



December 3, 2013

## STILL ON LIFE SUPPORT: A GLOBAL PERSPECTIVE ON CENTRAL BANKS

### Highlights

- Despite all that has been done to combat the financial crisis and subsequent recession, economic growth in the advanced world has struggled to achieve an above-trend pace on a sustained basis. Importantly, economic slack has persisted, leading to low inflation. This has given central banks cause for concern and highlights the continued need for accommodative monetary policy.
- A muted inflation outlook in Europe ultimately led the European Central Bank to cut its benchmark refinancing rate from 0.50% to 0.25% at its last meeting in November. Meanwhile, the Bank of Japan has been embarking on the most aggressive monetary stimulus program in history in order to combat its deflation problem. The Federal Reserve is expected to taper its Quantitative Easing program next year, but interest rate hikes remain a distant prospect.
- Inflation in Canada has followed a similar path than its advanced peers. However, rather than a cut to rates, our view is that the Bank of Canada will remain on hold for longer than previously anticipated. Rising external demand should boost Canadian growth prospects, limiting the need for more easing.

In the wake of the 2008 financial crisis, central banks needed to take extraordinary steps to prevent a global financial and economic depression. Benchmark interest rates were slashed to record lows and emergency liquidity programs were introduced to bring financial markets back from the brink. Central banks ultimately won that battle, limiting the depth of the recession. This set the stage for an economic recovery beginning in mid-2009.

Many years have since passed, yet advanced economies are still dependent upon massive amounts of monetary stimulus. This is because, despite all that has been done, economic growth in the advanced countries has struggled to achieve an above-trend pace on a sustained basis. As a result, large economic slack has persisted and this has led to low inflation. This is a significant problem given that the core mandates of many of the world's central banks is to target a certain level of inflation, typically 2%. Ultimately, the combination of modest growth and low inflation has forced monetary authorities to keep their foot on the accelerator. In this issue of Dollars & Sense, we provide a brief overview of recent developments around the world and our outlook for monetary policy. In short, "lower for longer" interest rates will remain a key theme for the foreseeable future.

### Europe

The European Union (EU) exited the crisis much like its advanced peers in 2009. However, the sovereign debt crisis pushed the region back into recession in 2011 from which it only exited earlier this year. This economic weakness has translated into a secular downtrend in inflation since late-2011. At the time, the headline consumer price index (CPI) was rising by 3.3% on a year-over-year basis. However, this has since fallen to just 0.9% as of October. The muted inflation outlook led the European Central Bank (ECB) to cut its benchmark refinancing rate from 0.5% to 0.25% last month. It also left the door open for a negative deposit rate in order to spur bank lending. At this point, a third long-term refinancing operation (LTRO), a liquidity measure introduced during the debt crisis, is not being discussed.

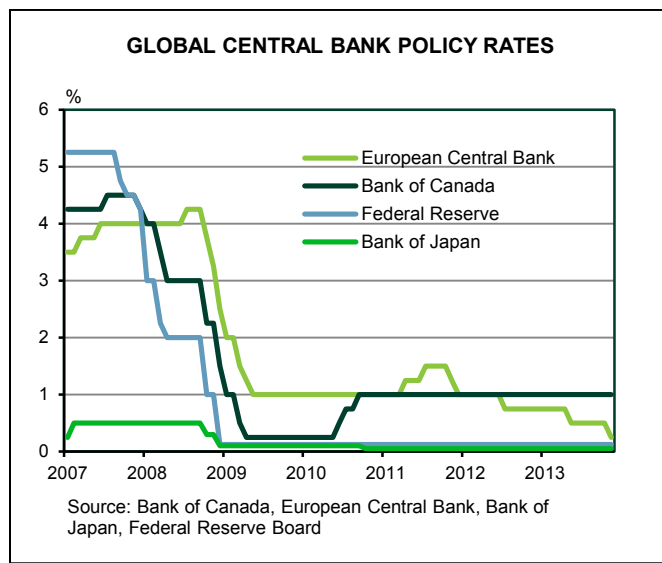
## Japan

Outright deflation has been a hallmark of the Japanese economy for much of the last two decades. Average annual inflation has been -0.1% since 1995. In a bid to reverse this trend, the Bank of Japan last year announced the most aggressive QE program in history to meet a new 2% inflation target. The central bank will purchase 60-70 trillion Yen in assets per year: 70-80% of the purchases will focus on Japanese government bonds, 1-2% in ETFs and Japanese REITs, and the remainder in commercial paper and corporate bonds. The central bank's balance sheet has ballooned by 55% since March 2012. This pales in comparison to the quadrupling of the Fed's balance sheet since 2008. However, the current annual pace of purchases is comparatively larger in Japan (6.6% of GDP in the U.S. versus 13.5% in Japan).

## U.S.

The story is a bit more nuanced for the Federal Reserve. Earlier this year, an acceleration in economic and job growth in the U.S. led to expectations that the Fed would taper its QE program in September. However, this ultimately did not materialize, as the recovery struggled over the spring and summer months. Incoming Federal Reserve chairman Janet Yellen has repeatedly stated that the U.S. economy is still too fragile for monetary stimulus to be removed. However, the Fed appears to believe that the future benefits from QE are small, while the longer-term risks are unknown.

In our view, tapering will eventually happen. While one cannot rule out a start in December or January, we continue to believe that March is likely the soonest month that the Fed will be comfortable with. However, tapering does not

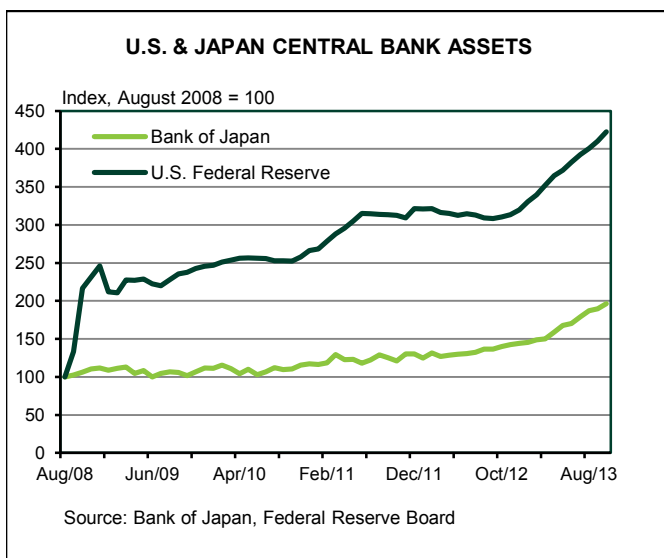


imply that QE has ended. Even after the pace of purchases is reduced to 0, the Fed will still be reinvesting the maturing principal of held bonds. Only after QE is fully wound down will interest rate hikes occur. Our forecast for the first rate hike was recently been pushed out to Q4-15.

## Canada

The story on inflation is much the same for Canada. Despite an outperformance over the first 5 years of recovery, Canada's output gap has remained open (and even increased this year) and inflation is following the same muted path as its advanced peers. The headline CPI rose by just 0.7% Y/Y in October and has averaged just 1% since last May.

Some observers believe the next move to interest rates will be downwards. We feel this is a remote possibility. Economic and job growth are not nearly weak enough to justify a rate cut. More policy easing is unlikely to boost investment significantly and could cause a resurgence in household debt growth. The Bank is likely counting on stimulus from central banks abroad to help boost external demand, thereby lifting Canadian growth prospects. In this regard, the recent pullback in the Canadian dollar to below US\$0.94 is a positive development. TD Economics believes that the Canadian dollar will weaken further once markets price in Fed tapering and the end of QE. As a consequence, the Bank is likely to simply remain on hold for longer, rather than cut rates. Our view is that the first hike will not occur until the second half of 2015, at the earliest. This would imply that the upcoming rate decision this week will most likely feature little change in language. They will most likely acknowledge the recent Loonie depreciation as positive and reconfirm the Bank's neutral bias towards interest rates.





INTEREST RATE OUTLOOK													
	Spot Rate Dec-02	2013F				2014F				2015F			
		Q1	Q2	Q3	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
<b>CANADA</b>													
Overnight Target Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50	1.50
3-mth T-Bill Rate	0.94	0.98	1.02	0.98	0.95	0.95	0.95	0.95	0.95	0.95	1.05	1.40	1.40
2-yr Govt. Bond Yield	1.11	1.00	1.22	1.19	1.10	1.15	1.25	1.30	1.35	1.50	1.70	1.95	2.05
5-yr Govt. Bond Yield	1.77	1.30	1.80	1.86	1.80	1.95	2.05	2.15	2.25	2.50	2.60	2.75	2.90
10-yr Govt. Bond Yield	2.61	1.76	2.44	2.54	2.65	2.80	2.90	2.95	3.10	3.30	3.35	3.45	3.55
30-yr Govt. Bond Yield	3.19	2.50	2.89	3.07	3.15	3.25	3.35	3.45	3.55	3.70	3.75	3.80	3.95
10-yr-2-yr Govt Spread	1.50	0.76	1.22	1.35	1.55	1.65	1.65	1.65	1.75	1.80	1.65	1.50	1.50
<b>U.S.</b>													
Fed Funds Target Rate	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.50
3-mth T-Bill Rate	0.06	0.07	0.04	0.02	0.20	0.20	0.20	0.20	0.20	0.25	0.50	0.80	1.00
2-yr Govt. Bond Yield	0.29	0.25	0.36	0.33	0.30	0.35	0.50	0.60	0.70	0.95	1.00	1.25	1.65
5-yr Govt. Bond Yield	1.41	0.77	1.41	1.39	1.45	1.50	1.65	1.80	1.95	2.35	2.50	2.80	3.05
10-yr Govt. Bond Yield	2.80	1.87	2.52	2.64	2.70	2.85	3.05	3.20	3.30	3.65	3.65	3.70	3.75
30-yr Govt. Bond Yield	3.86	3.10	3.52	3.69	3.75	3.95	4.20	4.30	4.40	4.60	4.55	4.60	4.60
10-yr-2-yr Govt Spread	2.51	1.62	2.16	2.31	2.40	2.50	2.55	2.60	2.60	2.70	2.65	2.45	2.10
<b>CANADA - U.S SPREADS</b>													
Can - U.S. T-Bill Spread	0.88	0.91	0.98	0.96	0.75	0.75	0.75	0.75	0.75	0.70	0.55	0.60	0.40
Can - U.S. 10-Year Bond Spread	-0.19	-0.11	-0.08	-0.10	-0.05	-0.05	-0.15	-0.25	-0.20	-0.35	-0.30	-0.25	-0.20

F: Forecast by TD Bank Group as at December 2013; All forecasts are end-of-period; Source: Bloomberg, Bank of Canada, Federal Reserve.

GLOBAL STOCK MARKETS					
	Dec-02	30-Day % Chg.	YTD % Chg.	52-Week High	52-Week Low
S&P 500	1,801	2.2	26.3	1,807	1,402
S&P/TSX Composite	13,420	0.6	7.9	13,483	11,837
DAX	9,402	4.4	23.5	9,405	7,435
FTSE 100	6,595	-2.1	11.8	6,840	5,869
Nikkei	15,655	10.2	50.6	15,727	9,432
MSCI AC World Index*	402	1.6	18.3	402	332

\* Is a weighted equity index including both developed and emerging markets  
Source: Bloomberg.

COMMODITY PRICE FORECASTS																		
	Price Dec-02	52-Week High	52-Week Low	2013F				2014F				2015F				Annual Average		
				Q1	Q2	Q3	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F	2013	2014F	2015F
Crude Oil (WTI, \$US/bbl)	94	111	86	94	94	106	98	97	95	97	95	98	95	102	98	98	96	98
Natural Gas (\$US/MMBtu)	3.84	4.38	3.08	3.48	4.02	3.56	3.65	3.50	4.00	3.85	3.80	3.75	4.20	4.00	4.05	3.68	3.79	4.00
Gold (\$US/troy oz.)	1220	1716	1201	1632	1417	1330	1272	1195	1125	1150	1225	1250	1275	1295	1305	1413	1174	1281
Silver (US\$/troy oz.)	19.2	33.7	18.5	30.1	23.2	21.5	20.7	19.0	17.3	17.5	18.9	19.5	19.5	20.0	20.3	23.9	18.2	19.8
Copper (cents/lb)	320	375	301	360	325	321	325	332	325	320	310	300	300	280	280	333	322	290
Nickel (US\$/lb)	6.13	8.49	6.03	7.85	6.79	6.33	6.45	7.25	7.75	8.25	8.00	7.75	7.50	7.25	7.25	6.86	7.81	7.44
Aluminum (Cents/lb)	80	98	80	91	83	81	81	86	86	84	84	84	82	82	80	84	85	82
Wheat (\$US/bu)*	8.90	10.39	7.81	9.32	9.14	8.40	8.54	8.85	8.90	9.10	9.15	9.20	9.20	9.20	9.20	8.85	9.00	9.20

F: Forecast by TD Bank Group as at December 2013; All forecasts are period averages; Source: Bloomberg, USDA (Haver).



FOREIGN EXCHANGE OUTLOOK														
Currency	Exchange rate	Spot Price Dec-02	2013F				2014F				2015F			
			Q1	Q2	Q3	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
<b>Exchange rate to U.S. dollar</b>														
Japanese yen	JPY per USD	102.9	94.2	99.2	98.3	100.0	102.0	102.0	105.0	110.0	110.0	110.0	112.0	115.0
Euro	USD per EUR	1.35	1.28	1.30	1.35	1.30	1.27	1.25	1.24	1.22	1.22	1.20	1.20	1.20
U.K. pound	USD per GBP	1.64	1.52	1.52	1.62	1.59	1.55	1.54	1.55	1.56	1.61	1.60	1.60	1.58
Swiss franc	CHF per USD	0.91	0.95	0.95	0.90	0.95	0.98	1.02	1.05	1.07	1.07	1.08	1.08	1.08
Canadian dollar	CAD per USD	1.06	1.02	1.05	1.03	1.06	1.07	1.08	1.09	1.11	1.09	1.07	1.07	1.08
Australian dollar	USD per AUD	0.91	1.04	0.92	0.93	0.92	0.88	0.88	0.87	0.87	0.86	0.85	0.85	0.84
NZ dollar	USD per NZD	0.82	0.84	0.78	0.83	0.83	0.81	0.80	0.78	0.77	0.76	0.74	0.73	0.72
<b>Exchange rate to Euro</b>														
U.S. dollar	USD per EUR	1.35	1.28	1.30	1.35	1.30	1.27	1.25	1.24	1.22	1.22	1.20	1.20	1.20
Japanese yen	JPY per EUR	139	122	129	131	130	130	128	130	134	134	132	134	138
U.K. pound	GBP per EUR	0.83	0.85	0.85	0.85	0.82	0.82	0.81	0.80	0.78	0.76	0.75	0.75	0.76
Swiss franc	CHF per EUR	1.23	1.23	1.23	1.23	1.24	1.25	1.27	1.30	1.30	1.30	1.30	1.30	1.30
Canadian dollar	CAD per EUR	1.44	1.33	1.34	1.38	1.38	1.36	1.35	1.35	1.36	1.33	1.28	1.28	1.29
Australian dollar	AUD per EUR	1.49	1.27	1.32	1.45	1.41	1.44	1.42	1.43	1.40	1.42	1.41	1.41	1.43
NZ dollar	NZD per EUR	1.65	1.58	1.59	1.66	1.57	1.57	1.56	1.59	1.58	1.61	1.62	1.64	1.67
<b>Exchange rate to Japanese yen</b>														
U.S. dollar	JPY per USD	102.9	94.2	99.2	98.3	100.0	102.0	102.0	105.0	110.0	110.0	110.0	112.0	115.0
Euro	JPY per EUR	139	122	129	131	130	130	128	130	134	134	132	134	138
U.K. pound	JPY per GBP	168	143	152	154	159	158	157	163	172	177	176	179	182
Swiss franc	JPY per CHF	113.3	99.2	104.7	106.2	104.8	103.6	100.4	100.2	103.2	103.2	101.5	103.4	106.2
Canadian dollar	JPY per CAD	96.7	91.5	96.4	95.2	94.3	95.3	94.4	96.3	99.0	101.2	102.9	104.7	107.0
Australian dollar	JPY per AUD	93.7	95.8	97.8	90.6	92.0	89.8	89.8	91.4	95.7	94.6	93.5	95.2	96.6
NZ dollar	JPY per NZD	84.3	77.0	81.0	79.0	83.0	82.6	81.6	81.9	84.7	83.6	81.4	81.8	82.8
<b>Exchange rate to Canadian dollar</b>														
U.S. dollar	USD per CAD	0.94	0.98	0.95	0.97	0.94	0.94	0.93	0.92	0.90	0.92	0.94	0.94	0.93
Japanese yen	JPY per CAD	96.7	91.5	96.4	95.2	94.3	95.3	94.4	96.3	99.0	101.2	102.9	104.7	107.0
Euro	CAD per EUR	1.44	1.33	1.34	1.38	1.38	1.36	1.35	1.35	1.36	1.33	1.28	1.28	1.29
U.K. pound	CAD per GBP	1.74	1.56	1.57	1.61	1.68	1.66	1.67	1.69	1.74	1.75	1.71	1.71	1.70
Swiss franc	CHF per CAD	0.85	0.92	0.92	0.90	0.90	0.92	0.94	0.96	0.96	0.98	1.01	1.01	1.01
Australian dollar	AUD per CAD	1.03	0.96	0.99	1.05	1.03	1.06	1.05	1.05	1.03	1.07	1.10	1.10	1.11
NZ dollar	NZD per CAD	1.15	1.19	1.19	1.21	1.14	1.15	1.16	1.18	1.17	1.21	1.26	1.28	1.29

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