage and salary expenditure has accounted for about 50% of government expenditure (See Fig. 1(b)). In the aftermath of the Great Recession, concern about the government budget has focused greater attention on the costs that the government incurs to compensate its employees.

Given the weight of wage expenditures in total government spending, the purpose of this paper is to estimate the effects of public wage bill policies on output and the labor market of the private sector, and draw policy implications that could be useful in the aftermath of the crisis. Using U.S. data over the period 1979–2007, we identify exogenous shocks to