Public Funds Investment Act Workshop

GFOAT Annual Conference
November 2019
What is public investing?

- Managing risk
- Putting money to work.
  - Creating a performing asset
  - Building a portfolio to serve the entity
- Utilizing markets and products for entity benefit
- Adding yield but not risk to the portfolio
- Assuring cash efficiency and security
  - including banking arrangements
2019 PFIA Bills

- HB 293 2256.008 (Signed by Governor)

- Continuing 8 hours training would not be applicable to school districts:
  - IF*:  
    - District does not invest district funds
    - District only deposits funds in
      - Interest bearing deposit accounts
      - Certificates of deposit (share certificates, and brokered CD (defined in 2256.010)
    - District must submit sworn affidavit to TEA identifying “applicable criteria” of such investment restrictions

*Note: This means the entity **cannot** use pools.
2019 PFIA Bills

- **HB 2706** (Signed by Governor)

- Repurchase agreement can be collateralized by CP or corporate bonds rated AA-
  - Bonds may not be convertible or unsecured

- Commercial paper can go to 365 days

- Bond proceeds
  - ‘Pledged to an indebtedness, or lease, or obligations under a lease, installment sale, or other agreement of a local agency, or certificates of participation in those funds’ may be invested
    - In accordance with the statutes governing the issuance or if not inconsistent, with statute in accordance with the local entity policy
2019 PFIA Bills

- A **Directive** to TEA in HB 2706

- TEA to make study of district (and open enrollment charters) investment and management of funds

- Districts to provide TEA with
  - Investments, allocations, fees and risks
  - Cash flows, fund balances and other revenue sources

- TEA to report to
  - Governor, Lt Governor, Speaker, chairs of education standing committees

- Report due June 1, 2020

- Directive expires 9/1/2021 – **one report only**
2019 Legislation

• SB 1138 (Signed by Governor)

• Applies to Texas Treasury Safekeeping Trust Company (TTSTC) – The Home of TexPool (Gov’t Code 404.103)

• Allows the TTSTC to enter into contracts with comptroller, FRB, depository trust co, or other party

• Waives all governmental immunity and can be sued

• Guarantees only by ‘reserve balance’ capped at $1mm
  ▫ Balance established by statute for FRB eligibility
Global Banking Changes Affect You

• Bank of International Settlements
  ▫ Assist central banks with monetary and financial stability

• Basel III Objectives
  ▫ Strengthen risk management through regulation
  ▫ Strengthen banks’ ability to absorb shocks
  ▫ Assure banks have reliable, stable funding during stress
  ▫ Protect the markets and economies underlying them

• Central banks use these guidelines to set their own rules
Basel III and Dodd-Frank
Liquidity and Capital Components

- Changes to regulation have created an environment unfavorable to public funds
  - Pledging collateral puts banks in an untenable situation

- Requiring HIGHER liquidity
  - When collateral is pledged the bank’s liquidity is lowered

- Requiring LOWER leverage
  - When collateral is pledged the bank’s leverage is heightened

- Requiring Stable NET FUNDING clients
  - Public funds have materially different fund balances throughout the fiscal year
Independent Registered Municipal Advisor

- Required by broker/dealers

- Specifically for debt advisors (TX Financial Advisers)

- Designed to assure independence in bond decisions

- Website statement can reduce paperwork
Website Certificate

- Municipal Advisor Certification

- DATE:

- By publicly posting the following written disclosure, ___[ENTITY]___ intends that market participants receive and use it for purposes of the independent registered municipal advisor exemption to the SEC Municipal Advisor Rule.

- The ___[ENTITY]___ has retained as Registered Municipal Advisors, ____________, Investment Bankers; and as Registered Investment Advisor ______________ for investment of proceeds. The ___[ENTITY]___ is represented by and will rely on its Municipal Advisors and Investment Advisor to provide advice on proposals from financial services firms concerning the issuance municipal securities and municipal financial products (including investments of bond proceeds and escrow investments). This Certificate may be relied upon until further notice by the _____[ENTITY]_____.

- Proposals may be addressed to:
  - [CONTACT INFO] Name, Title, E-mail,

- For any proposal received to be seriously considered by the _____[ENTITY]____ will share the document with its Municipal Advisors and/or Investment Advisor.
Another Broker Compliance Issue

- FINRA 2111
  - Establishes you are an institutional account/client
  - States that you are capable of evaluating risks
  - States that you will exercise independent judgment
  - Can be signed by your investment advisor for you
INSTITUTIONAL SUITABILITY CERTIFICATE AFFIRMATIVE INDICATION OF EXERCISE OF INDEPENDENT JUDGMENT  
(Pursuant to FINRA Rule 2111)

- In connection with any recommended transaction or investment strategy by a registered broker-dealer, the undersigned acknowledges on behalf of the Institution named below that:

I. It is an **Institutional Account** as defined in FINRA Rule 4512(c)3;

II. It (1) is **capable of evaluating investment risks** independently, both in general and with regard to all transactions and investment strategies involving a security or securities; and (2) will **exercise independent judgment** in evaluating the recommendations of any broker-dealer or its associated persons, unless it has otherwise notified the broker-dealer in writing;

III. It will notify _____ and each broker-dealer servicing the Institutional Account if anything in this Certificate ceases to be true;

IV. This Certificate and the information contained herein may be shared with broker-dealers or third parties, including via a secure database or electronic platform established by _____; and

V. He or she is authorized to sign on behalf of the Institutional Account named below.
New SEC Rules for MMMF Affect You

- New regulations are directed towards safety, liquidity and stability
- Minimum 10% in securities convertible to cash in 1 day
- Minimum 30% in securities convertible to cash in 1 week
- Maximum WAM shortened to 60 days
- Maximum WAL of 120 days
  - weighted average life to reduce use of variables
- Monthly reporting to SEC on shadow prices
- Procedures for stress tests
- Translation safety first based on liquidity
The Fund’s Escape Hatch

- Ability to process at price not $1

- Ability to suspend redemptions to prepare for liquidation

Status Change for PRIME MMMF
- These are now ‘mutual funds’
- Floating NAV
- Not authorized under PFIA as a MMMF

- Essentially a Mutual Fund – not authorized for bond proceeds
Ultra Short Term Money Funds...?

- Created to fill the “prime money fund” gap
  - But “short term” does not necessarily mean “low risk”

- PFIA requires:
  - No asset-backed securities
  - ‘investment grade’ securities

- These are NOT money market funds as you know them
  - They are NAV funds – they are **mutual** funds
  - They are not built for liquidity – no $1 net asset value
  - You can lose principal dependent on:
    - Credit quality
    - Maturity dates
    - Sensitivity to rates
Why the Major Treasury Price Rally

End of Month Rates - Full Yield Curve – Fed Funds to 30yr
Legislative and Market Take-Aways

• Not all the legal changes made affect you or should affect you
  ▫ *Unique situations must be judged as such*

• Change must be evaluated and if necessary change with it

• Not all the changes are necessarily good
  ▫ *Often result of reach for yield or outside influence*

• The devil is in the details
  ▫ *You have to understand why the change occurred*
Some Things Do Not Change

• The fundamentals of:
  ▫ Safety
  ▫ Liquidity
  ▫ Diversification
  ▫ Yield
Basic Public Objectives

• Safety of principal
  ▫ Preservation of capital

• Liquidity
  ▫ Assuring that funds are available
  ▫ Covering known and unexpected expenses

• Diversification
  ▫ Avoiding risk of over-concentration

• Yield
  ▫ Making all the funds work

• How do we achieve the objectives?
How do I achieve Safety?

- Document all transactions
- Use competitive transactions
- Delivery versus Payment (DVP) Settlement
- Use independent counter-parties
- Establish controls and procedures
- Establish Collateral
  - Independent safekeeping and reporting
- Diversify
- Understand the various securities/opportunities
- Review and report regularly
- Review bank contracts
  - establish equality
  - review for practicality
- Recognize changes in your and the markets’ situation
How do I achieve **Liquidity**?

- Create and understand your cash flow
- Invest to fund known liabilities
- Maintain a small cash buffer for emergencies
- Use liquidity alternatives
  - Pools and MMMFs
- Buy high credit quality securities
  - High quality assures a secondary market
How do I achieve **Diversification**?

- **Create competition in every transaction**
  - Never rely on one institution or broker
  - Do not allow a broker to do competitive bidding for you

- **Diversify by type of security**
  - Knowledge of the alternative securities
  - Use securities that make sense for the period

- **Diversification maturity**
  - Create a ladder to meet your liabilities
How do I achieve Yield?

- Invest to your cash flow needs
- Reduce lower yielding balances at bank
- Know the securities and use appropriate ones for the time
- Assure there is always competition
- Know, compare and use your alternatives
- Monitor bank costs and structures
Risk, Return and Strategy are Intrinsically Linked

• Your strategy and opportunities will depend on:
  ▫ Your resources and risk tolerance
  ▫ Your cash flow
  ▫ The time you spend
  ▫ The economic conditions
  ▫ The geo-political conditions

• Can be dependent on your economic view in larger portfolios and by professional advisers
Managing Credit Risk

• Credit Risk
  ▫ The risk of issuer failure
    • Inability to pay interest or principal
    • PFIA requires monitoring and action on credit rating downgrade
    • PFIA authorized investments face little credit risk
Managing Credit Risk

- Restrict portfolio to the highest credit ratings
- Monitor credits
- Prepare a process ready for credit downgrades
- Diversify
- Limit maximum maturities
- Require dual ratings
  - Two views are better than one
- Utilize credit rating agencies
  - Understand when they are being political too!
  - Understand the rating definitions
- Monitor the markets periodically
Liquidity Risk

• **Liquidity Risk**
  - The risk of not having cash when needed
  - The inability to sell security when needed for cash
  - Public funds’ biggest risk
    • Danger that it forces many to stay TOO liquid

• **Managing Liquidity Risk**
  - Do your cash flow
  - Create a “liquidity buffer”
Market Risks

- **Market Risk**
  - The risk that market prices will fall
  - Lower prices threatens liquidity
    - If you can not sell at a loss
  - If sold you might recognize a loss of principal
    - If not sold it is an “unrealized” loss and no threat

- **Volatility Risk (the “Fear Index”)**
  - The risk of significant changes in market prices
  - Higher the volatility = higher risk
  - Volatility increases with longer maturities, low credit and structured securities
Managing Event Risk

• **Event Risk**
  ▫ An unforeseen change that affects markets.
  ▫ Moves markets especially with uncertainty
    • “Risk –On” and “Risk-Off” (as in put your risk hat on)

• **Managing Event Risk**
  ▫ Diversification
Security Structure Risk

- Extension Risk
  - Risk that securities lengthen in maturity unexpectedly
  - Primarily in *mortgage backed* securities
    - when mortgage rates rise people do not refinance

- Re-Investment Risk
  - Risk that reinvestment will be at lower rates
  - Primarily in *callable* securities
    - when they are called as rates fall
Safekeeping and Custody Risk

• Custody Risk
  ▫ Custody of pledged securities
  ▫ Risk to proof of the pledge
  ▫ Risk to control of the pledge

• Safekeeping Risk
  ▫ Safekeeping of securities you own
  ▫ Risk to your proof of ownership
    • Proving your ownership
What is Safekeeping?

• An institution holding securities **owned** by you.

![Diagram](https://via.placeholder.com/150)

1. **ISD buys a security**
2. **Broker sells the security**
3. **ISD approves trade and funds**
4. **Broker sends to bank DVP**
5. **Bank holds the security**

**DDA Account** tied to transaction

**Safekeeping Account** holds record of security
Safekeeping accounts are not regular bank accounts but must be tied to a demand deposit account (DDA) so that money that buys a security can only flow back to the same account. These accounts are in the securities clearing section of the bank and assigned by name.
Non-Market Risks

• Counterparty risk
  ▫ Broker background checks
  ▫ FINRA registration
  ▫ Independent safekeeping outside brokerage

• Banking risks
  ▫ Reconciliation within 30 days
  ▫ Verify availability of funds
  ▫ Continuously monitor cost of services with account analysis

• Employee risk
  ▫ Separation of duties
  ▫ Oversight and cross training
  ▫ Cash controls like numbered receipts, safes, assigned tills
Technology’s Risks

• **Employee controls**
  ▫ Pin numbers and separation
  ▫ Limited access to applications
  ▫ Stand alone computer access

• **Bank fraud controls**
  ▫ Filters/blocks on ACH
  ▫ Payee positive pay
Collateral Risk

- **PFCA**
  - References but does not “require” a collateral policy
  - District should have a collateral policy beyond the banking services contract

- **FDIC and collateral issues**

- **Bank Collateral**
  - Securities pledged to repay a debt
  - Deposits protected by FDIC and collateral
  - Covered by Public Funds Collateral Act
    - (Local Government Code, Chapter 2257)

- **Manage the risk by answering:**
  - What is acceptable collateral to me?
  - Is there enough of it?
  - Is the collateral pledged specifically to the District– can I prove it?
Collateral Control

• Collateral covers deposits over FDIC insurance
  ▫ by tax id and type of account

• Collateral is **pledged** not owned

• Set the margin at 102% to protect from price volatility

• Establish **independent** custody

• Require independent monthly **reporting**
  ▫ 2013 change in PFCA requires you to request reports
Collateral Policy Points

- PFCA consistent
- Full collateralization required on all time and demand deposits
- Require market value of collateral of 102% of deposits (110% for MBS)
- Approved independent third party custodian
- Ability to require more collateral
- Written agreement required under FIRREA
- Set authorized types of collateral
- Receipts required
- Audit and inspection rights
A Collateral Policy

• Define authorized collateral
  ▫ “Obligations of the US Government, its agencies and instrumentalities, including mortgage backed securities and CMO passing the bank test”
  ▫ Preference to pledged securities
  ▫ Monitored and maintained by the bank at all times.
  ▫ Reports monthly from custodian

• The options by law include:
  ▫ Surety bonds
  ▫ Treasury notes and bills
  ▫ US Agencies
  ▫ Municipals rated A or better
  ▫ Letters of Credit
Collateral Policy

Consistent with the requirements of the Public Funds Collateral Act (Gov’t Code 2257), it is the policy of the District to require full collateralization of all District funds on all time and demand deposits with any depository bank. In order to anticipate market and provide a level of security for all funds, the market value of the collateral will be 102% (or 110% on MBS) of principal and accrued interest on the deposits less an amount insured by the FDIC daily.

At its discretion, the District may require a higher level of collateralization for certain investment securities. The Finance Director will approve collateralization agreements with independent third party custodians in compliance with this policy. The acceptable investment securities for collateral are:

- Obligations of the US Government, its agencies and instrumentalities including mortgage backed securities and CMOs passing the bank test.
- Obligations of any state or local government rated AA or better by at least two national recognized rating agencies.
- Letters of credit from the FHLB.

Preference will be given to pledged securities rather than letters of credit.

The collateral agreement shall include provisions relating to possession of the collateral, the substitution or release of investment securities, pledge of securities, and the method of valuation of securities. A clearly marked evidence of ownership (safekeeping receipt) must be supplied to the District directly from the Custodian and retained. The custodian shall provide a monthly report of collateral directly to the District. Collateral shall be reviewed at least quarterly by the District to assure the market value of the pledged securities is adequate.

Subject to Audit

All collateral shall be subject to inspection and audit by the Financial Director or the City’s independent auditors.
Collateral Reports

- Investment officer’s responsibility

- Do you/Can you verify contents
  - What value is substitution verification?

- New move to money center banks and inquiry
  - Adding inquiry and daily pricing
Setting a Macro Strategy

- **Macro strategy**
  - Policy statement from passivity or pro-activity
  - Includes setting WAM and maximum maturity
  - Requires annual review
  - Must be flexible enough to adjust to market and internal conditions
  - Must be adopted by the Council annually
    - Put in your policy
    - Assure that resolution approves both policy and strategy

- **Market Strategy**
  - Changes daily and requires market information
Time Horizons Set Strategies

- Think and build your portfolio around time horizons
- Cash flows allows you to act pro-actively
  - Provides comfort that necessary funds are available
  - Allows some extension by recognizing future flows
- Defines the portions of your portfolio
  - And from that the strategy for each
- Yield is not the end-game but an added benefit
What is a Macro Strategy?

- Sets the stage for an overall view of how the portfolio will function
- Sets your weighted average maturity (WAM)
- It must describe how you intend to obtain:
  - Objective of investments: what actions and controls
  - Suitability of instruments: all high credit quality
  - Safety of Principal: high credit quality and safekeeping
  - Liquidity: laddering and adding a liquidity buffer
  - Marketability of investments: all with secondary markets
  - Diversification: competition and moves with the markets
  - Yield: competition, extensions to meet cash flows
Writing your macro strategy

• Commingle/combine portfolios for investment purposes.

• Buy-and-hold not trading portfolio.

• Use its cash flow to structure the portfolio.

• Use only high-credit quality securities.

• Maximum maturity will be ____ months and the maximum weighted average maturity will be ____ months.

• Tie to benchmark?
Sample Strategy for a Short Conservative Portfolio

The primary objective is liquidity and reasonable yield.

Authorized securities or the pool used will be of the highest credit quality.

When not matched to a liability it will be short term and liquid. The portfolio will be diversified to avoid market and credit risk. Diversification requirements can be met through a pool.

Maximum **WAM** is 180 days.
Sample Strategy for a Short Conservative Pro-active Portfolio

• The primary objective is to invest in accordance with cash flow needs to produce a market yield.

• All securities will be of the highest credit quality.

• The portfolio will be structured as a ladder to match known liabilities and providing for a reasonable liquidity buffer for unexpected needs.

• The portfolio will be diversified to avoid market and credit risk.

• The maximum weighted average maturity will be six months.
What Else is Changing

• Perceptions
  ▫ Consumer
  ▫ International Investor
  ▫ Business

• Strategy
  ▫ Investors as well as the Fed
  ▫ Fiscal versus monetary policy guides

• Debt
  ▫ Government debt

• Stock markets and currency values

• Liquidity
Uncertainty Reigns

- Rates move in relation to changes and fears
- Trade talks
- Brexit
- Global slowdown
- Political global changes
- Business viewpoints
- Debt
- Liquidity
UNDERMINING AN ECONOMIC ENGINE

The themes seen throughout 2019 remain and although the US remains the healthiest economy in the world, it too is slowing. We are on the economic flats globally and the markets are unsure which way we will move next – and how quickly we will move there. Throughout this year economic uncertainty has reigned and September was no different. Many of the issues remain the same but failing confidence can always undermine an economic engine.

- US manufacturing activity now sits at 2009 levels and is in its 2nd consecutive month of contraction (net of positive index responses under 50) creating a defined manufacturing recession. Fear is that this will undermine the US’s longest expansion in history.
- Many worry that deteriorating relations between US and China will create further barriers to growth.
- Payrolls remain strong, but are watched carefully for weakness.
- As central banks fight to get their economies moving and create some inflation, the debt levels around the globe are growing to dangerous levels. International rates driven by these banks is also driving funds into the US market for the only yield available.
- Rancorous trade talks have undermined and over-shadowed economic news but with Chinese domestic economic problems and Hong Kong violence in play, the Chinese goal of “complete unification” seems unlikely.
- Brexit is also in its final throes. Departure from the EU is only 31 days away. UK law demands the PM delay its exit without a deal, but with fluctuating legal issues there is a chance Brexit will occur throwing markets into turmoil.
- Congressional tax hike talks, talk of higher regulation and attacks on corporations and their CEOs, is beginning to take its toll.
- With evidence of growing weakness across a number of key sectors including housing, manufacturing and business investment, it remains to be seen whether or not the consumer can remain the sole support for the U.S. economy indefinitely. The American consumer after all is no doubt resilient, but not unshakable.
THE FED MOVES

The Fed is always considering and reacting to slowing signs in the economy and like most markets has focused on the manufacturing and non-manufacturing sectors, which are showing considerable weakness.

The market had already built in a second Fed Funds rate cut and got it in September making the expected 0.25% rate cut and moving the overnight rates to the 1.75%-2.00% range.

As important to the markets as this rate is, the Fed also cut the interest paid on excess reserves (IOER) by 30bps in response to a massive funding freeze in money markets, putting more financial asset factors in play. The balance sheet increase, which was speculated to boost liquidity, did not occur.

Since the markets had anticipated the rate decision, the Committee’s forward guidance became the most important aspect of the move. The markets want a clear-cut statement of future accommodation or at least a dovish tone from the FOMC promising to provide ongoing stimulus. Chair Powell, however, has indicated that only moderate moves are necessary at this point. But if the economy turns down, “then a more extensive sequence of rate cuts could be appropriate.” Clearly the FOMC is differentiating between the domestic economy and all the global pressures and the balance between. This stance by the FOMC may or may not be enough to stem negative confidence. The timing of settlement of some of the trade issues and Brexit will determine a lot!

The famous dot plot, which shows FOMC members anticipation of further rate actions, has moved down. The FOMC is divided with 5 members saying there is no need for additional cuts and 7 expecting one more cut. In other words half see one more cut in 2019. The Fed has to be hesitant to move once again back to zero rates if international events like Brexit, China and trade talks, they might be forced to acknowledge that the end of the credit cycle is getting closer.

This uncertainty, plus the rate change, caused a major disruption in short term funding markets which many public investors saw as a jump in pool rates. This was not a sign of higher rates and does not portend higher rates. It was the result of a massive and complex liquidity squeeze throughout the financial system. It had to do with financial institution regulations, massive treasury redemptions, and earlier balance sheet restrictions which severely restricted liquidity taking rates higher. The NY Fed moved to maintain the overnight rates and rates fell back. The Fed will hopefully move to install systems to prevent such squeezes in the future.
A Major Treasury Price Rally

- Equity and bond markets have seen major volatility as reactions to news changes day by day. The waning confidence generated by slowing manufacturing (which is reflective of the trade talks and countermeasures) has buffeted the equity markets and thrown investors into the bond markets taking Treasury yields further down.
- The Fed will also stop the unwinding of its balance sheet two months early, slowing supply in the long end.
- The fed funds and discount rate cuts in September took the overnight rates lower in their general move down, but assets from global markets looking for any yield keep the intermediate rates even lower.
- Positioning portfolios in an inverted curve is tough. The advantage of holding short-term assets makes extension difficult, but as overnight rates sink to the lower rates and another rate cut is expected, portfolios have to extend even matching current overnight rates to lock in rates above what could be another rate cut in 2019, taking the overnight rates (pool rates) closer to 1%.
Trading Strategies Today

• Time to extend
  ▫ although that best point may have been missed

• Situations not economics exert pressures on rates
  ▫ Rates are not rising – they are definitely falling
  ▫ Market calls for two more rate cuts in 2019... ready??
  ▫ Economy stuttering - Slow growth but no recession
  ▫ Wage pressure has finally kicked in
  ▫ Retail sales and housing and manufacturing fluctuate
  ▫ Trade tantrums, Brexit, politics and conflicts roil the waters
Strategies

• Dependent on your cash flow
• Dependent on your risk tolerance
• Dependent on your policy limits
• Require some analysis

• Partially dependent on **your economic view**
  ▫ Will rates go up?
  ▫ When will it go up?
  ▫ How far will it go?
Benefits of Commingling

• Think through the portfolio structure
  ▫ Radically different fund types need a separate policy

• Separate portfolios
  ▫ Require separate accounting
  ▫ May cause liquidity problems
  ▫ Can reduce yield by requiring liquidity balances

• Commingled portfolios
  ▫ Can still address unique needs of funds
  ▫ Smaller liquidity needs may allow more extensions
  ▫ Reporting is simpler
Market Sector Analysis

- Market sectors are the different types of securities
  - Treasuries, agencies, CP, CD, pools

- Sectors vary by risk and structure
  - agencies and new agency issues
  - commercial paper
  - taxable municipals

- Evaluating sectors requires information on that sector
  - credit decisions and risks
  - historical spread analysis
Comparing Sectors for Relative Value Maturity Analysis by Sector

<table>
<thead>
<tr>
<th></th>
<th>6 month</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pool</td>
<td>n/a</td>
<td>2.15%</td>
</tr>
<tr>
<td>CD</td>
<td>Yes</td>
<td>1.50%</td>
</tr>
<tr>
<td>Treas</td>
<td>Yes</td>
<td>2.20%</td>
</tr>
<tr>
<td>Agencies</td>
<td>Yes</td>
<td>2.00%</td>
</tr>
<tr>
<td>CP</td>
<td>yes</td>
<td>2.86%</td>
</tr>
</tbody>
</table>
Spread Analysis

• Spread means difference
  ▫ Difference in rate between securities or market sectors

• Spreads are dynamic
  ▫ Anticipated spreads on credit
  ▫ Current spreads
  ▫ Historical spreads
  ▫ Volume spreads

• Doing a spread analysis means comparing rates

• You must check the rates at that maturity in various sectors
Yield Curve Analysis

• Yield curves depict the market conditions
  ▫ Shows the markets expectations and demands
  ▫ Tells a story
  ▫ Illustrates the best value
  ▫ Read in light of current conditions

• Picking the best place on the curve
  ▫ Your portion of the curve is restricted by policy
  ▫ Your portion is restricted by risk tolerance and cash flow
The Flattening Curve

- An inversion does still appear on the curve but not from 2s to 10s. And, historically this inversion has predicted 7 of the last 5 recessions! Not a good track record. Plus the time from inversion to recession (since 1970) has averaged 15.5 months. Also not a panic situation.
- Fears of a recession controlled in December and early January but strong payrolls and moderate data are moving the possibility of a recession out to 2020.
- The key to interpreting the yield curve continues to come from the general slowing of the global economy and the anticipation that without inflation or stronger growth the Fed will not be able to continue raising rates. If the Fed does not raise rates money will be cheap and stock markets will continue to run.
Reading Yield Curve Nuances

![Graph with Yield Curve](image)

- **Steepness**
- **Value**
- **Pick-up**

Legend:
- **Cheap**
- **Flat**
- **Rich**

Yield Curves:
- **3 Mo**
- **6 Mo**
- **1 Yr**
- **2 Yr**
- **5 Yr**
- **10 Yr**
- **30 Yr**
Check the web for information on the markets.
Relative Value by Yield

- A core investment out 1.5 years...

- T-Note 2.20 %
- FNMA 2.22 %
- FHLMC 2.24 %
- FHLB Call 2.45 %

- What are your considerations?
- How far do you feel safe going?
Choosing Investments

- Every penny requires an investment decision
- Investing is short and long term
- Cash flow needs control your choice
  - Primary control
  - Put money out where you need it
  - Usually ladder to fit needs
- Market conditions also control
  - Current conditions limit extensions
  - Current conditions favor 6 to 12 months
The Pie and Your Strategy

• **Liquid Portion**
  ▫ Provides liquidity
  ▫ Alternatives
  ▫ Today’s strategy?

• **Short-Term Portion**
  ▫ Match upcoming known expenditures
  ▫ Compare alternatives in securities and maturities
  ▫ What is today’s strategy?
The Pie and Your Strategy

- **Long-Term Portion**
  - Matching known expenditures
  - Usually 6 to 12 months
  - What is today’s strategy?

- **Core Portion**
  - Reserves, no planned shorter term use
  - Focus on rate movements and yield
  - May call for different securities
  - What is today’s strategy?
The Laddered Portfolio

- Ladders match cash flow
- Built on time horizons
- Often focus on one investment per month
- No need to fill consecutively – let market yields guide choice by rate

Standard Ladder
Making the Decision

- **Need:** $500,000 payroll on 6/27/20
- **Choices:** Treasuries, CD, Agency, Pool
- **Curve:** Stable and normal upward slope

**Yields:**
- CD 2/25/20 1.70%
- T-Bill 2/19/20 2.40%
- FNMA DN 2/18/20 2.40%
- Pool 2.20%
Making the Decision

• Need: $500,000 payroll on 6/27/20

• Choices: Treasuries, CD, Agency, Pool

• Curve: Flat curve, talk of Fed raise in rates

• Yields:
  ▫ CD 2/25/20 1.70 %
  ▫ T-Bill 2/19/20 2.40 %
  ▫ FNMA DN 2/18/20 2.40 %
  ▫ Pool 2.20 %
Making the Decision

- **Need:** $500,000 payroll on 6/27/20
- **Choices:** Treasuries, CD, Agency, Pool
- **Curve:** Economy looks bad

**Yields:**

- **CD** 2/25/20  1.70 %
- **T-Bill** 2/19/20  2.40 %
- **FNMA DN** 2/18/20  2.40 %
- **Pool** 2.20 %
Relative Value by Yield

- Investment out about 6 months... no specific liability

- T-Bill: 2.22%
- T-Note: 2.75%
- FNMA: 2.85%
- FHLMC: 2.81%
- GE CP: 2.96%
- FFCB: 2.60%
- CD: 2.40%

- Which one do you NOT use?
- What are your considerations?
Relative Value by Yield

- Longer term investment out 1.5 years...core investment

- T-Note 2.28 %
- FNMA 2.35 %
- FHLMC 2.33 %
- FFCB 2.40 %
- WB 2.60 %
- CD 1.50 %

- What are your considerations?
So what do I do - about a strategy

- Chose your time horizon
  - Fill months which need funds
  - Skip months where funds are already available

- Set your maximum money to invest

- Have a general idea of where rates are

- Compare value in all authorized markets
  - Do competitive bidding or ask several brokers for ‘best value’
Steps in Developing a Market View and Strategy

1. Perspective on world and geo-political situation

2. View of business environment

3. Market and economic conditions
   - Yield curve movement
   - Relative value

4. Your unique situation
Business Cycle Impacts Interest Rates

- Business cycle affects prices and interest rates
  - Influences monetary policy

- Economy growing quickly
  - Focus on inflation risks leads to monetary policy tightening
  - Prices tend to rise

- Economy contracting
  - Focus on further economic weakening
  - Job loss - leads to monetary policy easing
  - Prices fall
“All Eyes on the Fed”

• Fed faces dual objectives which often conflict with one another
  1. Price stability
  2. Full employment

• FOMC Open Market Operations
  ▫ “Tighten” to raise rates; “Ease” to lower rates
  ▫ Currently 1.25% – 1.50% range
  ▫ 74% chance of rate increase in March 2018

• Money supply and demand determine: 
  Cost of Money = Interest Rates
Economic Indicators

- A statistic about the economy that can be analyzed or used to forecast the economy and the business cycle

- Indicators fall in 3 categories:
  - leading, lagging and coincident

- Information = power

- Economic calendars rule
Economic Indicators

**Leading**
- Can change the business cycle: CPI, payroll

**Coincident**
- Simultaneously bring changes to the cycle: sentiment

**Lagging**
- Lagging the business cycle: GDP,
Inside Each Indicator Lies.....

- Non-farm payroll seems straightforward but:
  - Net value of job losses/gains
  - YOY or MOM comparisons
  - Sector breakdown
  - Household survey
  - Participation rate
  - Unemployment rate
  - Workweek
  - Hours worked
  - Average hourly earnings
  - Seasonal adjustments
  - Revisions

ADP Report
Challenger Report
BLS Report
Economic Indicator/Factors

• Commodity Prices *(Commodity Research Bureau)*
  ▫ Base commodities:
    • Crude Oil, Copper, Silver, Lumber

• Interest Rates
  ▫ Federal Funds
  ▫ Ten (10) year Treasury Bond
  ▫ Financial Futures

• Stock Market
  ▫ Corporate Profits
Structural/Social Factors

- **Demographics**
  - Developed nations “Baby Boomers” aging > saving for retirement > spending less > implies rates will stay relatively low
  - Looming young generational bulges in unstable countries point to growing geopolitical risks > bullish for short-term government debt

- **Social / Financial Structural Changes**
  - Budget Deficits
  - Pension Liability
  - Rising Expenditures – such as Health Care
  - Bankruptcies – corporate or real estate
Geopolitical Factors

• Geo – Political Events
  ▫ War or instability in world markets
  ▫ Change in political leadership
  ▫ War on terror

• Political business cycles
  ▫ Voters influenced by state of economy > strong incentive to destabilize economy for political gains
Thanks and Good luck!

David McElwain
Patterson & Associates
davidmc@patterson.net
Thanks! You can rest now....