Natural Rate of Unemployment: A Temporary or Constant Phenomenon

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ABSTRACT: ***Since the crisis of 2007-2009, United States (U.S.) unemployment has remained persistently high, prompting many to believe that structural rather than cyclical reasons were responsible. We investigate whether the natural unemployment rate has risen since the recession started, and whether the underlying reasons are transient or permanent, using a conventional job search and matching framework and empirical data from a variety of labor market variables. Our analyses show that the natural rate has increased over the last several years and our preferred estimate means an increase of about a percentage point from its pre-recession level. An appraisal of the underlying reasons responsible for this rise including labor market failure, increased unemployment benefits, and general economic instability, suggests that only a small part of it is likely to continue.***

KEYWORDS: ***Beveridge Curve, Labor Market, Structural Unemployment, Mismatch, Unemployment.***

1. INTRODUCTION

The recent financial crisis and the following severe recession caused the U.S. unemployment rate to rise sharply, peaking at 10.1% in October 2009. This marks the greatest unemployment rate since the Great Depression after adjustment to change in the demographic makeup of the workforce. Furthermore, contrary to generally quick labor market recuperations after severe post-war recessions before, the unemployment rate has slowly decreased since the recession, which remained above 9% for two years after the recovery. As a result, the average length of the unemployment rate is considerably beyond the levels seen in previous recessions. The persistently weak circumstances of the job market partially reflect the slow general economic recovery, a typical occurrence after financial crises. The resultant weak rate of employment generation has barely kept pace with the trend of labor growth and thus has not created sufficient jobs to significantly decrease the unemployment rate or the length of unemployment. In addition, the unemployment rate remained high in comparison to its historical connection to other cyclical indices. It surpasses, for instance, the level indicated by the Beveridge curve, which reflects the strength of labor demand in the number of openings that are advertised[1].

The disconnection between the unemployment rate and other aggregate indicators prompted the worry that instead of being simply cyclical, there is a major structural component to the current higher unemployment level. Since most short-term monetary and fiscal stabilization policies are aimed at dealing with cyclical rather than structural problems, it is a key policy objective to understand each individual's related contribution to overall unemployment. Young people and young adults historically have worked less than older people. While some young people work less than adults because they devote much of their time to education or leisure, others do not work because they face great difficulty obtaining jobs or because they switch from school to work. This is a process that involves a considerable searching and changing jobs before moving into more or less employment. As more young people have joined the labor market in recent years and as certain groups of young people have lower employment rates than similar ones in the past, the functioning of the youth labor markets has been increasingly concerned. Youth unemployment has become a significant problem, as shown by the 1977 Act on Youth Employment and Demonstration. Under the auspices of the National Bureau of Economic Research (NBER), economists from several universities conducted extensive research on the nature of youth employment, causes of change in youth unemployment over time, causes of individual job experience differences and the impact of youth unemployment. This chapter is a distillation of the results of this study. We will quickly outline the major findings of the NBER study and then discuss in more depth the nature of these results[2].

1.1 Unemployment at The Equilibrium Rate:

The rise in the unemployment rate in the United States linked with the recession of 2007-2009 is unparalleled in the postwar history of the country. The unemployment rate increased by 5.7 percentage points between a low of 4.4 percent in late 2006 and early 2007 and a high of 10.1 percent in October 2009, above the net rise of 5.2 percentage points between mid-1979 and late 1982, according to the Bureau of Labor Statistics (which spans two recessionary episodes). More importantly, just approximately 1 percentage point has been lost in the unemployment rate over the course of two years[3].

It is possible that, in addition to the normal cyclical rise, an increased structural component and correspondingly higher natural rate are also contributing to the consistently high level of unemployment, as shown by this pattern. In addition to variations in demand associated with economic cycles, the natural rate of unemployment "arises from a variety of different causes". The natural rate is defined by the pace at which jobs are produced and destroyed at the same time, the rate of turnover in specific occupations, and the speed with which jobless people are matched with empty positions. These variables, in turn, are dependent on the qualities of jobs and employees, as well as the efficiency with which the labor market matches them." It is fair to question if any of these noncyclical variables have been changed in a manner that raises the natural rate of unemployment in either the short or long term, given the tremendous shock to labor markets[4].

1.2 In Equilibrium, There Is Marginal Unemployment:

To evaluate the variables influencing the short-term and longer-term unemployment rate, we depend on the Pissarides equilibrium friction unemployment model. This model provides two curves that determine frictional unemployment balance. Curve Beveridge (BC) and job creation curve (JCC). We utilize this framework to evaluate the possible rise in the natural unemployment rate, with an emphasis on non-technical discussion on the main components of the model. Not every company seeking to recruit finds a worker in models of unemployment caused by search difficulties, and not every job seeker finds a worker. The labor market thus does not clear completely in every period, and some opportunities remain unfulfilled, while some job seekers stay jobless. In these approaches, salary determination is ancillary to the job matching process. Since each employer and job seeker benefits from a match, the salaries are set by the deal between employers and workers on the match surplus which happens after the match and is therefore unrelated to its creation. The balance in this model is therefore defined as vacancies and unemployment, as well as the crossroads of the BC and the JCC, instead of earnings and employment balance[5].

1.3 Curves to Shift Strategy to Target and Job Creation:

Our estimate of a 0.9 natural unemployment rate rise based on the shifting BC and long-term JCCs in the preceding section is predicated on two major assumptions. The first is that the labor market is going to revert to its long-term JCC, and there are no factors that would limit job growth permanently. The second is to assume that the whole projected BC change is not permanent but due to transitory causes, at least partially, the effect of which is expected to disappear in future. This begs the issue of which variables impact the location of the present BC and JCC curves and whether they reflect permanent or transitional effects. In addition to poor aggregate demand and layoffs, we examine the variables which are most often seen as shifting the BC and JCC in this section. With regard to weak aggregate demand, this is considered the determinant of the swings in unemployment beyond the natural rate. This leads to a labor demand deficit that depresses job creation and creates a cyclical movement along the Beveridge curve for a particular Beveridge curve[6].

1.3.1 Mismatch:

The rationale for the ongoing rise in unemployment and natural unemployment is based on imbalances in the supply and demand of workers in industry, geography or skills. There is always a degree of inadequacy in the labor market that explains why matches are not instantly performed. Every increase in inconsistency beyond its normal level makes it more difficult than usual for employees to obtain a job and costing businesses to fill a vacancy. The consequence is a decrease in matching efficiency that moves both the BC and the JCC. Mismatch is usually considered to be the primary possible reason for a long-term natural rate rise because training or moving people and occupations require a significant amount of time.

A very unequal distribution of employment gains and losses in industry sectors and states indicates that jobless persons have not worked in industry and areas where they are employed. In the current recession, the dispersion of job gains and losses across sectors and states has increased. But the distribution of labor gains and losses across sectors and states reverted to its pre-recession level as aggregate jobs steadied. While there have been significant decreases in the dispersion of labor gains and losses across industries and states, a considerable number of jobless people are nonetheless engaged in areas such as construction and finance. Since it is probable that these industries would take longer to revert to their pre-recession levels, they may suffer from protracted unemployment as a result of skill mismatch.

To address this issue, academics have developed mismatch indicators that integrate labor demand and labor supply measurements. In the latter case they utilize the vacancy data from JOLTS and Help Wanted Online (HWOL), and in the current population survey (CPS), vacancy data. These indices indicate that both the sectoral and occupational malfunction rose during the recession, but a relatively modest geographical malfunction across states. At the sectoral level, this growth may be attributed to the manufacturing, sustainable products, health, and education sectors. Occupational maladjustment increased mainly because of the conduct of building, manufacturing, healthcare and sales.

They also quantify how much the recent rise in US unemployment is attributable to the increase in unemployment, and they find that greater disparities across industries and jobs represent 0.8-1.4 percentage points of the recent increase in unemployment. Geographical mismatch turns out to be negligible numerically. These results do not necessarily mean, however, that the natural unemployment rate has risen by the same amount. The data indicates that the mismatch with unemployment rate has a strong cyclical component. While the mismatch has contributed to the rise in the unemployment rate, its present trend indicates that the natural unemployment rate is unlikely to grow much longer.

In keeping with this, the natural rate owing to the decline of the construction industry is expected to rise somewhat. A simple calculation of back of the envelope also confirms our perspective. In recent months, the seasonally adjusted unemployment rate for construction employees was over 20% compared to a more standard figure of between 2003 and 2006 of approximately 7% to 8%. In the current recovery, this implies about 1,25 million jobless construction workers in excess of the previous boom. If half of these are reusable, structural unemployment would only rise by about 0.4% [7].

Since most building workers are not recruited via official opportunities, we anticipate the impact on the long-run JCC curve of this kind to be minimal. Instead, we believe that this mismatch impact on the natural unemployment rate is attributable mostly to the continuing contribution of the construction industry towards the external shift of the Beveridge curve.

1.3.2 Longer Unemployment Welfares:

Another potentially significant element which may affect the search behaviour of jobless employees and increase the underlying structural unemployment rate is the widespread availability of UI benefits. UI extends are a typical policy reaction to high cyclical unemployment, and the significant increase in unemployment during the crisis from 2007-2009 has led to an unusual rise in the possible length of UI receipts. The maximum length of UI benefits was increased many times by late June 2008 and by late 2009 it reached 99 weeks for most UI qualified jobseekers. Congress allowed the main extension programme to expire twice, particularly in June-July 2010, for over 2 months, but has each extended the extensions, presently in force through 3 January 2012.

The increasing availability of UI benefits is expected to extend the unemployment length of two main computational channels in the setting of the job matching function previously defined. First, extending UI benefits, which reflects an increase in value, may decrease the intensity and probability of UI eligible jobless people seeking employment. This may be because the extra UI payments decrease the net advantages from obtaining a job and also assist families maintain acceptable levels of spending in the face of unemployment shocks. Alternatively, the rate of unemployment recorded may be increased artificially since some people who are not actively looking for work are identified as active searchers in order to benefit from UI services. These behavioral impacts on job seeking will improve the non-cyclical or structural component of unemployment throughout the prolonged benefits period[8].

In view of the unique character of current economic circumstances and expansions of the UI, it is difficult to evaluate the extent of the expanded UI impact. Using current U.S. data, researchers found that a 10 percent increase in the total amount of UI payments raises unemployment rates by 4–8 percent. Other estimates are below this range, especially those focused on extending times rather than on the monetary worth of benefits. As such, the suggested estimates of the effect of the recent extensions on unemployment are very unclear. As other parties have pointed out, the effect of UI benefits on job research was probably larger in the 1970s and 1980's than it is today because of the increased dependency of temporary layoffs in the earlier era and the associated sensitivity to job insurance recall dates. Thus, depending on historical estimates of UI generosity and unemployment durations would likely lead to overestimations of the impact of prolonged UIs on the present economic situation. It is thus essential to utilize current labor market data to generate prolonged UI impact estimates.

Various empirical assessments concentrate on the direct computation and comparison of unemployment length for people eligible or unauthorized to receive UI, as indicated in their stated cause for unemployed. UI receipt is usually limited to those who are jobless by "not their own fault," citing the qualifying criteria for U.S. Labor Department and have a recent work history allowing them to satisfy a basic earnings test. With regard to the CPS, this implies that UI eligible persons are concentrated among the jobless, who describe themselves as "employment losers."

Unemployment durations have risen by significant amounts from their pre-recession baseline values for both probable eligible and unacceptable UIs throughout 2009 and the first part of 2010. However, the rise was greater for qualifying user interfaces. If this difference is attributed to UI eligibility, it indicates an increase in the jobless rate owing to prolonged UI of about 0.8 percentage points. As the labor market circumstances improve and the extended UI provisions may expire, the effect of the extended UI on the unemployment rate is anticipated to diminish. As a consequence, prolonged UI does not alter the long-term JCC curve, but it may increase current booking wages and therefore eliminate the short-term generation of employment. The displaced Beveridge curve is anticipated to migrate back inward when prolonged UI benefits expire.

1.3.3 Uncertainty:

Overall uncertainty regarding the economic circumstances and policies is also believed to contribute to the external movement in BC as well as the low number of vacancy companies. The severity of the recession and the related financial crises have exacerbated the uncertainty regarding the company environment. In the event of constant hire and firing costs, this uncertainty about future aggregate demand reduces the optional value of employing new employees and therefore reduces the push on job growth.

Theoretical models of jobless recoveries indicate that companies may postpone employment by providing temporary increase in productivity. The increase in productivity is caused by shifting employees from intangible production to the production of measurable output. Companies choose for organizational improvements that increase efficiency but have been temporarily postponed during previous growth. In each instance, the reorientation of production lowers the employment rate, but increases productivity growth[9].

Such interim initiatives only go as far as boosting productivity development. If insecurity stays high for a long period, the impact on productivity development of these measures will likely be decreased and insecurity would primarily limit job creation. This may explain the combined low productivity growth and employment growth in the first half of 2011. Uncertainty may also contribute to the external change of the Beveridge curve, leading companies that generate openings to fill them at the same time. Such a change to the hiring choices of companies would result in a decrease in the number of hires per vacancy, and also in a decrease in the intensity of hiring[10].

While the high degree of uncertainty may explain the combined weakness in job creation and vacancy rates we saw during the early part of the restoration in relation to significant increase in productivity, we would like to highlight that no research attempted to quantify this impact. This is why we put the impact of productivity growth in parenthesis on the Beveridge curve, which shows uncertainty regarding its importance. Since we foresee a great deal of economic uncertainty between 2008 and 2011, we believe that the rising pressure of uncertainty on the natural unemployment rate is transitory instead of permanent.

2. DISCUSSION

There were three major developments in recent years in advanced economies: (i) a declining proportion of manufacturing jobs; (ii) a staggering average real wages and a growing income inequality in the U.S. since 1973; and (iii) a massive increase in unemployment in much of Europe since the early 1970s. These changes correspond with a time common to the advanced and emerging nations of exceptionally fast expansion in trade and capital flows. The presence of these events has helped to promote the impression that the advanced economies have a causal connection from "globalization" to the labor market issues. This article focuses on the reasons of the long-term decrease in the proportion of manufacturing jobs in industrialized countries, a process called 'deindustrialization.' In this context, however, it is important to examine briefly the discussion on interconnections between globalization, income inequality and unemployment, before turning to the problem of deindustrialization.

There is a wide-ranging scholarly dispute in the US as to how trade with the developing nations has helped to increase income disparity between skilled and unqualified workers. International commercial economists have claimed that the decrease in untrained salaries and widened income disparity between qualified and untrained work in the United States in the past two decades has very little to do with increasing trade connections to developing nations. They argue that manufactured imports from the developing countries represent only a small portion of the US GDP just over 2% in 1994, with very little evidence that in the United States Stolper-Samuelson effects, that is, a trade-inducing decrease in the relative prices of goods whose production is intensively employed by non-skilled work. The conclusion is that other variables such as technical development based on skills, particularly the increasing use of computers, are the primary reasons for the rising disparity among qualified and unskilled employees.

3. CONCLUSION

Faced with continuing GDP growth and increasing employment, the persistently high unemployment rate has given rise to worries that the levels of structural unemployment or the natural unemployment rate have increased in the United States in recent years. This is a significant political problem since short-term monetary and fiscal stability measures are not intended to ease structural unemployment and may be expensive when misused. As a result of our projected shifted curve Beveridge and long-running JCC, only the long-running impact on the Beveridge curve and the JCC are expected to be insignificant. However, this results in the conclusion that relatively little study exists on the form of the JCC. The major advantage of our assessment of the natural rate is that we have not identified variables which persistently pull down the generation of employment. Improved knowledge of the drivers of employment generation is not only essential for enhancing empirical analysis of frictional unemployment equilibrium models. It is particularly essential to improve labor market policy.

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