RBC Capital Markets



January 9, 2017

MARKET NEWS

In line with the Committee's unanimous decision to raise rates, minutes from the December FOMC meeting indicated little opposition to raising the fed funds rate. The Committee took note of the progress toward its inflation and employment objectives, with most now seeing the latter as more or less achieved while inflation is expected to return to 2% over the medium term. Participants sounded somewhat more upbeat on the economic outlook, noting strength in consumer spending and residential investment, while business investment was also seen as showing signs of improvement.

The U.S. trade deficit widened to -\$45.2 billion in November from -\$42.4 billion in October, close to market expectations and roughly consistent with last week's advance goods report. However, with the trade deficit swinging from a multi-year low in September to a nine-month high in November, net exports appear to have provided a sizeable drag on Q4 2016 GDP growth following the 0.9 ppt add recorded in Q3 2016.

The U.S. payroll employment rose 156K last week, which was down from an upwardly revised 204K increase in November and was slightly below market expectations of a 175K increase. The unemployment rate rose as expected to 4.7% thus reversing one half of the November's drop to 4.6%. The Q4 average of 4.7% is down from 4.9% in Q3 and 5.0% a year ago.

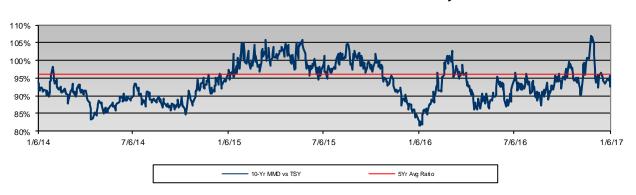
| | Economic Calendar | | | | | | | | | | |
|------------|-------------------|--|----------------|-----------|--------|-----------|----------------------|--|--|--|--|
| Date | Time CST | Release | Period | Survey | Actual | Prior | Revision of Prior | | | | |
| Monday | | | | | | | | | | | |
| 01/09/2017 | 15:00 | Consumer Credit | Nov | \$18.400b | | \$16.018b | | | | | |
| Tuesday | | | | | | | | | | | |
| 01/10/2017 | 6:00 | 6:00 NFIB Small Business Optimism | | 99.3 | | 98.4 | | | | | |
| 01/10/2017 | 10:00 | Wholesale Inventories MoM | Nov F | 0.9% | | 0.9% | | | | | |
| 01/10/2017 | 10:00 | Wholesale Trade Sales MoM | Nov | | | 1.4% | | | | | |
| 01/10/2017 | 10:00 | JOLTS Job Openings | Nov | 5517 | | 5534 | | | | | |
| Wednesday | | | | | | | | | | | |
| 01/11/2017 | 7:00 | MBA Mortgage Applications | 6-Jan | | | 0.1% | | | | | |
| Thursday | | | | | | | | | | | |
| 01/12/2017 | 8:30 | Import Price Index MoM | Dec | 0.7% | | -0.3% | | | | | |
| 01/12/2017 | 8:30 | Initial Jobless Claims | 7-Jan | 255k | | 235k | | | | | |
| 01/12/2017 | 8:30 | Revisions: Philadelphia Fed Manf. Busine | ess Outlook Su | ırvey | | | | | | | |
| 01/12/2017 | 8:30 | Import Price Index ex Petroleum MoM | Dec | | | 0.0% | | | | | |
| 01/12/2017 | 8:30 | Continuing Claims | 31-Dec | 2077k | | 2112k | | | | | |
| 01/12/2017 | 8:30 | Import Price Index YoY | Dec | 0.0 | | 0.0 | | | | | |
| 01/12/2017 | 9:45 | Bloomberg Consumer Comfort | 8-Jan | | | 45.5 | | | | | |
| 01/12/2017 | 14:00 | Monthly Budget Statement | Dec | -\$25.0b | | -\$136.7b | | | | | |

| Friday | | | | | | |
|------------|-------|--------------------------------|-------|------|-----------|--|
| 01/13/2017 | 8:30 | PPI Ex Food and Energy MoM | Dec | 0.1% | 0.4% | |
| 01/13/2017 | 8:30 | PPI Final Demand MoM | Dec | 0.3% | 0.4% | |
| 01/13/2017 | 8:30 | PPI Ex Food, Energy, Trade MoM | Dec | 0.2% | 0.2% | |
| 01/13/2017 | 8:30 | PPI Final Demand YoY | Dec | 1.6% | 1.3% | |
| 01/13/2017 | 8:30 | PPI Ex Food and Energy YoY | Dec | 1.5% | 1.6% | |
| 01/13/2017 | 8:30 | PPI Ex Food, Energy, Trade YoY | Dec | 1.8% | 1.8% | |
| 01/13/2017 | 8:30 | Retail Sales Advance MoM | Dec | 0.7% | 0.1% | |
| 01/13/2017 | 8:30 | Retail Sales Ex Auto MoM | Dec | 0.5% | 0.2% | |
| 01/13/2017 | 8:30 | Retail Sales Ex Auto and Gas | Dec | 0.4% | 0.2% | |
| 01/13/2017 | 8:30 | Retail Sales Control Group | Dec | 0.4% | 0.1% | |
| 01/13/2017 | 10:00 | Business Inventories | Nov | 0.6% | -0.2% | |
| 01/13/2017 | 10:00 | U. of Mich. Sentiment | Jan P | 98.5 | 98.2 | |
| 01/13/2017 | 10:00 | U. of Mich. Current Conditions | Jan P | | 111.9 | |
| 01/13/2017 | 10:00 | U. of Mich. Expectations | Jan P | | 89.5 | |
| 01/13/2017 | 10:00 | U. of Mich. 5-10 Yr Inflation | Jan P | | 2.3% | |
| 01/13/2017 | 10:00 | U. of Mich. 1 Yr Inflation | Jan P | | 2.2% | |

Source: Bloomberg

LONG TERM MARKET

The Treasury curve flattened last week with long end yields lower by up to six bps, led by the 30 year yield. This rally was despite a better-than-forecasted increase in average hourly wage and strong December employment report. Equities were up on the week; the DJIA increased 0.73%, the S&P climbed 1.23% and the NASDAQ jumped 1.64%. The MMD scale was lower by up to nine bps over the week on approximately \$3 billion in new issuance and light secondary activity. Lipper reported outflows from Municipal Mutual funds of \$911 million for the week ended January 4. The market looks ahead to \$8.7 billion in new issue deals next week.



Ratio of 10-Year AAA MMD to 10-Year Treasury

Source: Bloomberg, Thomson Financial Municipal Market Monitor (TM3)

SHORT TERM MARKET

The January coupon demand has leveled off and street carry remains light. VRDN inventory was down \$2.202 billion last week. The general market high grade average yield for dailies decreased 10 bps over the week, while the SIFMA index reset at 0.68% on Wednesday, down four bps from the week prior. Despite large outflows in bond funds, tax-exempt money market funds posted inflows of \$602 million last week.

180% 160% 140% 120% 100% 80% 60% 40% 20% 0% 7/6/14 7/6/16 1/6/14 1/6/15 7/6/15 1/6/16 1/6/17 SIFMA/1 M I CE LIBOR 5Yr Avg Ratio

Ratio of SIFMA Index to 1-Month ICE LIBOR

Source: Bloomberg, Thomson Financial Municipal Market Monitor (TM3)

RATE WATCH

| Short-Term Market | | | | Treas | uries | | Long-Term Market | | | | | |
|---------------------|----------|----------|-------------------------|------------------|---------|----------|-----------------------|---------|----------|-------------------------|--|--|
| | Current* | Previous | 12 Month Rolling Avg | | Current | Previous | | Current | Previous | 12 Month Rolling Avg | | |
| SIFMA Index (BMA) | 0.68% | 0.72% | 0.42% | 3 Month T-Bill | 0.52% | 0.50% | AAA MMD (5Y) | 1.70% | 1.79% | 1.10% | | |
| 1 Month ICE LIBOR | 0.76% | 0.77% | 0.50% | 6 Month T-Bill | 0.61% | 0.61% | AAA MMD (10Y) | 2.24% | 2.31% | 1.71% | | |
| 3 Month ICE LIBOR | 0.83% | 0.82% | 0.60% | 30 Year Treasury | 3.01% | 3.07% | AAA MMD (20Y) | 2.87% | 2.90% | 2.36% | | |
| SIFMA/ 1M ICE LIBOR | 89.09% | 93.30% | 80.43% | Fed Funds Target | 0.75% | 0.75% | AAA MMD (30Y) | 3.00% | 3.04% | 2.55% | | |
| | | | | | | | BAA MMD (20Y) | 3.85% | 3.88% | 3.22% | | |
| | | | | | | AAA M | IMD (30Y) / UST (30Y) | 99.68% | 99.15% | 97.82% | | |

^{*} Current is 01/06/17 EOD and Previous is 12/30/16 EOD

Source: Bloomberg, Thomson Financial Municipal Market Monitor (TM3)

RBC New Issue Calendars

| | | RBC Capital Markets - L | ong T | erm - Forwa | rd Calend | lar - Senior Maı | naged Deal | ls* | | |
|---------|---------|--|-------|----------------------------|-----------|------------------|------------|---------|-------|-------------|
| Pricing | Par Amt | | | | | | | | | Insurer/ |
| Date | (000s) | Description | State | Maturity | RBC Role | Туре | Moody's | S&P | Fitch | Enhancement |
| 1/9/17 | 2,380 | BLUE RIDGE WEST MUNICIPAL UTILITY DISTRICT-SERIES 2017 | TX | 2018-41 | SOM | BQ | А3 | | | |
| 1/10/17 | 7,700 | ANTIETAM SCHOOL DISTRICT, BERKS COUNTY, GENERAL OBLIGATION BONDS-SERIES 2017 | PA | 2017-35 | SOM | BQ | | AA(A+) | | MAC |
| 1/10/17 | 54,725 | COMMUNITY CONSOLIDATED SCHOOL DISTRICT #202 (PLAINFIELD), WILL AND KENDALL COUNTIES, GENERAL OBLIGATION REFUNDING BONDS | IL | 2018-23 | SOM | GO | Aa2 | | | |
| 1/10/17 | 10,485 | FORT BEND COUNTY MUNICIPAL UTILITY DISTRICT NO. 134D-SERIES 2017 | TX | 2019-42 | SOM | GO | | | | |
| 1/10/17 | 2,600 | FORT BEND COUNTY MUNICIPAL UTILITY DISTRICT NO. 187-SERIES 2017 | TX | 2018-42 | SOM | BQ | Baa2 | | | |
| 1/10/17 | 7,850 | HARRIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 1 UNLIMITED TAX BONDS-SERIES 2017 | TX | 2018-37 | SOM | BQ | | | | |
| 1/10/17 | 7,230 | JOINT SCHOOL DISTRICT NO. 28J IN ADAMS & ARAPAHOE COUNTIES (AURORA PUBLIC SCHOOLS)-SERIES 2017 B | со | 2017-20 | SR-MGR | GO | Aa2 | AA(AA-) | | CO ST INT |
| 1/10/17 | 200,000 | JOINT SCHOOL DISTRICT NO. 28J IN ADAMS & ARAPHAOE COUNTIES (AURORA PUBLIC SCHOOLS)-SERIES 2017 A | со | 2017-36 | SR-MGR | GO | Aa2 | AA(AA-) | | CO ST INT |
| 1/10/17 | 18,750 | NAZARETH AREA SCHOOL DISTRICT, NORTHAMPTON COUNTY, GENERAL OBLIGATION BONDS-SERIES 2017 & SERIES A | PA | 2017-34 | SOM | GO | | AA | | PA ST AID |
| 1/10/17 | 239,645 | PENNSYLVANIA HOUSING FINANCE AGENCY (ROP 1/9)-SERIES 2017-122 | PA | 2021-27 31,36 46 PAC | SR-MGR | HSG | Aa2 | AA+ | | |
| 1/10/17 | 5,550 | SUNFIELD MUNICIPAL UTILITY DISTRICT NO. 1-SERIES 2017 | TX | 2019-42 | SOM | GO | Baa2 | | | |
| 1/11/17 | 30,000 | PINAL COUNTY COMMUNITY COLLEGE DISTRICT-SERIES 2017 | AZ | 2019-36 | SOM | HGR ED | A1 | AA | | ВАМ |
| 1/11/17 | 22,035 | SOUDERTON AREA SCHOOL DISTRICT, MONTGOMERY AND BUCKS COUNTIES, GENERAL OBLIGATION BONDS-SERIES 2017 | PA | 2017-24 | SOM | GO | | AA | | PA ST AID |
| 1/12/17 | 203,055 | CITY OF AUSTIN (TRAVIS, WILLIAMSON AND HAYS COUNTIES) AIRPORT SYSTEM REVENUE BONDS-SERIES 2017 A | TX | 2021-36 41,46 | SR-MGR | ARPT | A1 | Α | | |
| 1/12/17 | 143,740 | CITY OF AUSTIN (TRAVIS, WILLIAMSON AND HAYS COUNTIES) AIRPORT SYSTEM REVENUE BONDS-SERIES 2017 B (AMT) | тх | 2026-36 41,46 | SR-MGR | ARPT | A1 | А | | |
| 1/12/17 | 11,545 | CLEAR LAKE CITY WATER AUTHORITY- SERIES 2017 | TX | 2018-38 | SOM | GO | Aa3 | | | |
| 1/12/17 | 53,000 | CULVER CITY UNIFIED SCHOOL DISTRICT (LOS ANGELES COUNTY) ELECTION OF 2014 GENERAL OBLIGATION BONDS | CA | | SOM | GO | Aa2 | AA | | |
| 1/12/17 | 32,950 | DANIEL BOONE AREA SCHOOL DISTRICT, BERKS COUNTY, GENERAL OBLIGATION BONDS-SERIES 2017 | PA | 2018-30 | SOM | GO | | AA- | | PA ST AID |

| 1/12/17 | 160,000 | EL PASO COUNTY SCHOOL DISTRICT NO. 20 (ACADEMY) | СО | 2017-40 | SOM | GO | Aa2 | Aa2 | CO ST INT |
|---------|---------|---|----|---------|-----|--------|-----|------|-----------|
| 1/12/17 | 4,000 | NORTHWEST HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 10- SERIES 2017 | TX | 2026-42 | SOM | BQ | | BBB+ | |
| 1/12/17 | 9,420 | OWEN J. ROBERTS SCHOOL DISTRICT, CHESTER COUNTY, GENERAL OBLIGATION BONDS-SERIES 2017 A | PA | 2018-37 | SOM | BQ | Aa2 | | PA ST AID |
| 1/12/17 | 1 | STATE PUBLIC SCHOOL BUILDING AUTHORITY, COLLEGE REVENUE BONDS (DELAWARE COUNTY COMMUNITY COLLEGE PROJECT) - SERIES 2017 | PA | 2017-36 | SOM | HGR ED | A1 | AA | ВАМ |
| 1/12/17 | 4,080 | TRAVIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 18-SERIESS 2017 | TX | | SOM | BQ | | | |
| 1/12/17 | 9,780 | WILLOW FORK DRAINAGE DISTRICT- SERIES 2017 | TX | 2023-33 | SOM | BQ | | A+ | |

^{*}Preliminary, subject to change.

| | RBC Capital Markets - Short Term - Forward Calendar - Senior Managed Deals* | | | | | | | | | | |
|-----------------|---|--|-------|----------|----------|------|-----------|-----|-------|-------------------------|--|
| Pricing Date | Par Amt (000s) | Description | State | Maturity | RBC Role | Туре | Moody's | S&P | Fitch | Insurer/ Enhancement | |
| 1/12/17 | 5 800 | MASON CITY SCHOOL DISTRICT OH UT GO BANS SER 2016 | ОН | 2017 | SOM | NOTE | Aa1(MIG1) | | | | |

^{*}Preliminary, subject to change.

Source: RBC Capital Markets

Source: http://www.rbc.com/economics/. Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve Board, Bloomberg. Preliminary, subject to change. This announcement is not an offer, solicitation, commitment or recommendation to buy or sell the bonds and does not purpor to be a complete statement of all material facts relating to the bonds. The offering is made only by means of the Official Statement, copies of which may be obtained from RBC Capital Markets. This communication is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. Products and services are offered through RBC Capital Markets or RBC Wealth Management, as applicable. RBC Capital Markets may buy from or sell to customers on a principal basis in the securities or related derivatives that are the subject of this communication. RBC Capital Markets may have proprietary positions in the securities or in related derivatives that are the subject of this communication and its subject to change without notice and is provided in good faith but without legal responsibility. The information contained in this communication has been completed by RBC Capital Markets from sources believed to be reliable, but no representation or warranty, express or implied, is made by RBC Capital Markets, its affiliates or any other person as to its accuracy, completeness or correctness. The material contained herein is not a product of any research department of RBC Capital Markets or any of its affiliates. Nothing herein constitutes are commendation of any security or regarding any issuer, nor is it intended to provide information sufficient to make an investment decision. RBC Capital Markets is not acting as a fiduciary or as a municipal, financial, commodity or investment adviser to the Obligated Person or any