

# **JOBS AUDIT**

Labour market temperature: spring  
2013 update

The JOBS  
ECONOMIST

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## Introduction

The latest available figures from the Office for National Statistics show that the number of people in employment in the UK increased by an estimated 488,000 (1.7%) in the year to the three months ending in February 2013. Although the improvement had ground to a halt by the end of the period, this would nonetheless be a remarkably large annual increase at any time, let alone against the current backdrop of economic stagnation.

However, while strong employment growth, which has seen the number of people in work rise above the pre-recession level, signals a recovery in demand for labour, this is only a partial indicator of the strength of the labour market and should always be considered in relation to growth in the supply of labour, which in recent months has outpaced demand.

Change in the average unemployment rate is the central gauge of movements in the aggregate balance of labour demand and supply. But the current economic crisis has differed from previous post-war UK economic crises in that pay and hours of work have borne relatively more of the adjustment to weak demand for labour, limiting the impact on employment and unemployment. As a result, the unemployment rate doesn't tell us quite as much about the overall state of the labour market as it once did. The Jobs Economist has therefore constructed a Labour Market Temperature Index (LMTI) combining ONS unemployment and pay data.

The LMTI was first published in December 2012 using available data for the period up to and including September 2012. This Jobs Audit updates the index incorporating data for the period up to and including February 2013.

## **The Labour Market Temperature Index**

The LMTI is a variant on the well-known Economic Misery Index first devised by economist Arthur Okun in the 1960s. The original Misery Index was calculated by adding the unemployment rate to the consumer price inflation rate. The labour market variant instead combines the unemployment rate and the rate of change of real earnings.

The LMTI takes into account the impact of (CPI) price inflation, nominal pay increases and changes in average hours worked per person, the latter two variables determining the rate of growth of average nominal weekly earnings (AWE). The real weekly earnings variable (RWE) is calculated as AWE minus CPI. The sign on the calculated RWE is then reversed so that a positive RWE is subtracted from the unemployment rate and a negative RWE added to the unemployment rate. The resulting additions and subtractions give the raw LMTI.

The calculated raw LMTI is in turn benchmarked against an even temperature reading for the labour market, set at zero. The even temperature reading reflects the sustainable (or structural) rate of unemployment and the sustainable rate of average real weekly wage growth. A zero LMTI reading thus represents the economy's potentially attainable combination of unemployment and real pay growth.

Sustainable in this context means the rates consistent with the official policy target of 2% CPI inflation. On the basis of estimates currently implicit in economic modeling by the independent Office for Budget Responsibility (OBR) this corresponds to an assumed sustainable rate of unemployment of around 5% and sustainable real average weekly wage growth of around 2%. The zero benchmark is thus equal to a raw LMTI of 3.

The LMTI reading as shown in figure 1 is therefore the difference between the raw LMTI and the zero benchmark. A reading above zero indicates excess demand for labour, a reading below zero deficient demand. An increase in the reading indicates that the labour market is heating up

(conditions improving), a decrease in the reading indicates that the labour market is cooling down (conditions deteriorating).

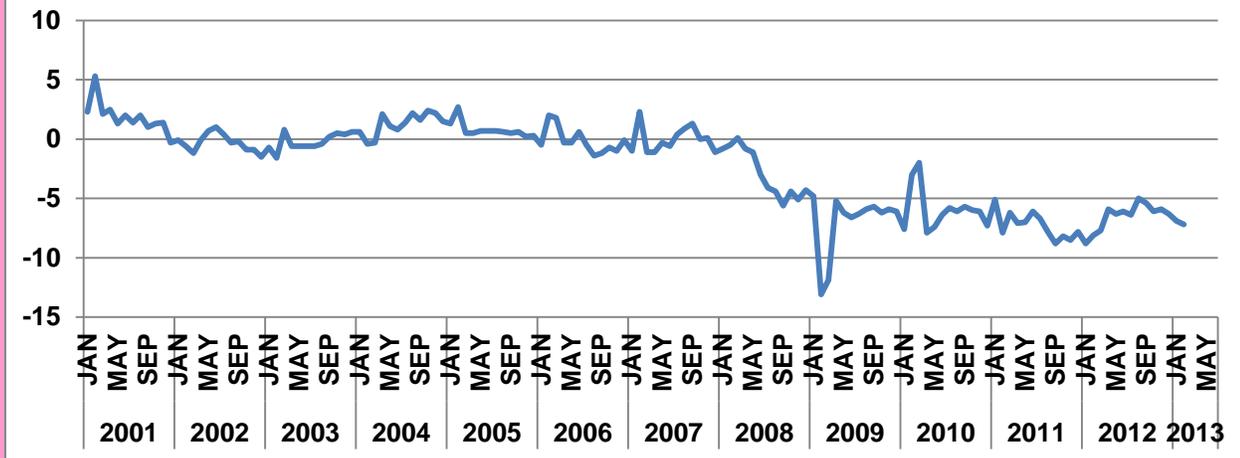
The degree of excess or deficient demand measured by the LMTI assumes that the OBR has correctly estimated the economy's potentially attainable combination of unemployment and real wage growth. If the fall in labour productivity experienced since 2008 turns out to be at least in part a structural phenomenon, rather than a temporary cyclical response to deficient demand, both the attainable combination of unemployment and real pay implicit in figure 1 and the associated degree of deficient demand will be lower.

### **The trend in LMTI and latest update**

Figure 1 shows how the UK's LMTI has fluctuated since 2000. Prior to the recession of 2008-9 the overall temperature reading was close to or above zero. Unemployment at that time was close to its underlying structural rate, with the strength of demand for labour resulting in higher real wage growth for people in work. Since then weak demand for labour has shown up in a combination of higher unemployment, shorter working hours and real wage reductions.

Comparing 2008 and 2013 the net reduction in demand for labour as measured by the fall in the LMTI is more than twice that indicated by the corresponding rise in unemployment. The cooling shown by the LMTI is thus more indicative of the overall degree of pain inflicted on the labour market since the start of the financial crisis.

**Figure 1**  
**Labour Market Temperature Index 2001-2013**



The labour market was at its coldest at the depth of the recession in February 2009, at which time the LMTI reading fell to -13. The reading then increased and broadly stabilized through the remainder of 2009 and 2010 before moving back onto a decreasing trend through to the end of 2011.

A combination of strong growth in employment, falling unemployment and moderation in the real pay squeeze saw the LMTI reading rise to -5 by autumn 2009 and broadly stabilized through the remainder of 2009 and 2010 before moving back onto a decreasing trend through to the end of 2011. However, by February 2013 rising unemployment and a bigger pay squeeze had lowered the LMTI reading to -7.2. This was the lowest LMTI reading since March 2012 (-7.7) and equivalent to the April 2011 reading (-7.1). It's also apparent from the LMTI that the labour market started to cool again in autumn 2012, somewhat earlier than indicated by the recent rise in unemployment.

Note that the LMTI should be considered a temperature index rather than a misery index since its purpose is to gauge demand deficiency in the labour market rather than to measure the precise extent of human distress or misery this causes. Although any sub-zero LMTI reading will increase misery, the same overall temperature reading can give rise to a variety of configurations between pay, hours of work and unemployment, with those resulting in higher unemployment generally

thought to be the source of greater misery. The post 2008 configuration is therefore likely to have been associated with less misery than the higher unemployment configurations witnessed in the wake of the 1980s and 1990s recessions.