Presentation to County Treasurers' Association of Texas

April 18, 2018

For Discussion & General Information Purposes Only

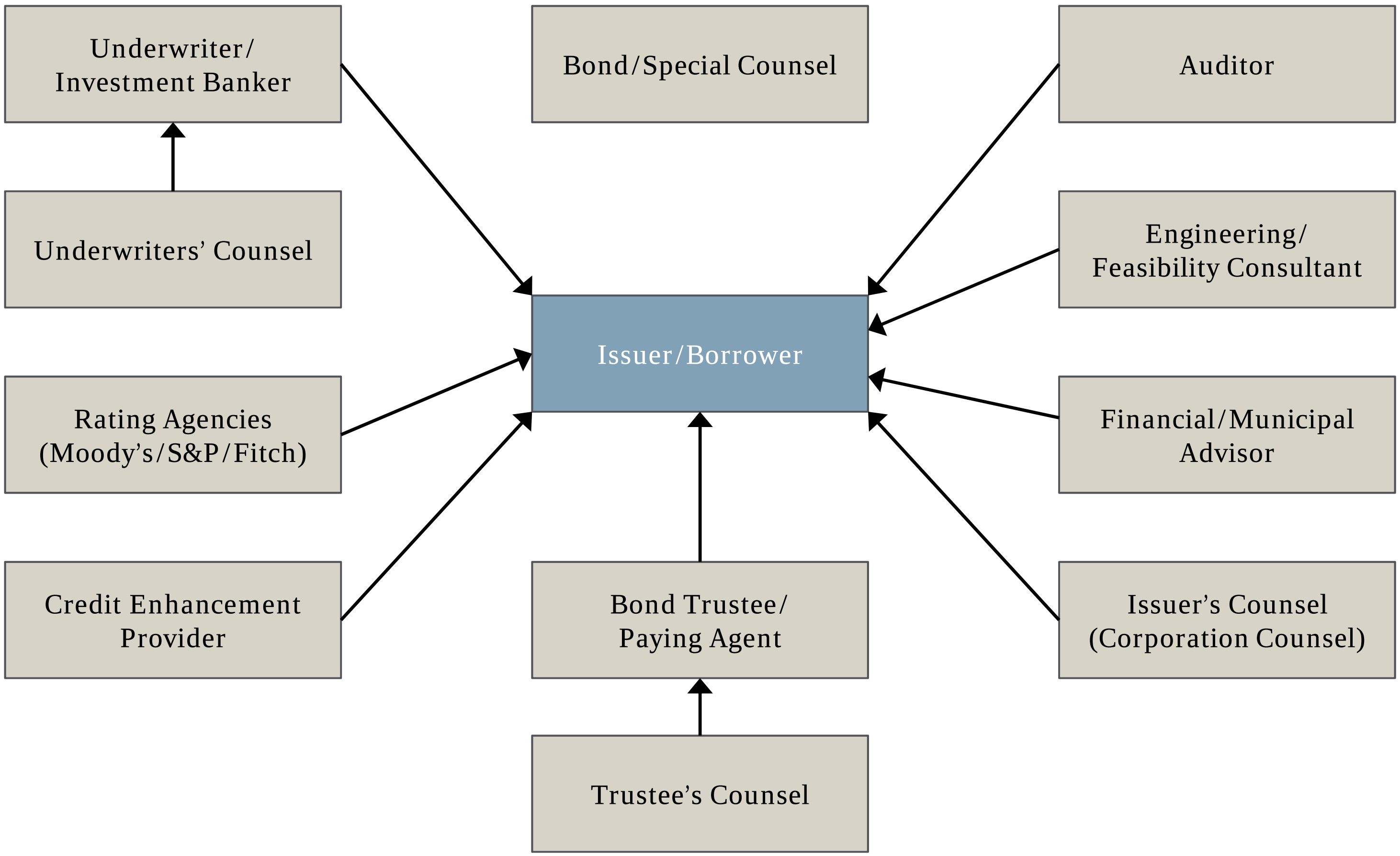
Important Disclosures

Table of Contents

1. Introduction to Muni Debt Financing

1.a) Financing Participants

Financing Participants



Issuers/Borrowers

- States, Municipalities, District, Agencies, Universities, Utilities, Non-Profit Corporations
- In conjunction with Bond/Issuer Counsel, create and approve financing terms and documents, select financing team members, and ultimately issue debt instruments
- Responsible for repayment of debt
- Provide data and responsible for accuracy of the debt Offering Statement (i.e. Official Statement)
- Responsible for complying with terms and covenants in financing documents

Bond/Special Counsel

- Nationally/Regionally recognized law firm with experience in debt financing
- Works with the Issuer and the financing team on behalf of the Issuer
- Primary responsibility for preparation of legal documents
- Renders opinion concerning the validity of the bond issue with respect to statutory authority, constitutionality, procedural conformity and, if tax-exempt, exemption of interest from Federal income taxes

Counsel to the Issuer

- Outside or General Counsel; not hired specifically for bond issue
- Assists in providing information for Offering Statement and additional disclosure documents, and opines as to accuracy
- Reviews all legal documents on behalf of Issuer
- Opines on validity of Issuer's legal power and authority to issue debt and make covenants

Financial Advisor

- Investment bank or financial advisory firm acting on behalf of Issuer
- Advises Issuer on wide range of financial management issues; may be issue/debt management specific or ongoing
- Has a fiduciary duty to the Issuer
- Acts on behalf of Issuer in financing process
- Reviews pricing and advises Issuer on fairness of rates and fees

Bond Trustee

- Retained by Issuer, but represents Bondholders' interests
- Manages Trustee-held bond funds, reserves and construction funds
- Receives interest and principal payments from Issuer/Borrower and distributes to Bondholders
- Serves as Bond Registrar and Transfer Agent
- Holds liens and security interests and exercises remedies, for bondholders, in the event of a default

Senior Managing Underwriter (Book-Running)

- Investment bank with primary responsibility for developing the plan of financing, credit rating process, and leading pricing and marketing efforts
- Organizes the efforts of all parties in structuring the financing and provides information for the Offering Statement and related documents
- Due diligence obligations under federal securities laws relative to the financing and the offering document
- Analyzes financing alternatives for Issuer
- Helps prepare presentations for rating agencies and credit enhancers
- Reviews and comments on principal legal documents
- Directs investor pre-sale bond marketing efforts of underwriting group
- Sets interest rates and offering terms of the bonds, accepts orders from investors and underwriters, and may commit capital to underwrite unsold bonds

Co-Managing Underwriter

- Investment banks selected to broaden bond marketing and distribution
- Participate in discussions on pricing of bonds
- Due diligence obligations under federal securities laws relative to the financing and the offering document
- Share in underwriting liability
- In some cases, contribute special expertise to financing

Selling Group

- Securities dealers who participate in selling the bonds but do not share in the underwriting liability
- Sells bonds, especially to regional investors

Underwriters' Counsel

- Law firm representing the underwriters, with experience in debt financing
- Advises underwriters on matters relating to the Offering Statement, including matters relating to disclosure under SEC regulations and other standards
- Prepares underwriting documents — Blue Sky Survey, Legal Investment Memorandum, and the Bond Purchase Contract
- Responsible for conducting "due diligence" before the bond issue is offered to investors
- Sometimes reviews the Issuer's continuing disclosure filing history to verify previous compliance with the Issuer's Continuing Disclosure Agreement(s)

Auditor

- Provides most recent annual Audited Financial Statements for inclusion in the Offering Statement to:
  - Present the Issuer's financial condition and historical performance; and
  - Facilitate year-to-year comparisons of financial information

Engineering/Feasibility Consultant

- Used in more complex transactions that depend on revenues from a project to repay debt service or on a special tax, e.g. hotel occupancy tax
- Forecasts financial results
- Opines on viability of a new project or system

Credit Enhancement Provider

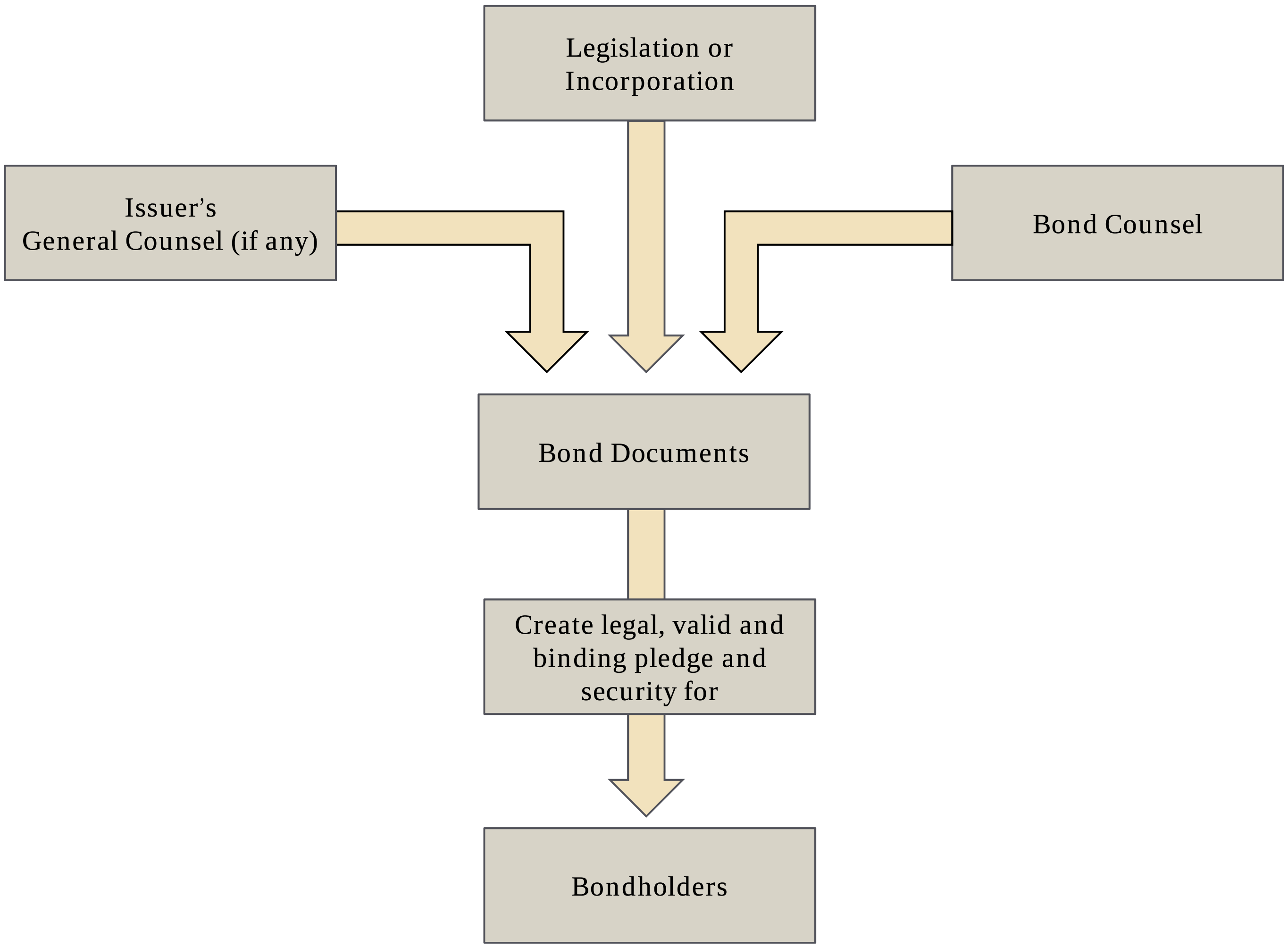
- Bond insurance company, financial services company or bank may be used to provide credit enhancement
    - Municipal Bond Insurance
    - Surety Policy
    - Letter of Credit
- Credit enhancement often allows Issuer to get up to “AA/AA” ratings
- Decision to utilize credit enhancement is primarily a financial decision (minimize effective interest cost), but must also consider covenants demanded by credit enhancer

Rating Agencies

- National organizations that provide ratings on debt of public and private organizations
    - Standard & Poor's Financial Services LLC
    - Moody's Investors Service, Inc.
    - Fitch Ratings Inc.
- Assess a borrower’s ability to repay debt
- Ratings have direct impact on borrowing cost

1.b) Legal Authority for the Issuance of Debt

Legal Authority for the Issuance of Debt



Basis for Tax-Exempt Status

- Interest earnings are included in "gross income" for purposes of federal income taxation unless excluded by a federal law, such as a section of the Internal Revenue Code of 1986, as amended (the "Tax Code")
- In general, Section 103 of the Tax Code provides that "gross income" does not include interest on most obligations of a state, territory or possession of the U.S., or any political subdivision of a state, territory or possession of the U.S., or the District of Columbia
- Therefore, in general, interest on obligations of a state **or** political subdivision is exempt from federal income taxation
- Interest on obligations of federal entities and private corporations are subject to federal income taxation because there is no federal law which excludes such interest earnings from "gross income"

Municipalities and Other Political Subdivisions

- A municipality is a political subdivision of its state government
- A state political subdivision possesses only those powers which are expressly delegated to it by its state government and those powers which are necessarily implied in order for the political subdivision to carry out its expressly delegated powers
- The power to issue debt (i.e., to borrow money) is a fundamental power which must be expressly delegated — it can not be implied
- If a state political subdivision undertakes an act which it does not have the power to undertake, such act is neither valid nor binding upon such state political subdivision (i.e., the act is null and void)
- Powers can be delegated by the state government to a state political subdivision only through an act of the state legislature
- Therefore, a state political subdivision can not legally borrow money unless it is expressly authorized to do so by state statute

Private Corporations

- A private corporation is a creature of its incorporators/stockholders
- A private corporation possesses all those powers which its incorporators/ stockholders set forth in the private corporation's charter/articles of incorporation
- Charters/articles of incorporation are invariably written in such very broad terms that a private corporation has the power to undertake any act it chooses, including the act of issuing debt (i.e., borrowing money)
- Therefore, in general, a private corporation can legally undertake any act it chooses unless such act is prohibited by applicable federal or state law, or by its charter/articles of incorporation

Determination of Legal Feasibility

- Does the state political subdivision (the "Issuer") have the power to issue debt? First, one must identify an applicable federal or state law (the "Enabling Statute), as the case may be, which expressly grants such power to the Issuer
- Issuing debt (i.e., borrowing money) can occur in different forms, including without limitation:
  - the public sale of bonds or notes;
  - the execution of a loan agreement;
  - the execution of a financing lease; and
  - the execution of an installment sale agreement
- Does the Enabling Statute authorize the particular form of debt which is being proposed?
- Does the Enabling Statute include restrictions which are inconsistent with the proposal?
- Can the Enabling Statute be amended?
- Would the execution of the proposed debt instrument, and compliance with the provisions thereof, conflict with, or constitute a breach of or default under, any existing law, regulation, court order or consent decree to which the Issuer is subject, or any agreement or instrument to which the Issuer is a party or by which the Issuer is bound?
- Are amendments possible to remove any such conflict?
- Is there any pending litigation which affects the proposed issuance of the debt?
- What are the regulatory requirements (e.g., filings and approvals) which the Issuer must meet in order for the debt instrument to become effective?
- Bottom line: the debt instrument must be a valid, legally binding obligation of the Issuer, enforceable in accordance with its terms except to the extent provided by applicable bankruptcy and similar laws relating to the enforcement of creditors' rights
- If it is proposed that the interest on the debt be exempt from federal or state income taxes, a review of the applicable tax laws must be made by Bond Counsel to determine same

Development of the Offering Statement

- Various federal (primarily the Securities Acts of 1933 and 1934) and state (also known as "blue sky") laws exist to protect the investing public
- Basic objectives of securities laws:
  - Require disclosure of material information about securities to allow investors to make informed investment decisions; and
  - Prohibit misrepresentation or other fraudulent conduct in connection with the purchase or sale of securities
- Full disclosure/due diligence — the Official Statement is the document utilized to satisfy these requirements. Generally, the issuer has a "continuing obligation" to provide material information to the public under Rule 15c2-12
- Bottom line: the Official Statement, both as of its date and the date of issuance of the debt instrument, must not contain any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading
- Municipal securities are exempt from SEC registration

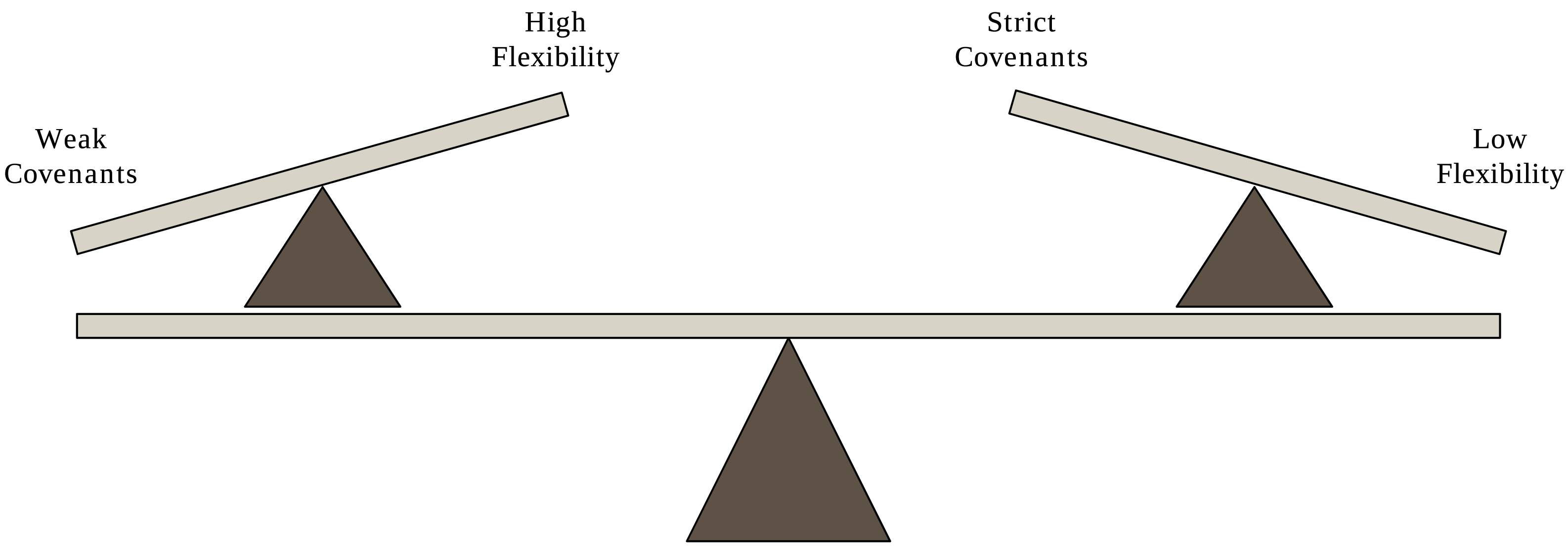
1.c) Credit and Security Sources

Credit and Security Sources

Security and Legal Structure

- Pledge of Monies for Debt Repayment
  - Operating Revenues
  - Contract Rights
  - Taxes
  - Enterprise Revenues
  - Lease Revenues
  - Special Assessments
- Flow of Funds (Priority)
- Pledge of "Funds" for Debt Repayment
- Financial and Operating Covenants
- Liens on Property
- Credit Enhancement

Issuer Must Balance Needs for Low Borrowing Costs and Future Flexibility



Pledge of Monies for Debt Repayment

- Taxes and Fees
  - Property (ad valorem)
  - Income
  - Sales and excise
  - Franchise and privilege
  - Severance and royalty
- Revenues
  - Pledge all project net revenues after payment of O&M expenses
  - Pledge of system net revenues (with rate covenant > 100% of debt service) after payment of O&M expenses
- Water or Power Sales Contracts
  - Take and pay contracts
  - Take or pay contracts
- Enterprise Revenues
  - User fees
  - Rates and charges
- Special assessment
  - Lien on real property based on benefits conferred

Pledge of Funds for Debt Service Repayment

- Debt Service Reserve Fund
- Operations and Maintenance Reserve Fund
- Debt Service Fund
- Coverage Fund

Liens on Property

- First Mortgage
  - A specific asset
  - Broad asset categories and "after-acquired" property clause
- Security Interest

Credit Enhancement

- Municipal Bond Insurance
- Bank Letter of Credit
- Surety Bond Insurance Policy
- Federal, State or Local Government Guarantee
- Private Sector Guarantee
- Multiple Guarantors
  - Joint and Several
  - Several

Summary of Potential Sources of Security for Debt

- General corporate pledge
- Pledge of project or system revenues
- Pledge of issuer's rights under water or power sales contracts
- Pledge of specific taxes imposed by issuer
- Pledge of special assessments imposed by issuer
- Lien on funds held by trustee (such as Debt Service Fund and Reserve Funds)
- Mortgage lien on project and security interest in equipment
- Third party guarantees (federal, state, local, private sector)
- Municipal bond insurance/surety bond policy
- Bank letter of credit

Comparison of Significant Features of Funding Mechanisms: G.O. vs. Revenue Bonds

G.O. Bonds

Advantages

- Typically stronger security than revenue bond
- Typically lower interest cost than similarly rated revenue bond
- Familiarity with investors

Disadvantages

- Structuring constraints imposed by State Constitution
- Property tax burden
- Considered direct debt of obligor

Revenue Bonds

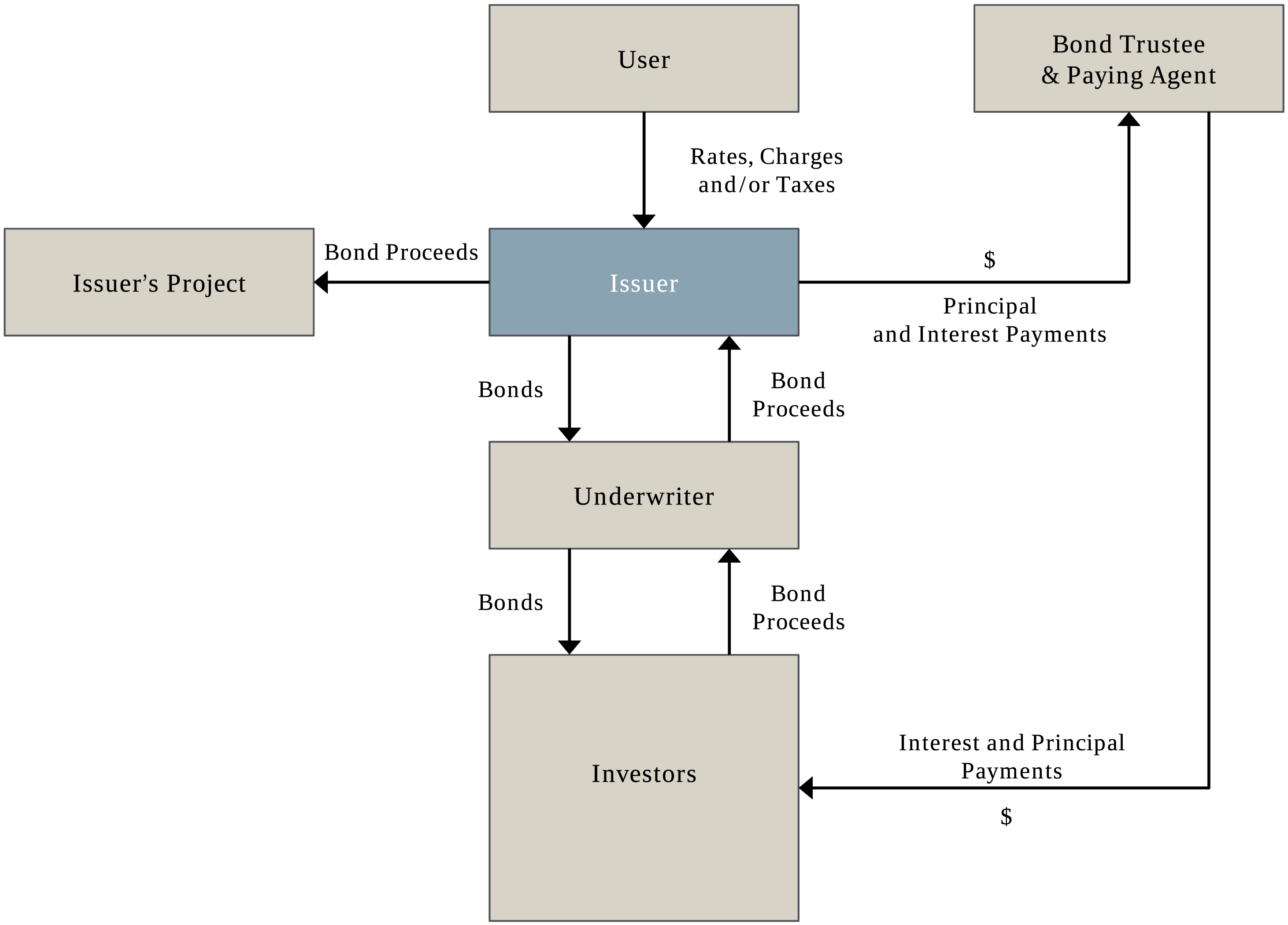
Advantages

- Equally strong security possible
- More equitable financing vehicle for enterprise (user fees used to pay debt service)
- Considerable structuring flexibility allowed under State Constitution (e.g. 30 or even 40 year debt)
- Less direct pressure on G.O. bond credit
- Product diversification for investors

Possible Disadvantages

- Debt service reserve fund requirement
- Debt service coverage requirement

Typical Flow of Funds for a Revenue Bond Financing



Legal Structure for a Revenue Bond Financing

- Revenue Pledge
- Rate Covenant
- Additional Bonds Test
- Flow of Funds

Example of Revenue Bond Structure

Definition of Revenues: Monies derived by the issuer from the rates, rentals, fees and charges prescribed for the use and services of, and the facilities and commodities furnished by the authority, which includes all income from investment of certain monies held under the Resolution

Security: Net Revenues of System and Specific Funds Held Under the Resolution

Rate Covenant: Net Revenues > Net Revenue Requirement
(e.g. 1.20x Maximum Annual Aggregate Debt Service)

Additional Bonds Test?: Yes (e.g. 1.20x MADS (Maximum Annual Debt Service) – historical or projected)

1.d) Evaluation and Rating of Credit Sources

Evaluation and Rating of Credit Sources

What is a Credit Rating?

A rating is a forward-looking opinion about the creditworthiness of an issuer or obligor as to a particular bond, and reflects the rating agency's view of the issuer / obligor's capacity and willingness to meet its financial commitments as they come due.

Investment Grade Ratings[1] (Moody's / S&P / Fitch)		Non-Investment Grade Ratings[1] (Moody's / S&P / Fitch)	
Aaa / AAA / AAA	Highest Quality; Lowest Credit Risk	Ba1 / BB+ / BB+ Ba2 / BB / BB Ba3 / BB- / BB-	Speculative; Substantial Credit Risk
Aa1 / AA+ / AA+ Aa2 / AA / AA Aa3 / AA- / AA-	High Quality; Very Low Credit Risk	B1 / B+ / B+ B2 / B / B B3 / B- / B-	Speculative; High Credit Risk
A1 / A+ / A+ A2 / A / A A3 / A- / A-	Upper-Medium Grade; Low Credit Risk	Caa1 / CCC+ / -- Caa2 / CCC / CCC Caa3 / CCC- / --	Speculative; Very High Credit Risk
Baa1 / BBB+ / BBB+ Baa2 / BBB / BBB Baa3 / BBB- / BBB-	Medium-Grade; Moderate Credit Risk	-- / -- / DDD -- / -- / DD C / D / D	In Default or Breach of Imputed Promise

[1]Descriptions based on Moody's Rating Symbols and Definitions as of August 2015. Other Rating Agencies use similar descriptions for the separate rating categories.

Legal Provisions

- Typically analyzed in conjunction w/ operations of enterprise
- Importance of legal provisions correlated with performance
- Legal constructs examined included:
  - Senior vs. junior lien
  - Open vs. closed lien
  - Definition of revenues
  - Rate covenant
  - Additional bonds test
  - DSRF (Debt Service Reserve Fund)
  - Overall flow of funds

Economic Considerations

- Service area demographics
- User base
  - Wealth levels
  - Population
  - Employment
  - Growth trends
  - Economic diversity
  - Housing starts

Economic/Demographic Factors

- Population Growth
- Per Capita Money Income
- Labor Force: Unemployment and Labor Mix
- Largest Users
- Largest Employers
- Per Capita Retail Sales and Median Household EBI as % of State and Nation

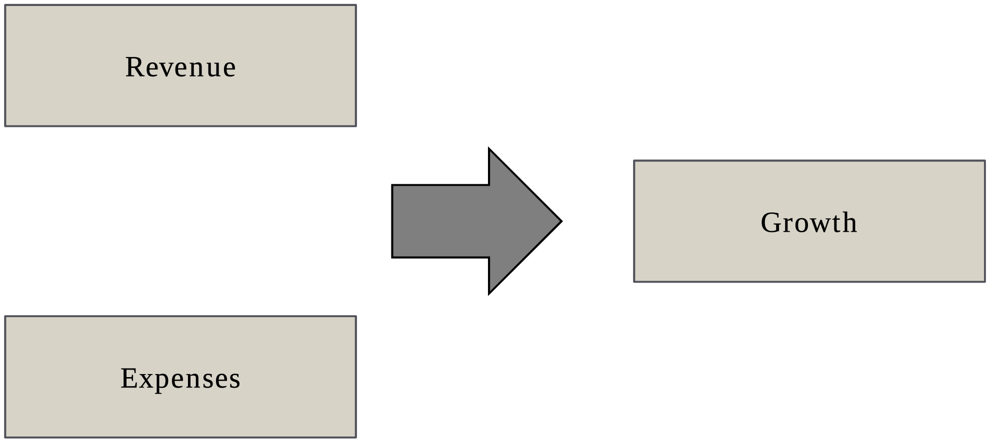
System Factors

- Supply vs. Demand
- Governing Body Form
- Political Climate
- Budgeting Process
- Rate Setting Mechanism
- State and Federal Regulation (rates, environmental requirements, etc.)
- Service Area — Monopoly or Competition

Financial Factors

- User Growth
- Largest Users as % of Revenues
- Rate Increase History
- Competitiveness: Rates Compared to Others in Region

Income Statement Analysis – Typically 5 Years



$$\text{Debt Service Coverage} = \frac{\text{Net Revenues (with or without growth)}}{\text{Annual Debt Service}}$$

Balance Sheet

- Liquidity: Cash and Investments - Unrestricted
- Accounts Receivable - Aging/Bad Debts
- Net Property, Plant and Equipment
- Long Term Debt
  - Fixed vs. Adjustable Rate
- Net Position/Fund Balance

Ratios

- Current Ratio
  - Current Assets/Current Liabilities
- Equity Ratio
  - (Net PPE + Restricted Assets - Long Term Debt)/(Net PPE + Restricted Assets)
- Debt Ratio
  - (Net Funded Debt)/(Net Fixed Assets + Net Working Capital)
- Operating Ratio
  - (Operating and Maintenance Expense)/(Total Operating Revenues)

Example: Rating Factors

- Management Assessment
  - Quality of planning techniques
  - Capacity to implement rate increases
  - Autonomy in rate setting
- Operational Characteristics
  - User profile and usage trends
  - Compliance with regulations
  - Available resources
- Rate Criteria
  - Rate-setting process
  - Historical track record
- Financial Data
  - Three to five years of historical data assessed
  - Budgeted vs. actual results
  - Balance sheet and income statement
  - Liquidity indicators
  - Debt ratios
  - Capital Improvement Plan Projections

2. Capital Formation

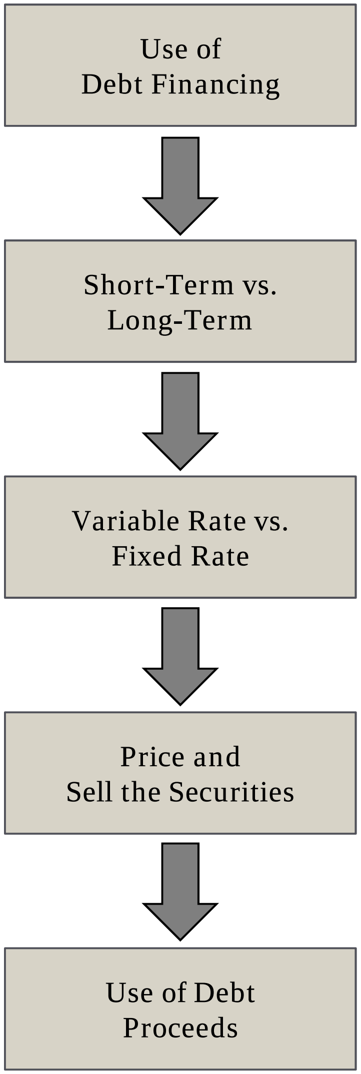
2.a) Capitalization of a Municipal Enterprise

Capitalization of a Municipal Enterprise

Introduction

- The Issuer's decision-making process
- Short-term vs. long-term financing
- Variable rate vs. fixed rate structures
- Public market offerings vs. private placements
- Structured products and techniques

The Issuer's Decision-Making Process



- Evaluate financing requirements and desired flexibility within borrowing documents
- Tax status of Issuer
- Decide upon short-term (typically cash flow needs or interim financing) or long-term (long-lived assets or other long-term needs) financing
- Incorporate ability to issue derivative debt securities into basic structure

2.b) Forms of Indebtedness/Financial Products

Forms of Indebtedness/Financial Products

Types of Debt Financing

- Short-term issues
  - Uses: Cash flow, deficit, bridge financings
  - Commercial Paper: 1-270 days
  - Fixed rate notes: 6-13 month final maturity
  - Variable rate notes: 6-13 month final maturity
- Medium term notes: 1-10 years with rolling maturities (as bonds mature they are refinanced into another medium term note)
- Long-term issues
  - Uses: long-term financing
  - Fixed rate bonds: 1-40 year final maturity
  - Constant interest rate payments (typically semi-annual interest payments)
  - Principal typically amortizes annually
  - Rates determined by market conditions at time of sale
  - Ratings on bonds: Non-rated to "AAA"
- Adjustable Rate Bonds: 1-40 year final maturity
  - Interest rate adjusted periodically
  - Rates based on market conditions on each reset date
  - Ratings on bonds: "AA" to "AAA" (credit enhancement)
- Structured Products: 1-40 year maturity range
  - Manage asset liability targets
  - Potential for lowering overall interest cost

Variable Rate Municipal Debt Products

- History
  - Commercial paper issuance by corporations increased in early 1960's
  - Tax-exempt market emerged in 1982 to meet growth of money funds and to avoid high fixed interest rates
  - Hundreds of billions of dollars of tax-exempt variable rate demand obligations issued since 1982
  - Indices: SIFMA or 30-day commercial paper
- Products
  - Adjustable rate periods: daily, weekly, monthly, quarterly, semi-annually, multi-annually, commercial paper (1-360 days)
- Structural Features of Variable Rate Demand Bonds
  - Interest rate adjusted periodically (remarketing agent)
  - Investors may tender ("put") bonds for repurchase at par
  - Bonds may require bank credit enhancement/liquidity ("put") facility
  - Issuer may change rate adjustment period and/or convert to fixed rates
- Purpose
  - Provides flexibility and usually lower-cost financing vehicle for issuers (asset/liability matching)
  - Gives money market investors an adjustable, market-based investment vehicle

Product Name	Description/Comments	Remarketing Frequency	Interest Payment Frequency
Commercial Paper	n/a	1-270 day maturities	Day after end of CP period
Variable Rate Demand Bonds ("VRDBs")	Remarketed daily/weekly, may require external liquidity	Daily or Weekly	Monthly
Tender/Put Bonds	Fixed rate for specific term, then remarketed	1-10 years	Semi-annually
Floating Rate Notes ("FRNs")	Fixed spread to SIFMA or other index for specific term	1-7 years	Monthly

Fixed Rate Municipal Debt Products

- Market for Public Agency Debt
  - Tax-exempt fixed rate bonds
  - Taxable fixed rate bonds
- Products
  - Serial bonds (1-30 year maturity range)
  - Term bonds (15-40 year maturity range)
  - Debentures (taxable market: 10-30 year maturity range)
  - Capital appreciation bonds ("CABs" or Zero Coupon Bonds)
  - Convertible CABs (15-30 year maturity range)
- Structural Features
  - Fixed semi-annual interest payments or bond accretion
  - Investors may buy/sell/trade bonds at market prices in secondary market
  - Ratings on the bonds: Non-Rated to "AAA"
  - Optional redemption for term bonds prior to final maturity (usually at par for tax-exempt bond)
  - Mandatory annual sinking fund redemption for term bonds prior to final maturity (always at par)
  - Extraordinary redemption prior to maturity for specified reasons
- Purpose
  - Provides long-term financing at fixed cost of capital
  - Fixed rate investment vehicle for investors

Fixed Rate Municipal Debt Products – General Characteristics

Product Type	Bond Denominations ($)	Payment Frequency	Maturity Range (yrs)	Redemption Features	Purpose
Serial Bonds	5,000	Semi-annually	1-30	▪ Optional; 10 years ▪ Extraordinary: if permitted event occurs	Reduce cost of Debt with early maturities
Term Bonds	5,000	Semi-annually	15-40	▪ Optional: 10 years ▪ Extraordinary: if permitted event occurs (par)	Stretch bond repayment period and have equal annual P&L
Capital Appreciation Bonds/Premium CABs	5,000 (at maturity)	No payments prior to maturity	1-30	▪ Optional: usually none ▪ Extraordinary: at accreted value if permitted event occurs	
Convertible CABs	5,000 (upon date of conversion)	Semi-annually (after conversion)	15-30	▪ Optional: after conversion ▪ Extraordinary: at accreted value or maturity value (after conversion)	Temporarily reduce interest payments

2.c) Structured Products

Introduction

- What is a Structured Product?
  - A fixed income or equity security which has been engineered by a financial institution to meet the specific requirements of an investor and/or issuer
- Purpose of Structured Products
  - Create customized investment vehicles for investors to enhance returns, provide a hedge, etc.
  - Create alternative forms of debt for issuers to reduce cost
- History
  - Interest rate swap market began in 1980s to access multiple markets and increase flexibility
  - Expansion of products in 1990s resulting from greater trading efficiency, enhanced computer modeling capabilities and declining interest rates

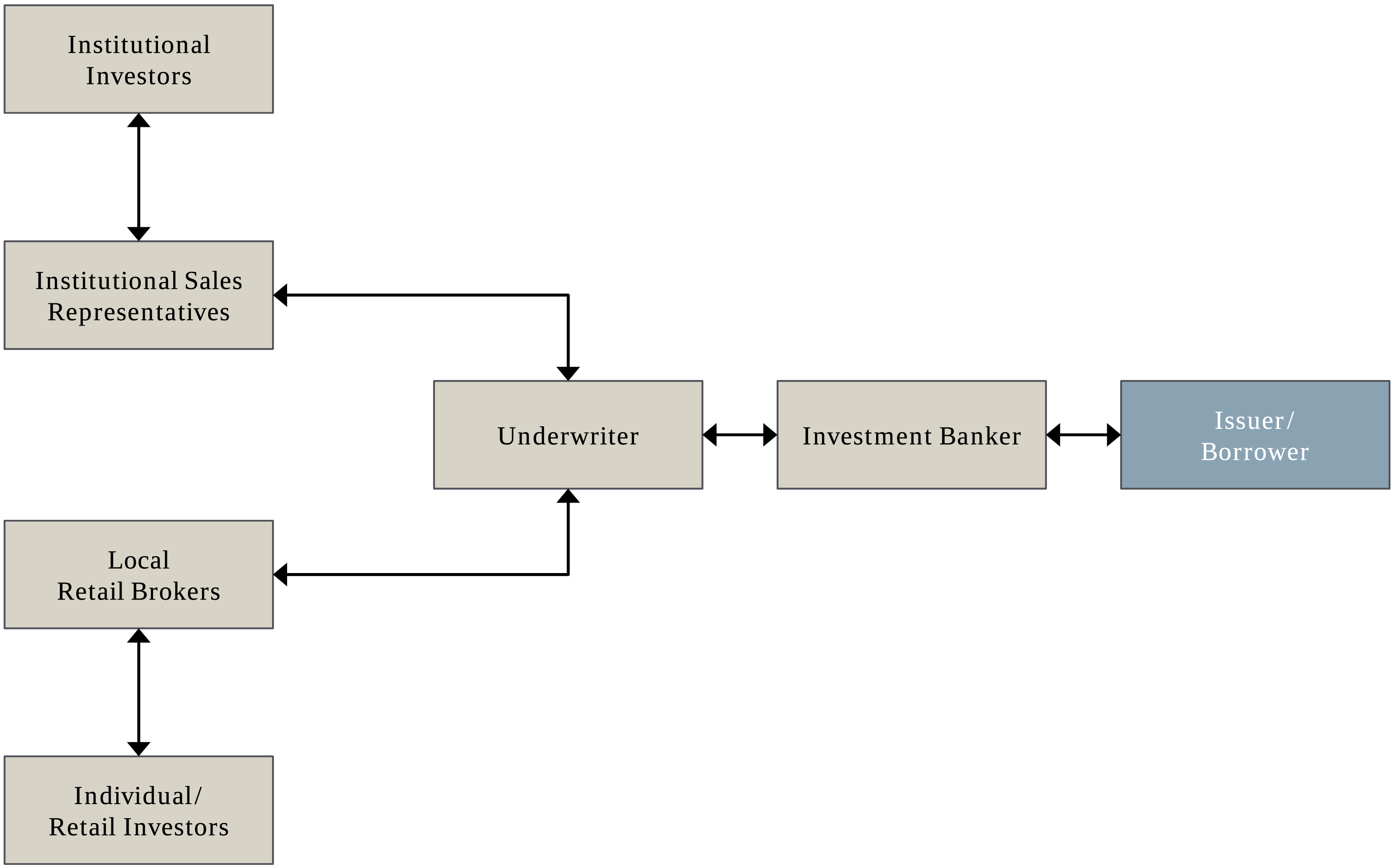
3. Underwriting and Marketing Securities

Underwriting and Marketing Securities

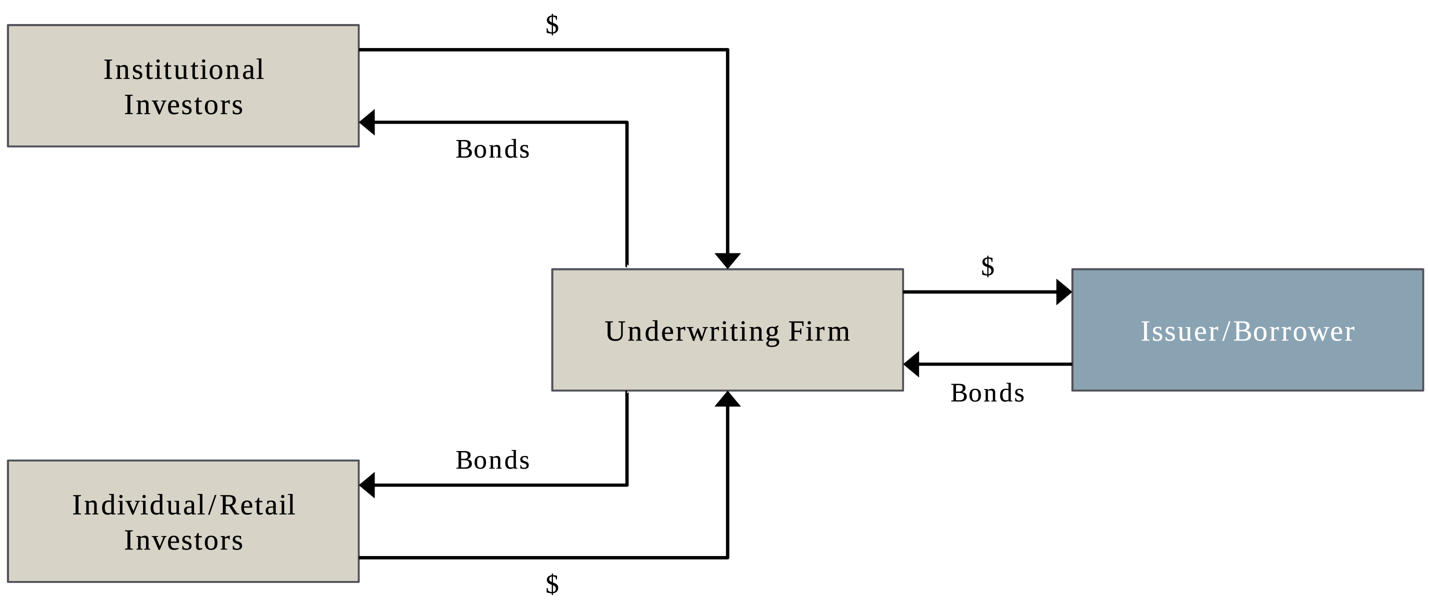
Who are the Participants?

- Underwriters
  - Develop marketing strategy
  - Coordinate input from sales professionals
  - Help finalize bond sales/structure
  - Establish price/yield levels on the bonds
- Sales Professionals: Institutional and Retail
  - Help coordinate marketing strategy
  - Obtain input from investors regarding bond structure
  - Solicit orders for the bonds
- Bond Investors: Institutional and Retail
  - Submit orders for new issues
  - Buy and sell bonds in secondary market
- Traders
  - Maintain secondary market trading liquidity for investors
  - Buy and sell securities for a firm’s account

Relationships Among Various Parties During the Issuance Process



Capital Flows in the Primary Market



The 10-Minute Perspective on the Market

- Life on the trading desk happens in 10-minute intervals
  - The underwriter's view of the market happens in a different time frame than the borrower's
  - Put your pricing into a historical perspective (1 week, 1 month, 1 year, last issue)
- What an underwriter says and what it really means:

Says...	Means...
"The market is off"	Interest rates ⇧
"The market rallied/is up"	Interest rates ⇩
"Rates are *cheaper*"	Interest rates ⇧
"Rates are *richer*"	Interest rates ⇩
"We propose *bumping* the spread/yield"	Credit spread ⇩
"We proposed *cutting* the spread/yield"	Credit spread ⇧
"The market is range bound"	Interest rates ⇳
"There is a $1 billion issue coming the same day as yours"	Investors may focus on the bigger deal
"There is no paper in the market"	Low supply = good for the Issuer
"We are talking with accounts"	Investors are looking at the deal
"We have indications"	Investors have indicated preferences for principal maturity coupon structure

3.a) How Securities are Priced

How Securities are Priced

Factors Affecting a Pricing

- Market Psychology/Outlook
- Economic Indicators
- Market Technicals
- Structure
- The Yield Curve
- Credit

Market Psychology

- Trends in the Market
    - Interest rates
    - Supply
    - Uncertainty
        - Tax law changes
        - Economic policy changes
        - World events
- Buyer Philosophy
    - Long-term investors
    - Active traders
    - Retail buyers
    - Specialty/derivative buyers

Economic Indicators

- Federal Reserve Board Policy
- Money Supply Targets
- Calendar of Data Releases
- Monthly Economic Statistics
    - Employment Report
    - Producer Price Index
    - Consumer Price Index
    - Others

Market Technicals

- Comparable Offerings
  - Primary market
  - Secondary market
- Market Supply
  - Weekly new issue calendar
  - New issue syndicate balances
  - Visible supply
  - Institutional bid wanted lists
- Government and Corporate Bond Market Movement
- Federal and State Income Taxes
- Coupon Reinvestment Dates

Structure

- Bond Ratings
  - Underlying issue ratings
  - Credit enhancement
- Structuring Products
  - Serial bonds: premiums and discounts
  - Term bonds: premiums and discounts
  - Capital appreciation bonds

The Pre-Pricing Call

- What is it?
  - Discussion of the market and setting the initial interest rates
- When is it?
  - Day prior to or day of the actual pricing
- Participants
  - Issuer
  - Financial advisor
  - Underwriter(s)
  - Investment Bankers
- Content of the Call
  - General market summary
  - Public agency/municipal market summary
  - Comparable issues
  - Proposed scale
  - Financial advisor and client approval

The Pricing Wire

- The Ipreo System (Pricing Wire)
- Takedown
  - Purpose
  - Calculation of average takedown
- Call/Redemption Features
  - Importance to investors
  - Reading the wire
  - Date of call
  - Prices (to maturity and first call date)
- MSRB Rule G-11 - Primary offering practices related to orders, allotments, priorities, designations, etc.
- Award Date
- Delivery Date
- Book-Entry
- Printer
- Priority of Orders
- Designation Policy

The Order Period

- Priority of Orders
  - Local retail
  - Professional retail
  - Net designed
  - Group net
  - Member
- Order Status Review
  - Orders by maturity
  - Orders by type
- Quality of "The Book"
  - "Going away" business
  - Minimum orders
  - Member orders
- Repricing/Restructuring

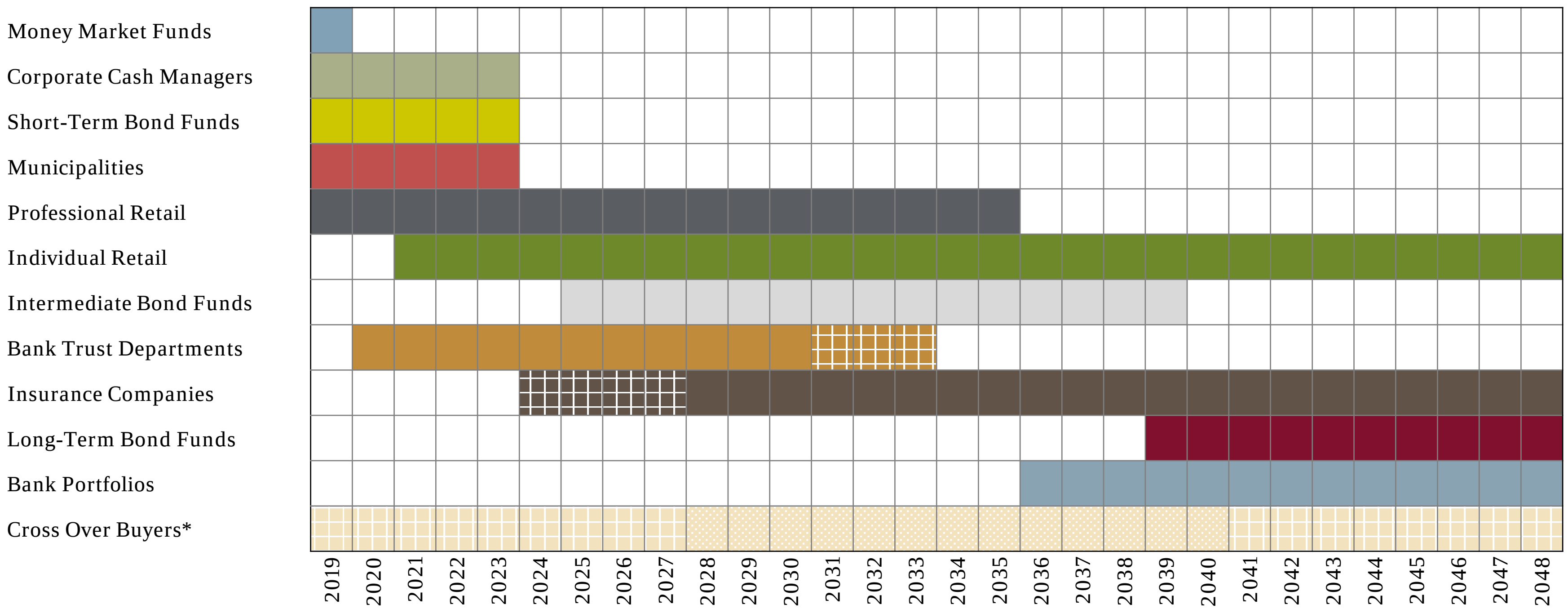
Repricing/Restructuring

- Order Flow and Market Movement
- Pricing Update Call
  - Review market with issuer and financial advisor
  - Suggest alternative prices and structures, if any
  - Commit to underwriting of issue
- Bond Allotment Process
  - Order priority and amounts
  - Participation of each manager
- Final Forms of Communication
  - Allotments letter
  - Balances wire
  - Final wire
  - CUSIP wire
  - Spread detail wire
  - Free to trade wire

3.b) Composition of Municipal Bond Market Buyers

Overview of Investor Preferences

- The chart below presents investment time horizon preferences, in general, for the designated buying segments. Individual investors within each of these buying segments may purchase shorter or longer than the general preferences indicated



*Interest highly dependent on current tax-exempt/taxable ratios; subject to change. Limited interest in hashed areas.

3.c) Buyer Decision-Making Process

Buyer Decision-Making Process

What the Buyer Asks…

- What is this deal?
- How does it compare to what we already own?
- What is my market view?
- What is my cash situation?
- What can this deal add to my portfolio?
- Is there an investor call or presentation?
- How did the call go? Was the reception positive or negative?
- What is the trading history of this name?
- What is the reputation of this issuer?
- What is the outlook for this sector?

How the Buyer Decides…

- What can I get that my fund needs?
  - Duration
  - Call protection
  - Sector allocation
  - Index alliance (if appropriate)
  - Trading opportunity
  - Improved credit
  - Improved book yield
  - Liquidity
  - Diversity
- Is the spread right? Are there better opportunities away?
- Do I want to be committing new cash at this level?

What Makes a Buyer Happy?

- A well-placed deal with numerous large and liquid buyers
- A coupon that allows price performance (this will depend on what the market demands)
- Good call protection
- An underwriter that supports their issues immediately and in the long run
- An issuer that consistently meets its continuing disclosure obligations

3.d) Costs of a Financing

Costs of a Financing

Underwriting Discount – Components

- Average Takedown
- Management Fee
- Underwriting Fee
- Expenses of Underwriters
    - Underwriters' Counsel
    - Blue Sky Qualification
    - DTC Charges
    - CUSIP fees
    - Wire/Communications Costs (Ipreo)
    - Travel
    - Advertising

Issuer Expenses – Components

- Bond Counsel
- Issuer Counsel
- Disclosure Counsel
- Attorney General
- Trustee
- Auditors
- Feasibility Consultants
- Printing
- Insurance or Credit Enhancement
- Financial Advisor
- Travel, etc.