



Research

# A Reader's Guide to Labor Share

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*Labor's Share of Income: The share of value added which is paid out to workers. Also called 'wage share'. An indicator of the distribution of income between capital and labor.*

## EXECUTIVE SUMMARY

Now hobbling into the sixth year of economic recovery, Americans remain frustrated as earnings barely rise and job creation is slow. This phenomenon, however, may in part be due to a much longer-term trend: the decline in labor's share of all income in the U.S. economy. In order to completely understand the causes and implications, it is necessary to first clearly define labor share and evaluate how it is measured. Once doing so, it is clear that some of the most frequently cited causes for its decline, like technological innovation, low unionization rates, and high income inequality, in reality have nothing to do with labor share. Rather, evidence suggests that falling labor share is a global trend, rooted in countries becoming increasingly economically intertwined.

## INTRODUCTION

After experiencing the Great Recession and ensuing anemic recovery many are concerned about stagnant wages. Since June 2009 (the end of the Great Recession), real hourly earnings are virtually unchanged and real weekly earnings have only grown 0.02 percent per month on average, despite real Gross Domestic Product (GDP) growing 2.1 percent on average.

Stagnant wages have led some to more closely examine labor's share of income, which is the percentage of all income earned in the U.S. economy that goes to workers, rather than capital. Much of macroeconomic theory is based on the assumption that labor's share of income is constant. That is, the flow of income to labor or capital does not change over time and an average worker's pay will remain at a fixed percentage of his or her contribution to the economy. So as a worker's productivity increases, his or her pay should increase along with it. However, empirical evidence suggests that this assumption has not been true over the past 25 years, as labor share has been falling in the United States and all over the world.

This means that job creation and income gains are not keeping up with increases in labor productivity and economic growth. In order to correctly identify the central causes of declining labor share, it is important to recognize the shortcomings of the labor share measurement. This labor share guide provides readers with ways labor share is measured, the key reasons for its decline, and its labor market policy implications.

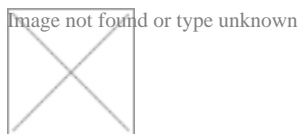
## MEASURING LABOR SHARE

The Bureau of Labor Statistics' (BLS) official labor share measurement is among the most valid ways to track what proportion of income in the United States is going to workers. Many have employed informal measures of labor share such as employee compensation as a percent of Gross Domestic Product (GDP) or National Income.

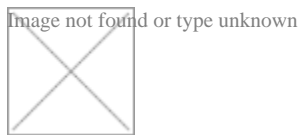
While these informal measures are easy to replicate and comprehend, they do not account for factors that can bias the measure of labor's share of income. In particular, it is unclear how to handle business owner earnings, which includes both capital and labor income. In addition, the government sector has no capital income and the housing sector has no labor income, thus including the former would bias the measure of labor share upwards and including the latter would bias the measure downwards.

The official BLS measure, on the other hand, corrects for these issues in a number of ways. To address business owner's income, the BLS assumes that self-employed workers earn labor income at the same hourly rate as payroll employees in their respective sectors. Total labor income for the self-employed workers is that wage multiplied by the number of hours worked. BLS addresses other issues by excluding certain sectors of the economy when estimating labor share. Specifically, it does not include compensation from housing, government, nonprofits, private households, and farming.[1]

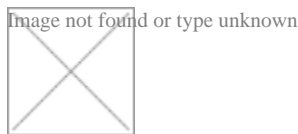
As a result, BLS's headline measure for labor's share of income is defined by



Where,



BLS defines Value Added by the sectors it includes in its computation of labor compensation. The graph below illustrates the annual average nonfarm labor share each year since 1947.[2]



BLS's official figures suggest that labor's share of income has decreased considerably from 65.4 percent in 1947 to 56.7 percent in 2013. Besides a temporary surge during the tech bubble in the late 1990s, the decline in labor share has been considerably steeper since the 1990s.

## REASONS LABOR SHARE IS DECLINING IN THE U.S.

Elsby, Hobijn, & Sahin (2013) take a comprehensive look at labor share in the U.S. and identify key sources for the decline. They start by dissecting the BLS's measure of labor share and find that its decline has been rooted in falling compensation share for payroll employees. The authors demonstrate that one-third of the decline in the BLS's published labor share is a result of false assumptions about proprietor labor income. Specifically, while the BLS assumes business owners make labor income at the same rate as payroll employees in their industry,

wages of self-employed workers actually increased substantially relative to payroll employees since the 1980s. Thus, the main source of the decline in labor share is likely due to decreases in payroll employee share of income.

But, what exactly is causing labor share, or more specifically payroll share, to fall? Elsby, Hobijn, and Sahin find the decline in aggregate payroll share is entrenched in payroll share declines within specific industries, particularly manufacturing and trade. According to the authors, the decline in payroll shares within manufacturing and trade has been a very long term trend (often hidden by offsetting movements within other industries), as the U.S. economy shifts from manufacturing to services industries.

Moreover, globalization has been the most central reason for declining labor share. The substantial increase in U.S. imports in recent history has led to companies shifting labor-intensive production overseas. Elsby, Hobijn, and Sahin discover that increases in import exposure of U.S. businesses account for 3.3 of the 3.9 percentage point decline in payroll share in the last 25 years.

Meanwhile, there is no substantial evidence supporting two of the most frequently cited reasons for declining labor share, advances in technology and declining union membership rates. Many fear that as technology advances and the price of investment goods decline, firms will replace workers with machines, directly replacing labor with capital. Likewise, many fear that the historic decline in union membership rates (from [20.1 percent in 1983 to 11.3 percent in 2013](#)) has weakened worker bargaining power to increase wages and benefits, ultimately leading to a decline in labor share.

Elsby, Hobijn, and Sahin, however, test both of these theories and find no supporting evidence. For technology, the researchers are unable to connect less expensive capital to decreases in payroll share, as the accelerated labor share decline in the 2000s was not accompanied by a higher rate of capital deepening. In addition, they find that the union membership hypothesis is not supported by the data.

## LABOR SHARE IS DECLINING ALL AROUND THE WORLD

America is not the only country that is experiencing this phenomenon. Across the world countries of all types are seeing labor share decline. The [International Labour Organization](#) documents that the average labor share among 16 high income Organisation for Economic Co-operation and Development (OECD) countries has declined substantially since the 1970s, while labor share in developing countries has been declining as well. Labor share has been falling in places with different politics, trade policies, union membership rates, and levels of capital than the U.S.

## LABOR POLICY IMPLICATIONS

The evidence suggests that addressing some of the hot button labor market topics today (minimum wage, income inequality, and union membership rates) would do nothing to reverse the decline in labor's share of income.

**Minimum Wage:** Evidence suggests that raising the minimum wage would do little to stop the decline in labor share. First, since only [2 percent](#) of the nation's workforce actually makes at or below the federal minimum wage, very few would actually see a significant hike in their earnings. Second, the jobs lost due to the minimum wage hike would offset income gains for those who keep their jobs and result in a much smaller net gain in

aggregate labor earnings. For instance, [CBO projects](#) real aggregate income to only rise by \$2 billion on net if the federal minimum wage rose to \$10.10 per hours. And third, Elsby, Hobjin, and Sahin's dramatic finding that the majority of the decline in labor share is due to outsourcing indicates that any effort to raise the cost of a domestic worker would only accelerate this phenomenon and the decline in labor share.

**Income Inequality:** Some immediately associate the decline in U.S. labor share with the rise in income inequality, fearing that the significant earnings growth for those at the top of the income distribution prevents wages and salaries from rising for those at the bottom. However, falling labor share is only loosely associated with increases in income inequality because most of the increase in income inequality is within labor's share of income (i.e. high-income workers earning larger salaries). According to Elsby, Hobjin, and Sahin, if anything, higher income inequality actually increases labor's share of income because of the high earnings workers at the top receive.

**Union Membership Rates:** As previously mentioned, many think that declining union membership rates reduce labor share because workers lack the bargaining power needed to increase wages and salaries. However, Elsby, Hobjin, and Sahin found no evidence that declining union membership has resulted in lower labor share and there is no reason to believe that reversing the long-term decline in unions would increase labor's share of income.

## WHAT CAN BE DONE TO ADDRESS THE DECLINE IN LABOR SHARE?

After coming out of the worst recession since the Great Depression, the first step must be more rapid job creation. Any effort to increase wages or bargaining power will do little to raise labor share if millions of people remain out of work. After witnessing an unprecedented decline in the labor force participation rate, a substantial rise in the unemployment rate (particularly among teenagers), and dreadfully slow job growth, it is clear that this must be the first step.

## CONCLUSION

Labor share has fallen, but not due to technological innovation, falling union membership, or income inequality. Rather, the downward trend in labor share is a global phenomenon resulting from countries becoming increasingly intertwined economically. As a result, traditional calls to increase worker pay through unionization and increasing the minimum wage would do little to combat the decline in labor share and may actually exacerbate it. In the United States, our first step has to facilitate higher economic growth and job creation so that American workers can find work and see their pay rise.

[1] Paul Gomme & Peter Rupert, "Measuring Labor's Share of Income," Federal Reserve Bank of Cleveland, available at <http://www.clevelandfed.org/research/policydis/no7nov04.pdf>.