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POLICY MATTERS

Five Questions for Janet Yellen

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Next week Federal Reserve (Fed) Chair Janet Yellen will testify in front of Congress on the Fed's semi-annual monetary policy report. Not only will this be Yellen's first public appearance as Fed Chairman, it will also be her first set of policy-related remarks since April of last year. While many have emphasized the continuity between former Fed Chairman Ben Bernanke and Yellen, it would be a mistake to underestimate the importance of Yellen's personal views and her impact on the policy outlook. In fact, Yellen's remarks next week have the potential to be a major event for markets and could set the tone for bonds for the coming years.

In some ways, Yellen is becoming Fed Chair at a time when much of US monetary policy appears to be on a preset course. At last week's Federal Open Market Committee (FOMC) meeting there was no change in policy and no signal that policy is likely to change in the coming months. In fact, the FOMC's discussion of tapering—"The Committee will likely reduce the pace of asset purchases in further *measured* steps at future meetings"—is reminiscent of the *"measured"* tightening that started in 2004 and continued unaltered at practically every meeting for the following two years.

However, the apparent calm in Fed policy may be only on the surface. Underneath the calm is a set of unanswered questions that will be hugely consequential for future Fed policy, and therefore for bond markets. More specifically, Yellen's answers to the five questions outlined below will likely determine how easy or tight monetary policy will be in the coming years. Yellen's current thinking on these five questions, which could come into clearer focus at next week's hearings, has the potential to move the bond market significantly in one direction or another.

Summary

Yellen's answers to the following five questions will be consequential for future Fed policy, and therefore for bond markets. As described in detail below, our view is that on four of the five questions Yellen is likely to lean dovish, and we will be watching carefully for any indication of her views on the fifth question.

1. **Can monetary policy reverse structural damage in the labor market?** Yellen has a well-documented concern for the unemployed. As a consequence, she is likely to advocate for an activist monetary policy aimed at reversing structural damage and improving the labor market prospects for the long-term unemployed.

2. **Do low rates necessarily lead to financial instability?** Like Bernanke, Yellen likely believes that the risks to financial stability are relatively low, due to higher bank capital ratios, the absence of private sector credit acceleration, and the Fed's new "macro-prudential" policy tools.

3. **Does the Fed's forward guidance represent a forecast or a commitment?** In the past, Yellen has acknowledged the value of making a commitment to accommodative policies. While she may be constrained by the consensus of the FOMC, she is likely to lean toward interpreting the forward guidance as a commitment, rather than as a forecast.

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4. **How vulnerable is the US outlook to recent volatility in equities and emerging markets (EM)?** While previous Fed Chairs have been primarily focused on economic data in forming their outlook, Yellen will not ignore the recent declines in certain markets. She may acknowledge the concerns in US equities and in EM, even if it is too early to say whether her outlook has changed.

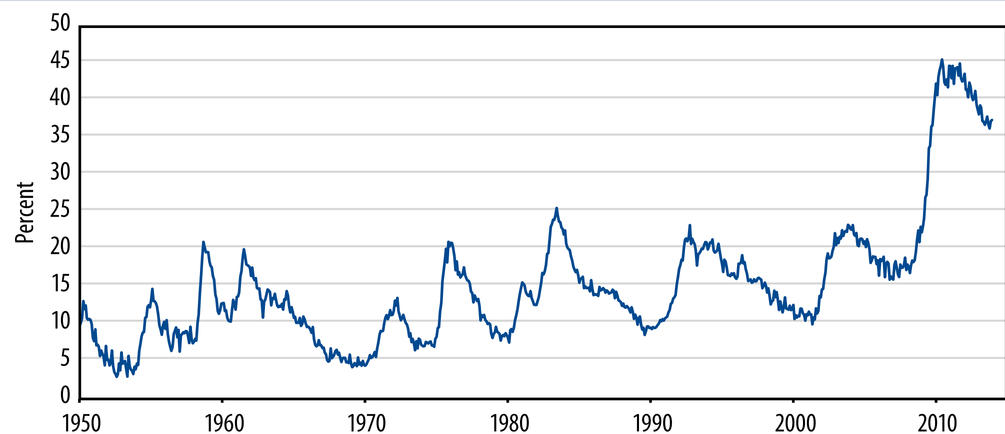
5. **What are the most important determinants of inflation?** The Fed's inflation forecast has become increasingly central to its communications strategy. While realized inflation has been low, there are many cross-currents that may make the Fed less certain about its forecast model. We will be listening carefully for clues as to how Yellen thinks about the inflation outlook.

Details

1. Can monetary policy reverse structural damage in the labor market?

There are increasingly prevalent signs that the financial crisis has led to a deterioration of potential US growth. Perhaps the most worrisome development has been the continued challenges faced by the long-term unemployed. The share of unemployed workers who have been unemployed for more than 27 weeks has remained stubbornly high even as other labor market indicators have normalized (Exhibit 1). In addition, recent studies have documented that workers who have been unemployed for more than six months are less likely to receive interviews or to be called back for jobs, even if their resumes are otherwise indistinguishable from other applicants. These results raise the possibility that the long-term unemployed may be permanently shut out of the labor market, even if demand for workers were to pick up in the future.

Exhibit 1
Long-Term Unemployed as a Share of Total Unemployed



Source: Bureau of Labor Statistics. As of 31 Dec 13

At this point, the structural damage (and especially the deterioration of prospects for the long-term unemployed) is quickly becoming a reality rather than something to fear in the future. As a result, the FOMC has likely moved beyond the debate about whether damage to the labor market is "structural" or "cyclical" and on to a debate about whether or not the structural damage can be reversed. How Yellen comes out on this debate will directly influence her view of the appropriate stance of monetary policy in 2014.

If Yellen concludes that the structural damage is *not* reversible, that would be hawkish for the Fed's policy outlook. Immediately before launching quantitative easing (QE) 3, Bernanke cited his concern that slow growth would lead to structural damage as one of the primary justifications for adding monetary stimulus: "The stagnation of the labor

market in particular is a grave concern not only because of the enormous suffering and waste of human talent it entails, but also because persistently high levels of unemployment will wreak structural damage on our economy that could last many years" (Bernanke, August 2012). If Yellen were to accept structural damage as a *fait accompli*, Bernanke's concern would no longer matter for policy and a key justification for accommodation would be lost. More generally, if structural damage is not reversible, we are getting closer to the point when the time for monetary stimulus will have passed, and a forward-looking FOMC may be less compelled to remain accommodative.

On the other hand, if Yellen concludes that the structural damage is reversible, that would be quite dovish for the policy outlook. Not only would such a conclusion embolden Yellen to maintain easy policy even as the unemployment rate falls below 6.5%, it could even justify her ramping up accommodation in the current environment based on the theory that the Fed has not only the ability but also the obligation to reverse some of the damage done by the financial crisis. There is some evidence that others within the Fed are leaning in this direction. For example, in November a group of Fed researchers wrote: "Activist monetary policy may be able to limit the amount of supply-side damage that occurs initially, and potentially may also help to reverse at a later stage such damage as does occur" (Wilcox *et al* 2013).

One final nuance is worth mentioning on this point. In the 1970s, the Fed maintained an easy monetary policy stance partially in an attempt to promote a "high pressure" economy, which they hoped would lead to improvements in productivity. With the benefit of hindsight it is now obvious that the Fed's efforts on this front were inflationary and directly contributed to the runaway inflation toward the later part of the decade. The lesson of the 1970s will not be lost on Yellen, and even if she thinks structural damage can be reversed she will likely be cautious about the (inflationary) costs of trying to pump up the economy.

Given Yellen's well-documented concern for the unemployed, it seems somewhat unlikely that she will give up on the idea that monetary policy can affect a positive change in their situation. Therefore, it seems more likely than not that Yellen will lean toward an activist policy aimed at reversing structural damage, which would ultimately be dovish.

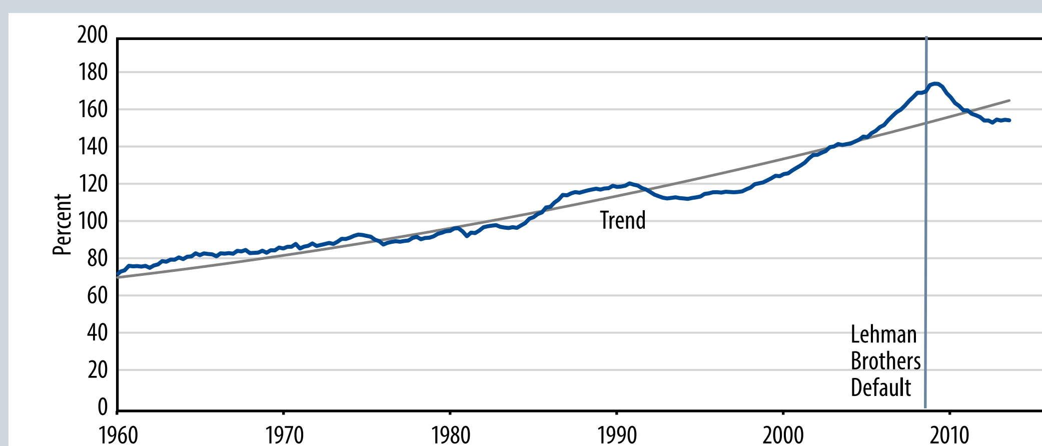
2. Do low rates necessarily lead to financial instability?

Financial stability considerations appear to have been part of the FOMC deliberations throughout 2013. Some FOMC members, notably Governor Jeremy Stein, expressed concern that the Fed's policies were leading to a build-up of financial risk, particularly in credit markets and in leveraged trades that benefited from a steep yield curve. Other FOMC members, including Bernanke and New York Fed President William Dudley, pushed back, maintaining that the risks were contained and that recent improvements in the financial system (e.g., the addition of more bank capital) have made the system much safer on balance. While it's impossible to say for sure, it seems very likely that financial stability concerns played at least some role in the Fed's decision to taper QE, and it seems almost certain that financial stability considerations will continue to be part of the FOMC deliberations in 2014.

If Yellen concludes that accommodative monetary policies are contributing to an unsustainable buildup of financial risks, that would be hawkish for the policy outlook as it could lead to a withdrawal of stimulus before economic healing has taken place. However, such a conclusion would put Yellen in good company among current and former policymakers. For example, in a recent issue of the *Financial Times* Larry Summers argues that, "A strategy that relies on interest rates significantly below growth rates for long periods of time virtually guarantees the emergence of substantial bubbles and dangerous build-ups in leverage."

On the other hand, if Yellen concludes that the financial risks of accommodative policies are contained, that would be dovish for the policy outlook. In addition to the observation that an increase in bank capital has made the financial system safer, there are two other arguments that Yellen could make for why the risks of further accommodation are relatively small. First, there has not been any increase in private sector credit since the crisis; instead, private sector credit has been steadily contracting since 2008 (Exhibit 2). A buildup of private sector credit has been a precursor to previous financial crises in the US. Second, the Fed is actively working on developing a new set of tools to monitor and address financial risks. These are broadly referred to as "macro-prudential" tools, and while they are still somewhat unformed, there is optimism among some that they will prove effective in containing financial risks.

Exhibit 2
Credit to Private Non-Financial Sector as a Share of GDP



Source: Federal Reserve

It would seem that the latter set of arguments—i.e., that financial risks are currently contained—is most likely to convince Yellen. In one of his final speeches as Fed Chairman, Bernanke said, "At this point we don't think that—and I think I can speak for my colleagues on this—we don't think that financial stability concerns should at this point detract from the need for monetary policy accommodation, which we are continuing to provide" (Bernanke, January 2014). If we assume that he was including Yellen as one of his "colleagues," it is likely that Yellen will maintain the position that financial stability is not a concern in the current environment, which would have dovish implications for the Fed's outlook.

3. Does the Fed's forward guidance represent a forecast or a commitment?

The FOMC publishes its projections for the federal funds target rate as part of its quarterly Statement of Economic Projections (SEP). The FOMC's latest set of projections is shown in Exhibit 3. There is one dot for each FOMC member, and the median projection, indicated in red, can be interpreted as a proxy for the FOMC consensus. As of last December, the FOMC expected the federal funds target rate to remain at zero for the remainder of 2014. FOMC members then anticipated that the federal funds rate would start to rise in 2015, and then rise gradually so that it would be only 1.75% in 2016.

Exhibit 3
Target Federal Funds Rate at Year-End

Source: FOMC. As of 18 Dec 13

Over the past few months, interest rate markets have taken a cue from the SEP dots, and short-term interest rates have priced more or less on top of the FOMC's projections. Whether that continues to be true depends on whether these dots represent a commitment or a forecast.

If Yellen interprets the SEP dots as a forecast, that would be hawkish for the policy outlook. Specifically, if these dots represent a forecast, changes in economic data (for example, a falling unemployment rate) could cause the FOMC to pull forward its tightening projections and ultimately could cause them to tighten sooner than is currently indicated by the SEP dots. Recent comments from Fed officials have been pointing in this direction. For example, when Bernanke was asked why the dots are so low in 2016, he responded by noting that the economy was still expected to be weak in 2016. This answer strongly suggests that the SEP dots are primarily a reflection of the forecast. Dudley has gone further and has said explicitly that he interprets the Fed's current guidance as a forecast, rather than a commitment. If Yellen comes to the same conclusion, the current SEP dots will have less relevance once the economic data change and tightening could happen sooner than is currently forecast.

On the other hand, if Yellen interprets the SEP dots as a commitment, that would be dovish for the policy outlook. If the SEP dots represent a commitment, a change in the economic data would be much less likely to cause the FOMC to tighten early. Moreover, if Yellen views the dots as a commitment, she will be reluctant to tighten even if inflation picks up, because tightening early may be interpreted as reneging on a commitment, which in turn could undermine the FOMC's credibility. If the SEP dots do represent a commitment, the Fed would be bound to keep interest rates low even as economic growth accelerated and even if inflation picked up. Such an unprecedented mix of policy and growth could help stimulate even more economic activity. In a research paper published this past November, three senior Fed staffers came to a similar conclusion, and they argue that, "The commitment strategy involves managing expectations regarding future policy actions and remaining accommodative for a substantially longer period: *these conditional commitments lead to much better performance, on average*…" (English *et al*, November 2013). Yellen is certainly aware of this research, and therefore she certainly appreciates the stimulative value of making a commitment.

To some degree Yellen's own views on the question of commitment versus forecast will be overshadowed by the consensus of the FOMC. If other FOMC members do not view the SEP dots as a commitment, Yellen will be unable to assert that any commitment has been made. In fact, Bernanke and Dudley's comments may simply reflect a reluctance among the other FOMC members about making a commitment. As a consequence, the question of

commitment versus forecast is unlikely to be resolved in Yellen's comments next week. Instead, this will be the subject of an ongoing discussion within the FOMC, and depending on the economic data, could evolve over the coming months. At most, next week Yellen may give an indication of her preference, but then she would have to work to convince the rest of the committee before any decisions are made.

4. How vulnerable is the US economy to recent developments in US equities and EM assets?

The US equity markets had a rough start to 2014: the S&P 500 fell 3.6% in the month of January. EM assets have had a similarly rough start: a representative basket (MSCI EM Index) of EM equities fell by 6.8% in the month of January. Like investors, Fed officials rely on the market to provide signals on the economy and on outlook. Accordingly, Yellen will be thinking carefully about the implications of recent market developments, especially the declines in US equities and in EM assets, and will be assessing whether they matter for the Fed's outlook.

If Yellen were to conclude that neither US equity weakness nor EM asset weakness has a material impact on the US economic outlook, that would have hawkish implications. Given the impressive gains in 2013, and the corresponding increase in price multiples to above their long-term average, the most recent decline in US equity prices is not likely to be too concerning for Yellen, at least not yet. As for the performance of EM assets, Yellen's predecessors have previously taken the position that the Fed should not be unduly concerned with the impact of US monetary policy on EM economies. For example, in December 2012, as part of his defense of QE3, Bernanke argued that the Fed should pursue the best policies for the US economy, which would then have an indirect beneficial impact on the global economy as well. This approach is justified by the fact that the direct exposure of the US economy to EM is relatively limited—for example, trade with EM accounts for less than 1% of US GDP.

On the other hand, recent market developments do raise some issues that will require Yellen's careful consideration, and any indication that Fed is adjusting its outlook would certainly be dovish for markets. There are at least two reasons why Yellen may be concerned. First, a central objective of QE was to increase consumer wealth (by boosting both equity and house prices), which would in turn lead to increased consumption. At some point the Fed may worry that the positive impact of QE is being reversed by a declining US equity market. Second, the interconnectedness of the global financial system means that policymakers would be foolish to ignore stress in other parts of the world, regardless of the size of the market that is stressed. For example, the hedge fund Long Term Capital Management (LTCM) suffered massive losses due to its exposure to the Russian bond market in 1998. Because of the large amount of leverage behind LTCM's exposures, its losses caused a significant tightening of credit conditions and eventually forced the FOMC to respond with a policy easing. For perspective, at the time the size of the Russian economy was only 3% of the US economy.

While certainly worrisome for investors with exposure to US equities and EM assets, the recent market developments have likely not changed the Fed's outlook and therefore do not yet warrant a policy response. However, that does not mean that Yellen will express ambivalence to what is happening in these markets. Instead, Yellen is likely to note the developments and to indicate that the Fed will keep monitoring market prices in case the current trends continue to the point that it causes a change in its outlook.

5. What are the most important determinants of inflation?

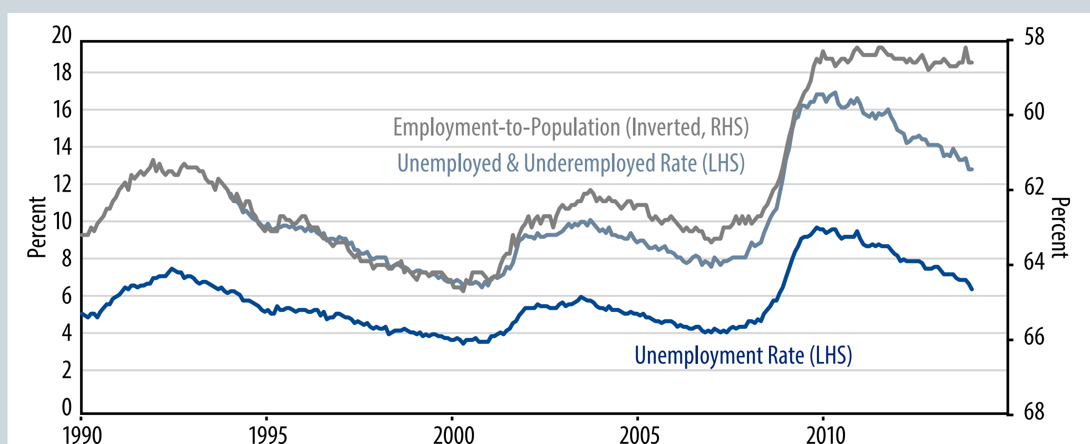
As the unemployment rate has come down, the Fed has shifted the focus of its communications to the inflation side of its dual mandate. This shift was most recently apparent in the December FOMC statement, which said, "The Committee continues to anticipate, based on its assessment of these factors, that it likely will be appropriate to maintain the current target range for the federal funds rate well past the time that the unemployment rate declines

below 6.5% percent, *especially if projected inflation continues to run below the Committee's 2% longer-run goal*" (emphasis added). Note that the emphasis is on "projected" inflation, which means that investors must not only come up with their own forecast for inflation, but they must also understand how the Fed will forecast inflation. The Fed's model for forecasting inflation has four components: inertia (i.e., recent realized inflation), inflation expectations, slack in input markets, and food and energy prices (Wilcox *et al*, November 2013). This model appears to be pretty standard and has relatively wide acceptance within the central banking community. What is less well understood is the appropriate way to measure each component and the appropriate relative weight for each. How Yellen puts together her own forecast for inflation will be an important determinant of monetary policy in the coming years.

If Yellen places a lot of weight on the amount of slack in input markets, and if she uses the unemployment rate as the best measure of that slack, that would be hawkish for the policy outlook. The unemployment rate has come down much faster than most expected, falling to 6.7% in the most recent print, and is currently less than 100 basis points above the level at which standard economic models would predict that a tightening labor market will lead to inflation (the Congressional Budget Office's estimate of the natural rate of unemployment is 5.9%). The argument that a falling unemployment rate will eventually lead to inflation will not be new to Yellen. In fact, she made precisely the same argument in 1996 when as a Fed governor she pushed Chairman Alan Greenspan to tighten policy, stating: "The unemployment rate does have predictive power for changes in the inflation rate. The probability of an increase in inflation is clearly higher when labor market slack is lower" (Yellen, September 1996).

A related issue is whether the unemployment rate is the best measure of slack in the economy. In contrast to the unemployment rate, other measures of slack have not shown nearly as much tightening recently. For example, the employment-to-population ratio remains virtually unchanged since 2009, which means that the US economy has yet to start healing from the damage done by the financial crisis. A broader measure of unemployment that includes the "underemployed" falls somewhere in the middle of the other two, suggesting some progress but remaining quite elevated (Exhibit 4). Given that these three measures of slack are all pointing in different directions, which measure Yellen prefers will take on an outsized importance. Recent comments by Bernanke suggest there is a risk that Yellen will choose to focus on the unemployment rate. In his December press conference, Bernanke said, "The unemployment rate is a good indicator of the labor market. It's probably the best single indicator that we have" (Bernanke, December 2013). Should Yellen reach the same conclusion, the falling unemployment rate would have clearly hawkish implications.

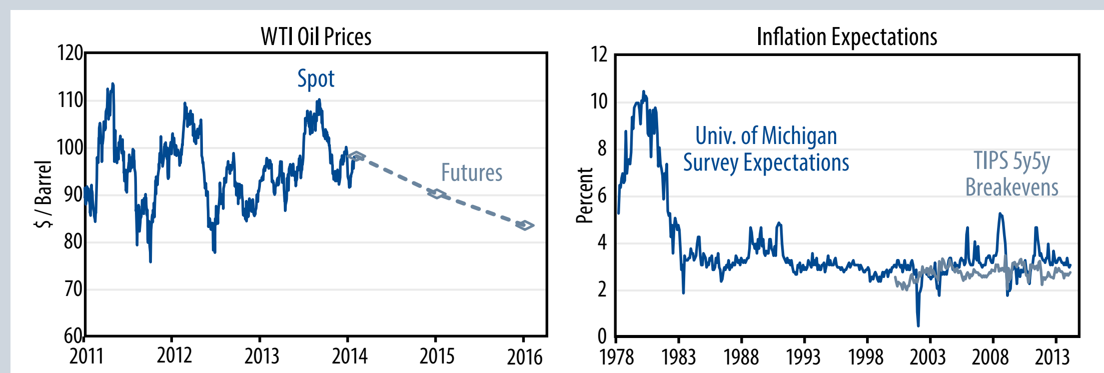
Exhibit 4
US Labor Market Slack



Source: Bureau of Labor Statistics. As of 31 Dec 13

On the other hand, if Yellen chooses to focus on the other components of the Fed's inflation model, she could arrive at a forecast for low and contained inflation, which would be much more dovish for the policy outlook. In particular, each of the other components of the Fed's inflation model appears to be pointing to continued low inflation. First, inflation has been trending lower since early 2012, and because inflation tends to be a persistent series, this means that inertia will continue to put downward pressure on prices. Second, falling energy prices have contributed to lower inflation recently and oil futures are currently pointing to further declines in energy prices. Finally, inflation expectations have remained well-anchored through the post-crisis period, and this may be contributing to the low inflation (Exhibit 5).

Exhibit 5
WTI Oil Prices and Inflation Expectations



Source: Bloomberg. As of 31 Jan 14

The point about inflation expectations may be especially important for Yellen. In a speech last spring she noted that, "Anchoring inflation expectations at low levels helped ensure that jumps in commodity prices or other supply shocks would not generate persistent inflation problems" (Yellen, April 2013). More generally, anchored inflation expectations may have weakened the link between labor market slack and realized inflation, which may mean that the falling unemployment rate will matter less for inflation than it would have in 1990s. For example, last April the International Monetary Fund (IMF) argued that "Inflation in advanced economies has become less responsive to changes in economic slack and longer-term inflation expectations have become more firmly anchored" (IMF, April 2013).

Relative to the other questions discussed in this piece, there is more uncertainty about how Yellen will approach the question of the inflation forecast. While there are good arguments for maintaining an outlook for low and stable inflation, the declining unemployment rate will give Yellen a lot to think about.

Conclusion

In her new role as Fed Chair Yellen will need to answer a number of very hard questions, five of which are discussed above. How Yellen answers these questions will undoubtedly have significant consequences for the stance of monetary policy going forward, and therefore for bond markets in the coming years.

Our view is that on four of these five questions Yellen's answers will lean toward the dovish side. In particular, Yellen is likely to express concern for the long-term unemployed and to project some optimism that active monetary policy can improve their situation. She is likely to dismiss concerns about financial stability, instead citing the improvement in bank capital, the absence of a buildup in credit and the Fed's new macro-prudential tools as reasons why the risk of another financial crisis remains low. She may lean toward making a commitment to keeping rates low, although on this point she will be constrained by the other members of the FOMC. Finally, she may acknowledge the recent weakness in US equities and EM assets, even though the recent price developments have likely not changed her outlook (yet).

On only one of the five questions discussed above is Yellen's bias a little more uncertain—and that is, what determines inflation in the current environment? There are many good arguments for why Yellen may maintain an outlook for continued low and stable inflation, including falling energy prices, stable expectations, and favorable inertia. However, the recent declines in the unemployment rate may be a concern, especially to the extent that they are indicative of a tightening labor market. We will be watching Yellen's discussion of inflation extra carefully to try to a get a sense of which way she is leaning on this crucial question.

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