After delivering the policy firming on December 14 that was rooted in market expectation, the Federal Open Market Committee (FOMC) still had the capacity to surprise us all. How Fed officials triggered a sharp sell-off in financial market prices with a modest twist in the rate guidance of their Summary of Economic Projections (SEP) is a puzzle of Churchillian dimensions. The December package from Janet Yellen is a riddle, wrapped in a mystery, inside an enigma.

The Standish forecast before the Fed meeting was two quarter-point tightenings in 2017, with a not inconsiderable risk of a third, so the FOMC statement and SEP were not startling. Some realignment in the term structure was appropriate given the official shift from two to three moves (shown in the chart), but the bold-faced headlines and heated commentary probably owe to design failures in Fed communications (including the clunky nature of the SEP) and in setting policy.

We will deal with these issues in turn, but wind up at the starting place. The Fed will most likely tighten twice by 25 basis points in 2017, with an upside risk of one more. This produces a modest overshoot of the Fed’s two-percent inflation goal because Yellen believes that well-anchored inflation permits probing the notion of full employment. Added to the mix is an incoming presidential administration...
inclined to tinker with trade, which puts additional upside pressure on costs. In this environment, inflation breakevens still seem thin to us and there is further scope for longer-term yields to rise. The risk to this call is not that Yellen changes her mind but that an organized White House anoints her successor early.

For the full journey, we first walk up the changed path of Fed rate guidance for the implications for the expectations component of Treasury yields, which comfortably brackets the range of observed changes if the SEP is viewed as credible. Second, we express our confusion as to why anyone would view the SEP as credible. Along the way, we identify an important land mine for the Trump transition team. If they do not take seriously the possibility that Yellen will not resign as governor, their desired Fed chair may be left at the altar. Third, we have to talk about Fed talk, and a recent panel discussion at the Hutchins Center on Fiscal and Monetary Policy at the Brookings Institution provides a good framework.1 Believing the Fed at what might be their word is a “Groundhog Day” miscue. Exactly 12 months ago, the Fed conveyed firm guidance of four moves in 2016 only to retreat from the withering effect on financial conditions of an appreciation of the dollar. That past is the prologue for 2017, as a strengthening foreign exchange value of the dollar will make it difficult (but not impossible) to deliver a third quarter-point hike.

UP THE YIELD CURVE

The mapping of changes in SEP guidance to the shift in the yield curve is not the bewildering element of the market reaction. Four times a year at Standish we fire up a worksheet that does the arithmetic (which was described in “We Walk the Line” and is summarized in graphs on page 3).

Simply, we assume the long run is achieved five years after the onset of firming, straight-line the policy rate thereafter, and connect the dots in the median SEP entries to get a sequence of meeting-by-meeting actions over the next 10 years.

1https://www.brookings.edu/events/understanding-fedspeak/
Constructing the Expectations Component of the Treasury Term Structure

Extrapolated path of the federal funds rate from the median SEP response, percent

Term structure of interest-rate expectations
Assuming complete FOMC credibility, percent

The calculations for the upper panel:
1. Interpolate the median SEP response for the last quarter of
2. Assume that the long-run funds rate is achieved five years after the start of tightening; and
3. Flat-line the path at the terminal nominal funds rate subsequently.

In the lower left panel, each yield represents the:
4. Forward-looking average of the funds rate over the relevant maturity.

Source: Federal Reserve, Summary of Economic Projections, and Standish calculations as of 12/28/16
The pure expectations component of a fixed-income instrument out to a 10-year maturity is just a weighted average of the augmented SEP path, if the SEP is believed by market participants. This time round, the modest notch up in the December SEP relative to September (the upper panel of the graph on page 3) swelled the belly of the yield curve (the lower panel). As shown in the table below, the expectations portion of the term structure increased from 8 to 22 basis points, bracketing the 5 to 15 basis point reaction to the December statement at the peak in yields a few days after December 14. Doing this accounting is important going forward as well because the path of the federal funds rate that the median FOMC participant views as appropriate steepens in 2018 and 2019. As a result, the term structure tilts up with the passage of time as the Fed gets closer to those quicker firmings. The last column of the table gives the change in the expectations component owing to time decay over the next 12 months, which ranges from 19 basis points at the long end to 75 basis points at the front end of the yield curve.

### A CHURCHILLIAN PUZZLE

That rates went up in a manner consistent with a credible revision to the SEP raises the deep puzzle. Why does anyone think the shift in the dots is credible?

<table>
<thead>
<tr>
<th>Maturity</th>
<th>9/21</th>
<th>12/14</th>
<th>One Year from Now</th>
<th>Change from September to December</th>
<th>Next Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.94</td>
<td>1.09</td>
<td>1.84</td>
<td>0.16</td>
<td>0.75</td>
</tr>
<tr>
<td>2</td>
<td>1.27</td>
<td>1.47</td>
<td>2.22</td>
<td>0.20</td>
<td>0.75</td>
</tr>
<tr>
<td>3</td>
<td>1.63</td>
<td>1.84</td>
<td>2.46</td>
<td>0.22</td>
<td>0.62</td>
</tr>
<tr>
<td>5</td>
<td>2.15</td>
<td>2.30</td>
<td>2.68</td>
<td>0.15</td>
<td>0.38</td>
</tr>
<tr>
<td>7</td>
<td>2.39</td>
<td>2.50</td>
<td>2.77</td>
<td>0.11</td>
<td>0.27</td>
</tr>
<tr>
<td>10</td>
<td>2.57</td>
<td>2.65</td>
<td>2.84</td>
<td>0.08</td>
<td>0.19</td>
</tr>
</tbody>
</table>

Source: Standish calculations as of December 28, 2016

Our confusion is about the messaging, the messenger, and the message, which brings to mind two titans of World War II. We already alluded to one precedent, when Churchill expressed his bewilderment about Russian intentions in 1939 as a puzzle enfolded on itself.

**The riddle**

What did about one-third of FOMC participants see in the economic outlook to warrant picking up the pace of policy firming in the face of the manifest increase in uncertainty about fiscal, environmental, financial, and trade policies brought on by the election of Donald Trump? The changes envisioned for the real economy and inflation were minor relative to the September SEP. Their forecasts launch from a platform of somewhat tighter resource use, with the median view on the unemployment rate 0.1 percentage point lower in 2016 and real GDP growth 0.1
percentage point higher in 2017. Meanwhile, they see this year’s inflation rate running 0.1 percentage point slower, which in the mechanical application of a Taylor rule offsets the real-side revisions. Moreover, what made them confident enough to revise up the nominal funds rate thought to be appropriate in the long run? The increase, to a median of 3 percent, was the first marking up since the inception of the dot plot in 2012. This leads us to ...

The mystery

Why do market participants believe the dot plot yields useful information about 2017 policy intentions? One year ago at this time, the median path in the SEP pointed to four quarter-point firmings in 2016. In the event, one was delivered. Any slice by year of the succession of dots sank lower and lower. In this instance, even after the uptick in the expected long-run nominal funds rate, the highest current assessment lies below the lowest one when the FOMC first started releasing this information in 2012.

The Fed policy pattern has been so distinct that the X-11 seasonal adjustment program might identify it. Hope to tighten next year, recoil at the firming in financial conditions emanating from an appreciating dollar given that the Fed is alone among its peers in raising the policy rate, and scale back rate guidance. That is why we are still at two quarter-point moves, leaning toward three. Dollar appreciation in 2017 tightens financial conditions, mutes the coming overshoot of domestic inflation, and gives another worry that a dovish Fed leadership can point to as reason to delay.

The enigma

While it is hard to understand why the current Fed crew meant what they said or were listened to about 2017, the hardest question is why their guidance about rates in the distant future was viewed as relevant. The majority of the Fed’s board will turn over by 2018, including those in the two most important spots, the chair and vice chair. A dovish leader matters for 2017, however, which is why we have neither scaled up our expectation for policy firming nor trimmed our forecast that consumer price inflation will overshoot 2.5 percent next year. The FOMC still believes that “...economic conditions will evolve in a manner that will warrant only a gradual increase in the federal funds rate; the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the long run.”2 A gradual path presents opportunities for Yellen and FRBNY President William Dudley to agree to the general principle of three quarter-point moves in 2017 but fret in public about an elevated risk of some sort, effectively taking action off the table at the next meeting. If they do that a few times, then the FOMC will run out of runway in 2017 to tighten three times, just as they only managed to sneak in one action at the end of 2015 and 2016.

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2 From the FOMC statement of November 16, 2016: https://www.federalreserve.gov/monetarypolicy/files/monetary20161102a1.pdf
A charitable interpretation about the market moves that built up expectation of action and trimmed inflation compensation, which has not surfaced in the press, is that investors might be putting more weight on those looming personnel changes. That is, the SEP changes from current policymakers were viewed as a reasonable indication of future policymakers’ actions. In that regard, we believe that the main upside risk to our rate outlook is that the Trump White House will be prompter than the prior few administrations in filling open Fed board slots in a way that speeds a more hawkish FOMC next year. In doing so, they could effectively preselect who will become chair in 2018. Might happen, in which case, three firmings are the best bet, with the possibility of even more. A quicker transition is more probable now after comments Yellen made during her December press conference. When asked about her career plans, she repeated that it was her intention to serve the remainder of her four-year term that ends in January 2018. This was exactly as expected, but to follow the discussion further we have to go deeper into the woods. As we related in a prior note, under the Federal Reserve Act, the president appoints and the Senate confirms two of the seven governors of the board (who have tenures of 14 years each) as chair and vice chair for four-year terms. In principle, the incumbents in those positions, Yellen and Stanley Fischer, respectively, could choose to remain as board members after those designations expire for the rump of their governor terms (until 2024 and 2020, respectively). The long-held tradition at the Fed, not always honored, is to resign if not reappointed as chair or vice chair.

That is not, however, what Yellen said when prodded further about her career plans at the press conference. As yet, apparently, she has not thought about whether to stay on as governor after the expiration of her term as chair. That probably echoes lawyerly advice to never answer a hypothetical question, not some stratagem, and we expect Yellen and Fisher to follow precedent and leave the board in 2018. If, contrary to expectation, Chair Yellen and Vice Chair Fischer remain as governors, and the president has already appointed two minor-league governors to warm seats (or uses one of those slots to name a vice chair for supervision to marginalize Governor Daniel Tarullo, who also subsequently shelters in place), then the chair in 2018 has to be chosen from the sitting seven. Strategically, especially after Yellen’s comments, the Trump transition team must put some weight on this Bartleby-the-Scrivener option, in which everyone who would traditionally leave decides “I would prefer not to.” If so, then the risk-averse solution is to use one of the two open spots early in 2017 to seat someone who would become the new chair in 2018.

A ROOSEVELTIAN MOMENT

Some other comments by Yellen at the press conference regarding her recent appearance at a Federal Reserve Bank of Boston research conference further darkened the shadow over the Fed’s rate plan. She took pains to explain that her discussion in Boston about the potential benefits of running the labor market hot for a time represented a question posed to researchers, not a game plan for
Fed inaction. When asked a second time about the issue, Yellen came close to following the advice of a speechwriter for Franklin D. Roosevelt when the president asked how to handle the issue of the budget deficit in a return appearance in Philadelphia, given that he had promised to balance the budget when accepting the nomination there four years earlier. Judge Rosenman replied, “Mr. President, deny that you have ever been in Philadelphia.” From Yellen’s press conference, we learned that she was apparently once in Boston, but not as a policymaker.

Any guidance for policy should come from how the chair acts, not what she says. Take as given that Yellen would not intentionally threaten the achievement of the Fed’s two-percent inflation goal in the long run. But the long run takes a long time. Testing the limits of capacity is not a risk on the order of intentionally running the economy hot as long as it is only a test. Inflation overshooting the goal, when the process is anchored to the goal, is similarly unthreatening. Yellen will test those boundaries, implying that as long as she is in charge, the Fed will go slow in removing policy accommodation, inflation will overshoot, and financial markets have read too much from the recent meeting. Of course, Yellen will not be in charge all that long and her authority may be tested before her term is up, so there is an upside risk to firming and a downside risk to the extent that inflation rises.

The general confusion about the chair’s remarks points to a broader communications problem. Fed officials do not speak to a uniform audience about the single, selfish issue central to the concerns of market participants — what will happen to the policy rate? This may be why market participants recently surveyed by Peter Olson and David Wessel of the Hutchins Center were so cranky about Federal Reserve communications. Only 47 percent of private-sector Fed watchers gave Fed talk a grade of B- or better. Part of the frustration among the sharply focused is that FOMC participants sometimes talk about what they intend to do, sometimes hint about what might have to be done, or sometimes justify what was already done. A few speak about group action but many emphasize their own preference, with no particular guidance on the weight of that view on the group’s plan. They engage varied audiences to calm market participants, reassure politicians, convince their undecided colleagues, warn their foreign counterparts, or give direction to researchers working on monetary policy issues.

A point made by Jon Faust of Johns Hopkins University in a paper discussed at the Hutchins Center conference is that often official communications “…elaborate the diversity of views among Fed policymakers while remaining largely devoid of information about how those diverse views will affect the consensus monetary policy choice.” At the root of the problem is that official pronouncements emphasize different descriptions (moments) of the distribution of possible interest rate outcomes. When that distribution is skewed, those descriptions will differ systematically.

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1 The survey can be found at: https://www.brookings.edu/research/we-asked-fed-watchers-to-rate-the-feds-communications/

2 The paper, “Oh What a Tangled Web We Weave: Monetary Policy Transparency in Divisive Times,” can be found at: https://www.brookings.edu/research/oh-what-a-tangled-web-we-weave-monetary-policy-transparency-in-divisive-times/
What matters for markets is the median vote of FOMC participants, which wins the day. The SEP expresses the most likely outcome for policy, the mode, or what eventuates with neither especially good nor bad shocks. The minutes describe the full range of outcomes, with an inefficient mechanism to give some sense of probability weight.\textsuperscript{5} Public pronouncements by FOMC participants are especially frequent when they represent tail outcomes, as they are trying to influence their colleagues. It is the same elephant that our blind policymakers describe from different perspectives.

Attaching a view to one, as in recent days, is a mistake made more serious by its repetition. The rate decision may be less hawkish than the modal SEP because members worry about the low-probability-but-cumulatively-consequential times when rock-bottom rates are needed. The SEP tells us that, if no bad things happen, rates will be firmed quicker. Speakers point us to one or the other tail, indicating all possibilities are open, even when they are not to the group. The minutes follow the rear of the circus train, cleaning in the wide swath of all expressed views (the range, or support, of this distribution).

What did we learn through this brief fly-by over a skewed distribution? The latest SEP was more hawkish than their likely rate intentions, subsequent speakers will confuse us, and the minutes will be of no help. That is why a Fed call should be based on the economic outlook on the assumption Fed officials ultimately get around to fulfilling their dual objective. At Standish, we think that takes a little time and inflation settles at 2 percent from above, as the Fed tolerates an inflation overshoot and the next chair picks up the pace of rate hikes in 2018.

\textsuperscript{5}I signed the FOMC minutes as secretary for six years and think Faust is naive about their potential to convey information. Good drafting can make signals more explicit.