California Debt and Investment Advisory Commission

**Short-term Financing Options**

With

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Introduction: Short Term Financing Options

❖ **What is “short-term”?**
  
  – Obligations that are remarketed or become due over an interim period
    - 397-day maximum to meet rule 2a-7 for money market fund eligibility

❖ **For what purpose is short-term debt issued?**
  
  – Cash flow financing
    - Provide working capital to pay operating expenses

  – Bridge financings
    - Provide interim short term financing for capital projects

  – Permanent financings
    - Provide long-term project funding at short-term interest rates
Short Term Products

♦ **Notes with a Fixed Term**
  - Tax & Revenue Anticipation Note (TRANs)
  - Bond Anticipation Notes (BANs)
  - Grant Anticipation Notes (GANs)
  - Tax Anticipation Notes (TANs)
  - Revenue Anticipation Notes (RANs)

♦ **Remarketed Securities**
  - Variable Rate Demand Notes (VRDNs)
  - Commercial Paper (CP)

♦ **Hybrid Alternative Structures**
  - Indexed Bonds
  - Floating Rate Notes
TRANs, RANs, and GANs

- **Notes issued in anticipation of receiving future tax receipts or revenues**
  - **Purpose:** used for cash flow or capital projects
  - **Benefit:** smooth out inconsistent revenue streams like property tax receipts or grants
  - **Risks:** short term and fixed repayment require careful forecasting of future cashflows
Bond Anticipation Notes

- Notes issued for capital projects. Redeemed with proceeds from the issuance of long-term bonds

  - **Purpose**: source of interim financing, typically for capital projects

  - **Benefit**: can provide seed financing in advance of a planned long-term financing

  - **Risks**: market access at maturity, most are structured to rely primarily on the proceeds of future bonds or note sales for repayment
Fixed Rate Note Issuance

California Issuance Volume Down
- 2011: 97 issues total $13 billion
- 2010: 106 issues total $18 billion

TRAN issuance
- Season peaks in summer

Source for Charts: Thomson Reuters.
Source for CA Issuance Data: Thomson Reuters
Variable Rate Debt & Commercial Paper

♦ Variable Rate Demand Obligations (VRDOs or VRDBs)
  - Floating rate obligations that have a nominal long-maturity, but a coupon that resets periodically
    • **Purpose**: used for capital projects
    • **Benefit**: access rates on the short end of the yield curve, retain flexibility to pay off or restructure debt at any time
    • **Risks**: Third-party liquidity

♦ Commercial Paper
  - Short term, unsecured promissory notes, usually backed by a LOC bank, that mature within 270 days.
Variable Rate Market Update

Market characterized by reduced issuance, historically low rates

- **Interest rate environment**
  - Extremely low short-term rates persist; SIFMA resets at 0.06% week of Jan 11, an all-time low
  - Steep yield curve in short end due to accommodative Fed

- **Supply and demand**
  - Significantly diminished overall issuance volume; indexed bonds increase market share
  - Tax-exempt money fund assets decrease by a net $9bn over past 26 weeks

- **Credit enhancement landscape**
  - Liquidity remains more scarce than pre-crisis
  - Pricing likely to increase due to Basel III
  - Number of providers diminishes and concentration very high
  - Fewer one-stop shops; many providers want ancillary business

Source: Bond Buyer, ICI & SIFMA. As of 2/21/2012.
Variable Rate Issuance Volume

**Diminished volume of issuance and outstanding variable rate debt**

- **Total 2011 variable rate issuance down 34% from 2010**
  - 2011: $24.9 billion
  - 2010: $37.6 billion

Source: Thomson Reuters. SIFMA
Liquidity Market Update

2011 saw a diminished base of providers and a high volume of facility expirations

- The field of credit enhancers has declined from pre-crisis levels
  - Major providers: BAML, Barclays, JP Morgan, Citibank, US Bank, Wells Fargo
  - Second tier: Bank of the West, City National, Northern Trust, RBC, Scotia, Sumitomo
- Some credit providers again extending Standby Agreements in addition to LOCs
- $131 billion of credit facility expirations in 2011; $68 billion scheduled for 2012
- Basel III likely to result in higher costs and greater scarcity

Source: SIFMA.
### Top 10 Letter of Credit Providers 2009

<table>
<thead>
<tr>
<th>LOC Bank</th>
<th>Par Amount (Millions)</th>
<th>Number of Issues</th>
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</thead>
<tbody>
<tr>
<td>JP Morgan Chase</td>
<td>$3,581.60</td>
<td>50</td>
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<tr>
<td>Wells Fargo Bank</td>
<td>3,021.30</td>
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<tr>
<td>Bank of America</td>
<td>2,900.80</td>
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<tr>
<td>U.S. Bank</td>
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<tr>
<td>SunTrust Bank</td>
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<tr>
<td>BB &amp; T</td>
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<tr>
<td>TD Bank</td>
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<td>20</td>
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<td>RBS Citizens</td>
<td>443.6</td>
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<tr>
<td>Citibank</td>
<td>365.5</td>
<td>4</td>
</tr>
<tr>
<td>Northern Trust</td>
<td>360</td>
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<tr>
<td>Bank of America</td>
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<tr>
<td>Wells Fargo Bank</td>
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<tr>
<td>TD Bank</td>
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<td>Citibank</td>
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<tr>
<td>PNC Bank</td>
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<tr>
<td>Union Bank</td>
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<td>Barclays Bank</td>
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<td>U.S. Bank</td>
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<tr>
<td>RBS Citizens</td>
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<td>Citibank</td>
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<tr>
<td>JP Morgan Chase</td>
<td>2,769.30</td>
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<tr>
<td>Wells Fargo Bank</td>
<td>1,419.10</td>
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<td>Gov’t Development</td>
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<td>Northern Trust</td>
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<td>BNY Mellon</td>
<td>214.2</td>
<td>6</td>
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Source: Thomson Reuters
Emergence of Alternative Structures

- **Floating Rate Notes**
  - **Benefit:** can be used to create or retain variable rate debt without a third party liquidity or bank.
  - **Risks:** Exposure to future short-term yields, market access and interest rate risk at maturity

- **Fixed Rate Notes**
  - **Benefit:** access lower short term rates
  - **Risks:** Exposure to market access risk and interest rate risk at maturity
Issuers Continue to Benefit from Short-Term Structures

Short-Term Interest Rates Tend to be Lower

**Illustrative Yield Curve**
AAA-Rated Municipal Market Data (MMD) Index
As of February 21, 2012

Illustrative Rates by Maturity

<table>
<thead>
<tr>
<th>Maturity</th>
<th>Rate</th>
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<tbody>
<tr>
<td>1 year</td>
<td>0.18%</td>
</tr>
<tr>
<td>2 year</td>
<td>0.26%</td>
</tr>
<tr>
<td>5 year</td>
<td>0.66%</td>
</tr>
<tr>
<td>10 year</td>
<td>1.86%</td>
</tr>
<tr>
<td>30 year</td>
<td>3.27%</td>
</tr>
</tbody>
</table>

Source: Thomson.
SIFMA Index vs. Revenue Bond Index (RBI)

Despite low long term rates, 30-year yield curve is extremely steep

Securities Industry & Financial Markets Association (SIFMA) Index vs. Revenue Bond Index (RBI)

RBI Average = 5.67%

SIFMA Average = 2.65%

Current RBI = 4.74%

Current SIFMA = 0.17%

Source: SIFMA. All bonds in SIFMA Index must be tax-exempt, non-AMT, have $10mm or more outstanding and the highest short-term rating by Moody’s or S&P, and pay interest monthly with interest rate resets occurring on Wednesdays. RBI includes tax-exempt bonds maturing in 30 years with average rating of A1/A+. As of 2/21/2012.
Who Buys Short Term Debt?

- **Money Market Funds**
  - Must keep investments very short to provide liquidity to investors
  - Seek high quality credits to preserve Net Asset Value (NAV)
  - SEC Rule 2a-7 limits maturity of investments to less than 397 days
    - Additional limits on credit quality and concentration of portfolio

- **Short and Intermediate Term Bond Funds**
  - Have ability to purchase longer-dated maturities for particular funds
  - More flexible investment parameters

- **Some Individual “Retail” Participation**
  - Depends on investment goals, sophistication and means of investor
  - Many short-term debt issues have $100,000 denominations that limit participation
Strategies for Issuers of Short-Term Products

- **Continue to monitor cash positions and revenue trends**
  - Developing a strategy early on for TRAN issuance helps better position issuers

- **Evaluate Self-Liquidity Structures**
  - Market has proven that capacity exists for issuer-balance sheet secured obligations
  - Significant cost advantage for strong credits
  - Requires indenture flexibility for principal coming due (and put bonds)
  - Proven market access required for structures that are remarketed

- **Continue to solicit new entrants to the credit market**
  - Fees have declined from peak, but remaining active participants face challenges
    - Large market participants face credit capacity with large issuers and market saturation with investors
    - Smaller players can only take on $50-$75mm of any given credit