DOLLARS & SENSE
TD Economics

April 29, 2016

THROUGH THE LENS OF THE FED (CENTRAL BANKER TO THE WORLD)

Highlights

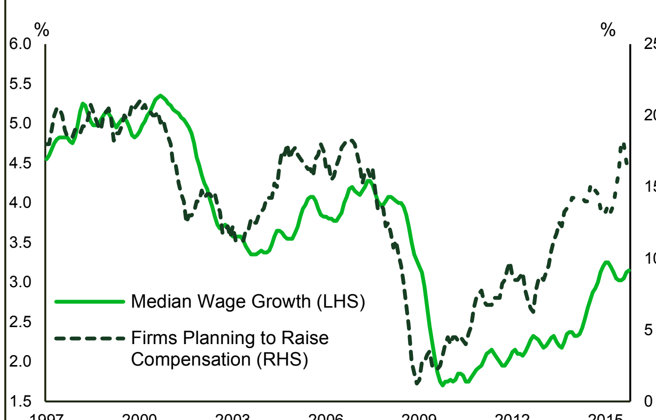
- Despite strong employment growth, some retracement of U.S. dollar strength, and a bottoming in inflation expectations, a clear signal from Fed Chair Yellen is needed to build market expectations for a June hike, which appears unlikely at this time.
- The Fed needs further convincing of a stable international backdrop and of solid underpinnings to domestic inflation.
- Our analysis indicates that the data will deliver on the domestic front. Inflation is on firmer footing and market participants are underestimating the domestic dynamics at work. One more rate hike remains on deck for 2016, and a second cannot be completely ruled out.

If you went to bed in December and woke up in April, the landscape would reflect a picture of stability within equity and bond markets. Of course, those of us burdened by a human's sleep schedule know otherwise. What has fundamentally changed since the tumultuous days of January and February when the S&P 500 swooned as much as 14 percent from the peak? Not a whole lot. The global economic recovery is neither on surer footing than it was two months ago, nor have the risks receded in any meaningful way. China continues along its journey of structural reform and data opaqueness. Europe and Japan continue to face rigidities in stoking inflationary pressures, causing the central banks to step harder on the accelerator. And now, additional uncertainty has crept into the fray via Britain's upcoming referendum in June. The volatility that kicked off the year exemplifies the sensitivity of market sentiment in a low economic growth, low interest rate environment. There is little room for a misstep in the data or central bank policy. The Federal Reserve has internalized this message, but will ultimately need to be responsive to domestic factors.

Since the Fed's decision to hike the fed funds rate last December, three more policy meetings have come and gone without a parallel move, despite hints of an economy that is reaching some capacity markers. A slower start to the year is masking better underlying dynamics. Job growth continues to defy gravity, running hot at over 200k a month. The previously stubborn employment-to-population ratio has turned upwards, and so too have wage pressures (Chart 1). In fact, the underpinnings to wages are strong. Wage growth lags employment indicators by six months and shows persistence for upwards of three years into the future. So, the recent up-trend is just getting started.

Likewise, consumer inflation appears to have troughed. The

CHART 1: WAGE GROWTH ON THE COMEBACK



Source: Federal Reserve Bank of Atlanta, NFIB.
Notes: Both median wage growth and the percent of firms planning on raising compensation are represented as a 4 quarter moving average.

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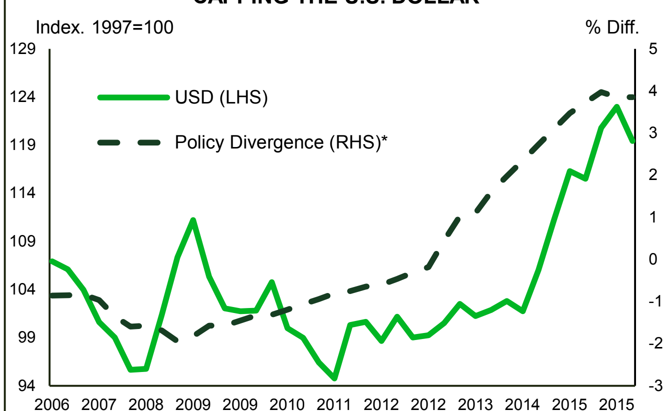
combination of a stable-to-lower dollar, higher oil prices and rising wage pressures will eventually leave its mark on inflation, which is expected to inch towards the Fed's objective of 2%.

These domestic factors would normally dictate higher policy rates, particularly since the Fed would only be slightly diminishing a very high degree of accommodation and there are long transmission lags of monetary policy into the economy. If these conditions are not sufficient to prompt a minor tweaking in rates, than what will it take?

Enter Fed Chair Yellen, who hinted to the answer less than two weeks after the March FOMC meeting. In an unquestionably dovish speech, the Chair emphasized global risks, policy asymmetry, and unease over the inflation trajectory. The increased consideration of global volatility and uncertainty, and its potential (not actual) transmission into the U.S. economy, reflects a more conservative Chair. And, for good reason. The Fed is operating an asymmetric rate environment that amplifies risks. They can readily lift the target rate should economic conditions warrant, but have less scope on the downside if the data sours or does not meet expectations, particularly on the inflation front. This reinforces a risk management school of thought.

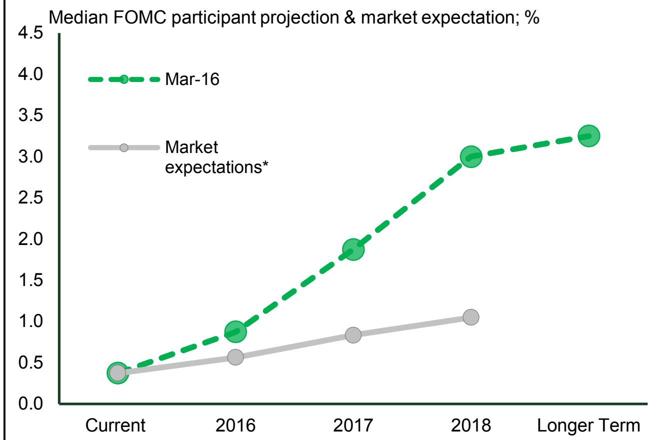
The Fed has long stated that their decisions are data-dependent. However, Chair Yellen's speech reinforced that international developments are definitely part of that bucket and likely supersede domestic developments during periods of more acute global volatility. Aside from the notion that this opens the data floodgates, ultimately the Fed has positioned themselves for maximum flexibility. Predicting the timing and extent of future rate hikes was already made difficult by Fed members who are not speaking with one voice (Box 1, page 3). But, in a low global growth, low rate environment, there are naturally more triggers that can inject market volatility, keeping the Fed on the sidelines.

CHART 2: PEAK POLICY DIVERGENCE IS CAPPING THE U.S. DOLLAR



Source: TD Economics. Federal Reserve Board. Board of Governors of the Federal Reserve System
* TDE expected difference between FOMC and major central bank policy rates in 12 quarters.

CHART 3: FED STILL AT ODDS WITH MARKET EXPECTATIONS



*OIS curve, April 28, 2016. Source: Federal Reserve Board, Bloomberg.

Market participants understand this premise. Even after the Fed's April meeting where the policy statement has removed reference of global developments posing a risk, markets perceive just two hikes between now and the end of 2017. This is at odds with the Fed's Economic Projections, which showed just days prior to Yellen's speech that all but one of the 17 Fed members expect two or more rate hikes this year. For next year, every participant expects the fed funds target to be at or above 1.50% (Chart 3).

This divergence between the market and Fed expectations is not a new phenomenon. We sit in the middle of these two views, agreeing with a more gradual rate-hike cycle than the Fed has revealed, but not at a pace that markets currently expect. We think the market is underestimating the degree to which inflation dynamics can materialize in the data, particularly given that the U.S. is a more closed economy relative to peer countries (i.e. maintains more self-sufficient economic drivers). There is a 12-18 month transmission lag from when firms indicate an intention to increase wages, to when that intention passes through to actual wages, and to when those gains get passed into consumer prices. By the end of this year, we will be hitting that 18-month mark. This reinforces the notion that there is a natural pull factor occurring within domestic inflation dynamics, with the risk that core PCE could reach the Fed's 2% target earlier than anticipated.

But, the burden of proof is on the economy to show to the Fed that it can continue along this course. In the meantime, the Fed's wait-and-see approach does pose the risk that they will end up behind the inflation curve. Given the asymmetric policy backdrop, we believe the Fed has appetite to accept this risk, particularly since inflation has undershot their objective for the past four years.

If international worries reappear in the next two months, the Fed will put the domestic fundamentals on the back burner once again. Their risk management approach would thus make a rate hike in June less probable. Already, there are asymmetric risks surrounding a potential kick-up in global instability ahead of Britain's referendum – which is one week after the FOMC meeting.

In truth, there will never be a "sweet spot" in hiking rates amidst the current global backdrop. The Fed will ultimately have its decisions rest on domestic fundamentals. Since we believe the data will deliver on this front, a pass in June heightens our conviction of a rate hike in either July or September. We are leaning towards the latter since the July policy meeting does not have a scheduled press conference. Although this does not preclude the Fed from raising rates in July should the data warrant, the decision would need to be very well telegraphed in order to avoid disrupting markets with a surprise decision. This message would need to be delivered by none other than Chair Yellen, given the highly dovish tone she struck in her latest speech. If the Fed does proceed with a rate hike during the summer, it would certainly tilt the odds that another will follow in December. Bottom line, there will be one more rate hike this year, and don't rule out the risk of another. Beyond that point, the economic data will only serve to further remind us of the strength within the U.S. domestic demand drivers in 2017. Even with a willingness to let inflation run a little hot, the Fed will need to keep market expectations anchored around their prescribed mandate to provide an interest rate environment supporting the dual objective of maximum employment and price stability. Thus, two rate hikes remain on the docket for 2017, with a risk of a third if the wage-push pressures we noted earlier end up materializing more than anticipated.

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BOX 1: FED MEMBERS SINGING DIFFERENT TUNES

Member	Date	Quote	Tone
Eric S. Rosengren	Apr 18, 2016	*"The very shallow path of rate increases implied by financial futures-market pricing would likely result in an **overheating** that...could **endanger** the ongoing recovery and continued growth"*	Hawkish
James Bullard	Apr 17, 2016	*"I would strenuously **push back against the idea that we are going to sit on the sidelines** because the UK is going to vote one way or another on that"*	Hawkish
Patrick Harker	Apr 12, 2016	*"It might prove prudent to **wait** until the inflation data are stronger before we undertake a second rate hike"*	Dovish
Esther George	Apr 07, 2016	*"Currently, **commercial real estate markets**, where prices have continued to drift higher, bear watching"*	Hawkish
James Bullard	Apr 06, 2016	*"If sluggish growth were to persist unexpectedly, 'I'd be willing to **push rate hikes further into the future**'" Taken from Bloomberg.com*	Dovish
Janet Yellen	Mar 29, 2016	*"Reflecting **global economic and financial developments** since December, however, the pace of rate increases is now expected to be somewhat slower"*	Dovish
Janet Yellen	Feb 11, 2016	*"**If the FOMC delayed the start of policy normalization for too long, it might have to tighten policy relatively abruptly in the future to keep the economy from overheating** and inflation from significantly overshooting its objective. Such an abrupt tightening could increase the risk of pushing the economy into recession."*	Hawkish

Source: U.S. Federal Reserve, Bloomberg.com, and FT.com

INTEREST RATE & FOREIGN EXCHANGE RATE OUTLOOK

		Spot Rate	2015				2016				2017			
		Apr-28	Q1	Q2	Q3	Q4	Q1	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Interest Rates														
Fed Funds Target Rate		0.50	0.25	0.25	0.25	0.50	0.50	0.50	0.75	0.75	0.75	1.00	1.00	1.25
3-mth T-Bill Rate		0.21	0.03	0.01	0.00	0.16	0.21	0.30	0.55	0.55	0.55	0.80	0.80	1.05
2-yr Govt. Bond Yield		0.79	0.56	0.64	0.64	1.06	0.73	0.80	0.95	1.15	1.20	1.35	1.40	1.60
5-yr Govt. Bond Yield		1.29	1.37	1.63	1.37	1.76	1.21	1.35	1.45	1.65	1.70	1.80	1.85	2.00
10-yr Govt. Bond Yield		1.82	1.94	2.35	2.06	2.27	1.78	1.90	1.95	2.10	2.15	2.25	2.30	2.40
30-yr Govt. Bond Yield		2.68	2.54	3.11	2.87	3.01	2.61	2.70	2.75	2.85	2.90	3.00	3.05	3.10
10-yr-2-yr Govt Spread		1.04	1.38	1.71	1.42	1.21	1.05	1.10	1.00	0.95	0.95	0.90	0.90	0.80
Exchange rate to U.S. dollar														
Chinese Yuan	CNY per USD	6.48	6.20	6.20	6.36	6.48	6.45	6.67	6.85	6.95	7.03	7.11	7.19	7.25
Japanese yen	JPY per USD	108	120	122	120	120	112	113	113	115	118	120	121	122
Euro	USD per EUR	1.14	1.07	1.12	1.12	1.09	1.14	1.10	1.07	1.09	1.12	1.10	1.14	1.14
U.K. pound	USD per GBP	1.46	1.49	1.57	1.51	1.48	1.44	1.39	1.43	1.47	1.53	1.55	1.56	1.58
Swiss franc	CHF per USD	0.97	0.97	0.94	0.98	1.00	0.96	1.00	1.02	1.02	1.00	1.03	1.00	1.01
Canadian dollar	CAD per USD	1.25	1.27	1.25	1.34	1.38	1.30	1.27	1.31	1.32	1.33	1.33	1.32	1.32
Australian dollar	USD per AUD	0.76	0.76	0.77	0.70	0.73	0.77	0.76	0.75	0.73	0.71	0.72	0.74	0.76
NZ dollar	USD per NZD	0.70	0.75	0.68	0.64	0.68	0.69	0.67	0.65	0.63	0.60	0.60	0.61	0.62
Exchange rate to Euro														
U.S. dollar	USD per EUR	1.14	1.07	1.12	1.12	1.09	1.14	1.10	1.07	1.09	1.12	1.10	1.14	1.14
Japanese yen	JPY per EUR	123	129	136	134	131	128	124	121	125	132	132	138	139
U.K. pound	GBP per EUR	0.78	0.72	0.71	0.74	0.74	0.79	0.79	0.75	0.74	0.73	0.71	0.73	0.72
Swiss franc	CHF per EUR	1.10	1.04	1.04	1.09	1.09	1.09	1.10	1.09	1.11	1.12	1.13	1.14	1.15
Canadian dollar	CAD per EUR	1.42	1.36	1.39	1.50	1.50	1.48	1.40	1.40	1.44	1.49	1.46	1.51	1.51
Australian dollar	AUD per EUR	1.49	1.41	1.45	1.59	1.49	1.48	1.45	1.43	1.49	1.58	1.53	1.54	1.50
NZ dollar	NZD per EUR	1.63	1.44	1.65	1.75	1.59	1.65	1.64	1.65	1.73	1.87	1.83	1.87	1.84
Exchange rate to Japanese yen														
U.S. dollar	JPY per USD	108	120	122	120	120	112	113	113	115	118	120	121	122
Euro	JPY per EUR	123	129	136	134	131	128	124	121	125	132	132	138	139
U.K. pound	JPY per GBP	158	178	192	181	177	162	157	161	169	181	186	189	193
Swiss franc	JPY per CHF	111.9	123.5	130.6	122.6	120.1	117.3	112.8	111.0	112.9	118.0	116.8	121.0	120.9
Canadian dollar	JPY per CAD	86.2	94.6	97.9	89.4	86.9	86.7	89.0	86.3	87.1	88.7	90.2	91.7	92.4
Australian dollar	JPY per AUD	82.5	91.5	94.1	84.1	87.6	86.3	85.9	84.8	84.0	83.8	86.4	89.5	92.7
NZ dollar	JPY per NZD	75.3	89.8	82.8	76.6	82.3	77.9	75.7	73.5	72.5	70.8	72.0	73.8	75.6

F: Forecast by TD Economics, April 2016; Forecasts are end-of-period; Source: Federal Reserve, Bloomberg.

GLOBAL STOCK MARKETS

	Price Apr-28	30-Day % Chg.	YTD % Chg.	52-Week High	52-Week Low
S&P 500	2,076	1.9	0.8	2,131	1,829
DAX	10,321	4.8	5.3	11,865	8,753
FTSE 100	6,322	3.5	-3.7	7,047	5,537
Nikkei	16,666	-2.7	-4.5	20,868	14,953
MSCI AC World Index*	407	3.6	-2.5	443	353

*Weighted equity index including both developing and emerging markets.
Source: Bloomberg

COMMODITY PRICE OUTLOOK

	Price	52-Week	52-Week	2015				2016				2017			
	Apr-28	High	Low	Q1	Q2	Q3	Q4	Q1	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Crude Oil (WTI, $US/bbl)	46	61	26	49	58	46	42	34	42	46	50	52	52	55	55
Natural Gas ($US/MMBtu)	1.89	3.07	1.49	2.87	2.78	2.75	2.10	1.97	2.10	2.35	2.50	2.90	3.10	3.40	3.60
Gold ($US/troy oz.)	1266	1272	1051	1218	1191	1124	1104	1182	1245	1225	1200	1195	1185	1175	1175
Silver (US$/troy oz.)	17.6	17.7	13.7	16.74	16.44	14.92	14.78	14.93	17.00	16.00	15.50	15.25	15.00	14.85	14.74
Copper (cents/lb)	223	294	196	264	275	238	222	212	221	224	226	228	230	230	232
Nickel (US$/lb)	4.17	6.51	3.45	6.51	5.94	4.78	4.27	3.86	4.06	4.20	4.45	4.75	5.00	6.00	6.25
Aluminum (Cents/lb)	74	90	65	82	79	72	68	69	72	72	72	74	74	76	76
Wheat ($US/bu)*	6.21	7.95	5.58	7.45	7.34	6.39	6.36	5.89	6.15	6.25	6.40	6.50	6.75	7.00	7.25

F: Forecast by TD Economics, April 2016; Forecasts are period averages; Source: Bloomberg, USDA (Haver). *As at April 27, 2016.

INTERNATIONAL INTEREST RATE OUTLOOK

	Spot Rate	2015				2016				2017			
	Apr-28	Q1	Q2	Q3	Q4	Q1	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Australia													
Cash Target Rate	2.00	2.25	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.25	2.50	2.75
3-mth T-Bill Rate	2.00	1.97	1.96	2.01	2.02	2.04	2.15	2.15	2.20	2.30	2.40	2.75	3.00
3-yr Govt. Bond Yield	1.87	1.72	2.04	1.84	2.02	1.90	1.90	1.90	2.05	2.20	2.40	2.65	2.85
5-yr Govt. Bond Yield	2.07	1.87	2.27	2.12	2.24	2.09	2.15	2.20	2.35	2.50	2.70	2.95	3.05
10-yr Govt. Bond Yield	2.52	2.33	3.01	2.62	2.88	2.49	2.60	2.60	2.75	2.90	3.00	3.15	3.25
10-yr-3-yr Govt Spread	0.65	0.62	0.97	0.78	0.87	0.59	0.70	0.70	0.70	0.70	0.60	0.50	0.40
Germany													
ECB Deposit Rate	-0.40	-0.20	-0.20	-0.20	-0.30	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40
3-mth T-Bill Rate	-0.61	-0.31	-0.30	-0.36	-0.54	-0.59	-0.60	-0.60	-0.60	-0.60	-0.60	-0.50	-0.50
2-yr Govt. Bond Yield	-0.50	-0.26	-0.24	-0.27	-0.35	-0.49	-0.50	-0.40	-0.30	-0.20	-0.10	-0.05	0.00
5-yr Govt. Bond Yield	-0.31	-0.11	0.16	-0.04	-0.05	-0.33	-0.30	-0.10	0.00	0.20	0.30	0.60	0.80
10-yr Govt. Bond Yield	0.26	0.17	0.81	0.54	0.63	0.15	0.30	0.40	0.50	0.70	0.95	1.05	1.25
30-yr Govt. Bond Yield	1.05	0.61	1.57	1.33	1.49	0.84	1.10	1.20	1.30	1.45	1.60	2.00	2.20
10-yr-2-yr Govt Spread	0.75	0.42	1.05	0.81	0.97	0.64	0.80	0.80	0.80	0.90	1.05	1.10	1.25
United Kingdom													
Bank Rate	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.75	0.75	1.00	1.00	1.25
3-mth T-Bill Rate	0.51	0.50	0.53	0.55	0.55	0.51	0.50	0.60	0.90	1.05	1.15	1.25	1.40
2-yr Govt. Bond Yield	0.54	0.39	0.61	0.56	0.65	0.44	0.55	0.75	1.05	1.15	1.35	1.40	1.55
5-yr Govt. Bond Yield	0.99	1.16	1.58	1.18	1.35	0.84	0.90	1.20	1.40	1.50	1.70	1.80	2.00
10-yr Govt. Bond Yield	1.61	1.54	2.11	1.74	1.96	1.42	1.50	1.70	1.90	2.00	2.10	2.20	2.30
30-yr Govt. Bond Yield	2.42	2.28	2.81	2.44	2.67	2.29	2.40	2.60	2.70	2.80	2.85	2.90	2.95
10-yr-2-yr Govt Spread	1.07	1.15	1.49	1.18	1.31	0.97	0.95	0.95	0.85	0.85	0.75	0.80	0.75

F: Forecast by TD Securities, April 2016; Forecasts are end-of-period; Source: Bloomberg