Economy

What is full employment? 10 potential answers

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If the Fed was following a pure inflation targeting strategy, its reaction function would logically have led it to tighten policy. But in addition to the goal of "price stability", the Fed's mandate also aims for "maximum employment". Is the US economy at full employment, and if not, is it far from it? Depending on the answer to this question, the timing of policy rate hikes may change. Unfortunately, there is no single definition of full employment. We propose hereafter ten ways to measure it. In some cases, the box is already ticked. Others will follow in 2022. The job situation can no longer be used as an argument to postpone the first rate increase for a long time, but the pace of increases will be dictated by the inflation dynamics.

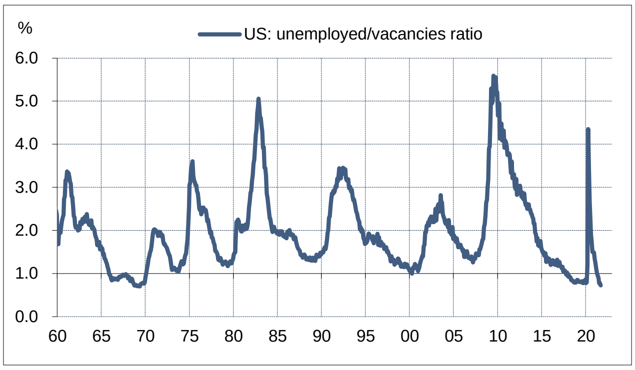
Full employment, a user's manual

In the nearly 100 years since Keynes revolutionised economic thinking[1], it has become standard practice to analyse employment in relation to the state of aggregate demand. As is well known, it was the shortfall of employment during the Great Depression that led him to propose this new approach. But the point here is not to revisit economic theory or history, but to ask whether the US economy is currently at or near full employment, after suffering in 2020 the sharpest (albeit brief) fall in activity since the 1930s. There is no single definition of full employment. We examine hereafter ten possible approaches.

1) **When there are more jobs to be filled than there are unemployed.**

It goes without saying that labour services are not homogeneous and that not every person can fill every other person's position for reasons such as training, geographical mobility, etc. These problems of matching labour to business needs were not created by the pandemic, but it is certain that hiring difficulties have been exacerbated as a result of the crisis - without prejudging the longer-term impact of the disruption of the education system over the past two years on the quality of the workforce.

That said, when the number of vacancies exceeds the number of unemployed, this is a clear reflection of labour market tensions. In the US, this threshold was crossed towards **mid-2021**. The number of job vacancies now exceeds ten million and the number of unemployed has fallen to around 7 million. The BLS has only published the job vacancy series since 2000, but it is possible to backcast it over a long period (chart). The ratio of unemployed to job vacancies only fell below one in the late 1960s (full employment) and in the two years preceding the pandemic (peak of the business cycle). Inter-temporal comparisons should be made with caution. The cost of advertising a job offer has fallen over time, perhaps leading firms to increase the number of job offers when they have recruitment difficulties.

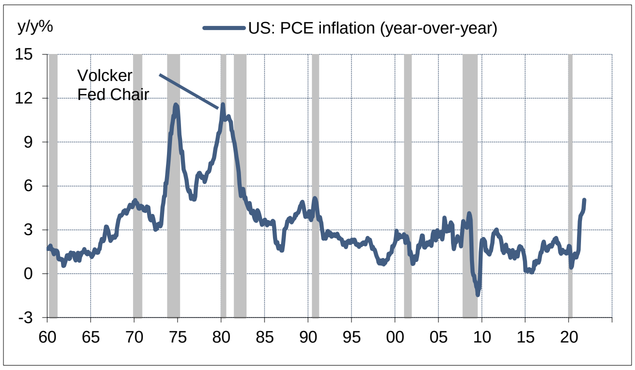


[1] *As a reminder, the title of his magnum opus published in 1936 is: " The General Theory of Employment, Interest and Money".*

2) When unemployment is so low that it causes an acceleration in prices

The relationship between unemployment and inflation is one of the most hotly-debated fields in economics (Phillips curve). Until the 1970s, it was generally agreed that there was a trade-off between the two variables, for example accept a bit more inflation to get a bit less unemployment. The failure of this approach popularised the idea of a non-accelerating inflation rate of unemployment (NAIRU), and that this rate represented full employment.

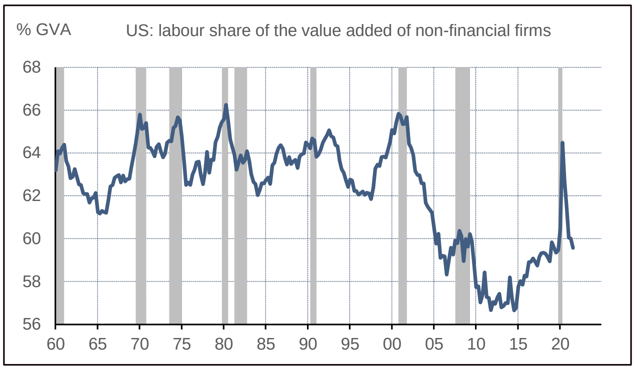
Before the 2008 financial crisis, it was estimated at between 5% and 6% in the US. In the years following the crisis, unemployment fell below 5%, then below 4%, without triggering a pick-up in inflation. This gave rise to much talk about a flattening or the non-linearity of the Phillips curve and a reduction in the natural rate of unemployment. Has the pandemic produced the opposite effect? An undisputed fact is that inflation accelerated strongly in 2021 while the jobless rate still remained relatively high (6.3% in January 2021, 4.2% in November). Measured on a year-on-year basis, PCE core inflation exceeded the Fed's target in **April 2021**. All the alternative price indexes (median, truncated or underlying) confirm that inflation is accelerating, even though, taking a long view, it is far from the peaks seen in the 1970s (chart). Looking at inflation would suggest that full employment has not only been reached but even exceeded.



3) When unemployment is so low that it causes an acceleration in wages

The conclusion to the previous point should be heavily qualified as the price pressures are the result of forces that have little to do with the US labour market and much to do with disruptions in the global supply chain. Focusing on wages is a better way to detect domestic inflationary pressures. The original version of the Phillips curve moreover posited a relationship between unemployment and wages.

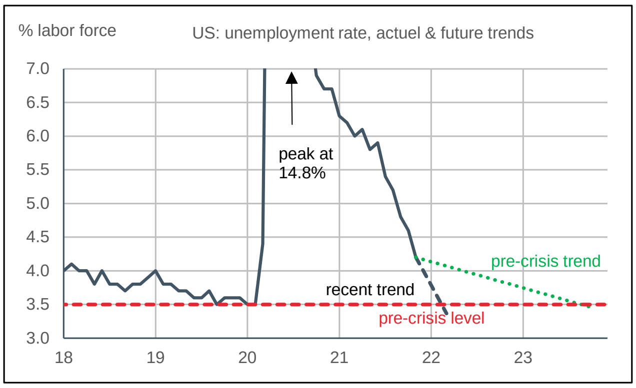
What is the current situation? Hourly wages, the most commonly used indicator, show a gain of 4.8% y-o-y, i.e. around two points more than in the pre-pandemic years[2]. This is not a sufficient signal to reach a conclusion as wages can rise for two reasons: either because the labour market is so strained that employees have strong bargaining power; or because productivity increases. The two are not mutually exclusive. The Beige Book states that firms have to make efforts on wages and non-wage benefits (bonuses, hours) to keep or attract workers. Moreover, apparent labour productivity has increased during the crisis. All told, the share of wages in company value added in Q3 2021 was at exactly the same level as in 2019 (chart). The same goes for the share of total compensation in national income. Wages, and labour cost metrics more broadly, send an **uncertain** signal on the level of labour market pressures.



[2] *This index is affected by composition effects. In spring 2020, as job losses were concentrated among low wage jobs, the hourly rate automatically soared (+8.2% y-o-y in April 2020), then fell back (+0.3% y-o-y in April 2021). These distortions have now largely disappeared.*

4) When unemployment has returned to its pre-crisis level

When the pandemic hit the US economy in February 2020, the US unemployment was at 3.5%, a level then virtually unchanged for two quarters. It seemed that we had reached an incompressible level, bearing in mind that the decline in unemployment also benefited the most disadvantaged categories due to their education or their social status. The sudden stop (lockdown) propelled unemployment to 14.8% in April 2020 (in fact, several points should be added to this figure as the BLS acknowledged errors of categorisation in the labour force). The decline was thereafter largely uninterrupted. In November 2021, unemployment stood at 4.2%. Extending the recent downtrend, we would be back at the pre-crisis level in March 2022. It would more likely be **end-2022 or early 2023** if we take account of a likely slowdown in employment gains. As a reminder, in the previous cycle, it took around 18 months to get from 4.2% to 3.5%.



5) When payrolls are back to their pre-crisis level

The virtually unanimous view was that the employment situation before the pandemic was good, and even excellent. Getting back to the starting point could be a criterion of full employment. In February 2020, there were 153 million employees in the non-farm sector[3]. At the height of the recession, there were 22 million fewer. The gap has narrowed to around 4 million. Once we overcome the uncertainty caused each time a new variant emerges, economic activity in sectors involving a high level of social interaction will be less disrupted. A simple extrapolation suggests that the pre-pandemic employment level would be reached by around **summer 2022**.

6) When employment has returned to its growth trend

In the previous point, the problem is clearly that we do not take account of the increase in the labour force, which was around 120k per month. The return to full employment should be measured more in relation to a non-pandemic counterfactual scenario. Based on the prevailing trends at the start of 2020, the number of employees would have expanded by 3.5 million in two years, which gives a gap, not of 4 million, but 7.5 million. Assuming a linear slowup in the pace of job creations, this gap would be closed in **May 2024**. Other trajectories are possible depending on the participation rate (see points 7 and 8). If the negative shock on participation does not correct, it is the pre-crisis trend which will need to be lowered and, thereafter, the convergence time.

7) When the participation rate returns to its pre-crisis level.

Participation corresponds to the percentage of the working-age population that is either employed or actively looking for a job. This combines from the previous points 4 and 5. What counts here is the dynamics of the labour force, regardless of the contribution from employees or unemployed people.

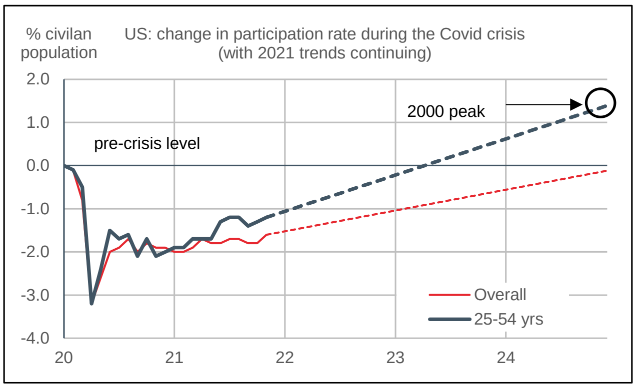
After having peaked at the end of the 1990s (>67%), participation declined, modestly at first then more rapidly in the years following the 2008 crisis. Besides demographic forces, this reflected a weakness in the jobs market, even though unemployment was itself also on a downtrend. Conversely, participation stabilised and even rose slightly between 2015-2019. It exceeded 63% before the pandemic. The sharp fall during the lockdown was only partly offset (61.8% in November 2021). Indeed, the level of retirements was far higher than can be justified by the ageing of the active population alone. Compared with the pre-crisis level, the participation rate is 1.9 points below for the over 55s, 1.1 points below for the 25-54 age group and only 0.3 points for the under 25s. There is nothing to suggest that the newly retired are ready to come back. This type of decision is not easily reversible, even with more favourable employment conditions. A collapse in the price of assets, and

[3] *To recap, it is not this estimate of employment which is used to calculate the unemployment rate.*

therefore a shock to the income of retirees, could reverse the movement, but this is clearly not something that the Fed is hoping for. From this viewpoint, there is no forecasting horizon for a correction in the participation rate.

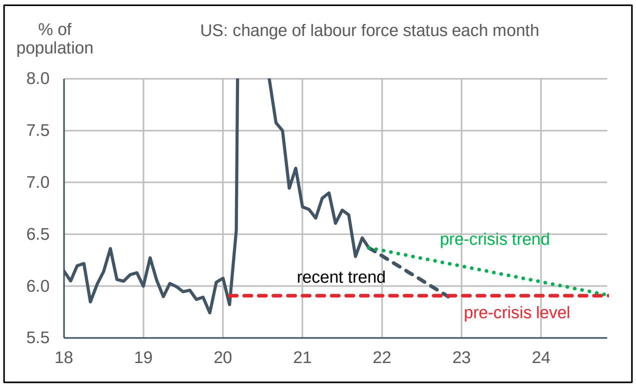
8) When the participation rate for the 25-54 age group is at the pre-crisis level

In order to correct the composition effect stemming from retirements, it would make more sense to examine the participation rate for the 25-54 age group. After all, retirees have no direct influence on wages. Since the beginning of 2021, this "core" participation rate is trending upwards, ignoring the statistical noise (chart). If we extrapolate this trend, the pre-pandemic level of participation will be achieved in **April 2023**. We will need to wait until **November 2024** to return to the peak of 1999-2000. A full correction does not appear to be imminent but if the participation rate for the "core" group continues to rise, this would indicate that the US economy is less impacted by health-related restrictions. Amongst the reasons for recruitment difficulties, firms are signalling, apart from retirements, child care obligations (primarily weighing on mothers) and fears of infection in jobs that have a high level of social interaction. Amongst developed countries, the US stands apart because it has no real system of support for working parents.



9) When entry/exit flows on the jobs market normalise

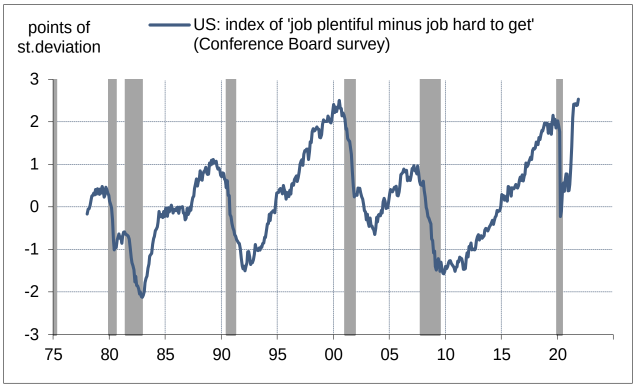
At any given moment, every adult is in one of the three following states: in employment, unemployed, outside the workforce for a variety of reasons (disability, retirement). From one month to the next, everyone can either remain in their current state (the most frequent case) or change it. The transition flows from one state to another increase during the recessions and diminish during periods of expansion. Just before the pandemic, a bit less than 6% of people moved from one state to another, an historic low (since the series began in 1990). It leapt to 14% in April 2020, due to the sudden surge in unemployment and exit flows from the jobs market. Recently, it has stood at 6.5%. As we did earlier with unemployment (point 4), we can estimate the path of normalisation for these flows. An extrapolation of the recent trend suggests **November 2022**, but we can assume that a number of recent factors are biased by the pandemic and should correct, the return to the pre-crisis situation will therefore probably be at the **end of 2024** (chart).



10) When households no longer fear unemployment

Until now, we have seen full employment as an economic concept that we are seeking to measure using statistics. This is evidently the standard approach, but full employment is also a political concept as unemployment or the risk of unemployment, in other words deviation from full employment, can influence voters' choices. As we reiterated in the opening paragraphs, after Keynes and the Second World War, the prevention of mass unemployment became the top priority for governments in developed countries. From this standpoint, full employment could be defined as the level of unemployment, whatever that may be, that does not cause anxiety that puts the current government at risk of losing power at the next election[4].

Do Americans still fear unemployment in 2021? The question is not been asked so directly in consumer confidence surveys, but we have a proxy when households are asked to evaluate job availability or the difficulty of finding a job. The Conference Board survey provides an overview over more than four decades (chart). The index of labour market conditions (jobs plentiful minus jobs hard to get) has rebounded to its pre-pandemic level as of **May 2021** and now stands at an absolute record. Never before has it reached such a high level so soon after the end of a recession, and not in the wake of a long expansion phase.



The opinion polls confirm that unemployment is no longer on the radar for Americans. According to Gallup which asks responders to state the main issue in the US[5], just 5% of those surveyed cited unemployment (in 2011, it was 39%) and slightly more answered inflation (over 50% in the 1970s), figures well behind those for issues relating to the political situation (21%) and the pandemic (15%). In the hierarchy of economic issues, inflation has clearly outstripped unemployment. In early December, still according to Gallup[6], 10% of people surveyed stated that the upsurge in inflation was causing them severe hardship, 35% moderate hardship and 54% no hardship at all. We clearly see why the Fed is adopting a tougher tone, a prerequisite to normalizing its policy stance. Employment is undoubtedly not yet "maximal" as its mandate would like, but it is getting closer to the goal. On the other hand, the inflation spike is well beyond what could be considered as "price stability".

[4] *For a reminder of the long debate on the nature of full employment, see Rees (1957), "The meaning and measurement of full employment", NBER*
[5] *See https://news.gallup.com/poll/1675/most-important-problem.aspx*
[6] *See https://news.gallup.com/poll/357731/inflation-causing-hardship-households.aspx*

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