

GENERAL INFORMATION

Data Article

Title: *Data for Estimating the U.S. Labor Wedge.*

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Abstract

The Labor Wedge is defined as the log difference between the MRS and the MPL following Karabarbounis (2014). The Labor Wedge and its decomposition are measured from 1947Q1 to 2017Q3. Taxes are excluded in the Labor Wedge measurement.

Specifications Table

Subject area	<i>Economics</i>
More specific subject area	<i>Macroeconomics</i>
Type of data	<i>excel file, Matlab code</i>
How data was acquired	<i>Bureau of Economic Analysis and Business Dynamic Statistics</i>
Data format	<i>Analyzed</i>
Experimental factors	<i>The real values of variables are calculated using the GDP deflator. Real GDP, consumption, and the Labor Wedge are detrended using Hodrick-Prescott filter with a smoothing parameter of 1600.</i>
Data source location	<i>Output and consumption data are taken from Table 1.1.5 of the BEA. Labor hours and population is measured following the data sources in Cociuba, Prescott and Ueberfeldt (2012). Tax wedge is measured using the data source mentioned in Karabarbounis (2014)</i>
Data accessibility	<i>All data used this article is in publicly available.</i>
Related research article	<i>Credit Crunch, Individual Heterogeneity and the Labor Wedge</i>

Value of the Data

All data applied in this article is publicly available. The measurement method also follows standard practice in literature. The data is disclosed to increase the transparency of economic research.

Data

Output is the Real Gross Domestic Product (billions of chained 2009 dollars) from Table 1.1.6 of the Bureau of Economic Analysis (BEA). Consumption is Personal Consumption Expenditures less durable goods from Table 1.1.5 of the BEA. Business investment is the sum of durable goods and private nonresidential fixed investment from Table 1.1.5. Private capital is the sum of private fixed assets and consumer durable from Fixed Asset Table 1.1 of the BEA. Establishment entry and exit ratio is from the Business Dynamic Statistics.

Experimental Design, Materials, and Methods

The real values of consumption and investment are calculated using the GDP deflator. Real GDP, consumption, and business investment are detrended using Hodrick-Prescott filter with a smoothing parameter of 1600 from 1947Q1 to 2017Q3. The Solow Residual is measured using data on private capital and hours. Private capital is the sum of private fixed assets and consumer durable from Fixed Asset Table 1.1 of the BEA. Data on hours is constructed by Cociuba, Prescott and Ueberfeldt (2012) and extended to 2017Q3 by me following their method and data source. Since the Hodrick-Prescott filter is known to distort the fitting trend at the two ends of the data series, only the estimation results from 1964Q1 to 2015Q4 are used in Figure 1.

The labor wedge is defined as the log difference between MRS and MPL following Karabarounis (2014), who contributes to finding that the labor wedge is mostly driven by a gap between MRS and the real wage. I estimated the labor wedge and its decomposition according to the equations (8), (11) and (12) in Karabarounis (2014). Specifically,

$$\tau_l = \tau^h + \tau^f$$

$$\tau^f = \log(1 - \alpha) - \log(s)$$

$$\tau^h = \log\left(\frac{1}{1 - \tau}\right) + \log(s) + \log\left(\frac{1 - n}{n}\right) + \log\left(\frac{y}{c}\right) - \log\left(\frac{1 + T^c}{1 - T^n}\right)$$

where τ_l is the labor wedge, τ^h is the gap between MRS and the real wage, τ^f is the gap between MPL and the real wage. Parameter s is labor share, T^n is labor tax rate and T^c is consumption tax rate. Parameter τ is the parameter in the utility function, which is equation (2) in the paper.

Since Karabarounis (2014) did not disclose his choices for α and τ , I adopted the values from the steady state calibration of my paper. Capital share of income α equals 0.3. This value is consistent with most macroeconomic literature. Parameter τ is 0.38 as determined by calibration. Notice that α and τ does not change over time, so they would not affect the fluctuations of the labor wedge over the business cycles. Moreover, the labor wedge shown in Figure 1 of the paper is detrended. Since α and τ only affect the trends of labor wedge, their impacts on the measurement of the labor wedge in Figure 1 of the paper is trivial.

To exclude the tax wedge, the consumption taxes T^c and labor income taxes T^n is also measured following the method and data sources in Karabarbounis (2014). Consumption tax rate is consumption taxes divided by personal consumption expenditures less consumption taxes paid. Consumption taxes equals net taxes on production and imports data (NIPA Table 1.12). The labor income tax rate is measured as the sum of personal income tax rate and social insurance tax rate. Personal income tax rate is personal current taxes (NIPA Table 3.1) divided by GDP less taxes on production and imports. Social insurance tax rate is contributions for government social insurance (NIPA Table 3.1) divided by measured national income, which equals the product of the labor share and real GDP less net taxes on production and imports. Data on the labor share is from the BLS.

Acknowledgments

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References

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