Overview of the Investment Environment for Risk Pools

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TODAY’S PRESENTATION

- Overview of the Investment Environment for Risk Pools.

- What’s going on with investments at TML Intergovernmental Risk Pool (TMLIRP)?

- What’s going on with investments at your Pool?

- Let’s make this presentation interactive!!!
KEY INVESTMENT QUESTION FOR RISK POOLS!

- Why are interest rates near record lows and what is the outlook?
  - What are the implications for investment income?
  - What’s the impact on bonds and risk assets?
RECENT DEVELOPMENTS IMPACTING POOL INVESTMENTS

- Fed lowered rates in July and September due to economic weakness and uncertainties.
- Uncertainties around Trade War.
- Recent U.S. economic data has been on the weak side.
- Global economic data has been weak as well.
- Global monetary stimuli continues.
- U.S. stock hit a record high in July 2019! Why?
- What can be done if we fall into another recession?
MONETARY POLICY IMPACTS POOL INVESTMENTS

FED FUNDS RATE: A short-term interest rate used by the Federal Open Market Committee (FOMC) to control monetary policy.

01/01/99 – 09/10/19

Interpretation:
The FOMC impacts economic growth by changing the Fed Funds Rate (short-term interest rates).

SOURCE: Bloomberg L.P.
Information received since the Federal Open Market Committee met in July indicates that the labor market remains strong and that economic activity has been rising at a moderate rate. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports have weakened. On a 12-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent. Market-based measures of inflation compensation remain low; survey-based measures of longer-term inflation expectations are little changed.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. **In light of the implications of global developments for the economic outlook as well as muted inflation pressures, the Committee decided to lower the target range for the federal funds rate to 1-3/4 to 2 percent.** This action supports the Committee's view that sustained expansion of economic activity, strong labor market conditions, and inflation near the Committee's symmetric 2 percent objective are the most likely outcomes, but uncertainties about this outlook remain. As the Committee contemplates the future path of the target range for the federal funds rate, it will continue to monitor the implications of incoming information for the economic outlook and will act as appropriate to sustain the expansion, with a strong labor market and inflation near its symmetric 2 percent objective.
6-Month Treasury Bill Yield Tied to the Fed Funds Rate

12/31/99 – 09/10/19

Interpretation:
The Federal Open Market Committee (FOMC) lowered short-term rates to record levels to stimulate growth. The yield had been near zero for almost eight years, but rose in conjunction with FOMC rate hikes. The recent dip indicates the market is anticipating rate cuts.

SOURCE: Bloomberg L.P.
LONGER-TERM INTEREST RATES IMPACT POOL INVESTMENTS

THREE COMPONENTS OF LONG-TERM INTEREST RATES

Inflation Expectations

Risk Premium

Fed Funds Rate

Economic Indicators help assess Inflation Expectations.
INFLATION EXPECTATIONS DEPEND ON DEMAND AND SUPPLY

- If demand exceeds supply, prices will rise, and inflation is a risk.

- If supply (or capacity to provide supply) exceeds demand, prices will fall, and deflation is a risk.

- Inflation is low (deflation?) because global supply exceeds weak global demand!
Interpretation:
The 10-year yield fell from a high of 6.8% in 01/00 to a low of 1.4% in 07/12. A “flight to quality”, low inflation, and international investment have contributed to the fall. Low bond yields around the world are anchoring U.S. bond yields. Global interest rates are falling again due to weak economic data and low inflation.

SOURCE: Bloomberg L.P.
### WHERE’S THE YIELD?

<table>
<thead>
<tr>
<th>Country</th>
<th>Maturity</th>
<th>07/11/18</th>
<th>09/09/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Treasury</td>
<td>1-Year Maturity</td>
<td>2.3%</td>
<td>1.8%</td>
</tr>
<tr>
<td>US Treasury</td>
<td>2-Year Maturity</td>
<td>2.6%</td>
<td>1.6%</td>
</tr>
<tr>
<td>US Treasury</td>
<td>5-Year Maturity</td>
<td>2.7%</td>
<td>1.5%</td>
</tr>
<tr>
<td>US Treasury</td>
<td>10-Year Maturity</td>
<td>2.9%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Germany</td>
<td>10-Year Maturity</td>
<td>0.4%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>France</td>
<td>10-Year Maturity</td>
<td>1.6%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Japan</td>
<td>10-Year Maturity</td>
<td>0.1%</td>
<td>-0.3%</td>
</tr>
</tbody>
</table>
INVESTMENTS AT TMLIRP

- Record drop in interest rates have created massive “unrealized investment gains”.
- Low interest rates have ignited mortgage refinancing and faster prepayments for certain Mortgage-backed securities.
- New Texas law provides expanded investment authority for the payment of death benefits and lifetime income benefits.
- Interesting discussion at TMLIRP’s annual investment meeting in September.
HUGE UNREALIZED GAINS AS INTEREST RATES FALL

The Pool tracks Return on Investment and Total Rate of Return (with unrealized investment gains/losses).

Most financial decisions, including rate setting, budgeting, and reserve discounting, are made without unrealized investment gains.

<table>
<thead>
<tr>
<th>Investment Income Comparison - Eleven Months Ending August</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Income</td>
<td>$22,387,066</td>
<td>$23,398,993</td>
</tr>
<tr>
<td>Amortization Expense</td>
<td>(3,768,871)</td>
<td>(3,380,804)</td>
</tr>
<tr>
<td>Realized Gains</td>
<td>567,237</td>
<td>339,592</td>
</tr>
<tr>
<td>Investment Income</td>
<td>19,185,432</td>
<td>20,357,781</td>
</tr>
<tr>
<td>Unrealized Gains (Losses)</td>
<td>(20,555,386)</td>
<td>40,164,448</td>
</tr>
<tr>
<td>Investment Income (w/unrealized gains/losses)</td>
<td>$ (1,369,954)</td>
<td>$60,522,229</td>
</tr>
</tbody>
</table>
Interpretation:
The 30-year mortgage rate fell to a record low of 3.31% in November 2012. After rising to 5% in 2018, the rate has plummeted to 3.49% in September 2019.

SOURCE: Bloomberg L.P
The refinance index covers all mortgage applications to refinance an existing mortgage.

Interpretation:
Record low interest rates in early 2003 resulted in record refinancing activity. Refinancing rose in 2011 and 2012 due to low interest rates. Refinancing activity is slow as many have already refinanced their mortgages. However, the recent drop in mortgage rates has ignited refinancing.  

SOURCE: Bloomberg L.P.
MORTGAGE-BACKED SECURITIES (MBS)

- **TMLIRP’s Benchmark (not including expanded authority)**
  - 70% MBS, 20% Taxable Munis., and 10% Intermediate Govys.

- **Higher MBS prepayments due to refinancing:**
  - Higher coupon 30-year MBS seeing higher prepayments.
  - 15-year MBS prepayments remain stable, for now.
  - Seasoned MBS offer value

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- Have to reinvest MBS prepayments at lower rates.
A pool or a political subdivision that self-insures may establish an account for the payment of death benefits and lifetime income benefits.

The Texas Public Funds Investment Act does not apply to the investment of assets in an account established under this section.

A pool shall discharge its duties with the care, skill, prudence, and diligence under the prevailing circumstances that a prudent person acting in a like capacity and familiar with matters of the type would use in the conduct of an enterprise with a like character and like aims.
Many Pools Have an Allocation To Risk Assets

• Is your Pool investing reserves, equity or both in risk assets?

• What is your allocation to Risk Assets?

• What is your benchmark?

• Has it enhanced the risk profile and returns of your portfolio?
COMMENTS FROM OUR ANNUAL INVESTMENT MEETING

- We focused on the expanded investment authority.

- One manager stated that all asset classes have high valuations, however, diversification and cross-correlations, can reduce risk!

- In a bond portfolio, market swings provide opportunities (mortgage-backed securities more attractive than corporate bonds at times).
COMMENTS FROM OUR ANNUAL INVESTMENT MEETING

- Monetary policy easing focused on preserving growth, not accelerating growth.
- US consumers has support from low interest rates, and the US Consumer drives imports.
- US yields offer good value considering global yields.
- Keep an eye on jobless claims.
ECONOMIC CYCLE IMPACTS POOL INVESTMENTS

Economic Cycle

Expansion
Recession
Expansion
Recession

Bond Yields

Bond Prices
GLOBAL MONETARY STIMULUS HAS CREATED OVERCAPACITY AND EXTENDED ASSET PRICES!

• Overcapacity leads to deflation (or low inflation), low interest rates and low bond returns for risk pools.

• Excess supply (capacity) leads to slower economic growth, lower company earnings, and lower returns for risk assets held by pools.

• Extended asset valuations (including stocks) is a risk for Pools in the short-term.
BIG PICTURE ECONOMIC CONCERN FOR POOL INVESTMENTS

HOW TO ADDRESS OVER CAPACITY?

- Higher demand to support the supply
  - Monetary Policy
  - Fiscal Policy
  - A Need for Goods
- Less capacity
  - Layoffs, plant closures, bankruptcies
  - Could lead to a downward economic spiral
Overcapacity leads to slow economic growth as supply exceeds demand.

SOURCE: Bloomberg L.P.
Low unemployment is a result of overcapacity.
There is overcapacity in many industries including the oil market.
An indicator for European economic activity reflecting the percentage of purchasing managers that report better business conditions than in the previous month. A PMI above 50 is expanding.

SOURCE: Bloomberg L.P.

Overcapacity is a global risk!
Extended asset valuations is another result of easing monetary policy!
CONCLUSIONS

- Risk pools will face an extended period of low interest rates and low bond returns.

- The imbalance between supply and demand will take time to work itself out.

- Uncertainties and extended asset valuations will lead to volatile returns for risk assets in the short-term.

- Historically, an allocation to Risk Asset enhances the risk profile and value of a portfolio in the long-run.

- A strategic investment approach (investment policy) is a key element of a Pool’s investment program.
QUESTIONS