



November 16, 2015

FEDERAL RESERVE POISED TO RAISE RATES IN DECEMBER

Highlights

- The persistent strength in domestic demand, even in the face of global headwinds, suggests the economy no longer requires emergency-level interest rates. We expect the Federal Reserve to raise the federal funds rate at its next meeting on December 16th.
- The move off the zero lower bound ends one major monetary policy debate, but not another. Gauging the path of future rate hikes requires an understanding of where the economy sits relative to its potential (i.e. the output gap). There is no simple rule of thumb for this. Even with the unemployment rate at 5.0%, other indicators point to ongoing economic slack.
- Inflation is likely to remain benign as weak global growth and the strong U.S. dollar keep commodity and import prices in check. Combined with the unprecedented size of the Federal Reserve's balance sheet, this means the pace of interest rate hikes will be cautious.

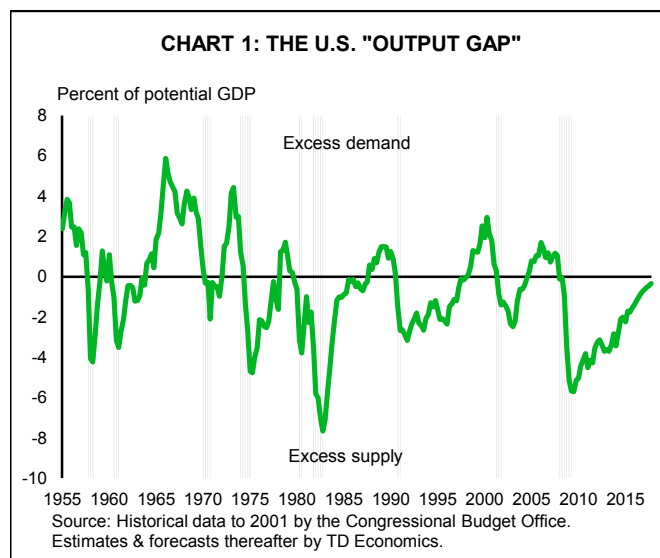
As 2015 draws to a close, expectations in financial markets have solidified on the Federal Reserve moving interest rates off the zero lower bound at the last meeting of the year on December 16th. The persistent strength of domestic demand, even in the face of global headwinds, suggests the economy is ready for the move higher in rates. The question now is the pace of rate hikes going forward. This is what ultimately matters for financial conditions and the broader economy.

Critical to determining the path of interest rates is an understanding of where the economy currently sits in the business cycle. Economists often try to figure this out in the context of the output gap (Chart 1). In its simplest form, this measure tries to capture how close the economy is to its potential (or full-capacity) level. The closer the economy is to this point, the less the need for accommodative monetary policy.

Measuring the output gap requires consideration of a mix of data, spanning estimates of potential GDP, an array of employment metrics, and even attention to how the global environment is influencing domestic inflation dynamics. Piecing together these moving parts leaves two impressions. First, a suite of indicators is showing marked improvement. Second, the economy is not at risk of overheating, and the Federal Reserve can proceed with caution. The journey will begin in December, but the Fed will move slowly as it wades through the array of data, signals and judgement of the business cycle.

Is the U.S. economy back to “normal”?

A popular measure of the output gap is where the unemployment rate sits relative to its structural rate. Six years to the month after hitting a peak of 10.0%, the unemployment rate fell to 5.0%

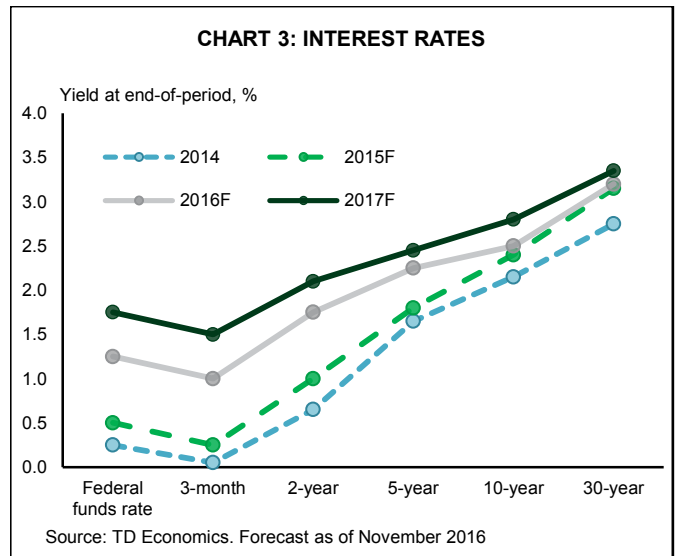
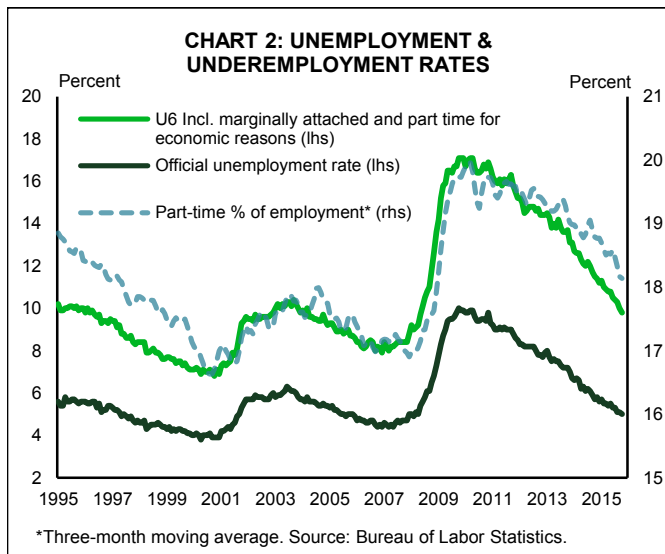


in October. This is consistent with estimates of “normal” that reflects an economy in balance. This raises the question as to whether the economy has already returned to full capacity. More importantly, if so, does the current exceptional stimulative monetary policy setting present a risk that future rate adjustments will need to occur in faster or larger steps?

Not if you look at the economy holistically. Returning to the notion of where GDP currently sits relative to its potential output offers a different estimate. The OECD, the IMF, and the CBO estimate that economic output in 2015 is on average 1.0% to 2.5% below potential. The OECD does not expect the output gap to close until 2017, while the CBO and IMF are tracking sometime next year.

Measures of potential or “normal” are prone to revisions. All of the major estimates of potential GDP have come down following the recession, as analysts deepen their understanding of the long-run implications of a financial crisis on investment, productivity, and labor supply. Estimates of the structural rate of unemployment have also moved lower. The average central tendency of Federal Reserve projections for the unemployment rate rose as high as 5.6% in 2013, before edging back to the current level of 5.0%.

Along this vein, the conventional unemployment rate is not a catch-all measurement of slack. Other labor market indicators are well below their pre-recession levels. For instance, the so-called U6 “underemployment” rate adds in marginally attached workers (people who want a job, but are not currently looking and those employed part time for economic reasons). It is sitting at 9.8% and has fallen from a peak of 17.1% (Chart 2). But, it remains 1.4 percentage points above its pre-recession level in late 2007. Likewise, the employment-to-population ratio of the core working age



group (25-to-54 year olds) is still three percentage points below its pre-recession level. These measures do not suggest that the economy is facing imminent capacity pressures.

The bottom line

Even as this remaining slack is absorbed, inflation is likely to remain benign as weak global growth and the strong dollar keep commodity and import prices in check. As markets have repriced an earlier liftoff, the dollar has pushed higher against major global currencies and commodities have sold off (please see tables for updated forecasts). Nonetheless, as Fed Chair Yellen has noted, given the lags in monetary policy, the Fed cannot wait until capacity pressures are evident before beginning to normalize monetary policy. This is particularly true when the starting point is zero.

A December lift-off affords the Fed time to pause to assess new information. We anticipate rate adjustments of 75 basis points in the first year (Chart 3). Adjusting for inflation, this will leave the fed funds rate in negative territory. Part of the go-slow approach will also reflect the fact that the Fed holds an unprecedented number of Treasury securities and MBS assets that it must slowly unwind.

This combination of asset run-off and rate hikes offers a dual tightening in financial conditions, particularly if the greenback maintains strength as other major global players like the Euro area, Japan and China continue to favor easier monetary policy. All this suggests that the Fed’s guideposts for the first 75 basis points in tightening may not be the same as the next 75 basis points. Policy normalization is likely to be an evolving and fluid process.

INTEREST RATE & FOREIGN EXCHANGE RATE OUTLOOK														
		Spot Rate Nov-16	2015				2016				2017			
			Q1	Q2	Q3	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Interest Rates														
Fed Funds Target Rate		0.25	0.25	0.25	0.25	0.50	0.75	1.00	1.25	1.25	1.50	1.75	1.75	1.75
3-mth T-Bill Rate		0.11	0.03	0.01	0.00	0.25	0.50	0.75	1.00	1.00	1.25	1.50	1.50	1.50
2-yr Govt. Bond Yield		0.83	0.56	0.64	0.64	1.00	1.25	1.50	1.75	1.75	1.85	2.10	2.10	2.10
5-yr Govt. Bond Yield		1.63	1.37	1.63	1.37	1.80	2.00	2.10	2.25	2.25	2.35	2.45	2.45	2.45
10-yr Govt. Bond Yield		2.25	1.94	2.35	2.06	2.40	2.45	2.50	2.50	2.50	2.55	2.65	2.75	2.80
30-yr Govt. Bond Yield		3.04	2.54	3.11	2.87	3.15	3.15	3.20	3.20	3.20	3.20	3.25	3.30	3.35
10-yr-2-yr Govt Spread		1.42	1.38	1.71	1.42	1.40	1.20	1.00	0.75	0.75	0.70	0.55	0.65	0.70
Exchange rate to U.S. dollar														
Japanese yen	JPY per USD	123	120	122	120	125	125	123	120	118	118	120	122	122
Euro	USD per EUR	1.07	1.07	1.12	1.12	1.02	1.03	1.06	1.10	1.12	1.15	1.15	1.20	1.20
U.K. pound	USD per GBP	1.52	1.49	1.57	1.51	1.46	1.49	1.58	1.62	1.65	1.64	1.64	1.67	1.67
Swiss franc	CHF per USD	1.01	0.97	0.94	0.97	1.06	1.04	1.01	0.97	0.96	0.92	0.94	0.92	0.92
Canadian dollar	CAD per USD	1.33	1.27	1.25	1.33	1.37	1.40	1.37	1.35	1.33	1.28	1.25	1.20	1.20
Australian dollar	USD per AUD	0.71	0.76	0.77	0.70	0.68	0.67	0.67	0.69	0.70	0.72	0.74	0.76	0.76
NZ dollar	USD per NZD	0.65	0.75	0.68	0.63	0.62	0.61	0.59	0.57	0.56	0.58	0.58	0.60	0.61
Exchange rate to Euro														
U.S. dollar	USD per EUR	1.07	1.07	1.12	1.12	1.02	1.03	1.06	1.10	1.12	1.15	1.15	1.20	1.20
Japanese yen	JPY per EUR	132	129	136	134	128	129	130	132	132	136	138	146	146
U.K. pound	GBP per EUR	0.71	0.72	0.71	0.74	0.70	0.69	0.67	0.68	0.68	0.70	0.70	0.72	0.72
Swiss franc	CHF per EUR	1.08	1.04	1.04	1.09	1.08	1.07	1.07	1.07	1.08	1.06	1.08	1.10	1.10
Canadian dollar	CAD per EUR	1.43	1.36	1.39	1.49	1.40	1.44	1.45	1.49	1.49	1.47	1.44	1.44	1.44
Australian dollar	AUD per EUR	1.51	1.41	1.45	1.60	1.50	1.54	1.58	1.59	1.60	1.60	1.55	1.58	1.58
NZ dollar	NZD per EUR	1.66	1.44	1.65	1.78	1.65	1.69	1.80	1.93	2.00	1.98	1.98	2.00	1.97
Exchange rate to Japanese yen														
U.S. dollar	JPY per USD	123	120	122	120	125	125	123	120	118	118	120	122	122
Euro	JPY per EUR	132	129	136	134	128	129	130	132	132	136	138	146	146
U.K. pound	JPY per GBP	187	178	192	181	183	186	194	194	195	194	197	204	204
Swiss franc	JPY per CHF	122.1	123.5	130.6	123.6	117.9	120.2	121.8	123.7	122.9	128.3	127.7	132.6	132.6
Canadian dollar	JPY per CAD	92.1	94.6	97.9	90.2	91.2	89.3	89.8	88.9	88.7	92.2	96.0	101.7	101.7
Australian dollar	JPY per AUD	87.2	91.5	94.1	83.9	85.0	83.8	82.4	82.8	82.6	85.0	88.8	92.7	92.7
NZ dollar	JPY per NZD	79.6	89.8	82.8	75.5	77.5	76.3	72.6	68.4	66.1	68.4	69.6	73.2	74.4

F: Forecast by TD Economics, November 2015; Forecasts are end-of-period; Source: Federal Reserve, Bloomberg.

GLOBAL STOCK MARKETS					
	Price Nov-16	30-Day % Chg.	YTD % Chg.	52-Week High	52-Week Low
S&P 500	2,023	-0.5	-1.7	2,131	1,868
DAX	10,684	5.7	9.0	12,375	9,306
FTSE 100	6,128	-3.9	-6.7	7,104	5,899
Nikkei	19,394	6.0	11.1	20,868	16,755
MSCI AC World Index*	399	-2.1	-4.4	443	374

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



COMMODITY PRICE OUTLOOK															
	Price Nov-16	52-Week High	52-Week Low	2015				2016				2017			
				Q1	Q2	Q3	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Crude Oil (WTI, \$US/bbl)	41	76	38	49	59	47	44	44	46	54	62	63	64	66	67
Natural Gas (\$US/MMBtu)	2.01	4.41	1.90	2.87	2.78	2.52	3.05	3.20	3.10	3.25	3.40	3.60	3.40	3.20	3.80
Gold (\$US/troy oz.)	1086	1302	1084	1218	1191	1125	1135	1100	1125	1175	1210	1200	1175	1125	1075
Silver (US\$/troy oz.)	14.3	18.3	14.1	16.74	16.44	14.90	15.35	14.90	15.75	16.25	16.75	16.65	16.25	14.90	14.75
Copper (cents/lb)	219	308	219	264	275	236	238	234	230	225	225	220	225	250	250
Nickel (US\$/lb)	4.28	7.77	4.27	6.51	5.94	4.85	5.00	5.50	6.25	6.50	6.50	7.25	7.25	8.00	8.00
Aluminum (Cents/lb)	68	93	67	82	79	73	73	72	74	74	78	78	80	84	84
Wheat (\$US/bu)*	6.40	8.85	5.82	7.45	7.34	6.50	6.25	6.50	6.75	6.90	7.00	7.10	7.25	7.35	7.50

F: Forecast by TD Economics, November 2015; Forecasts are period averages; Source: Bloomberg, USDA (Haver).

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