



Special

Deutsche Bank  
Research

TheHouseView



# Deutsche Bank Research Fed: Taking the plunge

9 December 2015

DISCLOSURES AND ANALYST CERTIFICATIONS ARE LOCATED IN APPENDIX 1. MCI(P) 124/04/2015

# TheHouseView Special – Fed: Taking the plunge



Markets entered the year with expectations for the Fed to raise rates. Several shocks that stayed the Fed's hand in June and then September have now largely dissipated. There is now broad-based consensus that the Fed will take the plunge at its 16 December meeting and raise rates for the first time since 2006.

Despite this consensus, there are lingering concerns that this shift in policy is a mistake. We disagree: the economy is strong enough to withstand higher rates.

With the quasi-certainty of a hike this month, focus shifts to the Fed outlook beyond lift-off. How quickly will rates rise? How high will rates go?

We expect the Fed to raise rates gradually in 2016 as it assesses the economy's reaction to this policy tightening, with the pace of hikes accelerating thereafter as the forces for going slow fade. The market is pricing a much more gradual ascent in rates; this disconnect should be resolved after a few hikes, with the market converging toward the Fed's projections. Further out, rates should peak lower than in the past but very likely higher than current market expectations.

Within 2016 the Fed may hike more in the first half than the second half. From a macro point of view, inflation is likely to start slowing around mid-year. From a markets perspective, the repricing of the Fed's rate path could lead to a tightening of financial conditions – this is especially true if the Fed decides to taper its reinvestment policy. These factors combined could lead the Fed to pause briefly in the second half of the year.

Given the widespread agreement that the Fed will hike, a strong initial market reaction is unlikely. Beyond the first hike, the outlook for risk assets will be determined by how the disagreement between the market and the Fed about the pace and extent of hikes gets resolved. Risk assets should be resilient in 2016 if this repricing is gradual and orderly.

Editors: Marcos Arana, Matthew Luzzetti,  
Rajni Thakur

# The reasons that kept the Fed put in September and October have now largely dissipated



Note: (\*) ECB delivered less than market expectations on 3-December, leading to a 2%+ surge in the euro vs. the dollar

# As a result, the Fed is widely expected to raise rates for the first time since 2006 at its 16 December meeting



## Everyone expects a Fed hike in December

### 1 Fed officials

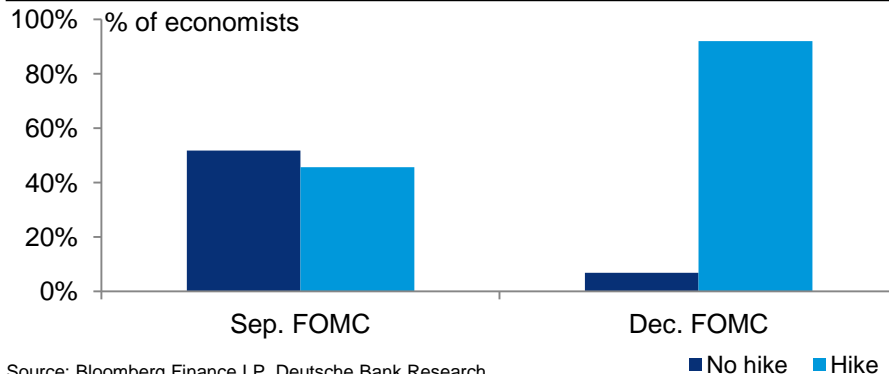
*"When the Committee begins to normalize the stance of policy... it is a day that I expect we all are looking forward to."*  
Janet Yellen, Fed Chair, 3 December

*"Assuming that we continue to get good data on the economy... there's a strong case to be made in December to raise rates."*  
John Williams, San Francisco Fed President, 21 November

*"It is quite possible that the conditions (...) to begin to normalize monetary policy could soon be satisfied."*  
Bill Dudley, New York Fed President, 12 November

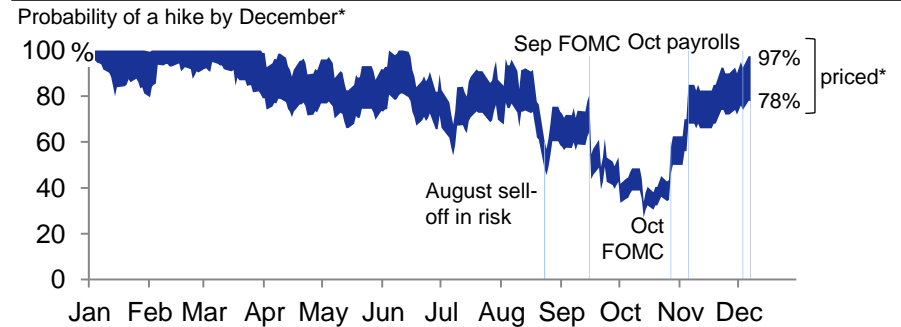
*"I'm comfortable with moving off zero soon."*  
Dennis Lockhart, Atlanta Fed President, 19 November

### 3 Economists



Source: Bloomberg Finance LP, Deutsche Bank Research

### 2 Market



Note (\*): It is likely that a 25bp hike by the Fed raises the Fed funds rate by less than 25bp, given excess liquidity in the system. The lower (upper) bound of range assumes Fed funds rate rises by 25bps (20bps) when the Fed hikes rates. Source: Bloomberg Finance LP, Deutsche Bank Research

### 4 Other officials and prominent investors

**OECD thinks US Federal Reserve needs to raise rates**  
Financial Review, Nov 10<sup>th</sup> 2015

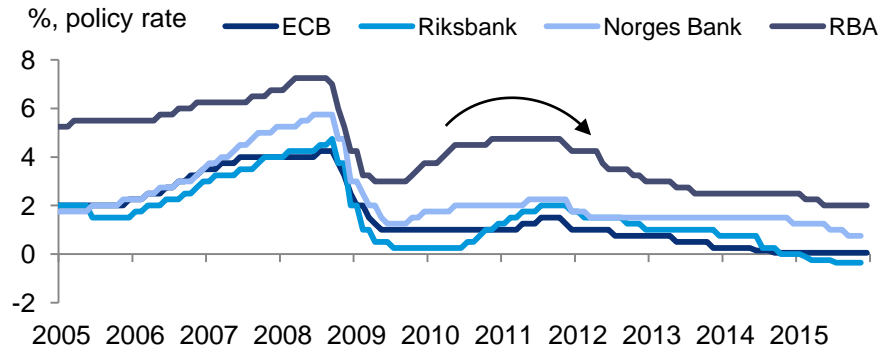
**Central Bankers Urge Fed to Get On With Interest-Rate Increase**  
WSJ, Oct 11<sup>th</sup> 2015

**Bill Gross: '100% Chance' Fed Will Raise Rates in December**  
Bloomberg, Nov 6<sup>th</sup> 2015

# We disagree with the view that hiking is a policy mistake: the economy is strong enough to withstand higher rates

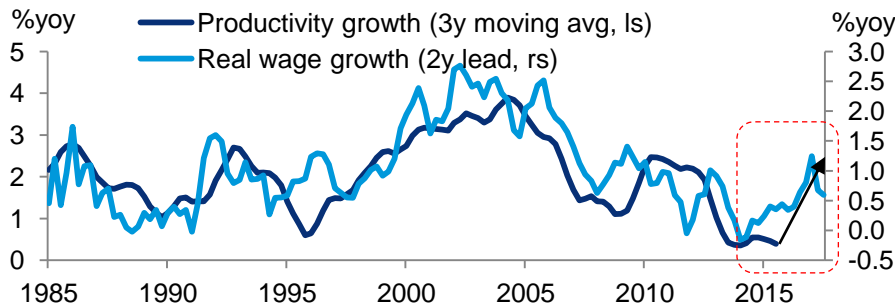


## Fed does not want to hike too early and risk having to reverse course as other major central banks have done



Source: ECB, SRB, NB, RBA, Haver Analytics, Deutsche Bank Research

## Rising real wages incentivise firms to invest, leading to higher productivity growth; we should see this in the coming years



Notes: productivity growth is real output per hour in the non-farm business sector; real wage growth is employment cost index compensation minus core PCE inflation  
Source: BLS, BEA, Haver Analytics, Deutsche Bank Research

## We disagree with many arguments against hiking rates – and gradual hikes in any case reduce the chance of a policy error

Argument strength	Argument for policy mistake	Our view
●	Fed lacks the tools to ease policy	<ul style="list-style-type: none"> <li>Valid point for raising rates gradually</li> </ul>
◐	Financial conditions have already tightened	<ul style="list-style-type: none"> <li>Last months' tightening equal 1-2 hikes</li> <li>Tightening is precisely Fed's intention</li> </ul>
◐	No inflation pressures	<ul style="list-style-type: none"> <li>Temporary factors keeping inflation low</li> <li>Should rise toward target as they abate</li> </ul>
◑	Global growth is too weak	<ul style="list-style-type: none"> <li>Global growth is slow – but expect moderate pick up in next two years</li> <li>Exports only 1/8th of GDP</li> </ul>
○	Economy is too weak for hikes	<ul style="list-style-type: none"> <li>Private domestic demand* growing at same pace as pre-crisis</li> <li>Robust employment growth continues</li> </ul>
○	Productivity growth is low	<ul style="list-style-type: none"> <li>Low productivity growth means a faster tightening of the labour market</li> <li>Should rise modestly as wages pick up</li> </ul>
○ Weak	→	● Strong

# With the quasi-certainty of a hike this month, focus shifts to how quickly and how high rates will go



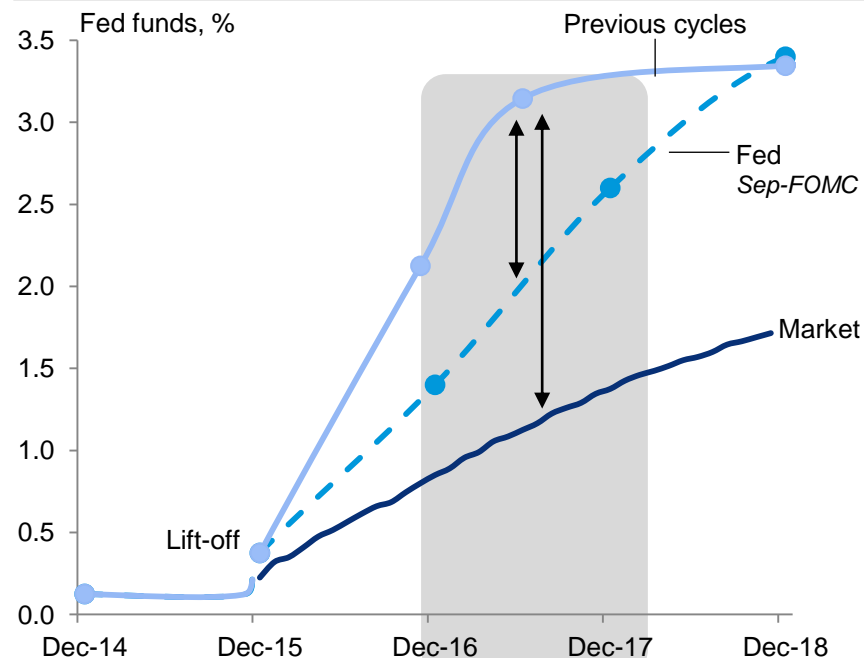
## Focus following the first hike



- What pace of hikes?
  - What are the key drivers?
  - Is the market pricing this?
- How high will rates go this cycle?
  - Is the market pricing this?

*Fed signals 220bp of hikes in 2016-17, 80bp less than in previous cycles – yet double market pricing*

## Market pricing of Fed hikes is materially lower than the Fed's projections of a gradual pace of hikes



Hikes (bp)	2016	2017	2018
Market	60	50	n/a
Fed	100	120	80
Previous cycles	200	100	n/a

Note: (\*) Peak Fed funds rate in a hiking cycle

Source: Fed, Bloomberg Finance LP, Deutsche Bank Research

# As a result, most focus on 16 December beyond the hike decision will be on clues for what to expect next from the Fed



## How to read the Fed FOMC meeting on 16 December

### 1 The statement



- Assessment of US economy
- Guidance on future policy
  - Pace of hikes
  - Reinvestment policy\*
- Discussion of risks, e.g., global growth, oil prices, dollar
- Last sentence of statement, i.e., signal that policy will remain accommodative
- Any dissents to statement

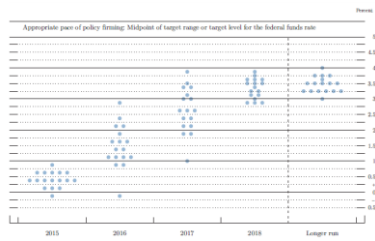
### 2 Economic projections

Economic projections of Federal Reserve Board members and Federal Reserve staff  
Advance release of table 1 of the Summary of Economic Projections to be published in the next issue of the *Federal Reserve Bulletin*

Variable	Median <sup>1</sup>				Central tendency <sup>2</sup>				
	2015	2016	2017	2018	2015	2016	2017	2018	
Change in real GDP	2.1	2.3	2.2	2.0	2.0	2.3	2.2	2.0	2.4
June projection	1.9	2.5	2.3	n.a.	2.0	1.8	2.0	2.4	2.1
Unemployment rate	5.0	4.8	4.8	4.8	4.9	5.0	5.1	4.7	4.9
June projection	5.3	5.1	5.0	n.a.	5.0	5.2	5.3	4.9	5.1
PCE inflation	0.4	1.7	1.9	2.0	2.0	0.3	0.5	1.5	1.8
June projection	0.7	1.8	2.0	n.a.	2.0	0.6	-0.8	1.6	-1.9
Core PCE inflation <sup>4</sup>	1.4	1.7	1.9	2.0	2.0	1.3	1.4	1.5	1.8
June projection	1.3	1.8	2.0	n.a.	2.0	1.3	1.4	1.6	1.9
Memo: Projected appropriate policy path									
Federal funds rate	0.4	1.4	2.6	3.4	3.5	0.1	0.6	1.1	2.1
June projection	0.6	1.6	2.9	n.a.	3.5	0.4	0.9	1.4	2.4

- Little change expected
- Some scope for lowering:
  - Inflation forecast: dovish, signals gradual pace
  - Unemployment forecast: hawkish

### 3 Dots plot (individual members' projections of Fed funds rate)



- Only marginal downward revisions expected
- Long-run median may come down – leading to lower dots trajectory

### 4 Chair Yellen press conference



- Overall tone
- Conditions that Fed needs to see to continue hiking
- What would lead the Fed to pause or stop hiking
- Guidance on reinvestment policy\* and interplay between rates and reinvestments

Note: (\*) Currently, the Fed reinvests its maturing holdings of MBS and Treasuries purchased during QE.

# We expect the Fed to raise rates gradually in 2016, before moving to faster hikes as the forces for going slow fade...

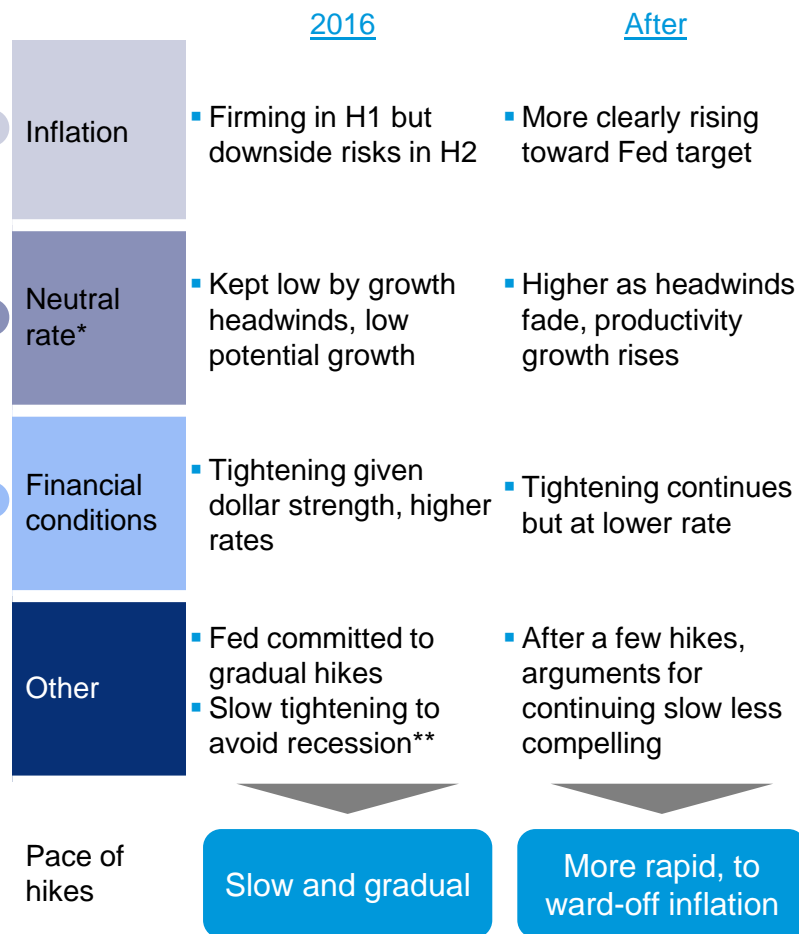


## Main drivers for the Fed

	Impact on US	Sign		Size	
		Inflation	Growth	2016	After
<b>Global growth</b> <ul style="list-style-type: none"> <li>Moderate pace</li> <li>Marginal pick-up in 2016 and 2017</li> </ul>		-	-	H	L
<b>Labour market strength</b> <ul style="list-style-type: none"> <li>At full employment, to tighten more</li> <li>Wage inflation low but rising</li> </ul>		+	+	M	H
<b>Dollar strength</b> <ul style="list-style-type: none"> <li>+25% since mid-2014</li> <li>Further strength, at slower pace</li> </ul>		-	-	H	L
<b>Low oil prices</b> <ul style="list-style-type: none"> <li>-50% in 2014, -25% in 2015</li> <li>Limited further downside in 2016</li> </ul>		-	+	H	L
<b>Higher rates</b> <ul style="list-style-type: none"> <li>Potential for sharp rise if market prices</li> <li>Fed path in 2016</li> </ul>	n.a.	-		M	L

Impact  
**H** High   **M** Medium   **L** Low

## Fed's assessment of pace of hikes



... though slowing inflation and a tightening of financial conditions as the market re-prices the Fed may pause hikes in H2-2016



### Expectations

- Inflation to firm-up
- Limited adverse impact from first hike on growth
- Labour market continues to tighten

- Inflation to stabilise, potentially recede
- Growth and labour market to remain on track

- Growth should remain broadly stable
- Continued gains in labour market, with unemployment falling further than Fed expects
- Inflation likely to drop modestly in H2
- Tightening of financial conditions likely as market starts to re-price Fed path

### Implications for the Fed

- Gradual pace to assess impact of hikes on markets, economy
- Remain data dependent
- Rate hikes likely in March, June

- Consider tapering the reinvestment of its securities holdings\*
- Expect one hike in the second half, with scope for skipping a quarter before resuming hikes

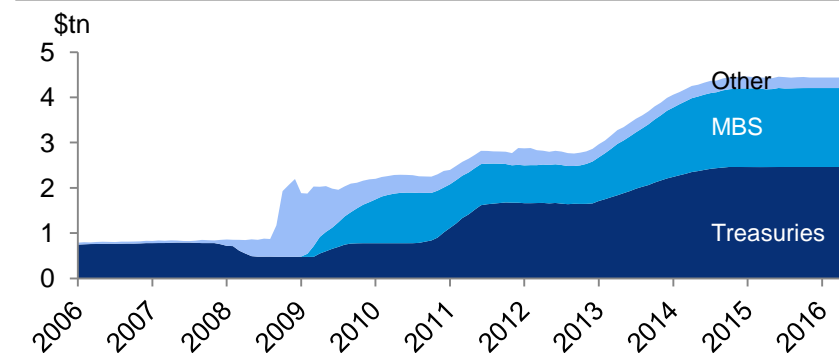
Note: (\*) Currently, the Fed reinvests its maturing holdings of MBS and Treasuries purchased during QE.

# This is especially true if the Fed decides to taper its reinvestment policy and this leads to a tightening of financial conditions



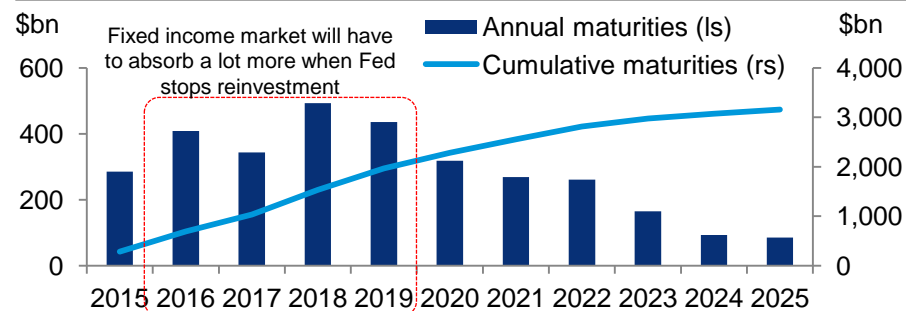
- The Fed is currently reinvesting proceeds from its maturing securities keeping its balance sheet stable
- **Altering this reinvestment policy would equate to a monetary policy tightening**
  - Fed can stop, or more likely taper reinvestments
  - Opposite effect to QE, i.e., higher long-term rates
- As such, the decision and the tightening of financial conditions it would bring about **may affect the Fed's assessment of the pace of rate hikes**
  - At \$300-500bn per year through 2019, the amount of maturing securities is considerable
- The Fed has so far given little guidance on when or how this will happen
  - Fed would like to be confident that economy is weathering rate hikes well
- **We expect Fed to begin reducing its reinvestment some time in the second half of 2016**

The size of the Fed's balance sheet is currently kept constant via the reinvestment of maturing assets



Source: Haver Analytics, Deutsche Bank Research

A wave of maturities from the Fed's portfolio could put upward pressure on long-term rates when the Fed stops reinvesting



Note: projections based on a speech by the Fed's Stanley Fischer in February 2015

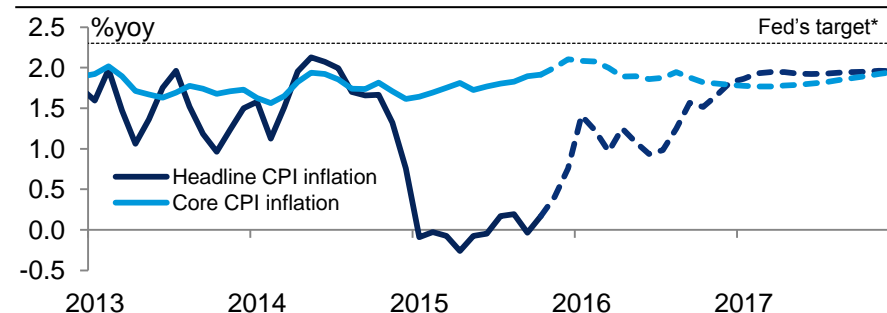
Source: Fischer (2015), FRBNY, Deutsche Bank Research

# By 2017 macroeconomic conditions should lead the Fed to hike faster – potentially even faster than current Fed projections



- The latest Fed projections signal a more gradual pace of hikes than history
  - Fed sees 4-5 hikes in each of the next two years<sup>#</sup> – compared to 6 hikes in previous cycles
- While a slow pace of hikes is justified initially, the risk of having to hike faster afterwards is high
- **By 2017 many of the inflation headwinds will have dissipated** and inflation should be closer to target
  - Fading impact from dollar strength due to base effects
  - Wage pressure building
- **Unemployment, meanwhile, will have significantly undershot the Fed's estimate of full employment**
- In this context it is difficult to justify going slow, as the risk of inflation overshooting becomes more real
- **We therefore see the risk of an upward adjustment to Fed projections for 2017 hikes**
- It is hard to call the exact timing of this adjustment but it is likely only toward end-2016

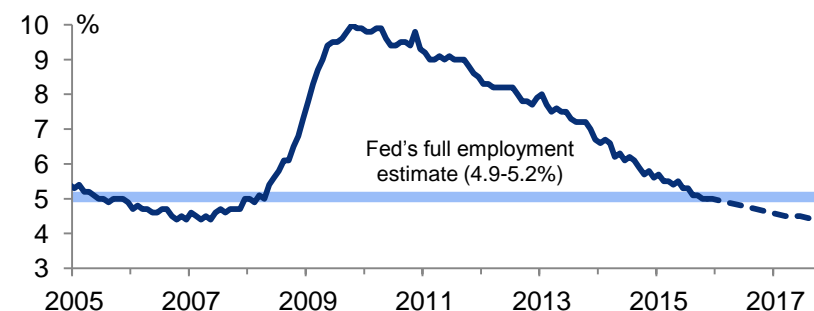
Inflation is expected to rebound from current low levels and approach the Fed's target\*



Note (\*): The Fed officially targets 2% for headline PCE inflation. This is roughly equivalent to 2.3% for headline CPI inflation, given that CPI inflation tends to run a few tenths about PCE.

Source: BLS, Haver Analytics, Deutsche Bank Research

Unemployment rate is already at full employment and will continue dropping further

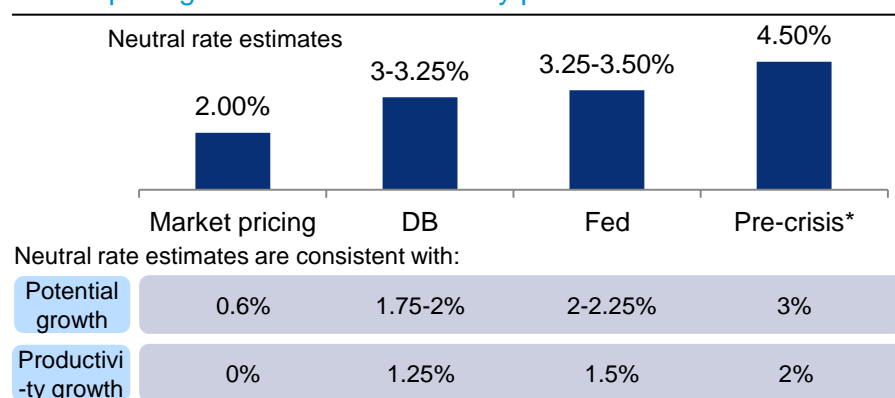


Source: BLS, Haver Analytics, Deutsche Bank Research

# The terminal rate will be lower than in the past but very likely higher than current market expectations



The neutral rate has fallen since the crisis – but the rate implied by market pricing is consistent with a very pessimistic scenario



Source: CBO, Laubach and Williams (2003), FOMC, Deutsche Bank Research Note: (\*) Avg. 1995-2005

## Several of the reasons for a lower terminal rate have faded

	Reducing terminal rate?	Rationale
Fiscal policy	✘	Fiscal policy has shifted from a significant drag to neutral
Private deleveraging	✘	Deleveraging slowed significantly; credit growth picking up
Mortgage credit conditions	~	Still tight but showing some signs of loosening
Subdued global growth	✔	Global growth, giving less external impulse to US growth
Low potential growth	✔	Still low but should rise modestly as productivity picks up

- How high the Fed's policy rate eventually rises (i.e., the terminal rate) is closely tied to the neutral rate
  - A higher neutral rate means the Fed has to raise rates more to tighten financial conditions
- Estimates suggest the neutral rate is currently very low due to growth headwinds (e.g., fiscal drag, tight credit, slow global growth), lower potential growth
- Neutral rate should rise as these headwinds fade and potential growth improves...
- ...But estimates suggest that the long-run neutral rate will remain lower than in the past
  - Prior to the crisis the neutral rate was near 4.5%
  - Fed's estimate is currently 3.25-3.50%; we think it is somewhat lower (i.e., 3-3.25%)
- The market pricing of a terminal rate around 2% is consistent with a very pessimistic economic scenario, assuming no rebound in potential growth
- As the market reprices the pace of hikes, it will also have to raise its view on the terminal rate

# We see risk assets resilient to Fed hikes in 2016, unless (until?) the market abruptly re-prices the Fed path

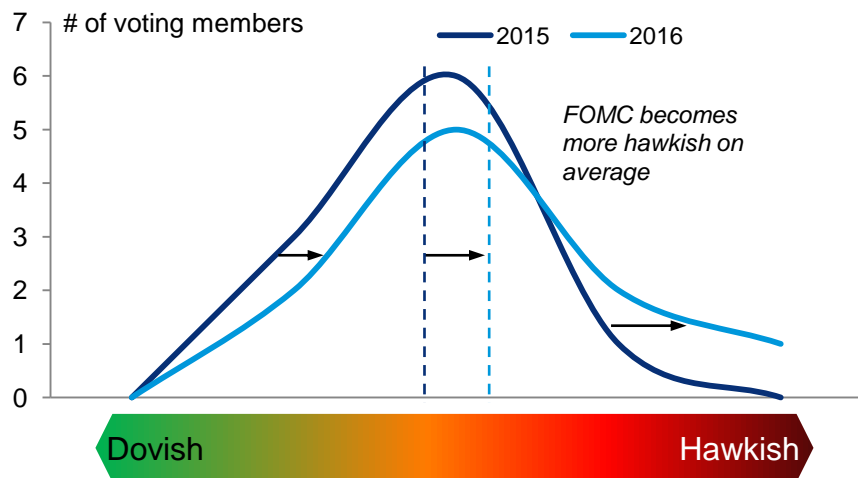


Asset class	View	Rationale
Equities	<ul style="list-style-type: none"> <li>Resilient to Fed hikes</li> </ul>	<ul style="list-style-type: none"> <li>As long as Fed hikes are gradual, long-term yields remain contained and dollar gains are slow, all of which we expect, equities should be resilient to Fed hikes</li> <li>Short-term downside only if rates rise sharply</li> </ul>
Rates	<ul style="list-style-type: none"> <li>Long rates to drift higher</li> <li>Partial convergence between US, Europe</li> </ul>	<ul style="list-style-type: none"> <li>US long-end rates to rise gradually (10-year yield at 2.5% end-2016); upside risk as Fed signals reinvestment tapering, market pricing converges to Fed</li> <li>Europe rates should follow the US higher, especially if an improving economy leads the ECB to signal tapering of QE next year</li> <li>We are passing the peak point of central bank policy divergence (i.e., tightening Fed, loosening ECB) – rates should partially converge ahead</li> </ul>
FX	<ul style="list-style-type: none"> <li>Long USD</li> <li>Short EUR</li> </ul>	<ul style="list-style-type: none"> <li>USD upswing to continue, though at a more moderate pace</li> <li>ECB to discourage further appreciation; outflows should continue</li> </ul>
Credit	<ul style="list-style-type: none"> <li>US under pressure</li> <li>Europe to outperform</li> </ul>	<ul style="list-style-type: none"> <li>US credit resilient to moderate Fed hikes, faster tightening would hurt</li> <li>Expect higher default rates in HY ex-energy leading to wider spreads; prefer IG</li> <li>Fundamentals stronger in Europe (e.g., less energy exposure, less aggressive debt accumulation) – European credit should outperform</li> </ul>
EM	<ul style="list-style-type: none"> <li>Downside but limited</li> </ul>	<ul style="list-style-type: none"> <li>Adjustment will not be smooth, but better external resilience, a gradual pace of hikes and cheaper valuations limit the downside</li> </ul>
Commodities	<ul style="list-style-type: none"> <li>Difficult outlook</li> </ul>	<ul style="list-style-type: none"> <li>Under pressure from stronger dollar, higher real yields</li> <li>Supply adjustment is underway for oil, though market is oversupplied until 2017</li> </ul>

# The FOMC will take a more hawkish direction in 2016 – but we do not anticipate any significant policy implications from this shift



## The change of voting members will result in a more hawkish FOMC



Note: dotted lines represent average hawkish / dovish score each year. Source: Deutsche Bank Research

- The Fed's voting members rotate annually except for several permanent spots (e.g., Chair, Board of Governors and NY Fed president)
- Voting seats are set to shift in a more hawkish direction in 2016
  - One less dove (Evans) and a net gain of two more hawkish voters (gain Mester, George and Bullard and lose Lacker)
- While this could affect policy at the margin, we do not anticipate any significant policy implications from this shift

## Composition of FOMC: shifting more hawkish



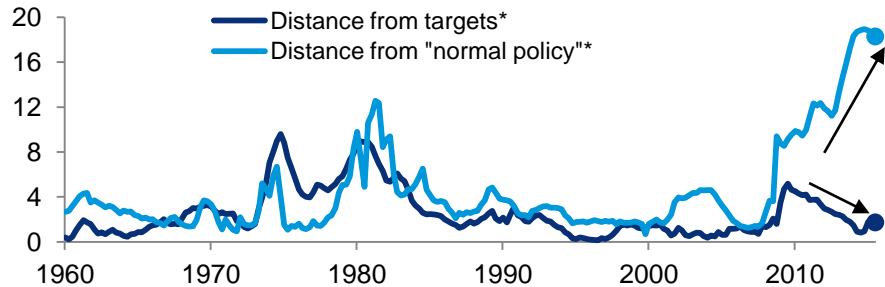


Appendix

# Despite substantial progress towards its targets since the crisis, Fed policy remains extremely accommodative



Policy is its furthest from normal on record even as the Fed nears its targets on unemployment and inflation



Note: (\*) Our distance measures follow a speech by St. Louis Fed President Jim Bullard on 17 July 2014  
Source: Haver Analytics, Deutsche Bank Research

The key considerations for the first hike have been met

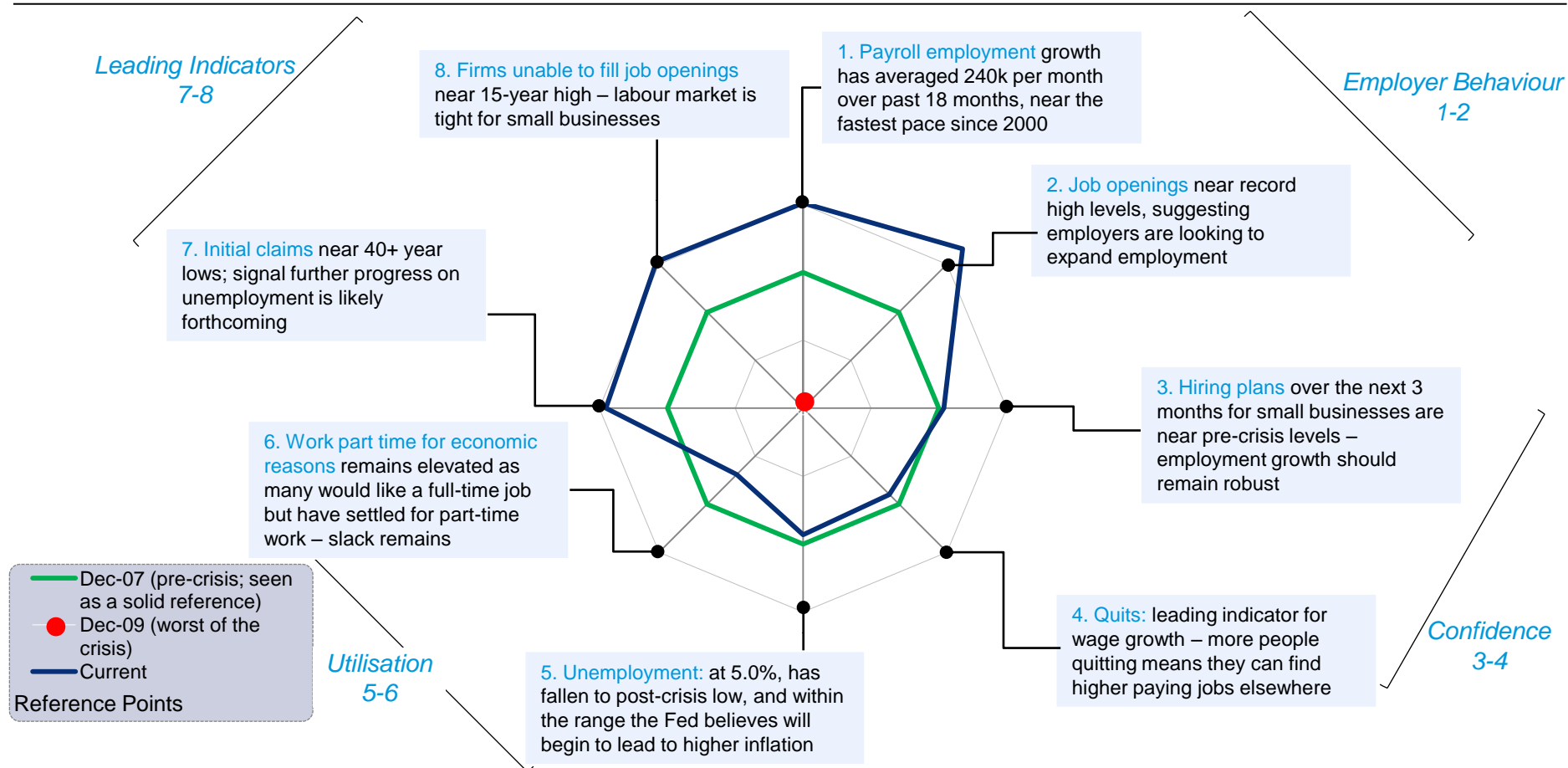
Hike considerations	Employment	Unemployment ✓	At NAIKU, broader slack measures also diminished
		Job creation ✓	Remains robust
	Inflation	Core inflation (PCE) ~	Stable at just 1.3% yoy but expected to rise
		Wage inflation ~	Trending higher, but still low
		Inflation expectations ~	Survey: mixed recently Market: low but have risen
	Other	Financial conditions ✓	Market hike odds have risen Financial conditions have eased a bit

- Fed has made considerable progress on its dual mandate
  - Headline inflation is low due to transitory factors and core inflation is firmer
  - Labour market is at full employment
- Yet, Fed policy has remained stuck at “crisis” levels
  - Fed funds rate still near zero
  - Fed’s balance sheet expanded to ~\$4.5tn, more than five times its pre-crisis level
- As a result, current monetary policy is the furthest from normalised policy on record
- The Fed has explained this divergence from normal policy in a number of ways
  - Other measures of labour market slack are elevated (e.g., high part-time employment)
  - Headwinds have significantly reduced the neutral fed funds rate since the financial crisis
  - Greater risk is hiking too early at 0% rates
- While these considerations continue to support gradual rate hikes, they no longer justify near-zero rates

# Significant progress toward the Fed's full employment objective and robust momentum justify a Fed funds rate well above zero



US economy is near full employment, confidence is high and leading indicators are supportive, even if some measures of slack remain high

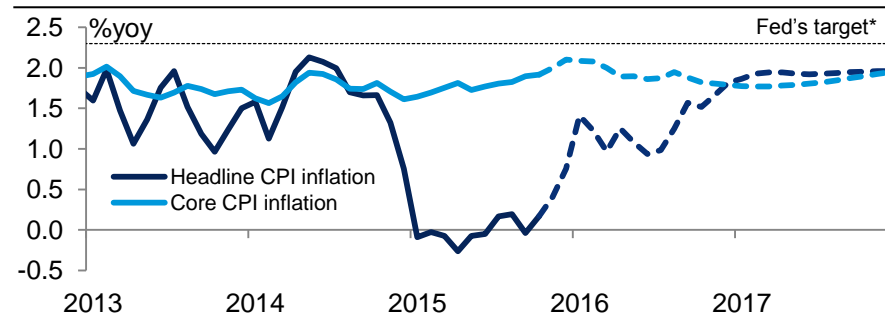


# Although inflation is well below the Fed's objective, it is expected to rise ahead



- **Inflation still well below 2% target:** headline inflation near 0%; core inflation 40-70bp below target
- **Weakness due primarily to forces Fed describes as temporary (e.g., USD surge, oil price drop)**
- **Inflation outlook is more important than current data**
  - Monetary policy acts with a lag: Fed thinks it takes 12-18 months for policy to have full effect
  - **Fed must be reasonably confident inflation will return to target to hike** – but doesn't need to wait for inflation to rise
- **Key inputs into this assessment include**
  - Outlook for growth / labour market (positive)
  - Inflation expectations (positive)
  - Import price inflation / dollar (negative)
- **Core inflation unlikely to rise significantly next year**
  - Strong dollar should continue to weigh on inflation next year
  - Falling commodity prices may be more persistent than Fed believes
- **But we and the Fed see inflation nearing 2% target over next 2 years, as temporary factors dissipate and labour market continues to tighten**

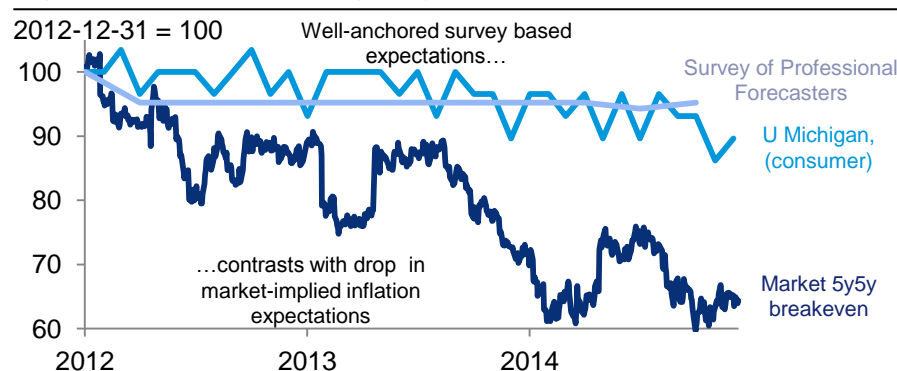
Inflation is expected to rebound from current low levels and approach the Fed's target\*



Note (\*): The Fed officially targets 2% for headline PCE inflation. This is roughly equivalent to 2.3% for headline CPI inflation, given that CPI inflation tends to run a few tenths about PCE.

Source: BLS, Haver Analytics, Deutsche Bank Research

Well-anchored survey measures of inflation expectations more important to Fed than sharp drop in market measures



Source: U Mich, FRB Phil SPF, Haver Analytics, Deutsche Bank Research

# Appendix 1

## Important Disclosures

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#### **Attribution**

The Authors wish to acknowledge the contributions made by Shakun Guleria in the preparation of this report.



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