Journal Of Investment Management, Vol. 13, No. 2, (2015), pp. 111–114

www.joim.com

CASE STUDIES

"Case Studies" presents a case pertinent to contemporary issues and events in investment management. Insightful and provocative questions are posed at the end of each case to challenge the reader. Each case is an invitation to the critical thinking and pragmatic problem solving that are so fundamental to the practice of investment management.

Jack L. Treynor

FAILURE OF THE REAL WAGE TO GROW

A lot of our workers are disappointed in the real wage. But what is a reasonable expectation? To find out we have studied its behavior in some other industrial countries. The table on page 2 shows its recent performance in some important countries that have their own currencies (hence avoid recent problems with the Euro.) Over the eleven-year sample, the US real wage didn't improve (a year-to-year growth factor of 0.9977). On the other hand, except for Norway, the annual growth rates of the real wage are less than 2%.

If we can agree there is no conspiracy among these industrial countries to keep their real wages from rising, then we need a different explanation. Consider the author's argument that inflation is driven by the real wage: If central bankers are striving to stabilize inflation, they will incidentally have to stabilize their real wage:

(1) Each country has its own central bank, with its own independent policy.
(2) Each central bank wants to stabilize prices.
(3) If changes in inflation rates are caused by changes in the real wage then, to the extent that central banks achieve stability in inflation rates, they will be achieving stability in the real wage.
(4) Presumably, these countries have no conscious policy with regard to their real wage. What they have is a conscious policy with regard to inflation. The connection between inflation and the real wage will translate their inflation result into an unintended real wage result.

Fertility vs. Real Wage

If the real wage is the labor productivity of the marginal machine, it won't grow unless, over time, the marginal machine is getting younger and more productive. But then the investment in new machines has to outpace growth in the workforce.

Doesn't the US have a higher fertility rate than all the countries in the following sample?

Fertility Rates

Australia	1.9
Canada	1.7
Denmark	1.9
Norway	1.9
Sweden	1.9
UK	1.9
US	2.0

When demand increases, the marginal machine will get older; when demand falls, it will get younger. Over the business cycle, workers and machines obviously get more scarce or less scarce together. So it's easy to be confused about the cause of inflation. But if, contrary to Professor Phillips, changes in the real wage change the inflation rate, then we shouldn't be surprised if central bankers' efforts to stabilize inflation have resulted in stable real wages.

But then the real wage is an economic issue rather than a political issue. It's not something for workers to demand from their employers. It's something for central bankers to demand from themselves.

Explaining the Charts Below

We use the ratio of the money wage to money prices to estimate the real wage at the beginning and end of our eleven-year sample period. Then we compete the ratio of ending real wage to the beginning real wage. Then we compute the ratio which, raised to the eleventh power, equals the eleven year ratio. This is our estimate of a country's one-year beginning-to-end ratio. A value of 1.01 for the one-year ratio means growth of one per cent per year. The money wages and prices were taken from the 2014 edition of the *International Monetary Fund's Yearbook*.

The fertility rates were taken from the *Economist's Pocket World in Figures*, 2015 edition.

$1/11 = 0.0909091$

$1.01 = 1.0828567$

Growth in the Real Wage Measured by Ratio of Wages to Prices

Australia

	Ratio w/p **2002**	Real wage **2002**	Ratio w/p **2013**	Real wage **2013**		Growth **2002–2013**	Annual Growth Rate
Prices	85.9	0.9920	10779	1.0552		1.0640	1.006
Wages	85.2		11374				

Canada

	Ratio w/p **2002**	Real wage **2002**	Ratio w/p **2013**	Real wage **2013**		Growth **2002–2013**	Annual Growth Rate
Prices	79.98	0.8624	1055	1.0557		1.230	1.019
Wages	69.01		1061				

Denmark

	Ratio w/p **2002**	Real wage **2002**	Ratio w/p **2013**	Real wage **2013**		Growth **2002–2013**	Annual Growth Rate
Prices	85.6	0.9007	1061	0.9868		1.096	1.008
Wages	77.1		1047				

Norway

	Ratio w/p **2002**	Real wage **2002**	Ratio w/p **2013**	Real wage **2013**		Growth **2002–2013**	Annual Growth Rate
Prices	85.5	0.8199	1042	1.0854		1.324	1.026
Wages	7.01		1131				

Sweden

	Ratio w/p **2002**	Real wage **2002**	Ratio w/p **2013**	Real wage **2013**		Growth **2002–2013**	Annual Growth Rate
Prices	9.02	0.8725	1038	1.0462		1.199	1.017
Wages	7.87		1086				

UK

	Ratio w/p **2002**	Real wage **2002**	Ratio w/p **2013**	Real wage **2013**		Growth **2002–2013**	Annual Growth Rate
Prices	83.3	0.9160	1102	0.9537		1.041	1.000
Wages	76.3		1051				

US

	Ratio w/p **2002**	Real wage **2002**	Ratio w/p **2013**	Real wage **2013**		Growth **2002–2013**	Annual Growth Rate
Prices	8.25	0.9961	1068	0.9710		0.9748	0.9977
Wages	8.22		1037				

Questions

Don't central bankers need to understand the link between the real wage and inflation?

But don't central bankers lack control over growth in the workforce?

Don't they also lack control over savings and investment?

Isn't inflation more important to central bankers than jobs?

Isn't keeping up with growth in the work-force more important than increasing the real wage?

Isn't this going to be hard to explain to the workers?

To catch up what would the US have to change?

Can countries compensate their workers by shifting the tax burden?

Aren't there many ways to improve the lot of the worker without increasing the real wage: quality of schools, hospitals, infrastructure, police?

Note

[1] It's obvious to people for whom labor and capital are complements. It is not obvious to people like Thomas Piketty who still think the Cobb-Douglas model, in which labor and capital are substitutes, applies. See *Journal of Investment Management*, Vol. 13, No. 1 (2015) pp. 1–2. Case Studies, "Cobb-Douglas".