

A Monetary Policymaker's Lexicon



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**Market News International
New York, NY**

February 4, 2016

Introduction

Thank you for the invitation to present some remarks and to participate in what I am sure will be an interesting question and answer session to follow. I say “interesting” because over the 18 months in which I’ve served as president of the Federal Reserve Bank of Cleveland, I find that whenever I present remarks, I learn a lot from the questions posed by the audience – most likely, more than they learn from me. I view the exchange of ideas with the public as one of a Fed president’s duties, but it has also turned out to be one of its pleasures.

Another pleasure of mine is serving on the Federal Open Market Committee’s Subcommittee on Communications. The Federal Reserve has worked over many years to improve its communications with the public and to increase transparency. This work is gratifying but it is also challenging. One of the challenges is trying to explain policy decisions and the rationale behind those decisions, which can be quite complex. In a world in which every word of the FOMC is scrutinized, those of us on the Committee try to be very careful with our language. But at times, this can make us seem somewhat inscrutable. So today I would like to give you my own interpretation of four expressions that have become part of the lexicon of monetary policymakers. These phrases are: data dependent, gradual normalization, well underway, and symmetric inflation goal. Before proceeding, let me emphasize that this is not intended to be an exhaustive list of the lingo monetary policymakers use; if I tried to do that, we would be here all night and never get to the Q&A portion of the program. Let me also emphasize that these are my views and interpretations, and not necessarily those of the Federal Reserve System or my colleagues on the FOMC.

“Data Dependent”

The FOMC has described its monetary policy decisions as being “data dependent.” At its January meeting held last week, the FOMC decided to maintain the target range of the federal funds rate at one quarter to one half of a percent. This target was set in December when the FOMC implemented its first change in the policy rate in 7 years and the first rate increase in 9-1/2 years. December’s increase in the

rate from essentially zero recognized the considerable progress the economy has made since the Great Recession, which officially ended more than six years ago, and the FOMC's outlook that the economy will improve further, supported by monetary policy that continues to be quite accommodative.

The Committee has indicated that, in setting policy, it assesses both realized and expected progress toward the FOMC's statutory objectives of maximum employment and price stability. The decision to maintain the target range in January, just as the decision to raise it in December, represents the outcome of such an assessment. This assessment encompasses a wide range of economic information – the official economic statistical releases and financial market indicators, as well as the information I and other FOMC participants garner by speaking with contacts in our regions. When the FOMC says its decisions are “data-dependent,” I view this as shorthand for this more comprehensive process of parsing economic and financial information to evaluate current economic conditions, and then assessing what that information implies about the economic outlook and the risks around that outlook.

I supported the decision of no change in the fed funds rate target in January because I believe that policy, for the time being, is well-calibrated to the economic outlook and the risks around that outlook.

It is important to note that “data dependent” policymaking does not mean that policy will react to every short-run change in the data. For example, volatility in financial markets or a change in a short-run data report is not a rationale for making a monetary policy decision. Instead, an assessment has to be made of what the incoming data and financial market developments are telling us about underlying economic conditions and the medium-run outlook. The relevant time horizon for monetary policy is the medium run because it takes time for monetary policy to have an effect throughout the economy.

A case in point is the economic and financial developments we've seen since the beginning of the year. According to the first estimate, real GDP growth slowed considerably in the fourth quarter of last year, to an annualized growth rate of only 0.7 percent, down from an average pace of about 3 percent in the

second and third quarters. A decline in net exports and a reduced pace of inventory investment were the main drags on growth last quarter, but nonresidential investment also declined. In contrast, consumer spending and residential investment held up well. So, the question is: how long will the softness seen last quarter persist?

We also have to evaluate what the recent market volatility might imply about medium-run growth. The declines in global equity markets since the beginning of the year partly reflect market participants' reassessment of the outlook for growth in China and their views on how effective policy actions undertaken by Chinese policymakers will be in fostering growth there. China is undergoing a longer-run structural transition from an economy driven by trade to one more dependent on domestic consumption growth, and these kinds of structural changes can be challenging and long lasting. Over the past couple of decades, we have seen some of those challenges play out on a much smaller scale at the regional level in the U.S. as industrial states have transitioned from manufacturing-based economies to more diversified goods- and services-based economies.

As it relates to U.S. growth, the direct trade ties between the U.S. economy and China are not very strong: exports to China represent 7 to 8 percent of total U.S. exports and total U.S. exports are about 12 to 13 percent of U.S. GDP. So the direct effect of trade with China on U.S. output is small. Of course, some U.S. industries are more exposed to international developments via trade and changes in the value of the dollar than others, and because many emerging economies are considerably more dependent on trade with China, the implications of developments in China for the global economy need to be considered.

In addition to the decline in stock prices, we have seen another sharp decline in oil prices since the beginning of the year. In part, this reflects the same reassessment of global growth prospects affecting the stock market. But supply-side factors are also very important. Worldwide oil inventories remain high and oil production has not been as responsive as one might have thought given the declines in oil prices

seen over the past 18 months. This means that oil prices are likely to remain lower for longer than previously anticipated, as it is taking longer for supply to rebalance with demand.

How should a data-dependent policymaker incorporate these recent developments into the medium-run outlook? At this point, I view them as posing some risk to the outlook, but I believe it is premature to materially change my modal outlook. The drop in oil prices means that the U.S. energy and manufacturing sectors will continue to experience considerable pressure. However, lower energy prices will provide an offsetting benefit for U.S. households and for those in other oil-importing countries. Households may choose to spend some of this gain – we’ve seen this already in high sales of SUVs and other larger vehicles – or they may choose to save some of this gain – we’ve seen the savings rate rise – and these savings will help support future consumption. While there is a possibility that a steeper, more persistent drop in equity markets could lead to a broader and more persistent pullback in risk-taking, which would negatively affect the outlook, so far we have not seen this.

I continue to monitor global economic and financial developments and assess their implications for the outlook and risks to the outlook. At this point, solid labor market indicators, including strong payroll growth, and healthy growth in real disposable income, suggest that underlying U.S. economic fundamentals remain sound. Until we see further evidence to the contrary, my expectation is that the U.S. economy will work through the latest episode of market turbulence and soft patch to regain its footing for moderate growth, even as the energy and manufacturing sectors remain challenged. I continue to expect that growth this year will be sufficient to generate some further improvement in labor markets. I wouldn’t be surprised if the pace of job gains slowed somewhat, but the gains should be strong enough to put additional downward pressure on the unemployment rate.

The latest round of oil price declines means headline inflation will remain lower for longer than I previously thought. But I still think a reasonable forecast is that inflation will gradually return to 2 percent over the medium run. I can point to a couple of things to support this view. First, measures of

underlying inflation, like the core, the trimmed mean, and the Cleveland Fed's median CPI, are higher than headline inflation. They have remained relatively stable despite the continuing sharp drop in oil prices we've seen over the past 18 months and the appreciation of the dollar, which puts downward pressure on the price of U.S. imports. In my view, longer-run inflation expectations, an important factor in the inflation forecast, have been relatively stable, even in the face of sizable declines in energy prices. I take less of a signal from the downward moves in market-based measures of inflation compensation, because estimates suggest that these moves more likely reflect changes in liquidity premia and inflation risk premia rather than changes in inflation expectations.

Oil prices cannot continue to decline indefinitely, nor can the dollar continue to appreciate forever. At some point, both will regain some stability and the effect of previous changes on inflation will dissipate. As that happens, with inflation expectations remaining stable and economic growth continuing, it is reasonable to expect that inflation will move back slowly to 2 percent; it just might take a bit longer now given the most recent decline in oil prices.

Of course, going forward, it will be important to monitor inflation developments, in particular inflation expectations, as well as economic developments both here and abroad. As we've seen, things can take unexpected turns. We want to set the path of policy based on an outlook informed by economic developments, a path that will best achieve our objectives of maximum employment and price stability. While the actual path the fed funds rate follows will depend on the economic outlook, and thus, will be data dependent, my current view is that economic conditions will evolve in a way that will warrant rates moving up gradually over time to more normal levels. And this brings me to the second term in the monetary policymakers' lexicon: gradual normalization.

“Gradual Normalization”

I expect monetary policy to remain accommodative for some time to come. But given my outlook of moderate growth, continued improvement in labor markets, and a gradual return of inflation to 2 percent,

I believe the appropriate policy path will involve gradual reductions in the extraordinary level of accommodation that was necessary to address the Great Recession and its aftermath.

The FOMC's Summary of Economic Projections, or SEP, which includes a dot plot of each FOMC participant's fed funds rate projection, gives a good sense of the meaning of "gradual normalization." In March, we will have a new set of FOMC projections. The December projections showed that the majority of FOMC participants believe it will be appropriate for the level of the fed funds rate to move up over time, but at a pace that means over the next couple of years the funds rate will be below the level most participants expect to prevail over the longer run. According to the December projections, across participants, this longer-run level ranges from 3 to 4 percent, with a median projection of 3.5 percent. So one meaning of gradual is that the level of the policy rate is expected to be relatively low for some time.

Another way to see that this pace is gradual is to compare it to past tightening cycles, when economic conditions and the outlook differed from those today. The median path in the December SEP is about half the pace of tightening the Committee undertook in the 2004-2006 period, the period of "measured pace" increases. It is even more gradual when compared to the 1994 tightening cycle when the fed funds rate target rose by 300 basis points over 13 months.

A third way to view this as gradual is to compare it to prescriptions from some simple monetary policy rules. As I've said elsewhere,¹ I believe in a systematic approach to monetary policy, but I don't believe we are at the state of knowledge where we can choose a single policy rule to set policy because no rule works well enough across a variety of economic models and in a variety of economic circumstances. Still, I find it useful to look at the outcomes of a variety of such rules as a gauge. The median policy path in the December SEP is more gradual than the policy path that would be prescribed by many, although

¹ Loretta J. Mester, "The Economic Outlook and Monetary Policy," speech before the Forecasters Club of New York, April 16, 2015, <https://www.clevelandfed.org/newsroom%20and%20events/speeches/sp%2020150416%20the%20economic%20outlook%20and%20monetary%20policy>.

not all, simple policy rules. For example, suppose the economy evolved in the way described by the median economic projections from the December SEP. Then the simple Taylor 1993 rule would project the fed funds rate rising by over 3 percentage points by the end of 2017, while the median appropriate policy path in the December SEP is considerably more gradual, with the funds rate rising by about 2 percentage points by the end of 2017.² In other words, according to FOMC participants, in order to achieve the median economic projections in the SEP, a more gradual path than the one described by a simple Taylor rule will be appropriate.

Thus, it is anticipated that even as policy gradually normalizes, it will likely need to remain accommodative for some time to come given some of the forces still impacting our economy – for example, slow growth abroad, dollar appreciation, more restrictive financial conditions, and the continued rebalancing of supply and demand in the energy sector.

We use the word “normalization,” but in the aftermath of the Great Recession, there is some uncertainty about what the “normal” level of interest rates is. If productivity growth remains low and the potential growth rate of the economy over the longer run has moved lower, as many economists estimate it has, then the longer-run level of the fed funds rate consistent with price stability and maximum employment – the so-called neutral rate – would also be lower than it was in earlier periods. But estimates of long-run growth are imprecise and subject to revision, so this means there is considerable uncertainty around this neutral fed funds rate as well. A gradual approach to normalization will not only allow us to be responsive to economic developments but also allow us to recalibrate policy over time as some of the

² The median policy path in the December SEP has the funds rate rising to 1.4 percent by the end of this year, 2.4 percent by the end of 2017, and 3.3 percent by the end of 2018. The simple Taylor 1993 rule is $R_t = r^* + \pi_t + 0.5(\pi_t - \pi^*) + 0.5[(y_t - y^*)/y^*]$, where R_t is the nominal federal funds rate at time t , r^* is the longer-run real interest rate, π_t is inflation at time t , π^* is the inflation target, y_t is the output level at time t , and y^* is the level of potential output. Since the output gap is not contained in the FOMC projections, I translate the output gap, $(y_t - y^*)/y^*$, into an unemployment gap, $U_t - U^*$, where U_t is the unemployment rate and U^* is the longer-run unemployment rate, and $(y_t - y^*)/y^* = -2.3 \times (U_t - U^*)$, based on the estimated historical relationship between the output gap and the unemployment gap. In this Taylor rule exercise, if we ignore the fact that the economic outcomes projected in the SEP are conditioned on each participant’s appropriate policy path and use the median economic outcomes as inputs into the Taylor rule, then the simple Taylor 1993 rule would project the fed funds rate rising to 3.1 percent by the end of this year, to 3.6 percent by the end of 2017, and to 3.7 percent by the end of 2018.

uncertainties surrounding the longer-term level of interest rates, the economy's potential growth rate, and the longer-run unemployment rate are resolved.

While I've been using the median fed funds projection in the December SEP as a benchmark, it is important to keep in mind that these projections are not a commitment because in order to best achieve our goals of maximum employment and price stability, policy should be expected to react in a systematic fashion to material changes in the outlook. Our economic forecasting models are, by necessity, simplifications. The economy is dynamic and can be hit by various shocks that might lead to changes in the medium-run outlook for employment and inflation to which policy would want to respond.

Confidence bands around economic forecasts tend to be wide. For example, averaging across several models, the 70 percent confidence interval around a forecast of CPI inflation one year out is about plus or minus 1 percentage point; the confidence band around a forecast of short-term interest rates one year out is of similar magnitude.

Unlike private-sector forecasters, FOMC policymakers provide funds rate projections in the SEP that represent their views of appropriate policy rather than a policy forecast. But because there is uncertainty around the outlook, there is also uncertainty around the FOMC's policy path. If the economy's evolution turns out to be different from what we currently anticipate, our policy path may well have to deviate from what our current expectation is. The policy paths in the SEP will change over time as the outlook changes. I don't view this as problematic – we want policy to respond appropriately to changes in the outlook. Thus, the actual path normalization takes could very well turn out to be either less or more gradual than what we anticipate it to be today. The evolution of the FOMC's dot plot in the SEP over meetings to come will provide the public with information on how participants think monetary policy should appropriately respond to changes in the outlook. As I mentioned, our next SEP will be released in March.

“Well Underway”

Another aspect of current monetary policy involves the Fed’s balance-sheet strategy. The Fed took some extraordinary policy actions in the wake of the financial crisis and Great Recession. Some of those actions involved purchasing longer-term Treasury securities and agency mortgage-backed securities to exert downward pressure on long-term interest rates. As a result of those purchases, banks and other depository institutions now hold at the Fed over \$2 trillion in reserves in excess of regulatory requirements, and the Fed holds about \$4.5 trillion in assets on its balance sheet, nearly five times as much as before the financial crisis. Currently, the Fed is maintaining the size of its balance sheet by reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities into agency mortgage-backed securities and by rolling over maturing Treasury securities at auction. The FOMC has said it anticipates doing this until normalization of the level of the federal funds rate is well underway. One might reasonably ask what “well underway” means. The FOMC hasn’t given a precise definition.

In my view, “well underway” refers to the state of the economy and not a particular length of time after the initial rate increase. This is consistent with the FOMC’s policy normalization principles, which indicate that the decision about when to cease or begin phasing out reinvestments will depend on how economic and financial conditions and the economic outlook evolve.³ As demonstrated in December, the Fed has the tools to raise the fed funds rate to the target range even though the balance sheet is very large. So from a policy implementation perspective, there isn’t a compelling reason to end reinvestments quickly. But consistent with the normalization principles, I would like the balance sheet to eventually return to a more normal size and composition; the first step in that process is ending reinvestments. We don’t know precisely how the economy will evolve; this argues against deciding to end reinvestments after some particular period of time has elapsed. Instead, because some policy accommodation is provided via the balance sheet, it would seem better to base the decision about reinvestments on economic

³ See “Policy Normalization Principles and Plans,” September 17, 2014, <http://www.federalreserve.gov/newsevents/press/monetary/20140917c.htm>.

conditions and the outlook, just as we do with the funds rate path. Indeed, the economic conditions and outlook that would support reducing the degree of monetary accommodation by gradually raising the fed funds rate would also tend to support slowly reducing the size of the balance sheet, which would result when reinvestments end. Thus, in my view, the level of the fed funds rate might be used as a guide to when to end reinvestments – in this case, both our fed funds rate path and our balance-sheet policy would be data dependent. I would be comfortable ending reinvestments after we have a few more funds rate increases under our belt, perhaps when the funds rate has reached 1 percent or so. This is my interpretation of “well underway,” but as Chair Yellen indicated in her December press briefing, the FOMC has not given further guidance on this.⁴

The final phrase in the monetary policymakers’ lexicon I’d like to discuss is the FOMC’s “symmetric inflation goal.”

“Symmetric Inflation Goal”

The FOMC’s statement on longer-run goals and monetary policy strategy serves to clarify the FOMC’s framework for making monetary policy decisions.⁵ I view the statement as a very important part of the Committee’s communications arsenal. This statement makes explicit the FOMC’s numerical goal for inflation over the longer run. This goal is 2 percent inflation, as measured by the year-over-year change in the price index for personal consumption expenditures, or PCE inflation. Since first being issued in January 2012, the statement has been reaffirmed at the Committee’s annual organizational meetings each January.

⁴ See “Transcript of Chair Yellen’s Press Conference,” December 16, 2015, <http://www.federalreserve.gov/mediacenter/files/fomcpresconf20151216.pdf>. Also see the discussion of reinvestments in the minutes of the September 2015 FOMC meeting, <http://www.federalreserve.gov/monetarypolicy/files/fomcminutes20150917.pdf>.

⁵ See “Statement on Longer-Run Goals and Monetary Policy Strategy,” adopted effective January 24, 2012, amended effective January 26, 2016, http://www.federalreserve.gov/monetarypolicy/files/FOMC_LongerRunGoals_20160126.pdf.

Given that it lays out the FOMC's decision-making framework, I view the statement on long-run goals as somewhat constitutional in nature, but periodically, the FOMC and its Subcommittee on Communications appropriately consider whether there are any changes that might be beneficial in clarifying the framework.

One such change was made this January when the FOMC clarified that the 2 percent inflation target is symmetric. As indicated in the statement, the Committee would be concerned if inflation were running persistently above or persistently below the goal. Persistent one-side misses can be of concern because in many models of the inflation process, current and past deviations from the target are informative about future inflation. Another factor affecting the outlook for inflation is inflation expectations. Persistent misses on either side of the goal can be of concern because they might ultimately cause inflation expectations to become unanchored, thereby undermining the achievement of the Fed's longer-run inflation objective.

These concerns may or may not rise to the level of necessitating a policy action. The FOMC has to balance a number of considerations in setting policy to promote its dual mandate goals of maximum employment and price stability. As we've discussed, policy action is tied to the medium-run outlook. If the one-sided misses have changed the outlook for inflation and employment materially, then policy might need to respond in order to foster attainment of our goals. In other cases, even if inflation were running above or below the target, no policy response might be called for because the outlook continued to be for inflation to return to 2 percent over time and for the economy to be at full employment.

An example is the period in late 2006 and early 2007. The minutes of the December 2006 FOMC meeting indicate that the economy was expected to expand at a moderate pace and all FOMC participants were concerned about inflation.⁶ Nearly all participants felt that the core measures of inflation were "uncomfortably high." Part of the increase in both headline and core inflation reflected earlier rises in

⁶ See "Minutes of the Federal Open Market Committee, December 12, 2006," <http://www.federalreserve.gov/fomc/minutes/20061212.htm>.

energy and other commodity prices. The FOMC continued to forecast that core inflation would move lower over time as the effects of higher energy and commodity prices passed through and growth moderated. They expressed concern that if inflation didn't moderate as expected, there would be significant costs if inflation expectations drifted up. But on balance, these concerns did not elicit a change in the fed funds rate, although there was one dissent in favor of raising rates in light of the inflation outlook. Similarly, in meetings in early 2007, the Committee was concerned about inflation but the forecast was for inflation to moderate and there was no policy response.

In the aftermath of the Great Recession and our experience with low inflation, I have not heard many people say that they believe that the Fed interprets its inflation target as a ceiling, and is only concerned about misses on the upside. Nonetheless, I do think the change the Committee made in January to clarify the symmetric nature of the inflation target was a positive step toward improved transparency and communications.

And I hope that my remarks today helped to clarify for you my own interpretation of four catch-phrases in the monetary policymaker's lexicon: data dependent, gradual normalization, well underway, and symmetric inflation goal. Thank you for your attention.