**Tax-Exempt Market Commentary**

**Short-Term Tax-Exempt Market Report**
- SIFMA continued its downward trend since July 24th, declining 1 basis point (“bp”) to 0.13%
- Although 1-month LIBOR declined for the 5th straight day, the decrease in SIFMA/1-month LIBOR ratio down to 54.1%

**Long-Term Tax-Exempt Market Report**
- This week, $8.5 billion of long-term issuance is expected, a contrast to the lighter $6.1 billion and $6.3 billion of long-term supply the prior two weeks1
  - $1.9 billion of this week’s long-term expected supply is subject to Alternative Minimum Tax2
- Despite the expected heavier issuance and possible continuation of the low trading volumes seen last week, the municipal market may continue to be supported by negative net supply
- Last week was the 35th straight week of inflows to municipal bond funds, totaling $30.6 billion YTD2
- 10-year MMD has risen or held steady since July 27th, increasing 11 bps over 8 days, in line with an increase of 12 bps in 10-year UST over the same period

**Taxable Market Report**
- Taxable markets continue to focus on possible further policy accommodations in Europe
  - 10-year UST yields fell 6 bps last Thursday as the ECB did not deliver the policy changes the market was expecting after strong supportive language from ECB president Mario Draghi the prior week2
  - J.P. Morgan Research expects the ECB to undertake stimulus in the longer run2
- The market reflected that sentiment this week as 10-year UST yields rose 20 bps since last Thursday
- Positive US economic data contributed to the rise in 10-year UST yields; yields increased 10 bps on Friday when stronger than expected nonfarm payroll numbers were released2
  - The monthly increase in nonfarm payrolls has more than doubled over a 3-month period2
  - UST yields have trended higher since hitting historical lows in mid July
- The 10-year UST yield is currently at 1.68%, 27 bps higher than the historical low on July 24th

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1Source: Bloomberg

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**Rates and Ratios (10-Year Historical Data)**

<table>
<thead>
<tr>
<th>Security</th>
<th>Current</th>
<th>Previous</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIFMA Index (BMA)</td>
<td>0.13%</td>
<td>0.14%</td>
<td>1.55%</td>
</tr>
<tr>
<td>1-Month LIBOR</td>
<td>0.24%</td>
<td>0.24%</td>
<td>2.07%</td>
</tr>
<tr>
<td>SIFMA/1M-LIBOR Ratio</td>
<td>54.11%</td>
<td>57.21%</td>
<td>83.85%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Security</th>
<th>Current</th>
<th>Previous</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA MMD (30Y)</td>
<td>2.93%</td>
<td>2.85%</td>
<td>4.40%</td>
</tr>
<tr>
<td>UST (30Y)</td>
<td>2.74%</td>
<td>2.61%</td>
<td>4.45%</td>
</tr>
<tr>
<td>AA MMD (30Y)</td>
<td>3.16%</td>
<td>3.08%</td>
<td>4.54%</td>
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<tr>
<td>A MMD (30Y)</td>
<td>3.64%</td>
<td>3.58%</td>
<td>4.88%</td>
</tr>
<tr>
<td>BBB MMD (30Y)</td>
<td>4.59%</td>
<td>4.52%</td>
<td>5.41%</td>
</tr>
<tr>
<td>Bond Buyer 20 (GO)</td>
<td>3.75%</td>
<td>3.66%</td>
<td>4.57%</td>
</tr>
<tr>
<td>Bond Buyer (RBI)</td>
<td>4.50%</td>
<td>4.46%</td>
<td>5.11%</td>
</tr>
<tr>
<td>BB 30-Day Visible Supply</td>
<td>$6.74bn</td>
<td>$9.11bn</td>
<td>--</td>
</tr>
<tr>
<td>All Muni Fund Flows1</td>
<td>$1,003 mm</td>
<td>$965 mm</td>
<td>--</td>
</tr>
</tbody>
</table>

**Derivatives Market**
- SIFMA Swap (30Y) | 2.41% | 2.31% | 3.83% |
- 30Y MMD – SIFMA Swap | 52 bps | 54 bps | 1 bps |
- 68% LIBOR Swap (30Y) | 1.72% | 1.64% | 3.15% |
- SIFMA Swap - 68% LIBOR Swap | 69 bps | 67 bps | 1 bps |
- SIFMA Swap Ratio (30Y) | 95.4% | 95.9% | 83.8% |
- MCDX (5Y) | 160 bps | 175 bps | -- |

Source: J.P. Morgan and Bloomberg. Rates as of 8/8/2012

1All Muni reflects the 4-week average of all tax-exempt mutual funds that report on a weekly and monthly basis, excluding tax-exempt money market funds; Lipper FMI, iMoneyNet

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**U.S. Treasury Interest Rate Forecast (%)**

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<tr>
<td>Effective Fed Funds</td>
<td>0.13</td>
<td>0.15</td>
<td>0.10</td>
<td>0.10</td>
<td>0.10</td>
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<tr>
<td>3 Month LIBOR</td>
<td>0.44</td>
<td>0.45</td>
<td>0.40</td>
<td>0.40</td>
<td>0.38</td>
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<tr>
<td>3 Month T Bill</td>
<td>0.11</td>
<td>0.10</td>
<td>0.10</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>2 Year T note</td>
<td>0.27</td>
<td>0.24</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
</tr>
<tr>
<td>5 Year T note</td>
<td>0.72</td>
<td>0.70</td>
<td>0.80</td>
<td>0.90</td>
<td>0.90</td>
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<tr>
<td>10 Year T note</td>
<td>1.68</td>
<td>1.60</td>
<td>1.75</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>30 Year T bond</td>
<td>2.74</td>
<td>2.65</td>
<td>2.90</td>
<td>3.15</td>
<td>3.15</td>
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</tbody>
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**Recently Priced Higher Education Transactions**

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Award Date</th>
<th>Size ($mm)</th>
<th>Rating</th>
<th>MMD/UST Spread</th>
<th>Yield</th>
<th>Final Bid</th>
<th>Bid Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oakland University</td>
<td>8/9/12</td>
<td>44,155</td>
<td>A1/NR/NR</td>
<td>0.95%</td>
<td>3.880%</td>
<td>2042 N</td>
<td></td>
</tr>
<tr>
<td>Florida Southern College</td>
<td>8/9/12</td>
<td>29,510</td>
<td>NR/BBB+/NR</td>
<td>1.48%</td>
<td>4.410%</td>
<td>2042 N</td>
<td></td>
</tr>
<tr>
<td>Cleveland State University</td>
<td>8/8/12</td>
<td>152,835</td>
<td>A1/A+/NR</td>
<td>0.76%</td>
<td>3.620%</td>
<td>2037 N</td>
<td></td>
</tr>
<tr>
<td>La Salle University</td>
<td>8/7/12</td>
<td>94,975</td>
<td>NR/BBB/BBB+</td>
<td>1.31%</td>
<td>4.180%</td>
<td>2042 N</td>
<td></td>
</tr>
</tbody>
</table>

Source: TM3 and Bloomberg

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Introduction to Callable Commercial Paper

Background

- As currently proposed, Basel III banking regulations are expected to increase the amount of high-quality liquid assets that banks are required to hold to support short-term commitments
  - The proposal for the Liquidity Coverage Ratio ("LCR") would require banks to hold, on a dollar-for-dollar basis, high-quality liquid assets to support liquidity obligations that are 30 days or less
- The LCR proposed regulations are expected to go into effect on January 1, 2015
  - These changes may result in an increased cost for liquidity and credit facilities supporting variable rate demand obligations ("VRDO") and traditional commercial paper ("CP") issuances
  - Certain banks may be reluctant to extend credit beyond December 2014, which is creating a backlog of renewals at that date

Callable Commercial Paper

- J.P. Morgan recently introduced a new mode ("Callable CP") to the market that may allow issuers to mitigate LCR-related surcharges in their liquidity and credit facilities
  - Under the new mode, Callable CP is issued with effective maturities generally 38 days or greater and are callable by the issuer on or after the 35th day remaining to related effective maturity
  - The changes may also be introduced into traditional CP programs
- This permits issuers flexibility in managing their exposure to LCR-related surcharges in their facilities, assuming Callable CP mode can be remarked prior to the 30th day before its effective maturity
  - Certain market conditions may prevent J.P. Morgan from remarketing Callable CP to replace called Callable CP

Sample Callable CP Remarketing Timeline

- Rate and maturity date are set by agent/dealer in consultation with issuer
- Paper becomes callable upon 2 business days notice
- 5-day remarketing period before bank facility fees are increased
- Effective Maturity Date
- Paper is non-callable
- Call Notice Submitted
- Marketing Period
- Settlemnt
- OR
- If initial remarketing fails, 2-day call process can be continuously repeated

Case Study: North Texas Tollway Authority Callable CP Transaction

- On August 1st, 2012, J.P. Morgan launched its inaugural issuance of Callable CP mode with $178,400,000 for the North Texas Tollway Authority ("NTTA")
  - NTTA converted existing VRDOs to the new structure
  - The Callable CP will be callable by the issuer on and after the 35th calendar day prior to its effective maturity date
- In order to attempt to ensure a successful transaction, J.P. Morgan engaged with major institutional money market funds to solicit feedback on structure and mechanics along with the rating agencies, DTC, issuing and paying agents, trustees and other interested parties
- The deal was more than 6.8x over-subscribed and pricing was bumped from initial indications and final pricing was 24 bps for all maturities
- To enhance the efficiency of future rolls, the bonds were issued in three maturities (62, 76 and 90 days)

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