Tax Anticipation Notes are short-term financings that allow the District to pay operating expenses prior to receiving tax revenue. Since most of the money received is from property taxes and state funds, there is not a constant source of funding that exists throughout the year.
Main Participants: Who is involved?

- Verification Agent / Accountant
- Registrar
- Paying Agent
- Escrow Agent
- Credit Enhancers
- Bond Insurers
- LOC/Liquidity Providers
- Financial Advisor
- Bond Counsel
- Tax Counsel
- Special Counsel
- Underwriter
- UW Counsel
- Trustee
- Trustee Counsel
- Rating Agencies
- PALM BEACH SCHOOLS
- LOC/Liquidity Providers
Trading Desk
Pre-sale Rush and Submitting the Bid

- Initially the underwriter puts out a preliminary pricing wire to their sales force and traders.
- Initial coupons and yields are adjusted to reflect feedback from the sales force and traders.
- Pre-sale orders are entered from investors.
- With less than a minute to go, the underwriter finalizes the bid and submits it via the on-line system.
- At sale time the bidders are ranked in order of lowest to highest interest cost to the bidder.

The sales results of a previous TAN sale are shown to the right. Morgan Stanley was the winning bidder (lowest TIC).

The underwriter who buys the loan is called the “highest” bidder (i.e. best bid to the issuer).
The chart below shows the progression of the AAA MMD index since September 9, 2013. This is a proxy for interest rates on the highest rated (AAA) municipal bonds.
BOND PRICING

The School District of Palm Beach County
Tax Anticipation Notes, Series 2013

FINAL NUMBERS
Sale Date: September 11, 2013
Winning Bidder: Bank of America Merrill Lynch

<table>
<thead>
<tr>
<th>Bond Component</th>
<th>Maturity Date</th>
<th>Amount</th>
<th>Rate</th>
<th>Yield</th>
<th>Price</th>
<th>Premium (-Discount)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity:</td>
<td>01/30/2014</td>
<td>115,000,000</td>
<td>4.50%</td>
<td>0.120%</td>
<td>101.508</td>
<td>1,734,200.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>115,000,000</td>
<td></td>
<td></td>
<td></td>
<td>1,734,200.00</td>
</tr>
</tbody>
</table>

Short-Term Yield Curve

![Short-Term Yield Curve Graph]

- 9/11/2013
- 9/8/2014
Pricing Lingo Quiz

1. A BP bump 5% coupon
2. A BP cut Order to a buy and hold investor
3. A 5 handle To subtract a basis point in yield
4. Block size Lower the yields
5. Going away order Raise the yields
6. Tighten Prices are too cheap/Yields too high
7. Loosen 5 basis points
8. Nickel To add a basis point in yield
9. Sloppy Size of maturity or order
The headline unemployment rate of 6.2% doesn't tell the entire story of the state of the labor force in America. While unemployment in all of the categories presented below has declined since peaking in August 2009, those with less education are being hit the hardest. Jobs that require more education remain in fairly high demand; unemployment for those with a bachelor’s degree or higher reached just 4.8% in August 2009. On the other hand, the unemployment rate for those with less than a high school degree has remained at or over 11.0% for the past four years.

**Unemployment rate in 2013**

- 11% for those with less than a high school diploma
- 7.5% for those with a high school diploma
- 7% for those with some college, no degree
- 5.4% for those with an associate’s degree
- 4% for those with a bachelor’s degree
- 3.4% for those with a master’s degree
- 2.3% for those with a professional degree
- 2.2% for those with a doctoral degree

**Median weekly earning in 2013**

- $472 for those with less than a high school diploma
- $651 for those with a high school diploma
- $727 for those with some college, no degree
- $777 for those with an associate’s degree
- $1,108 for those with a bachelor’s degree
- $1,329 for those with a master’s degree
- $1,714 for those with a professional degree
- $1,623 for those with a doctoral degree

Source: Bureau of Labor Statistics
Economic Summary

- **Economic Conditions**
  - U.S. GDP grew 4% in the second quarter, a significant rebound from a wintry contraction of 2.1% in the first quarter; growth was generally consistent across the major components.
  - The labor market remained robust in July with 209,000 nonfarm jobs added, marking six consecutive months that the economy added more than 200,000 jobs; Unemployment rate rose slightly to 6.2% on a modest increase in labor participation.
  - Renewed geopolitical tensions in the Middle East are the source of heightened market volatility.
  - The Federal Reserve noted an increase in economic activity as it further reduced its bond-purchasing program down to $25 billion a month; purchases are on track to be fully phased out in October.

- **Market Reaction**
  - Aside from brief periods of geopolitical “flight to quality,” intermediate-maturity U.S. Treasury yields generally rose in response to stronger economic data producing negative returns across sectors; Municipal securities were the lone sector that experienced positive performance for the month.
  - Short term yields remain anchored by Federal Reserve policy and decreased supply of U.S. Treasury and Federal Agency securities.
  - Credit and Federal Agency spreads remained at historically tight levels as demand outstripped supply and investors continue to struggle to find yield.
  - Equity indices reached new highs before pulling back in the last few trading days causing investors to worry about a possible correction.
U.S. Economy Surges in 2nd Quarter of 2014

- U.S. GDP grew 4% in the second quarter, a significant rebound from a wintry contraction of 2.1% in the first quarter. This quarterly expansion reflected upturns across the board including private inventory, exports, state and local government spending, and fixed investments.

[U.S. Real GDP chart]

Source: Bureau of Economic Analysis
10-Year Treasury Yields
August 1970 through August 2014

The longest bull market in history

Source: Bloomberg
Current Economic Conditions and the Business Cycle

**Peak**
- Interest rates high
- Full employment
- High inflation

**Contraction**
- Production slows
- Corporate profits fall
- Stock market losses
- Unemployment rises
- Interest rates decline
- Inflation falls

**Trough**
- Interest rates low
- High unemployment
- Low inflation

**Expansion**
- Corporate profits rise
- Stock market gains
- Consumer confidence improves
- Production increases
- Interest rates rise
- Unemployment falls
- Construction rebounds
- Inflation increases

We are here
The US outstanding national debt is $17.3 trillion – which means that with a population of over 300 million people, the debt burden is greater than $55,500 per person. Below is a breakdown of the ownership of national debt by sector:

- Federal Reserve and Government Accounts 41.5%
- Foreign and International 33.4%
- Depository Institutions 1.9%
- U.S. Savings Bonds 1.0%
- State and Local Governments 2.8%
- Private Pension Funds 2.9%
- State and Local Government Pension Funds 1.3%
- Insurance Companies 1.6%
- Other 6.9%
- Mutual Funds 6.5%

Source: Federal Reserve System
Preparing for the Next Challenges

- Ultimately, There Will Be a Price for All the Federal Help
  - Drastically Climbing Federal Debt and Guarantees
    - Debt Up 140% in past 10 years

Source: Federal Reserve System
Capital Markets
What are the “Capital Markets”

- The Capital Market (securities markets) is the market for securities, where companies and the government can raise long-term funds.

- The capital markets include both the stock market and the bond market.

- The capital markets consist of the primary market, where new issues are distributed to investors, and the secondary market, where existing securities are traded.

- The capital markets can be contrasted with other financial markets such as the money market which deals in short term liquid assets, and the derivatives market which deals in derivative contracts.

- Both the private and the public sectors provide market makers in the capital markets.

Public Finance (Government Finance)

- Public finance (government finance) is the field of economics that deals with budgeting the revenues and expenditures of a public sector entity, such as a school district.

- Florida School Districts, like any other legal entity, can take out loans, issue bonds and invest. Based on the taxing authority of the entity, they issue bonds such as Certificates of Participation (COPs) or Revenue Bonds.

- A bond issued by a public sector entity may give tax advantages to its owners, with interest earnings not subject to federal income tax.
Public Use of Debt

- Cities – libraries, parks, roads, water and sewer plants, solid waste
- Counties – many of the same plus courthouses and jails
- States – roads, colleges, economic development (SCIRPPS), environmental land (SFWMD Everglades restoration)
- Not for Profit – hospitals, nursing homes, low income housing developments
- Education – capital construction and operating expenses

### Dollar Amount Issued in 2013

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development</td>
<td>$10,968.9</td>
</tr>
<tr>
<td>Education</td>
<td>$90,754.8</td>
</tr>
<tr>
<td>Electric Power</td>
<td>$11,872.6</td>
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<tr>
<td>Environmental Facilities</td>
<td>$2,644.4</td>
</tr>
<tr>
<td>Health Care</td>
<td>$28,933.1</td>
</tr>
<tr>
<td>Housing</td>
<td>$14,067.4</td>
</tr>
<tr>
<td>Public Facilities</td>
<td>$8,395.1</td>
</tr>
<tr>
<td>Transportation</td>
<td>$53,385.4</td>
</tr>
<tr>
<td>Utilities</td>
<td>$32,986.7</td>
</tr>
<tr>
<td>General Purpose</td>
<td>$79,768.1</td>
</tr>
<tr>
<td><strong>Total ($ mil)</strong></td>
<td><strong>$333,776.5</strong></td>
</tr>
</tbody>
</table>

Source: The Bond Buyer
What is a bond?

- Simply put – a bond is a loan.
  - Buyer of the Bond is the lender or investor
  - Seller of the Bond is the borrower or the issuer
- Principal or Face Amount or Par Amount
  - Amount of loan
- Maturity date
  - Repayment date of loan
- Nominal or Coupon rate
  - Interest rate paid periodically on the loan
  - Usually expressed as a percentage of par amount
- Price
  - Amount a lender will lend in consideration of future receipt of principal and interest payments
- Yield
  - Single rate that sets the PV of the principal and interest payments equal to the price

![Diagram of bond structure with labels for Annuity of Interest, Principal, and Maturity]
Who buys tax-exempt bonds?

- Three classes of investors dominate the municipal market.
  1. Households, consisting of individuals acting directly or through investment counsel
  2. Household proxies – bond funds such as mutual funds, money market funds, bank personal trusts and investment trusts
  3. Institutions, particularly commercial banks and property and casualty insurance companies.

Source: The Bond Buyer
Debt Issuance Process
Overview

Plan of Finance
- Select the Team
- Determine project cost & timing
- Identify source of repayment
- Size & structure the bonds
- Determine method of sale

Legal Framework
- Board approval, if required
- Public notice & hearing, if required
- Tax analysis & due diligence
- Prepare disclosure document (official statement)

Marketing
- Obtain ratings
- Obtain credit enhancement, if needed
- Underwriter & investor outreach
- Sell & price the bonds

Administration
- Closing/money transfer
- Invest bond proceeds
- Begin project & track progress
- Make principal & interest payments
- Monitor for refinancing opportunities
- Comply with Arbitrage Rebate Regulations (IRS/Tax Code)
- On-going disclosure by complying with SEC Rule 15(c)2-12
Syndicate of Underwriters

- Using a syndicate of underwriters can greatly improve the sale of bonds
  - Individual firms may lack the ability to underwrite entire transactions on their own
  - Multiple firms can be strategically organized to garner broader retail interest

**Senior/Co-Senior Manager**
- Leads syndicate
- Assists with structuring of bonds
- Assists with credit package
- Manage marketing of bonds and institutional investor communication

**Co-Managers**
- Provide greater network to sell bonds
- Provide additional capital to underwrite bonds
- Provide additional color on marketplace

**Selling Group**
- Firms with a strong local presence and healthy retail network
- Manage local marketing efforts
- Target retail investors
Credit rating agencies are firms that analyze the probability of the debt instrument returning all of the principal to the investor.

Credit considerations may include:

- Management, governance and business strategy
- Market position
- Service area
- Financial position
- Debt and capital plan
- Legal framework

<table>
<thead>
<tr>
<th>INVESTMENT GRADE RATINGS</th>
</tr>
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<tbody>
<tr>
<td>MOODY’S</td>
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</tr>
<tr>
<td>Baa2</td>
</tr>
<tr>
<td>Baa3</td>
</tr>
</tbody>
</table>
Methods of Selling Bonds

- **Competitive Sale**
  - Bonds are sold through a competitive bidding process to the underwriter (or group of underwriters) providing the lowest borrowing cost

- **Negotiated Sale**
  - Bonds are sold through negotiations directly with one or more underwriting firms (investment banks)

- **Private Placement**
  - Bonds are sold directly to an investor (typically a commercial bank), without involving an underwriting firm

![Bar chart showing the amount of bonds sold through different methods from 2002 to 2014 YTD.](chart)
Pricing Lingo Quiz

1. A BP bump → 5% coupon
2. A BP cut → Order to a buy and hold investor
3. A 5 handle → To subtract a basis point in yield
4. Block size → Lower the yields
5. Going away order → Raise the yields
6. Tighten → Prices are too cheap/Yields too high
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