

## Finding Phillips

WASHINGTON, DC

The missing trade-off between inflation and unemployment

**T**HAT central banks cannot endlessly reduce unemployment without sparking inflation is economic gospel. It follows from “a substantial body of theory, informed by considerable historical evidence”, according to Janet Yellen, chair of the Federal Reserve. Her conviction explains why, on June 14th, the Fed raised interest rates by a quarter of a percentage point, to a range of 1-1.25%.

Excluding food and energy, prices are only 1.5% higher than a year ago; the Fed's inflation target is 2%. But Ms Yellen thinks unemployment is below its so-called “natural” rate, so inflation should soon rise. Is she right? Or has the relationship between unemployment and inflation, dubbed the Phillips curve, gone missing?

It is not the first time the theory has failed. After the financial crisis unemployment soared to 10%. This surfeit of workers should have sent inflation tumbling. But prices held up well; in October 2009, when unemployment peaked, underlying inflation was 1.3%, only a little lower than it is today. Some economists explained this by saying that the natural rate of unemployment had gone up in tandem—in other words, that some of the rise in joblessness was permanent. In August 2013 Robert Gordon, an economist at Northwestern University, put the natural rate of unemployment at fully 6.5%.

That explanation has not aged well. Unemployment is now 4.3%, yet inflation remains low. In response, the Fed's estimates of the natural rate have fallen (see chart). This week they dropped again. The constant catch-up undermines the Fed's justification for rate rises. (It plans another this year, and also to start shrinking its balance-sheet, which ballooned during and after the recession as it bought assets with newly created money.)

Yet economists are not about to abandon the Phillips curve, for three reasons. First, the effects of unemployment on inflation can get lost amid temporary economic gyrations. That is most obvious when oil prices fall, as they did in late 2014. More recently, the price of mobile data has dropped. One firm, Verizon, began offering limitless data. At the same time, statisticians have increased the weight they give to such changes. As a result, better mobile-phone deals have reduced consumer-price inflation by over 0.2 percentage points over the past year. Economists at Goldman Sachs, a bank, think unemployment would have to change by fully 1-2 percentage points to have a comparable impact.

Second, it is possible that inflation will take off sharply when unemployment gets too low, rather than gradually as the economy approaches the threshold. This happened during the period that best mirrors today's circumstances: the late 1960s. With unemployment under 4%, inflation rose from 1.4% in November 1965 to 3.2% a year later, and almost 5% by the end of the decade. President Lyndon Johnson was partly to blame. He pressed the Fed not to offset tax cuts fully with tighter money. With President Donald Trump promising tax cuts, and able to replace Ms Yellen early next year, history may yet repeat itself.

The last reason not to throw out the textbook is its emphasis on inflation expectations, as well as unemployment. Inflation expectations have sagged while the labour market has recovered. According to the New York Fed, they took another dive in May. Self-fulfilling expectations could explain low inflation and exonerate the Phillips curve. Instead, they call into question the credibility of the Fed's promise to hit its inflation target. ■

