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Gains from Trade?

The Net Effect of the Trans-Pacific Partnership Agreement on U.S. Wages

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Introduction

Recent estimates of the U.S. economic gains that would result from the proposed Trans-Pacific Partnership (TPP) are very small—only 0.13 percent of GDP by 2025. Taking into account the un-equalizing effect of trade on wages, the median wage earner will probably lose as a result of any such agreement.

In fact, most workers are likely to lose—the exceptions being some of the bottom quarter or so whose earnings are determined by the minimum wage; and those with the highest wages who are more protected from international competition. Rather, many top incomes will rise as a result of TPP expansion of the terms and enforcement of copyrights and patents.

The long-term losses, going forward over the same period (to 2025), from the failure to restore full employment to the United States have been some 25 times greater than the potential gains of the TPP, and more than 5 times as large as the possible gains resulting from a much broader trade agenda.

Gains from Trade?

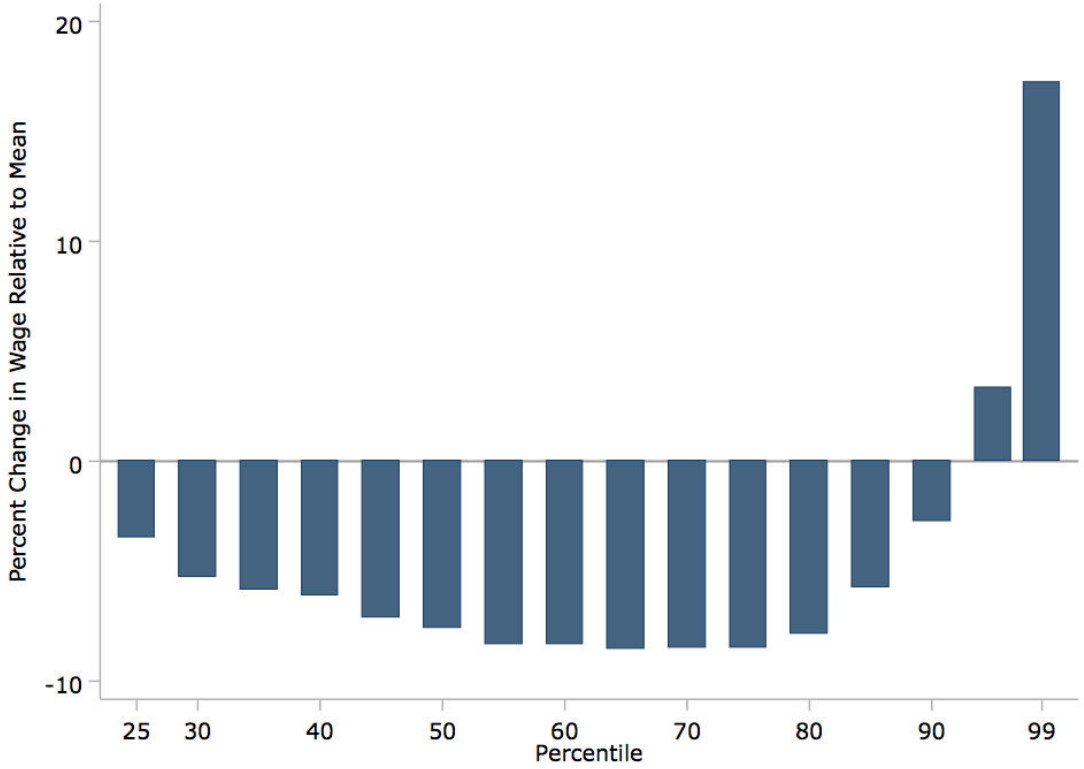
According to the latest estimates from researchers Peter Petri, Michael Plummer, and Fan Zhai (henceforth referred to as PPZ),[1] the United States may see cumulative GDP gains of 0.13 percent by 2025 if the TPP were implemented.[2] This figure is meaninglessly tiny in almost any reasonable context.

To start with, this amounts to a rounding error. According to the (PPZ) model results, the U.S. economy will grow 2.4 percent per year between 2015 and 2025 without the TPP. With the TPP, the researchers estimate the economy will grow 2.4 percent per year over the same period. In isolation, the annual one-hundredth of 1 percentage point of growth for 10 years would be better than no additional growth. However, growth is not the only effect of trade agreements. There are winners and losers from trade, and research has shown that trade contributes to inequality. In fact, it would take only a very small contribution to inequality due to trade to wipe out all of the gains that most workers would get from this agreement.

From 1990 to 2007,[3] wage inequality in the U.S. increased significantly. As seen in Figure 1, the bottom 90-95 percent of the annual wage distribution grew more slowly than the average wage. Figure 1 does not look at wages below the 25th percentile as many of these workers' wages will be dictated by the minimum wage and not by trade.

1 Petri, Plummer, and Zhai (2012).
2 Based on tables taken from simulations conducted for Petri, Plummer, and Zhai (2012) [http://asiapacifictrade.org/wp-content/uploads/2012/10/Macro-results-1-Oct-2012.xlsx].
3 Both 1990 and 2007 were business-cycle peaks

FIGURE 1
Increasing Wage Inequality (1990-2007)



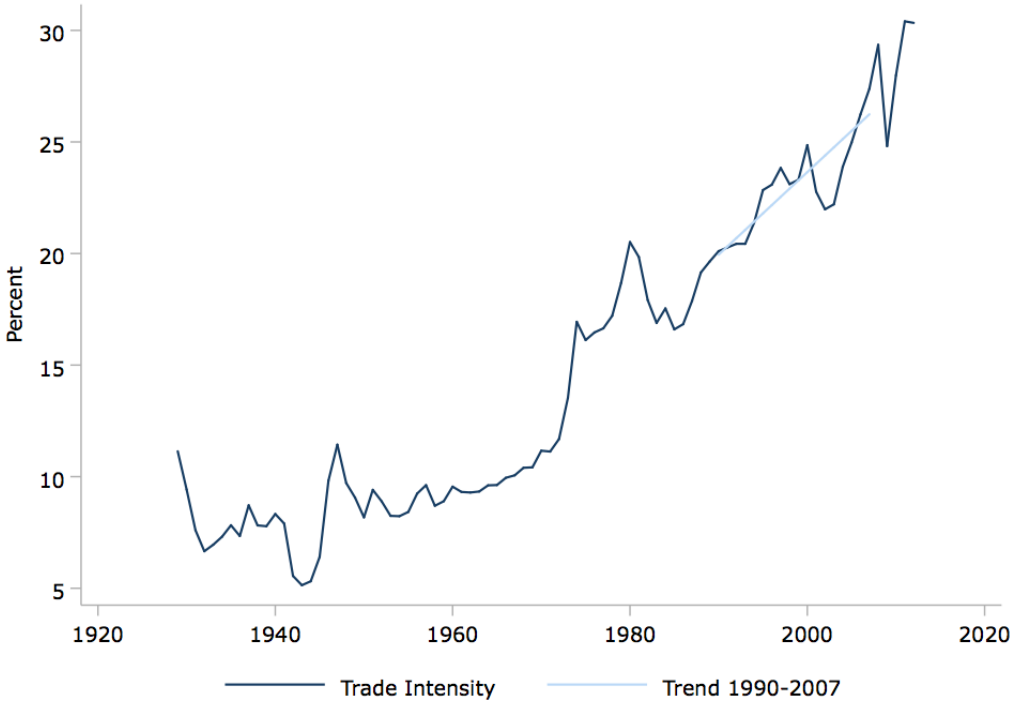
Source: Social Security Administration (2013) and author's calculations

The median (50th percentile) wage fell 7.6 percent relative to the national average, while the wage at the (top) 99th percentile rose 17.2 percent. If even 10 percent of the change in inequality was the result of increased trade, and if only 20 percent of increased trade was due to trade agreements, then the median wage fell by about 0.34 percent on account of trade-agreement related inequality—three times the estimated average gain from implementing the TPP. Below we make this argument with a little more rigor.

From 1990 to 2007 the intensity of trade (the amount of trade relative to the economy[4]) increased by an average of 0.4 percentage points per year. The PPZ model results show intensity of trade increasing by 6 percentage points over 15 years – exactly the same rate. Thus, we might expect the contribution of trade to inequality to be much the same in the future as in the past.

4 Calculated here as the ratio of total trade (exports plus imports) divided by domestic demand (GDP minus net exports.) See Bureau of Economic Analysis, NIPA Tables 1.1.5 lines 1, 15, and 18.

FIGURE 2
Trade Intensity (1967-2012)



Source: Bureau of Economic Analysis and author's calculations

Previous estimates of the effect of trade on inequality range from 10 to 50 percent of total changes.[5] A more recent estimate based on an OECD analysis is on the lower end of this range — perhaps 15 percent — though it does not include indirect effects such as de-unionization.[6]

Table 1 describes the basic relationship between inequality and trade intensity. Column 6 shows the percentage change in each wage level (50th percentile, or median; 90th percentile, and 99th percentile) relative to the average wage, over the years 1990-2007. It can be seen that the median wage fell relative to the average, as did wages up to the 90th percentile; the 99th percentile rose as compared to the mean.

Column 7 divides the percent change in each wage level (50th percentile, or median; 90th percentile, and 99th percentile), relative to the average wage, by the percentage point change in trade intensity. It shows that over the period 1990-2007 the median wage fell by about 1.3 percent relative to the average, for every percentage point increase in trade intensity.

5 Baker and Weisbrot (2001).

6 Baker, Dean and David Rosnick. 2012. "Missing the Story: The OECD's Analysis of Inequality," Reports, Center for Economic and Policy Research. July 2012.Available at http://www.cepr.net/index.php/publications/reports/missing-the-story-the-oecds-analysis-of-inequality.

TABLE 1

Simple Relationship of Select Wages Relative to Mean and Trade Intensity

Percentile	Trend trade intensity (%)			log(wage/average wage)			
	1990	2007	Change	1990	2007	Change	
	(1)	(2)	(3) =(2)-(1)	(4)	(5)	(6) =(5)-(3)	(7) =(6)/(3)
50	19.9	26.2	6.29	-0.330	-0.409	-0.079	-0.013
90				0.726	0.698	--0.028	-0.044
99				1.630	1.780	0.159	0.025

Source: Social Security Administration, Bureau of Economic Analysis and author's calculations.

But there were other causes of inequality. Therefore, Table 1 does not tell us the *effect* of trade intensity on inequality. If only 10-50 percent of the increase in inequality was due to trade intensity, then these effects in column 7 would be two to five times too large.

In Table 2, then, we estimate the effect of these future trade agreements on inequality, assuming that somewhere between 10 and 50 percent of the change in inequality is due to increased trade intensity. This is the basic range of the effect of trade on wage inequality that is found in the economic literature. We consider the effect from the TPP alone as well as the effect of the broadest trade agenda examined in PPZ—the Free Trade Area of the Asia Pacific (FTAAP), plus India.

As can be seen in column 5 of Table 2, if just 10 percent of the change in projected inequality is due to increasing trade intensity, the median wage would fall by 0.14 percent relative to the median as a result of the TPP, and a 0.87 percent decrease for the combined effect of the TPP and FTAAP. Column 6 of Table 2 shows that if 50 percent of the projected increase in inequality is due to increasing trade intensity, then the median wage would fall 0.72 percent relative to the median as a result of the TPP, and 4.32 percent as a result of the TPP and FTAAP.

TABLE 2

Inequality Effect on Median Wage Due to Future Trade Agreements

	Trade intensity (%)				Log (median/average)	
	2010	2025 baseline	2025 with agreement	Change	Small change (%)	Large change (%)
	(1)	(2)	(3)	(4)= (3)-(2)	(5)= -0.0013x(4)	(6)= -0.0063x(4)
TPP	25.4	30.4	31.5	1.14	-0.14	-0.72
FTAAP			36.2	5.8	-0.73	-3.6

Source: PPZ, Social Security Administration, Bureau of Economic Analysis and author's calculations.

However, we must also take into account the small but positive effect of the TPP and FTAAP in increasing aggregate income, and therefore the average wage. Table 3 shows the effect of these trade agreements on the median wage after including their effects on the

average wage. This calculation assumes that the average wage rises proportionately to GDP. As can be seen in column 4, with the assumption of just 10 percent of the increased inequality due to increased trade, the median wage actually falls – in absolute terms, not just in comparison with the average – by 0.0087 percent. Under the assumption of 50 percent of the inequality due to increased trade, it falls by 0.58 percent. Thus, under any reasonable assumptions about the effect of trade on inequality, the median wage-earner, and therefore the majority of workers, suffers a net loss as the result of these trade agreements.

Labor's share of net corporate income has fallen in recent years,[7] so an estimate of the effect of such trade agreements on most workers' wages that took into account the redistribution of income outside of wages would undoubtedly show a greater negative impact.

TABLE 3

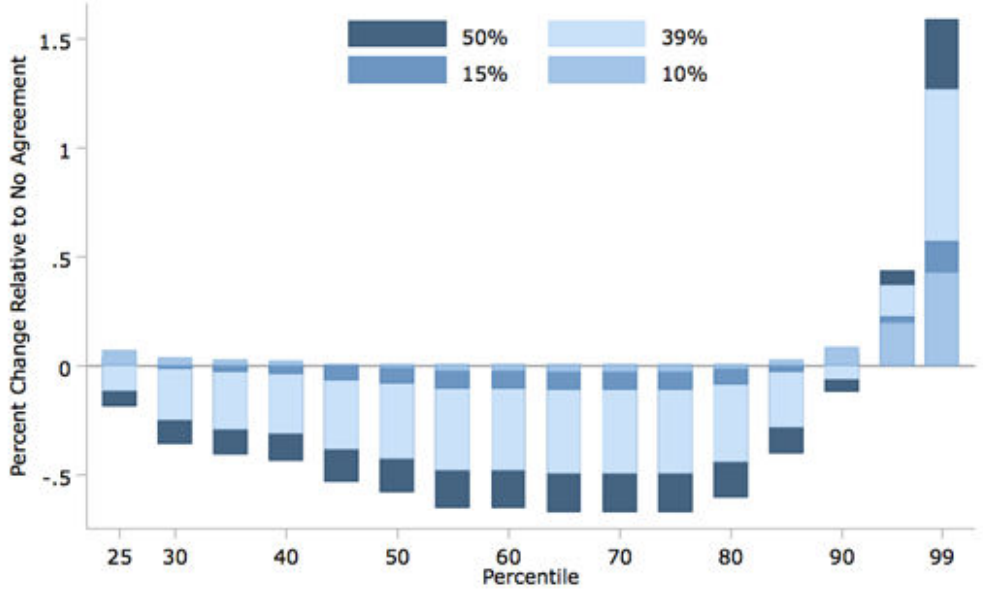
Net Effect of Trade Agreements on the Median Wage (Percent)

	Income effect (%)	Inequality effect (%)		Net effect (%)	
		Small	Large	Small	Large
	(1)	(2)	(3)	(4)= (2)+(1)	(5)=(3)+(1)
TPP	0.13	-0.14	-0.72	-0.0087	-0.58
FTAAP	0.65	-0.73	-3.6	-0.078	-2.9

Source: PPZ, Social Security Administration, Bureau of Economic Analysis and author's calculations.

As Table 3 shows, the median wage will most likely fall as a result of any future trade agreements. Figures 3 and 4 show the result of extending out these calculations more broadly—by wage percentile and by fraction of past inequality driven by trade.

FIGURE 3
Net Effect of TPP on Wages

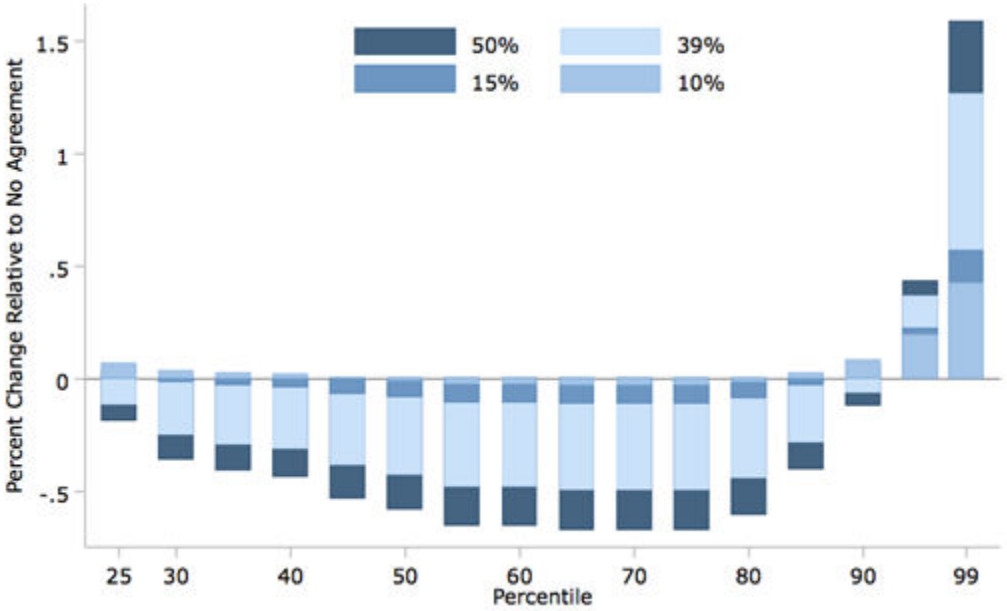


Source: PPZ, Social Security Administration, Bureau of Economic Analysis and author's calculations.

7 Baker (2013).

Note that shades indicate various assumptions regarding the extent to which past inequality is driven by trade (*e.g.*, 10% indicates that one percentage point of inequality in every ten was driven by trade; 50% indicates one percentage point in every two, and hence inequality is more sensitive to increased trade than at only 10%).

FIGURE 4
Net Effect of FTAAP (with India) on Wages



Source: PPZ, Social Security Administration, Bureau of Economic Analysis and author's calculations.

These figures show that despite the very modest gains in expanded economic activity, wages will generally fall as a result of future trade agreements. However, even if trade agreements did not increase inequality, the estimated gains are incredibly small in comparison to the effect of other economic policy changes.

For example, the PPZ trade model assumes full employment—a condition that today does not exist by any stretch. According to the Congressional Budget Office, if the U.S. economy had operated at full capacity in the first quarter of 2013, real GDP would have totaled $14.6 trillion[8]—more than 6.5 percent greater than the latest figure of $13.7 trillion.[9] While the current shortfall in employment is not attributable to trade, the PPZ model assumes away the possibility—and therefore potential cost—of unemployment. Furthermore, continued weakness in the labor market erodes workers' bargaining power, reducing their wages relative to what they would have commanded in a stronger economy. Worse, the ongoing weakness has permanently reduced CBO's estimates of how productive the economy would be at full capacity. In January 2010, CBO projected potential GDP of $17.9 trillion by the end of 2020. Yet by February of 2013, this figure was revised down to $17.3 trillion—a fall of 3.4 percent. Avoiding this long-term impact of the recession would have gained the U.S.

8 Congressional Budget Office (2013).
9 US Bureau of Economic Analysis (n.d.)

the equivalent of more than 25 TPP agreements and been equalizing in its impact—helping, rather than hurting ordinary workers.

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