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Jerome H. Powell: Monetary Policy at a Time of Uncertainty and Tight Labor Markets

Speech by Jerome H. Powell, Chairman of the Board of Governors of the Federal Reserve System, at "Price and Wage-Setting in Advanced Economies," an ECB Forum on Central Banking, Sintra, Portugal, 20 June 2018

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Nine years into an expansion that has sometimes proceeded slowly, the U.S. economy is performing very well. Growth is meaningfully above most estimates of its long-term trend--though admittedly, that trend is not as strong as we would like it to be. The labor market is particularly robust, with unemployment at its lowest level since April 2000. Inflation has moved up close to our 2 percent objective, although we have yet to see it remain near that objective on a sustained basis.

Today, most Americans who want jobs can find them. High demand for workers should support wage growth and labor force participation--the latter a measure on which the United States now lags most other advanced economies. [1] A tight labor market may also lead businesses to invest more in technology and training, which should support productivity growth. And groups such as some racial and ethnic minorities that still have higher unemployment and lower participation rates could see increasing benefits from a tight labor market. [2] In short, there is a lot to like about low unemployment.

Achieving our statutory goal of maximum employment in a context of price stability and financial stability is both our responsibility and our challenge. Earlier in the expansion, as the economy recovered, the need for highly accommodative monetary policy was clear. But with unemployment low and expected to decline further, inflation close to our objective, and the risks to the outlook roughly balanced, the case for continued gradual increases in the federal funds rate is strong.

Current Labor Market Conditions

At 3.8 percent, the unemployment rate is below most estimates of its long-run level, which are now clustered in the mid-4s. Many other labor market indicators also suggest an economy near full employment. To name just a few, these indicators include an elevated level of job vacancies. For the first time since the Labor Department began collecting the data in 2000, there are now more job vacancies than there are people counted as unemployed. In addition, the rate at which workers are quitting their jobs is elevated, a sign that workers are able to find another job when they seek one. And surveys show that businesses are finding it difficult to fill vacancies, and that households perceive jobs as plentiful.

Some other indicators are less clear. The labor force participation rate of prime-age workers has moved up in recent years but remains below pre-crisis levels. [3] In addition, wage

growth has been moderate, consistent with low productivity growth but also an indication that the labor market is not excessively tight.

Looking ahead, the job market is likely to strengthen further. Real gross domestic product in the United States is now reported to have risen 2-3/4 percent over the past four quarters, well above most estimates of its long-run trend. Expansionary fiscal policy is expected to add to aggregate demand over the next few years. Many forecasters expect the unemployment rate to fall into the mid-3s and to remain there for an extended period. If that comes to pass, it will mean the lowest unemployment in the United States since the late 1960s.

A historical comparison

Because we have so little experience with very low unemployment, it is interesting to compare today's labor market with that earlier period. Unemployment was below 4 percent from February 1966 through January 1970. During that time, inflation as measured by the price index for personal consumption expenditures increased from below 2 percent in 1965 to about 5 percent in 1970. In hindsight, unemployment is now widely thought to have been unsustainably low at that time and to have contributed to escalating inflation.

But how significant is this precedent for today? The U.S. economy has changed in many ways over the past 50 years. By some estimates, the natural rate of unemployment is substantially lower now. [4] For example, the Congressional Budget Office now estimates that the natural rate was about 5-3/4 percent (and rising) in the late 1960s, compared with 4-3/4 percent at present. [5]

Rising education levels do point to a decline in the natural rate since the 1960s, because more highly educated people are less likely to be unemployed. The share of the population with a college degree has risen from less than 15 percent in the late 1960s to nearly 40 percent now, and the share with less than a high school degree has declined from 45 percent to about 5 percent. [6] Another important difference from the 1960s is that inflation has been low and stable for an extended period, which has better anchored inflation expectations. Today policymakers have a greater appreciation of the role expectations play in inflation dynamics and a clearer commitment to maintaining low and stable inflation.

Unfortunately, with the passage of a half-century and important changes in the structure of our economy and in central bank practices, in my view the historical comparison does not shed as much light as we might have hoped.

Questions prompted by a tight labor market

The lack of useful historical precedent leaves us with some uncertainty about the answers to several important and challenging questions. First, estimates of the natural rate of unemployment by Federal Open Market Committee (FOMC) participants and others have drifted lower as unemployment has declined without much apparent reaction from inflation. How reliable are these estimates? Natural rate estimates have always been uncertain, and

may be even more so now as inflation has become less responsive to the unemployment rate. [7] The anchoring of expectations is a welcome development and has likely played a role in flattening the Phillips curve. But a flatter Phillips curve makes it harder to assess whether movements in inflation reflect the cyclical position of the economy or other influences.

Second, what would be the consequences for inflation if unemployment were to run well below the natural rate for an extended period? The flat Phillips curve suggests that the implications for inflation might not be large, although a very tight labor market could lead to larger, nonlinear effects. Research on this question is ambiguous, again reflecting the limited historical experience. [8] We should also remember that where inflation expectations are well anchored, it is likely because central banks have kept inflation under control. If central banks were instead to try to exploit the nonresponsiveness of inflation to low unemployment and push resource utilization significantly and persistently past sustainable levels, the public might begin to question our commitment to low inflation, and expectations could come under upward pressure. So far, we see no signs of this. If anything, some measures of longer-term inflation expectations in the United States have edged lower in recent years.

Third, can persistently strong economic conditions pose financial stability risks? Of course, strong economic conditions are a good thing! Such conditions can make the financial system better able to absorb shocks through strong balance sheets and investor confidence. But we have often seen confidence become overconfidence and lead to excessive borrowing and risk-taking, leaving the financial system more vulnerable. Indeed, the fact that the two most recent U.S. recessions stemmed principally from financial imbalances, not high inflation, highlights the importance of closely monitoring financial conditions. Today I see U.S. financial stability vulnerabilities as moderate and broadly in line with their long-run averages. While some asset prices are high by historical standards, I do not see broad signs of excessive borrowing or leverage. In addition, banks have far greater levels of capital and liquidity than before the crisis.

Fourth, while persistently strong economic conditions can pose risks to inflation and perhaps financial stability, we can also ask whether there may be lasting benefits. As I mentioned, a tight labor market could draw more people into the labor force. In fact, as the labor market has tightened, more workers have been moving back to work and off disability rolls. [9] There could also be benefits to productivity and potential growth. All told, though, the persistence of any such "positive hysteresis" benefits is uncertain, since, again, the historical evidence is sparse and inconclusive.

Conclusion

As is often the case, in the current environment, significant uncertainty attends the process of making monetary policy. Today, with the economy strong and risks to the outlook

balanced, the case for continued gradual increases in the federal funds rate remains strong and broadly supported among FOMC participants.

[1] See Organisation for Economic Co-operation and Development (2018), *Economic Survey of the United States 2018* (Paris: OECD).

[2] These groups tend to both suffer most from labor market downturns and benefit most from improving labor markets.

[3] The labor force participation rate is defined as the number of people either with a job or who have actively looked for work within the past four weeks, as a share of the total population. Prime-age refers to individuals from 25 to 54 years old.

[4] The natural rate of unemployment is the unemployment rate over the longer term that is consistent with low and stable inflation. It comprises both the "frictional" unemployment of people who are temporarily between jobs or searching as they have reentered the labor force and the more "structural" unemployment of people whose skills or physical location are not a good match for the jobs available. For more discussion, see Janet L. Yellen (2017), "The Goals of Monetary Policy and How We Pursue Them," speech delivered at the Commonwealth Club, San Francisco, January 18.

[5] Contemporaneous estimates of the natural rate (or "full employment") from the late 1960s were lower than current estimates for that period. For example, the Economic Report of the President from 1968 defined potential output as occurring when the unemployment rate is 4 percent. See Executive Office of the President of the United States (1968), *Economic Report of the President (PDF)* (Washington: U.S. Government Printing Office, February), p. 61.

[6] Other changes in the workforce since the late 1960s seem less likely to have much affected the natural rate of unemployment. There are many more women in the workforce now, but while women used to have higher unemployment rates than men, that is no longer the case. And while younger workers tend to have less stable employment patterns and higher unemployment rates than older workers, the working population is, on net, only a little bit older now than it was in the late 1960s. (The average age of people in the workforce declined through the 1970s as more of the baby-boom generation entered their working years, but it increased subsequently.)

[7] For evidence on the changing effects of labor market utilization on inflation, internationally as well as in the United States, see Olivier Blanchard, Eugenio Cerutti, and Lawrence Summers (2015), "Inflation and Activity--Two Explorations and Their Monetary Policy Implications (PDF)," in *Inflation and Unemployment in Europe*, proceedings of the 2015 ECB Forum on Central Banking (Sintra, Portugal: European Central Bank), pp. 25-46. Regarding uncertainty about estimates of the natural rate, a classic reference is Douglas Staiger, James H. Stock, and Mark W. Watson (1997), "How Precise Are Estimates of the Natural

Rate of Unemployment?" in Christina D. Romer and David H. Romer, eds., *Reducing Inflation: Motivation and Strategy* (Chicago: University of Chicago Press), pp. 195-246.

[8] For one recent example, see Nathan R. Babb and Alan K. Detmeister (2017), "Nonlinearities in the Phillips Curve for the United States: Evidence Using Metropolitan Data," Finance and Economics Discussion Series 2017-070 (Washington: Board of Governors of the Federal Reserve System, June), <http://dx.doi.org/10.17016/FEDS.2017.070>.

[9] See Ernie Tedeschi (2018), "Will Employment Keep Growing? Disabled Workers Offer a Clue," *The Upshot*, New York Times, March 15. [Return to text](#)

Fonte: POWELL, Jerome H. *Monetary Policy at a Time of Uncertainty and Tight Labor Markets*. Disponível em: <https://www.federalreserve.gov/newsevents/speech/powell20180620a.htm> Acesso em: 20 de junho de 2018

Mario Draghi: Monetary policy in the euro area

Speech by Mario Draghi, President of the ECB, ECB Forum on Central Banking, Sintra, 19 June 2018

* * *

The euro area's economy continues on a growth path and inflation is gradually returning towards our objective. But uncertainty permeates the economic outlook. Recent data releases have created questions about the durability of the growth outlook. And – as we will discuss over the next two days – the crisis has presented us with new issues and fresh challenges in understanding the wage- and price-setting process.

Regarding the ECB's monetary policy, as outlined at last week's press conference, progress towards a sustained adjustment in inflation has been substantial so far.

With longer-term inflation expectations well anchored, the underlying strength of the euro area economy and the continuing ample degree of monetary accommodation provide grounds to be confident that the sustained convergence of inflation towards our aim will continue in the period ahead, and will be maintained even after a gradual winding-down of our net asset purchases. But this requires monetary policy in the euro area to remain patient, persistent and prudent.

Recent economic developments

In 2017, growth in the euro area turned out stronger than we had anticipated: the annual growth rate in the fourth quarter was the fastest for a decade. But in 2018, growth has moderated and, so far, has come in below our expectations. In the latest Eurosystem staff projections, growth for 2018 has been revised down by 0.3 percentage points.

This has prompted some questions about the sustainability of the ongoing expansion, which is unusual at such an early stage of the cycle.

In historical terms, the current growth period is comparatively short in length and small in size. Since 1975, there have been five growth phases in the euro area. The average duration from trough to peak is 31 quarters, with GDP increasing by 21% over that period. The current expansion has to date lasted just 20 quarters and GDP is less than 10% above the trough. [1]

To determine whether the moderation has any bearing on medium-term growth, we need to distinguish between its underlying drivers.

In part, the moderation is related to supply-side factors. Some of these are temporary in nature and have already subsided, such as the cold winter weather in large parts of the euro area. But there may also be broader supply factors at play.

In particular, there are increasing signs that capacity constraints are starting to bind in some countries and sectors. Capacity utilisation stands above its long-term average in the euro area and in all large economies. The question is how much, and how quickly, firms will be able to increase supply to relieve these limits.

Adjustment is already taking place in the labour market. The labour force participation rate in the euro area has risen by 1.5 percentage points since the crisis and now stands at an all-time high. And businesses have been actively trying to expand capacity by increasing labour inputs. Employment has risen by 8.4 million since mid-2013, and is growing in nearly every euro area economy. [2]

This has indeed been a job-rich recovery. Compared with the previous growth phases going back to 1975, the contribution of labour to growth has been the highest on record, accounting for almost half of average annual growth. [3]

But the flipside of rising labour utilisation has been a lack of capital deepening. Whereas capital deepening contributed at least 0.6 percentage points to annual growth in all those previous growth phases, its contribution to the current phase is approximately zero. This could explain why signs of capacity constraints are now emerging. Growth has largely been achieved by applying more labour to existing capital.

Firms should increasingly turn to capital to lift capacity – a process that has already begun as business investment has picked up and now stands above its pre-crisis level.

Certainly the conditions are in place to further foster investment, including improving profitability and supportive financial conditions. This is in line with the latest European Commission forecasts for potential output, which project an increase in the contribution from capital and a decrease from labour over the coming years. [4]

All this suggests that the supply-side factors we are currently seeing are likely to slowly unwind over the medium term. Where we need to pay closer attention in the nearer term is to developments on the demand side.

By and large, the underlying fundamentals of the euro area remain solid. Domestic demand is robust, and the main motor of the expansion – the virtuous circle between employment and consumption – is still in place. External demand has been less positive, but this may partly reflect a pullback from the very strong export performance of last year, as well as temporary factors in our main trading partners.

Yet what is undeniable is that uncertainty surrounding the growth outlook has recently increased.

The downside risks to the outlook come from three main sources: the threat of increased global protectionism prompted by the imposition of steel and aluminium tariffs by the United States; rising oil prices triggered by geopolitical risks in the Middle East; and the possibility for persistent heightened financial market volatility.

Set against this are some risks to the upside, stemming mainly from the fiscal expansion in the United States and, more in the medium term, from likely fiscal expansions in several countries in the euro area.

We will continue to monitor these developments closely. But for now, our growth expectations for the medium term remain essentially unchanged and we view the risks around that outlook as broadly balanced.

Outlook for wages and inflation

For monetary policy, the key issue is how growth feeds into wages and then inflation. It is well-known that the reaction of inflation dynamics to accelerating growth has been atypically slow in recent years. As I have discussed elsewhere, there are a variety of factors that could explain this, ranging from mismeasurement of slack to a changing relationship between slack and wages. [5]

All this has injected quite some uncertainty into understanding and forecasting wage dynamics, which persists today. But there are signs that slack is now diminishing, and that the relationship between slack and wages is slowly re-asserting itself.

Different measures of slack, such as broad and headline unemployment, appear to give a similar picture of lessening spare capacity, although there is still high unemployment among specific groups and regions. [6]

In keeping with this, the unexplained residuals in the standard wage Phillips curve model for the euro area are gradually reducing, and wage growth is beginning to pick up.

Compensation per employee has lifted from its trough in mid-2016 and is now growing at 1.9%. So far, the increase has been mainly explained by the wage drift component, which tends to react faster to cyclical improvements in the labour market. But annual growth in negotiated wages has also started to move upwards.

Looking ahead, recent wage agreements notably in Germany, but also in other large countries such as France and Spain, point to a continuation of these wages dynamics. There are signs that the restraint in public-sector wage growth, which had in the past dragged on aggregate wage growth, is starting to relax.

We are seeing an increase in domestic cost pressures along the pricing chain. [7] Domestic producer price inflation for non-food consumer goods is growing at its highest rate since February 2013. Producer price inflation in the services sector – where wages represent around 40% of costs – has also picked up.

That said, higher wage growth does not mechanically translate into higher inflation. Even if wages continue to rise as we expect, we cannot exclude that structural factors beyond the central bank's control might impede the transmission of wages into consumer prices. For example, more intense competition through globalisation or e-commerce might act to compress margins. At present, we do not see much evidence that such factors have affected inflation in the euro area.

What is key is that inflation expectations remain well anchored. Here we are seeing some positive signs. For example, the latest ECB Survey of Professional Forecasters (SPF) shows longer-term inflation expectations stable at 1.9%.

So, overall, there is growing evidence that broad-based economic growth is beginning to generate positive pricing dynamics. But uncertainty arising from economic developments lingers throughout the various stages of this process.

Implications for monetary policy

So what does this imply for our current monetary policy?

We have set out three conditions that must be in place for our net asset purchases to end. We need to see the convergence of inflation towards our aim over the medium term; we need to have sufficient confidence that this convergence will be realised; and the inflation path needs to show resilience and be self-sustaining without additional net purchases.

Assessing these conditions is a forward-looking exercise, because the full effects of monetary policy are felt only after long lags. We have to rely on our projections, the probability distributions surrounding them, and the extent to which they are dependent on our own monetary policy actions.

In terms of convergence, the latest projections see headline inflation reaching 1.7% in each of the next three years. Inflation excluding food and energy – a simple measure of underlying price pressures – is expected to climb to even higher levels over the same horizon. These are the latest in a series of projections which foresee inflation converging to our aim over a policy-relevant medium-term horizon. Importantly, over the course of the past year, that convergence path has held firm, and the timing of when we expect to attain our objective does not appear to have receded further into the future.

Our confidence in the inflation path is also rising, on the basis of two indicators we have been using to assess the probability of inflation convergence.

The first is our own internal estimates of the distribution of future inflation outcomes. ECB staff have constructed a measure that combines the implied inflation distributions from a variety of sources – Eurosystem staff projections, model-based estimates, market-based measures of expectations and surveys such as the SPF. These sources are then weighted by their historical ability to accurately forecast inflation.

That aggregate probability distribution of two-year-ahead inflation expectations has evolved in three dimensions that provide confidence that inflation adjustment is sustainable. The mean of the distribution has increased, the dispersion of the distribution has narrowed, and the downward skew has declined.

Second, we have been monitoring a range of measures of underlying inflation, including model-based statistical measures such as what we refer to as the PCCI, [8] and exclusion-based methods such as inflation excluding food and energy.

Measures of underlying inflation typically provide some early information about the rate at which inflation will stabilise in the future, once all the noise that is affecting current observed headline measures has faded away. Though underlying inflation has not yet shown a clear upward trend, the improvement in wage growth, domestic producer prices and inflation expectations gives us more confidence that, as resource utilisation continues to tighten, underlying inflation will eventually begin to rise.

Finally, market pricing provides some comfort on the resilience of inflation to the anticipated gradual ending of asset purchases.

Inflation expectations are influenced not only by economic fundamentals and the cumulative impact of our past policies, but also by market expectations of future policy settings, including net asset purchases. Ahead of our meeting last week, the median market expectations for net purchases beyond September 2018 were small. It follows that the contribution to our inflation outlook from expected future net purchases was also modest.

As a result of this assessment, last week the Governing Council concluded that progress towards a sustained adjustment in inflation has been substantial so far. As we announced, we anticipate that after September 2018, subject to incoming data confirming our medium-term inflation outlook, we will reduce the monthly pace of the net asset purchases to €15 billion until the end of December 2018 and then end net purchases.

That decision, while acknowledging the increase in uncertainty, shows that we are confident that the projected convergence in the path of inflation will occur with sufficient probability without further net additions to our stimulus. The economy and the inflation process are

developing an underlying strength that was previously absent. As a result, as I described here last year, monetary policy can accompany the economic recovery. [9]

But the projected convergence remains reliant on the substantial cumulative impact of past policies, which are locked into the supportive financial conditions present today. Significant monetary policy accommodation is still needed to support the further build-up of domestic price pressures and headline inflation developments over the medium term.

Our latest, unanimous decision ensures that the necessary monetary policy support remains in place. This support has a number of elements, including the net asset purchases until the end of the year, the sizeable stock of acquired assets and the associated reinvestments, and our enhanced forward guidance on the key ECB interest rates.

Our decisions also reflected the desire of the Governing Council to retain the ability to react to potential future shocks to ensure the sustained convergence of inflation to our medium-term aim. They embed precise elements of state contingency into our forward guidance. By clearly specifying and communicating our reaction function, we are able to act in a consistent and predictable fashion. Acting in this way helps reduce any market uncertainty that might arise concerning our future actions. [10]

Let me restate our recent decisions on our policy instruments.

First, our anticipated ending of asset purchases in December this year is subject to incoming data confirming the medium-term inflation outlook. Moreover, the APP can always be used in case contingencies materialise that we do not currently foresee.

Second, we announced that we intend to maintain our policy of reinvesting the principal payments from maturing securities purchased under the asset purchase programme (APP) for an extended time after the end of net purchases, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

Third, we conveyed our expectation that the key ECB interest rates will remain at their present levels at least through the summer of 2019, and in any case for as long as necessary to ensure that the evolution of inflation remains aligned with our current expectations of a sustained adjustment path.

This enhanced forward guidance clearly signals that we will remain patient in determining the timing of the first rate rise and will take a gradual approach to adjusting policy thereafter. The path of very short-term interest rates that is implicit in the term structure of today's money market interest rates broadly reflects these principles.

As indicated at the ECB watchers' conference earlier this year, [11] after the end of net asset purchases, the main tool for shaping our policy stance will become the path of our key policy rates and forward guidance about their likely evolution.

Finally, we have stated that we stand ready to adjust all of our instruments as appropriate to ensure that inflation continues to move towards our medium-term aim of inflation below, but close to, 2%. Adjustments to our instruments will remain predictable, and they will proceed at a gradual pace that is most appropriate for inflation convergence to consolidate, taking into account continued uncertainty in the economy. In short, monetary policy in the euro area will remain patient, persistent and prudent.

[1] The GDP series used to compute the euro area “synthetic” aggregate come from the Euro Area Wide Model (AWM) database and Eurostat and covers the period 1970 Q1 – 2018 Q1.

[2] In annual terms, employment is not growing only in Lithuania.

[3] European Commission data and ECB calculations. As growth accounting exercises are sensitive to the underlying assumptions, exact numbers should be treated with caution.

[4] European Commission (2018), European Economic Forecast, Spring 2018.

[5] See for example Draghi, M (2017), “Accompanying the economic recovery”, Speech at the ECB Forum on Central Banking, Sintra, 27 June.

[6] See Szörfi, B. and Tóth, M. (2018): Measures of slack in the euro area, Economic Bulletin, Issue 3, ECB.

[7] See Fabiani, et al. (2006), “What Firms' Surveys Tell Us about Price-Setting Behavior in the Euro Area”, International Journal of Central Banking, 2(3): 3-47.

[8] Persistent and common component of inflation.

[9] Draghi, M (2017), op. cit.

[10] Coenen et al. (2017), “Communication of monetary policy in unconventional times”, Working Paper Series, No. 2080, ECB. The authors find that clearly communicated forward guidance can help reduce market uncertainty.

[11] Draghi, M. (2018), “Monetary Policy in the Euro Area”, speech at The ECB and Its Watchers XIX Conference organised by the Institute for Monetary and Financial Stability, Frankfurt, 14 March.

Fonte: DRAGHI, Mario. *Monetary policy in the euro area*. Disponível em: <<https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180619.en.html>> Acesso em: 20 de junho de 2018

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