Center on Capitalism and Society
Columbia University
Working Paper #96rev

NOTHING NATURAL ABOUT THE NATURAL RATE OF UNEMPLOYMENT*

Edmund Phelps
November 2017

*A slightly altered version under the same title appeared in *Project Syndicate*, November 2, 2017.

NOTHING NATURAL ABOUT THE NATURAL RATE OF UNEMPLOYMENT

Edmund Phelps*

Why is unemployment so low in several countries where inflation remains subdued? This phenomenon is a challenge to present-day economics.

I was one of the rebels of the '60s who rejected the macroeconomics we were taught in the '50s – the "Keynesian" theory developed by Hicks, Phillips and Tobin.[1] It said everything was driven by aggregate demand: High unemployment was caused only by deficient demand, abnormally low unemployment only by abnormally high demand.

This bothered us because the basic "economic theory" we were taught differed by 180 degrees – the theory built by Marshall, Wicksell and Solow.[2] *It* said everything was driven by *structural* forces: Faster technical progress, greater preference to work or to save were to be welcomed – boosting the supply of labor and capital, thus employment and investment – while the Keynesians maintained this supply was problematic, costing people their jobs unless Keynesian policy makers manufactured an increase of demand to match the increase of supply.

A conclusion we drew was that, at the very least, the path of an economy, measured by the accustomed macro variables – the unemployment rate, inflation rate, growth rate – is not *fully* determined by aggregate demand.

[1] J. R. Hicks, "Mr. Keynes and the 'Classics'; A Suggested Interpretation," *Econometrica* 5, No. 2 (Apr., 1937): 147-159; A.W. Phillips, "The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861-1957," *Economica* 25, No. 100 (Nov., 1958):283-299; James Tobin, "A Dynamic Aggregative Model," Journal of Political Economy 63, No. 2 (Apr., 1955): 103-115.

[2] Alfred P. Marshall, *Principles of Economics* (London: Macmillan and Co., 1890); Knut Wicksell, *Lectures on Political Economy*, trans. E. Classen (London: Routledge, 1934); Robert Solow, "A Contribution to the Theory of Economic Growth," *The Quarterly Journal of Economics* 70, No. 1 (Feb., 1956): 65-94.

Structural forces matter. It was groundless of Keynesians to claim that "demand" is all-powerful – that it alone increases employment and thus investment and even growth. Yet they continue to repeat it.[3]

This latter perspective on macro behavior led to the concept that I dubbed the "warranted" unemployment rate but Friedman dubbed the "natural" rate of unemployment, borrowing from the notion of a "natural" interest rate arising in Europe in the Interwar Years.[4] Yet the term "natural" was misleading, as I will suggest.

The basic idea of the structuralist model is that market forces are always fluctuating, yet the unemployment rate has a homing tendency: If it is, say, below its "natural" level, it will be rising, soon if not already, toward its "natural" level – and the rate of inflation will pick up. It must be added that there is a complication, which I have long emphasized: The "natural rate" itself may be pushed up or pulled down by structural shifts.[5] Moreover, shifts in human attitudes and norms may also have an impact.

Now, however, a curious development has posed a challenge: America and much of the euro zone are in the midst of a boom. In America, unemployment has reached very low levels and shows no sign of rising back to its former natural rate – whatever its new level may be. With no more evidence than that, a structuralist model would have predicted an inflation rate that is already *elevated* and *rising*. But the inflation rate is *not* running

---

[3] Lawrence Summers, "A World Stumped by Stubbornly Low Inflation," *Financial Times,* March 6, 2016.
[4] Edmund Phelps, *Studies in Macroeconomic Theory Volume 1: Employment and Inflation* (New York: Academic Press, 1979): 93-95, 239-265; Milton Friedman, "The Role of Monetary Policy," *The American Economic* Review 58, no. 1 (Mar., 1968): 1-17.
[5] Edmund Phelps, *Structural Slumps: The Modern Equilibrium Theory of Unemployment, Interest, and Assets,* in collaboration with Hian Teck Hoon, George Kanaginis, and Gylfi Zoega (Cambridge: Harvard University Press, 1994).

high. In the euro zone too, recovery is proceeding at full speed yet inflation rates are calm there too.

What explains the new paradox of low unemployment despite low inflation – or vice-versa? So far, economists – structuralists as well as diehard Keynesians – have been stumped.

It is possible that the "natural rate" has been be moved by structural forces, technological or demographic.

Possibly, demographics are slowing wage growth and reducing the natural rate. From the '70s to the late '00s, demographics were dormant. Now, the baby boomers are retiring from relatively high wage jobs while young people, who start at relatively low wages, are still pouring in. This development acts to slow the growth of wage rates at a given unemployment rate – and thus to lower unemployment at a given rate of wage growth.

More interesting is the possible effect on the natural rate of people's values and attitudes, also their hopes and fears about the unknown and unknowable. Here we are entering *terra incognita*.

For me, a compelling hypothesis is that workers, shaken by the financial crisis and the deep recession that resulted, have grown afraid to demand promotions or to search for better-paying employers – despite the ease of finding working in the recently tight labor market.

A similar hypothesis is that employers, disturbed by the extremely slow growth of productivity, especially in the past 10 years, have grown leery of granting pay raises – despite the return of demand to pre-crisis proportions.

I have argued, based on a model of mine, that the resumption of a strong dollar by early 2015, in threatening to inundate American markets with imports, scared firms into supplying more output at the same price – equivalently, to supply the same output as before at reduced prices; and decline to raise wage rates of employees.[6] In short, the increased competition has induced firms to boost output and employment.

All this does not mean there is no natural unemployment rate, only that there is nothing natural about the so-called natural rate. Various forces, many of them unobserved, move the rate around.

**Edmund Phelps, the 2006 Nobel Laureate in Economics and author of* Mass Flourishing *(2013), is director of the Center on Capitalism and Society at Columbia University, founded in 2001.*

[6] Edmund Phelps, "The Strucuralist Perspective on Real Exchange Rate, Share Price Level and Employment Path: What Role is Left for Money?," with Hian Teck Hoon and Gylfi Zoega, in *Monetary Policy and Unemployment: The US, Euro-Area and Japan*, ed. Willi Semmler (London: Routledge, 2005): 107-132.