EVERCORE ISI

Global Policy & Central Banking Strategy

January 8, 2018

Krishna Guha
202-872-5260
Krishna.Guha@evercoreisi.com

Ernie Tedeschi
202-872-5262
Ernie.Tedeschi@evercoreisi.com

A NEW FRAMEWORK FOR THE FED?

A debate is stirring around the Fed policy framework; it will proceed slowly but should be watched carefully by investors

Summary: In recent weeks half the regional Fed presidents have expressed support for the idea that the Fed should review its core policy framework, a proposition that has also surfaced in both the last two sets of Fed minutes. There is early focus on whether it might be desirable to move to a new regime in which the Fed would commit to make up for accumulated inflation shortfalls / excesses — either at all times, or (in the case of shortfalls only) if rates fall to zero in a future downturn. Any shift of this kind could have far-reaching implications for the behavior of inflation and inflation expectations, the long run economic outlook, the path of interest rates over time, longer term real and nominal bond yields and equity / credit risk premia. So while the policy debate may seem academic at first glance, it is relevant for investors in virtually any asset class.

The groundswell of opinion on the Committee in favor of a framework review should not be mistaken for an imminent change in the Fed framework. Precisely because the consequences of changing the framework are potentially so far-reaching, this is something that will not be done quickly or without very deep evaluation. The question is whether incoming Chair Powell will set up a working group to evaluate framework issues at some point this year. We think there is a reasonably good chance that he will, which would likely be read in the markets as dovish / risk-friendly / break-evens higher. That response should not be overdone: the framework debate is not inherently hawkish or dovish and is distinct from current policy debates; a review need not have much bearing on the baseline outlook for rates. But it might be viewed as providing some reassurance as to how the Fed would respond to an upside inflation surprise: investors would likely assess that a Committee prepared to consider a framework change that would commit it to make up for inflation shortfalls in the future might also be more relaxed about an unanticipated inflation overshoot in the present under its current framework.

Our full note explores these issues in detail. In brief we argue:

- The most important task facing the Powell Fed is to use today's good times to prepare for the next recession and address the "shadow of the zero bound" — the fact that with a low longer-run neutral setting for interest rates, the Fed is unlikely to ever get interest rates high enough to provide an adequate buffer against future downturns
- The lack of room to cut rates makes it likely that — even though the current expansion is proceeding nicely — the US will quite often end up back at the zero bound in future downturns with prolonged and perhaps severe periods of subpar economic activity
- These considerations affect the behavior of asset markets today, potentially making it rational to expect inflation to be less than 2 per cent on average, and to pay a rich premium for bonds as a deflation hedge, keeping bond yields low
- Fed staff have continued to work on different combinations of tools that could be used to provide stimulus in future zero bound episodes, but these tools may not be fully effective without a change in the Fed framework

- San Francisco Fed President Williams has called for the Fed to consider moving to a price level target framework that would commit the FOMC to make up for shortfalls / excesses in inflation relative to its goal of a steady 2 per cent increase in the price level
- In principle a price level target would lead markets and the public to expect that a period of weak inflation would be followed by a make-up period of higher inflation, making aggressive forward guidance during a zero bound episode more credible and effective, potentially making zero bound episodes less frequent, severe and prolonged, and also reducing the need for QE
- A price level target framework could also have benefits in normal times, in particular when there is elevated uncertainty around key parameters, and could help manage inflation expectations in a world in which the Phillips curve is very flat, the "divine coincidence" holds only weakly, and employment and inflation may deviate for some time as at present
- A price level target delivers better outcomes than the Fed's current framework in most model simulations, but is untested, and could result in inferior outcomes if it is poorly understood by households, businesses and investors; it might also put the Fed into conflict with Congress
- Former Chair Bernanke has argued for what is in effect a state-contingent price level target regime that would kick in when the Fed is at the zero bound only and commit the Fed to staying low-for-longer to make up for inflation shortfalls from that date
- The Bernanke proposal has fewer challenges than the Williams proposal but also potentially fewer benefits
- A new concern is that a framework that committed the Fed to keep rates at zero well into a recovery to compensate for past shortfalls could invite financial excesses, though a more effective framework could mean that rates end up staying at zero for a less prolonged period
- The devil is in the details of any such proposal, including what price index to target, what start date to pick, and how to integrate the employment side of the dual mandate
- The push for a framework review gathered momentum at last week's annual meeting of the American Economic Association and will likely generate additional attention today with a Brookings conference
- How to respond to the Reserve Bank presidents' push is an interesting challenge for incoming Chair Powell, who does not himself have the background to resolve the underlying theoretical questions, though he is well suited to consider the practicality of framework changes
- This is very early days and Powell may not respond until the rest of the new Fed leadership team is appointed; a positive response even then to the call for a review is by no means guaranteed and the new chair could take the position that the Fed should focus on achieving its 2 per cent inflation target first
- However we think the most likely outcome is that later this year when the new team is in place, Powell will decide to set up a working group headed by the new vice-chair for monetary policy that would conduct a long and careful review of a broad set of framework issues (remember the time it took the Fed to develop its QE roll-off strategy — this is a bigger deal)
- We think the Fed is unlikely to end up adopting a price level target in normal times, but the likelihood of such a framework (or its first cousin, a nominal GDP target) being embraced after careful consideration is not zero, and we think there is a good chance that some version of the Bernanke proposal does end up being adopted
- The framework question is conceptually distinct from whether the Fed should adopt a more aggressive interpretation of its symmetric inflation target under its current framework in order to shore up inflation expectations, and seek — or at least be relaxed about — inflation moderately above 2 per cent over the next few years

- However we think the market would not unreasonably conflate the two, and would interpret a review of the framework as also indicating greater willingness to allow inflation to move above target under the existing framework in light of past shortfalls
- Largely for this reason we think the market would initially view the announcement of a formal review as dovish / risk-positive / providing support for inflation expectations and break-evens
- In the event that a new policy framework was introduced, we think the Fed would adopt it on a going forward basis only, and would not backdate it
- The longer-run implications of actually adopting a price level target would depend on whether the new regime was credible and well understood or not
- Counterintuitively, if a price level target regime worked as it does in models, it would ultimately deliver higher nominal rates (because inflation expectations would move up) and somewhat higher real rates too (because economic outcomes would be better) with yields higher — but equities and other risk assets should still benefit because there would be less likelihood of being stuck at the zero bound in future
- By contrast, if a new framework was not credible and poorly understood, or at odds with financial stability goals, it could result in worse economic outcomes, more unstable inflation expectations, tension with Congress and increased risk premia in asset markets
- We think a thorough and careful framework review, that balances a recognition of current shortcomings with a healthy skepticism for the ease with which theoretically attractive changes could be applied in practice, is warranted and should be welcomed by markets

REMINDER — CONFERENCE CALL: 2018 GLOBAL POLICY OUTLOOK (TUES JANUARY 9, 10AM ET, 60 MIN)

<u>Krishna Guha — 2018 GLOBAL POLICY OUTLOOK CONFERENCE CALL</u>

We are delighted to invite you to a conference call Tuesday, January 9 at 10am. This call will cover the outlook for policy and markets in 2018 including:

- Prospects for an ultra-long global business cycle and risks to that view
- The reshaping of the FOMC and prospects for the Powell Fed
- How tax cuts and a rising neutral rate will allow the Fed to hike four times in 2018 and why it will not be deterred by the risk of yield curve inversion
- The possibility of a change in the Fed framework from inflation targeting to price level targeting
- Trumponomics and political opportunities / risks after tax reform
- How US tax cuts will intensify pressure for tax cuts elsewhere including in Europe
- Why the ECB's ultra-stimulative policy will force asset prices higher and cement escape velocity in the eurozone
- How this will ultimately support rising global yields including in the US
- Early thinking on the reshaping of the ECB leadership this year and next
- Prospects for second stage Brexit negotiations and why we still expect hard Brexit in stages
- Risks to the Bank of England rate path
- Why our base case still has no BoJ hike this year but with elevated risk of a move late Q2 / Q3

This call is clients only and not for attribution.

Commentary will be followed by an opportunity for live questions.

Participants for the call will dial:

US Domestic Dial-In: 800-526-8548

International Dial-In: +1 706-643-8494

Conference ID: 8072428

CHALLENGE FOR THE POWELL FED HOW TO PREPARE FOR THE NEXT DOWNTURN[1]

In our view[2] the most important task facing the Powell Fed is to make good use of the period of relative calm associated with a more synchronized global expansion to prepare for the next downturn — and we think the minds of FOMC policymakers are increasingly focused on this question as well. Looming over all of this is what we call the "shadow of the zero bound": the likelihood that even once the spot neutral rate recovers to a longer-run value of around 50 - 100 bp real, the Fed will enter the next downturn without sufficient room to cut rates deeply enough[3] to restore output to potential and inflation to target in a timely manner. Indeed research suggests that if the neutral rate remains in this vicinity zero bound episodes will become more common, more severe and more extended, with the US plausibly spending as much as 1/3 of its time at the zero bound.[4]

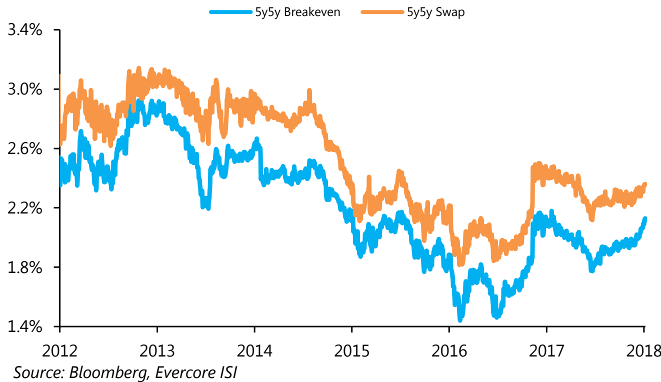
Core to our concept of the "shadow of the zero bound" is that the likelihood that the US will keep running into the zero bound problem in the future influences economic outcomes and asset prices even when the Fed is not at the zero bound on rates as is the case today, and does so even when the cyclical health of the economy is good. Critically, it may lead households and businesses to rationally expect that inflation will average less than the Fed's 2 per cent target over the coming decades, which may make it harder for the Fed to achieve 2 per cent inflation today, or at least spur investors to pay a large premium for insurance against this outcome. We believe this is the underlying cause of what appears to be a negative inflation risk premium that helps keep bond yields low: in the "shadow of the zero bound" risk-free government bonds play a new role as the portfolio deflation hedge.

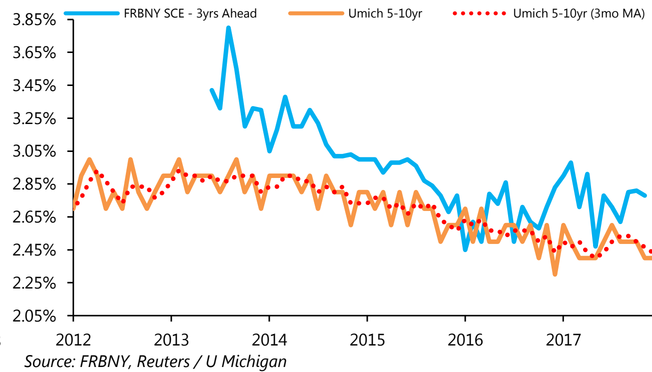
[1] Andrew Hipolit provided research support for this note.

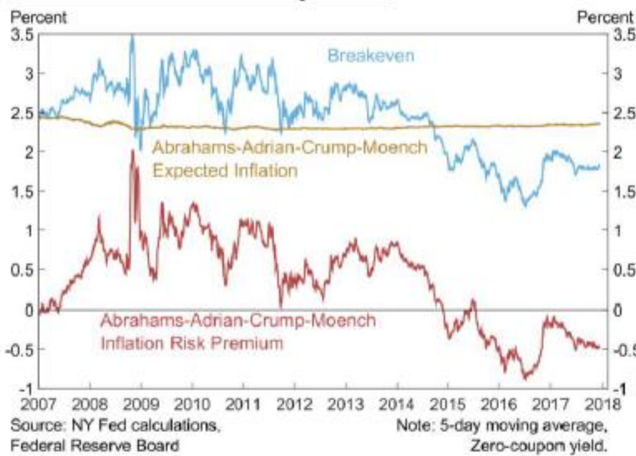
[2] A point we try to emphasize in conversations with the media. See e.g., "We will probably have the next recession in the next five years, and it will be pretty challenging to manage. You need to make the most of the precious time available to prepare for that."— Krishna Guha (October 31, 2017, in the *Financial Times* "US monetary tightening set to endure after Yellen."

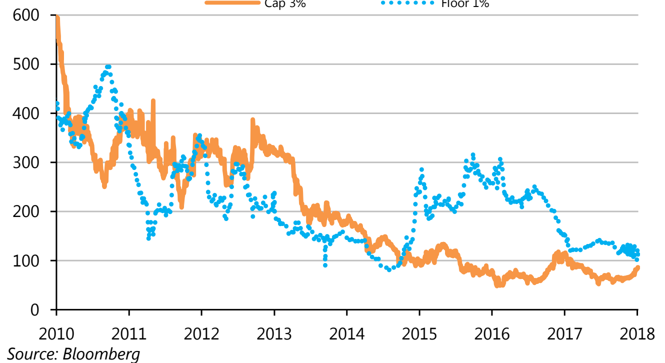
[3] Strictly, not enough room to lower real rates enough; here potential downside fragility of inflation expectations at the zero bound greatly augments the challenge providing adequate stimulus.

[4] Michael Kiley & John Roberts (2017), "Monetary Policy in a Low Interest Rate World."









STAFF WORK HAS CONTINUED ON WAYS TO PROVIDE STIMULUS AT THE ZERO BOUND

Fed staff papers have explored strategies for conducting policy in the next downturn using different combinations of tools. One emphasizes scope for continued effective use of the same combination of rate guidance and QE that the Fed used in the post-crisis period[5]; a combination Yellen has suggested[6] might be adopted again the future if needed. Another focuses on the potential to make more aggressive use of so-called "time-inconsistent" or "Odyssean" guidance under which the FOMC would commit to compensate for its inability to provide adequate stimulus at the zero bound by remaining at zero beyond the moment inflation was projected to recover to 2 per cent inflation target, a strategy toyed with at times by Fed officials[7] but never formally adopted by the FOMC. One suggestion is to calibrate this based on a shadow rate rule that embeds a form of memory in policy-setting[8].

But all these approaches have limitations and credibility challenges, including political economy constraints on deploying QE again preemptively on a large scale, and adopting a rate strategy

[5] David Reifschneider (2016), "Gauging the Ability of the FOMC to Respond to Future Recessions."
[6] Janet Yellen (August 26, 2016), "The Federal Reserve's Monetary Policy Toolkit: Past, Present, and Future."
[7] Janet Yellen (November 13, 2012), "Revolution and Evolution in Central Bank Communications," Janet Yellen (April 11, 2012), "The Economic Outlook and Monetary Policy," and Janet Yellen (June 6, 2012), "Perspectives on Monetary Policy."
[8] Michael Kiley & John Roberts (2017), "Monetary Policy in a Low Interest Rate World."

that is time-inconsistent in the sense that it seeks to commit a future Committee (potentially with different members) to keep rates at zero for longer than is consistent with its 2 inflation target, an anomaly under the current Fed framework. Consequently these tools may not be enough to prevent inflation expectations from remaining below-target now and falling further in the next downturn, making it still harder for the Fed to lower real rates enough to support a recovery.

WILLIAMS HAS SUCCESSFULLY PUSHED THE VIEW THAT BETTER OUTCOMES MIGHT REQUIRE CHANGES TO THE FED FRAMEWORK AS WELL

Some economists outside the Fed have suggested that the Fed should adopt a higher inflation target of around 4 per cent, alleviating the problem presented by a low neutral real rate and restoring the scope to cut rates materially in the next downturn.[9] However, Fed officials are skeptical, noting that this would impose adjustment costs and ongoing costs, as well as political difficulties, and that 4 per cent inflation on average is not optimal. Moreover, a move to a 4 per cent inflation target at a time when structural conditions mean the FOMC has to strain to achieve even 2 per cent inflation may simply not be credible, as it might require the Committee to engineer extreme excesses in the real economy and / or financial markets. Indeed, some economists outside the Fed favor lowering the inflation target in light of these structural conditions, though this is ruled out inside the Fed because it would amplify zero bound problems.

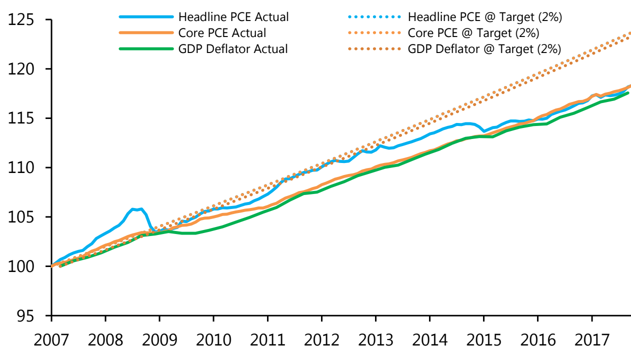
Starting in May last year, San Francisco Fed President Williams began making the case that a better approach may be for the FOMC to adopt a different framework rather than a higher inflation target — potentially a price level target (PLT) regime. At present the Committee de facto follows a flexible inflation forecast targeting regime,[10] described in its strategy statement issued each January,[11] in which it seeks at any given point in time to return inflation to 2 per cent over a medium term horizon generally viewed as two to three years, regardless of past shortfalls or excesses. Under a PLT bygones would not be bygones, and the Fed would compensate for past inflation undershoots / overshoots by delivering more / less inflation in the future to return to the desired price path — one that rose 2 per cent a year. This could be helpful in supporting inflation expectations, because if the approach was credible, households, businesses and investors would respond to a short term inflation shortfall by raising their expectations of inflation over the next few years, lowering real rates and supporting recovery. This framework would make forward guidance that commits to a future inflation overshoot much more credible, because that rate path would be consistent with a PLT regime, rather than time-inconsistent with the current inflation targeting regime — converting "Odyssean" into "Delphic" guidance[12]; note that if such guidance was effective, there might be less need for future QE.

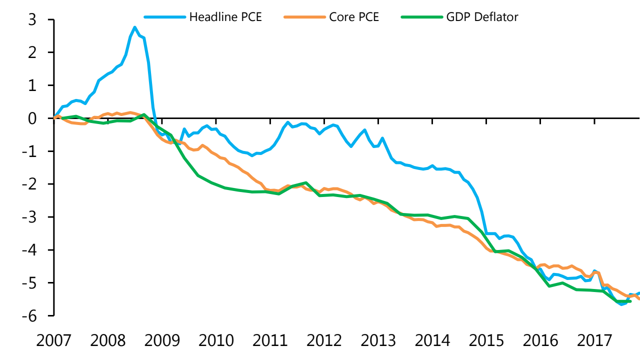
[9] See, for example, Blanchard, Dell'Ariccia, & Mauro (2010), "Rethinking Macroeconomic Policy," and

[10] "Nevertheless, in my opinion the U.S. has followed a de facto inflation targeting policy from 1995 onwards. As of that time, U.S. inflation had declined to about 2 percent and has not deviated substantially from that target over the last 22 years, at least not on the scale observed during the 1970s and early 1980s. U.S. policymakers were well aware of the trends in the international policy debate toward inflation targeting during this era, and many members of the Committee were sympathetic to the arguments supporting inflation targeting." — James Bullard (January 4, 2018), "Allan Meltzer and the Search for a Nominal Anchor."

[11] FOMC Statement on Longer-Run Goals and Monetary Policy Strategy.

[12] Charles Evans (November 14, 2017), "The Future of Odyssean and Delphic Guidance."





A NEW CONSIDERATION: COULD A PLT ALSO HELP OUTSIDE THE ZERO BOUND, PARTICULARLY IF THE PHILLIPS CURVE IS VERY FLAT?

As Williams has noted, a PLT framework may also have advantages in normal times when the Fed is not constrained by the zero bound. Indeed, in most stylized models a PLT tends to produce better outcomes for the economy,[13] in particular when there is uncertainty around the path of potential output or other core parameter values.[14] We would extend this to say that it is also possible — though much less discussed to date — that a PLT could be helpful outside the zero bound in the specific context in which the Phillips curve is very flat, as at present, with only a mild relationship between slack and inflation. As Blanchard has argued[15] monetary policy has taken for granted the "divine coincidence" that the interest rate setting consistent with inflation at target is also the setting consistent with the economy operating at potential with unemployment at the lowest sustainable level. Under a very flat Phillips curve, the divine coincidence still holds over the long run, but inflation and unemployment can deviate for long periods of time, during which time inflation inertia, non-cyclical components and idiosyncratic shocks and supply side developments may dominate.

In a very flat Phillips curve world, the Fed faces a dilemma when inflation is well below target as at present, but unemployment is also below its assessment of full employment. The path for output and employment consistent with a timely return of inflation to target over say two years might require extreme labor market overshooting. But if the FOMC accepts a slow return path of inflation to target, its credibility may erode, and inflation expectations may slip or become cemented below 2 per cent, making it still harder to achieve a return to target. A PLT framework could help prevent a deterioration in inflation expectations by committing the FOMC to make up for current inflation shortfalls in future years. However this would only be the case if the PLT was not interpreted as an excuse for not pushing sufficiently hard to return inflation to target in the present.

TRADITIONAL ECONOMIC, PRACTICAL AND POLITICAL OBJECTIONS TO A PLT APPROACH

[13] Lars Svensson (1996), "Price Level Targeting vs. Inflation Targeting: A Free Lunch?"
[14] John Williams (November 6, 2017), "The Perennial Problem of Predicting Potential."
[15] Olivier Blanchard & Jordi Gali (2005), "Real Wage Rigidities and the New Keynesian Model."

The traditional objections to a price level target approach are that it is untested,[16] fails to distinguish between demand and supply shocks to the price level, and performs (very well) under standard model simulations because these models tend to assume that households, businesses and investors understand what the central bank is trying to achieve and form expectations for policy and inflation accordingly.[17] If instead in the real world private sector agents do not understand what the central bank is doing and why, given the relative complexity of an unfamiliar price level target and potential difficulty communicating it,[18] and therefore also doubt the credibility of the approach, the result could easily be inferior rather than superior economic outcomes.

Adopting a PLT might put the Fed into conflict with Congress, which could view such a change as usurping Congressional prerogative and / or focusing on only one side of the dual mandate. In our view the Fed could be justified in claiming that a PLT was fully consistent with the dual mandate (as the very rationale for a framework would be to improve the ability to deliver the dual mandate over time). Political tension could arise specifically in a context in which the PLT called on the Fed tighten policy and create a shortfall of demand to compensate for past excesses at a time when the economy was in balance with inflation at target. Advocates argue that these challenges could be overcome through careful preparation and public education, as well as the right choice of index to target: tightening into a supply shock is less likely to be a problem if the Fed were to adopt a core inflation index excluding oil as the basis of the PLT; indeed the old concern of how to respond to an oil price shock under a PLT may be less forceful now the US is close to balanced trade in energy and shale technologies appear to cap upside price risk.

A PLT WOULD NEED TO BE APPLIED IN A FLEXIBLE WAY THAT PUT DUE WEIGHT ON SHORTFALLS OF EMPLOYMENT AS WELL

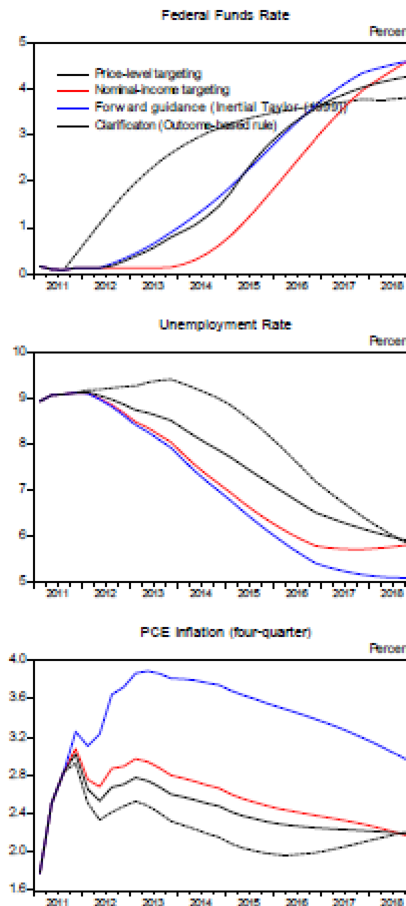
A PLT would need to be implemented flexibly to deliver the best achievable outcomes over time, though this could be in tension with the predictability of the policy. It is worth recalling that while today the focus is on inflation and inflation expectations given the troubling shortfall of inflation over the past year and the failure of indicators of inflation expectations to move back to levels historically consistent with 2 per cent inflation even as the expansion has advanced, this was not always the case: in the immediate post-crisis period 2010 - 2012 the first order problem was not accumulated shortfalls in inflation (or a slump in inflation expectations) but accumulated shortfalls in employment.

As senior Board staff argued in a 2011 memo to the FOMC,[19] adopting an inflexible PLT at a time when inflation was around target (and there was little accumulated inflation shortfall even if the start was backdated) but unemployment was high might give satisfactory inflation results while still delivering a higher path for rates and unemployment than could be achieved following an

[16] The US adopted a de facto flexible inflation forecast targeting regime only after many smaller economies had experimented with more formal versions of this framework successfully for some years. The only example of a PLT is Sweden from 1931 to 1933.
[17] Typically, infinitely lived agents with perfect understanding and perfect foresight.
[18] "I like the idea of how do you keep inflation expectations well-anchored, so that's the attractive feature of PLT, but I think the devil is in the details of how you actually implement this in practice and communicate it clearly to the public because, if you are using this to anchor inflation expectations, it's only going to work as well as people understand it broadly across society. I mean, you know, market participants understand it – not so important. You really need the households and businesses to understand it, to then you have to ask yourself the question, how well will I be able to communicate this to the broad public so that it can actually be effective in keeping inflation expectations well-anchored." — William Dudley (November 30, 2017), interview with *The Wall Street Journal*.
[19] Christopher Erceg, Michael Kiley & David López-Salido (October 6, 2011), "Alternative Monetary Policy Frameworks."

optimal control type approach that put equal weight on both sides of the mandate. This finding was derived in part from the fact that the slope of the Phillips curve relationship between slack and inflation is flatter in FRB / US than many models used to explore a PLT; since then evidence has accumulated in favor of a very flat Phillips curve. Better outcomes could be achieved with a flexible PLT.[20] But it might be better still to put some explicit weight on the real side.

Figure 7
Outcomes For Different Strategies In Response to Adverse Price Shocks



Source: Erceg, Kiley. Lopez-Salido (2011), "Alternative Monetary Policy Frameworks"

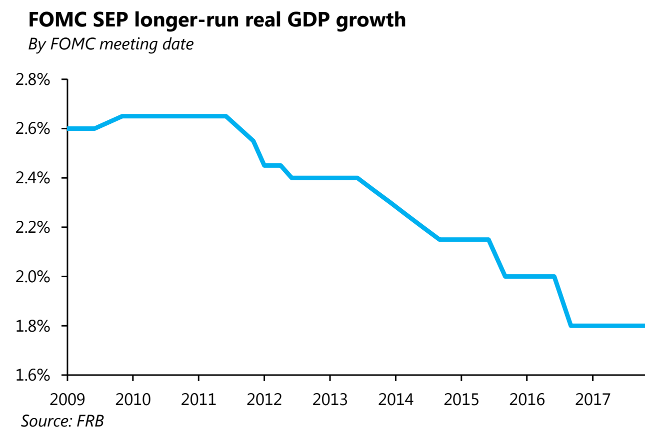
NOMINAL GDP LEVEL TARGET COULD BE SUPERIOR IN SOME CIRCUMSTANCES AND MORE EASILY PRESENTED AS CONSISTENT WITH THE DUAL MANDATE — BUT HAS ITS OWN PROBLEMS

A first cousin of a PLT is a nominal GDP / nominal income level target, in which the Fed would target the sum of inflation and the estimated potential growth rate. A nominal GDP (NGDP) level target was superior to a PLT in the 2011 Board staff simulations because it put more weight on the real side and implicitly the accumulated shortfall in unemployment, and was attractive to then Chair Bernanke in part because it could be more literally presented as consistent with the dual mandate. An NGDP level target could be framed in terms of headline inflation, which is better

[20] As Bernanke noted in his October 2017 Brookings paper, price level targeting like inflation targeting can be flexible in the sense that the Committee could take into account real economic conditions in assessing the appropriate return path to the central bank's nominal objective.

understood than core, without extreme supply shock problems, because the growth component would balance the policy response.

But an NGDP level target would have problems of its own, including the difficulty estimating potential output growth, which varies over time, and has fallen significantly in recent years. The misestimation of potential growth under an NGDP framework could in turn deliver sustained periods of inflation shortfalls or excesses that might lead to instability in inflation expectations. Such a framework would also be particularly vulnerable to data revisions, which cannot be ignored under the make up principle.



BERNANKE VARIANT WOULD INVOLVE A STATE-CONTINGENT PRICE LEVEL TARGETING REGIME DURING ZERO BOUND EPISODES ONLY

In a paper presented in October,[21] former Chair Bernanke argued in favor of the Fed adopting what would in effect be a state-contingent price level targeting regime. Under this approach, the Committee would continue to follow its normal inflation targeting approach in normal times, but would pre-commit that if it encountered the zero bound again in the future, it would accumulate any shortfall of inflation from that date, and would not raise rates again at least until it had made good that shortfall.[22] Bernanke argued that this would allow "the vigor of the policy response" to be "calibrated to…the severity of the economic downturn."

A state-contingent PLT of this kind would allow the Committee to avoid some of the drawbacks of a PLT in normal times, and retain the Fed's ability to put explicit weight on the employment side of the mandate in considering when to raise rates from zero,[23] while preserving the specific benefits associated with this regime during zero bound periods. Chicago Fed President Evans proposed a state-contingent PLT in 2010[24]; the FOMC view then was that it would be challenging to communicate such a plan out of the blue in the middle of a zero bound episode and might backfire. As Evans argued recently, it could be feasible to explain such a contingency plan well in advance.[25]

---

[21] Ben Bernanke (October 12, 2017), "Temporary Price-Level Targeting: An Alternative Framework for Monetary Policy."
[22] In other words, this would be a necessary but not sufficient condition for raising rates.
[23] Thus ameliorating the concerns in the 2011 Board staff paper.
[24] Charles Evans (October 16, 2010), "Monetary Policy in a Low-Inflation Environment: Developing a State-Contingent Price-Level Target."
[25] "If we let that credibility deteriorate toward a public belief that 2 percent is a ceiling for inflation, we could be in for the kind of trouble that the Bank of Japan has faced for so long. So we should now be fortifying our efforts—reinforcing our commitment to symmetry—so that future policy actions have the best chance for success in a low

LIMITATIONS OF A STATE-CONTINGENT PLT REGIME

A state-contingent PLT though, might still not be credible. In particular, it might not be sufficiently broadly understood to be effective if — unlike the through-the-cycle PLT — it was introduced to the general public only at a moment when the Committee was failing to achieve its inflation target and appeared to lack effective tools to firm up the inflation path. There would also be regime-switching challenges on the way out, when the FOMC would have to transition to a different type of policy rule,[26] which if imperfectly solved in advance would attenuate the benefit of the state-contingent PLT even during the period it was in force.

Further a state-contingent PLT of the kind proposed by Bernanke would not have the advantages of a price-level targeting regime in normal times, which as mentioned above might be particularly beneficial in a period characterized by a very flat Phillips curve. Advocates would presumably argue that during a period when the Fed is not at the zero bound, it should be able to defend inflation expectations under the existing framework by simply being more aggressive in the dovish direction and specifically adopting a more aggressive interpretation of the symmetric inflation target.

NEW CONCERN: EVEN A STATE-CONTINGENT PLT MIGHT INVITE FINANCIAL EXCESSES UNDER SOME CIRCUMSTANCES

More recently Brainard has noted[27] deliberations over the possible adoption of a PLT even as a state-contingent regime as with the Bernanke proposal have not yet seriously considered whether this approach would still be attractive in a world in which financial stability considerations might present a constraint on the chosen rate path. Remaining at zero for a very long time after

---

equilibrium interest rate world." — Charles Evans (November 15, 2017), "Low Inflation and the Symmetry of the 2 Percent Target."

[26] "One additional challenge, as I see it, in the proposed framework is navigating a path for the policy rate immediately following liftoff that smoothly and gradually eases inflation back down to target and facilitates a gradual adjustment of the labor market. History suggests this is no easy task. Recall in the proposed framework that once the cumulative average rate of inflation has reached the target, policy would simply revert to a standard policy rule. That implies it would kick in at a point when inflation is above target, and the economy is at or beyond full employment which, under the kind of proposal that's in the appendix or many other standard policy rules, would result in a relatively sharp path of tightening. And that could undo some of the benefits of the framework." — Lael Brainard (October 12, 2017), comments at Peterson conference on "Rethinking Macroeconomic Policy," and "However, a drawback of the hybrid approach is that determining and communicating the timing of when to switch back to the inflation-targeting regime could be complex. Policymakers would not want to switch back prematurely, so they would need to be sure that inflation had sustainably made up for the cumulative shortfall. This would seem to involve a considerable amount of discretion, which would undermine some of the benefits of the framework." — Loretta Mester (January 5, 2018), "Monetary Policy Frameworks."

[27] "So, during a lower-bound episode, the proposal would represent a substantial departure. Instead of starting tightening preemptively well before inflation reaches target, the proposal would actually imply maintaining the policy rate at the lower bound well past the point at which inflation has risen above target. And so that is I think a very substantial departure. One risk, of course, with this framework, is that the public may start to doubt that the central bank is, in fact, committed to return inflation to 2 percent. And there's also the possibility that, given the large confidence intervals around inflation forecasts, the risks of an undesired overshooting over inflation is non-trivial. One additional challenge, as I see it, in the proposed framework is navigating a path for the policy rate immediately following liftoff that smoothly and gradually eases inflation back down to target and facilitates a gradual adjustment of the labor market. History suggests this is no easy task. Recall in the proposed framework that once the cumulative average rate of inflation has reached the target, policy would simply revert to a standard policy rule. That implies it would kick in at a point when inflation is above target, and the economy is at or beyond full employment which, under the kind of proposal that's in the appendix or many other standard policy rules, would result in a relatively sharp path of tightening. And that could undo some of the benefits of the framework." — Brainard (October 12, 2017).

recovery has taken hold with low unemployment strong growth and inflation above 2 per cent to compensate for past shortfalls might plausibly invite extreme financial excesses.

Of course the argument could also be made the other way: that if credible, a PLT would deliver better dynamics for inflation expectations on the way out of the next downturn that would allow nominal rates to be raised more quickly than in the counterfactual case where expectations become contaminated by failure to hit the inflation target in the present, making it less likely that prolonged ultra low nominal rates would foster financial excesses. Our point is that these considerations would need to be deeply evaluated.

DEVIL IS IN THE DETAILS IN TERMS OF ANY PROPOSAL TO CHANGE THE FED FRAMEWORK

In practice the devil is in the details of any potential change to the framework, and it is not possible to perform more than a cursory examination without those details. In addition to the big picture questions — PLT or NGDP level target, state-contingent or through-the-cycle etc — the Fed would also face a number of highly consequential decisions on the detail of such a framework. This would include but are not limited to: which inflation index to target (core PCE would be less exposed to supply shocks from oil but harder to communicate to the public than headline PCE), what start date to choose (and whether to wait until inflation was at target to begin with), how to integrate the employment side of the mandate via a flexible approach to the PLT, how to integrate the framework for rates with a strategy for QE[28] (if needed) and whether to integrate a financial stability consideration.

STATE OF THE DEBATE ON THE COMMITTEE: VERY EARLY DAYS BUT INCHING FORWARD WITH GROUNDSWELL OF SUPPORT FOR A FRAMEWORK REVIEW

We see clear evidence of a gathering groundswell of opinion on the Committee in favor of reviewing the Fed framework and how it might be strengthened against the next downturn, including but not limited to evaluating the pros and cons of replacing the current inflation targeting regime with a PLT / state-contingent PLT regime. At last count half the regional Fed presidents have indicated support for such a review — including Mester[29], Bullard[30], Harker[31] and Bostic[32] as well as early advocates Evans[33] and Williams[34] — and Governor Brainard[35] sounded interested in at least exploring Bernanke's proposal. By contrast Dudley has appeared unenthusiastic[36] and Powell and Yellen have remained silent. We think the push should be taken very seriously but with due recognition that it is extremely early in the game. The Fed has a vehicle for expressing a shift in framework — the annual statement of policy strategy endorsed by the Committee each

[28] "The other thing that I would strongly recommend is trying to incorporate into this framework the expectation which I think Ben lays out in the paper, that in a severe recession we would see a combination of policy tools deployed again. We know that the way asset purchases have been deployed has been associated with greater discontinuity and discreteness, in part because of the newness of some of these tools. But it suggests that there would be, I think, a benefit from a more unified policy framework.: — Brainard (October 12, 2017).

[29] Mester (January 5, 2018).

[30] James Bullard (January 4, 2018), "Allan Meltzer and the Search for a Nominal Anchor."

[31] Patrick Harker (October 17, 2017), transcript of interview with *The Wall Street Journal*.

[32] Raphael Bostic (November 14, 2017), transcript of media Q&A following speech at Auburn University.

[33] Charles Evans (November 14, 2017), "The Future of Odyssean and Delphic Guidance."

[34] John Williams (May 5, 2017), "Preparing for the Next Storm: Reassessing Frameworks & Strategies in a Low R-Star World."

[35] Lael Brainard (October 12, 2017), "Rethinking Monetary Policy in a New Normal."

[36] William Dudley (November 30, 2017), interview with *The Wall Street Journal*.

January. But while it is possible there could be some slight tinkering in the statement this year to clarify the approach to trading off between inflation and unemployment[37] the likelihood of a change in the framework this time is close to zero.

It took the FOMC several years to develop its QE balance sheet exit policy; a shift to a PLT would be a more fundamental change that would require at least as long and careful evaluation along with consensus-building across the Committee. Influential FOMC participants will continue to view the near term priority as returning inflation and inflation expectations to target under the current framework[38] which would also provide essential credibility for any framework shift. What we should watch out for in the quarters ahead, as the new leadership team shapes up, is whether Chair Powell decides to establish some internal process, perhaps a subcommittee headed by the future vice-chairman for monetary policy, to evaluate framework questions and preparation for the next downturn. We think this is more likely than not.

We think the likelihood that Fed ends up embracing a PLT regime in normal times is not very high: this has strong intellectual appeal in particular to the more academic FOMC participants, but may in the end be less enticing for less academic participants including the incoming chair, who will worry about the real world application and potential political tensions. The outcome, though, could differ depending on who ends up in the vice-chair position,[39] as president of the New York Fed, and in the remaining Board seats. Moreover, we think that some version of the Bernanke proposal has early support on the Committee, and might well end up being endorsed. The Committee might end up adopting an overarching unifying framework that states that it seeks to achieve 2 per cent inflation on average over the medium term, a formula followed by the Reserve Bank of Australia[40], explaining that it does so through a normal inflation targeting approach in normal times, but via a PLT-type approach that compensates for shortfalls in the special case of the zero bound.

SUBTLE RELATIONSHIP BETWEEN A FRAMEWORK RETHINK AND THE DEBATE OVER THE SYMMETRY OF THE INFLATION TARGET

There is a subtle relationship between a possible reevaluation of the Fed framework and the ongoing policy debate as to what in practice it means to operate a symmetric inflation target under the current framework. In some respects adopting a formal PLT framework and adopting a more aggressive interpretation of a symmetric inflation target could be thought of as alternative ways to advance the same goal: rather than seek to shore up inflation expectations by adopting a whole new framework, the FOMC might seek to achieve the same goal in the present (and some greater stability in expectations in the future) by targeting or at least allowing an inflation overshoot above 2 per cent over the next few years. Evans argues that this would be fully consistent with the current framework, as the goal would be to stabilize inflation expectations at target for the medium term; Williams argues that while an inflation overshoot might be desirable, it

[37] Yellen has pointed out, as we have, that the notion of a trade-off exists only when both unemployment and inflation are high; there is no intrinsic trade-off between unemployment and inflation when both are low, simply a challenge estimating the unemployment rate that would give rise in time to excess inflation.

[38] "So I think [PLT] is worth – worthy of consideration and discussion and debate, but I – let my – I guess my order is let's get – let's achieve our 2 percent objective, and then let's – then we can have a discussion about are we comfortable with that as an ongoing target for inflation or is there something better that we could put in its place." — Dudley (November 30, 2017).

[39] We believe that Clarida, for instance, is wary of adopting a PLT at least in normal times.

[40] "The inflation target is defined as a medium-term average rather than as a rate (or band of rates) that must be held at all times." — Reserve Bank of Australia, Inflation Target.

would not be consistent with the current framework, in particular with unemployment already below estimates of its sustainable level.

Very obviously if 2 per cent is a ceiling rather than the midpoint of a range, and is never exceeded, no-one should expect inflation to average 2 per cent; a more aggressive approach to symmetry would be one way short of adopting a PLT of giving life to the notion of seeking 2 per cent inflation "on average" over time. It would also make the a state-contingent PLT more credible. However delivering on an inflation overshoot is more challenging than in the textbook case, because in today's very flat Phillips curve world it may be necessary to push unemployment far below long run sustainable levels and / or accept the emergence of large financial excesses in order to push inflation above 2 per cent given lowflation inertia, structural disinflationary headwinds and slippage in inflation expectations; a PLT framework might conceivably offer more degrees of freedom consistent with sustaining medium term expectations.

POTENTIAL MARKET IMPACT

Some market participants have been at risk of getting overexcited by chatter about an impending change in the Fed's framework that lies — if it lies at all — several years out. Some of this speculation has also talked up the possibility that the Committee might declare its intention to compensate for inflation shortfalls that have already occurred over the past half-decade, which would put upward pressure on medium term inflation expectations and lower the expected real rate path. We think that is extremely unlikely — any regime shift will not be retrospective. Indeed we think the FOMC would ideally adopt a new framework on a going forward basis at a moment when inflation was at or close to target to provide for more credibility and a relatively seamless transition.

As mentioned above, whether the FOMC adopts a new framework some years into the future is conceptually distinct from whether it should or will adopt a more aggressive interpretation of its symmetric target under its existing framework. But in practice, we think market participants would conflate the two to a material degree, and while this might in part be due to confusion, it would not be unreasonable to believe that a Committee that is reviewing whether to adopt a new PLT-type framework for the future may also be more open than previously believed to targeting or at least welcoming a moderate inflation overshoot in the present under the existing inflation targeting framework. Consequently, if momentum for a framework review builds and at some point the Fed initiates an internal review, we suspect that markets would interpret such a review as dovish or more accurately risk-positive at least in so far as this step would indicate a greater willingness on the part of the FOMC to allow inflation to move above 2 per cent in the future to make up for past / current shortfalls. That need not imply moving off the current gradual pace of rate hikes, but it might at the margin at least put some upward pressure on inflation expectations that currently appear low, easing the real rate path, and would imply a less aggressive response to any upside inflation surprises, which would be the main benefit for risk assets.

LONG RUN IMPLICATIONS FOR ASSETS OF A REGIME SHIFT WOULD BE FAR-REACHING BUT DEPEND ON WHETHER IT IS CREDIBLE AND WELL-UNDERSTOOD OR NOT

The longer-run implications of a potential regime shift to a PLT-type framework are far-reaching but would depend entirely on whether the new framework is credible, well understood and accepted by the public / Congress, and functions in practice as it does in the models. In the benign case, counterintuitively for those who think of PLT as a dovish approach, such a

framework would be associated with higher nominal interest rates over time because it would deliver better inflation expectations and so a lower real rate for any given nominal rate. The negative inflation risk premium in the bond market would disappear or at least moderate, pushing nominal bond yields higher. Bonds would no longer trade as portfolio deflation hedges. Most of the action would be in nominal not real yields. But because a PLT in the models results in better economic outcomes on average over time it would also result in somewhat higher real as well as nominal rates. Nonetheless risk assets would gain not lose because a somewhat higher real discount rate would be more than compensated for by reduced likelihood of long periods at the zero bound in the future, which should lower risk premia including the equity risk premium, or at least reduce the risk that the equity risk premium needs at some point to reprice sharply higher to take account of zero bound risk.

That is in the models. In the real world there would be a material risk that the shift to a new framework would deliver worse economic performance with a less well understood and predictable central bank reaction function and potential tension between the Fed and Congress. If the public does not understand what the Fed is trying to do, inflation expectations could become less well anchored, and real performance could suffer from confusion over the nominal anchor. Risk premia including the term premium could rise due to pure policy uncertainty. So this is not a one-way bet. Still, we think the challenges managing inflation expectations and future zero bound episodes are very material and represent one of the biggest threats to the valuation of risk assets over the longer term.[41] Consequently we would welcome a careful review conducted with an open mind that weighs the shortfalls of the current framework as well as the challenges of turning attractive theoretical ideas into practical policy, and would take the over rather than the under in markets on the announcement of a review.

[41] If the US really is going to spend 1/3 of the time at the zero bound, with subpar economic performance, it is plausible that the equity risk premium should be much higher than it is today and has been on average in the past.

DISCLOSURES

General Disclosures

This report is approved and/or distributed by International Strategy & Investment Group LLC (“ISI Group LLC”), a U.S. licensed broker-dealer regulated by the Financial Industry Regulatory Authority (“FINRA”) and by International Strategy & Investment Group (UK) Limited (“ISI UK”), which is authorised and regulated in the United Kingdom by the Financial Conduct Authority. The institutional sales, trading and research businesses of Evercore Group and IDI UK collectively operate under the global marketing brand name Evercore ISI ("Evercore ISI"). Both Evercore Group and ISI UK are subsidiaries of Evercore Partners Inc. ("Evercore Partners"). The trademarks, logos and service marks shown on this report are registered trademarks of Evercore Partners Inc.

This report is provided for informational purposes only. It is not to be construed as an offer to buy or sell or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy in any jurisdiction. The information and opinions in this report were prepared by registered employees of Evercore ISI. The information herein is believed by Evercore ISI to be reliable and has been obtained from public sources believed to be reliable, but Evercore ISI makes no representation as to the accuracy or completeness of such information. Opinions, estimates and projections in this report constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of Evercore and are subject to change without notice. In addition, opinions, estimates and projections in this report may differ from or be contrary to those expressed by other business areas or groups of Evercore and its affiliates. Evercore ISI has no obligation to update, modify or amend this report or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Facts and views in Evercore ISI research reports and notes have not been reviewed by, and may not reflect information known to, professionals in other Evercore affiliates or business areas, including investment banking personnel.

Evercore ISI does not provide individually tailored investment advice in research reports. This report has been prepared without regard to the particular investments and circumstances of the recipient. The financial instruments discussed in this report may not suitable for all investors and investors must make their own investment decisions using their own independent advisors as they believe necessary and based upon their specific financial situations and investment objectives. Securities and other financial instruments discussed in this report, or recommended or offered by Evercore ISI, are not insured by the Federal Deposit Insurance Corporation and are not deposits of or other obligations of any insured depository institution. If a financial instrument is denominated in a currency other than an investor’s currency, a change in exchange rates may adversely affect the price or value of, or the income derived from the financial instrument, and such investor effectively assumes such currency risk. In addition, income from an investment may fluctuate and the price or value of financial instruments described in this report, either directly or indirectly, may rise or fall. Estimates of future performance are based on assumptions that may not be realized. Furthermore, past performance is not necessarily indicative of future performance.

Evercore ISI salespeople, traders and other professionals may provide oral or written market commentary or trading strategies to our clients that reflect opinions that are contrary to the opinions expressed in this research. Our asset management affiliates and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

Electronic research is simultaneously available to all clients. This report is provided to Evercore ISI clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of Evercore ISI. Receipt and review of this research report constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion or information contained in this report (including any investment recommendations, estimates or target prices) without first obtaining express permission from Evercore ISI.

This report is not intended for distribution to, or use by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

For investors in the UK: In making this report available, Evercore makes no recommendation to buy, sell or otherwise deal in any securities or investments whatsoever and you should neither rely or act upon, directly or indirectly, any of the information contained in this report in respect of any such investment activity. This report is being directed at or distributed to, (a) persons who fall within the definition of Investment Professionals (set out in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the “Order”)); (b) persons falling within the definition of high net worth companies, unincorporated associations, etc. (set out in Article 49(2) of the Order); (c) other persons to whom it may otherwise lawfully be communicated (all such persons together being referred to as “relevant persons”). This report must not be acted on or relied on by persons who are not relevant persons.

Applicable current disclosures regarding the subject companies covered in this report are available at the offices of Evercore ISI, and can be obtained by writing to Evercore Group LLC, Attn. Compliance, 666 Fifth Avenue, 11th Floor, New York, NY 10103.

In compliance with the European Securities and Markets Authority's Market Abuse Regulation, a list of all Evercore ISI recommendations disseminated in the preceding 12 months for the subject companies herein, may be found at the following site: https://evercore.bluematrix.com/sellside/MAR.action.

© 2017. Evercore Group L.L.C. All rights reserved.