FIRST EMPIRE SECURITIES
Member FINRA/SIPC

Managing Fixed Income Portfolios in a Transitional Environment

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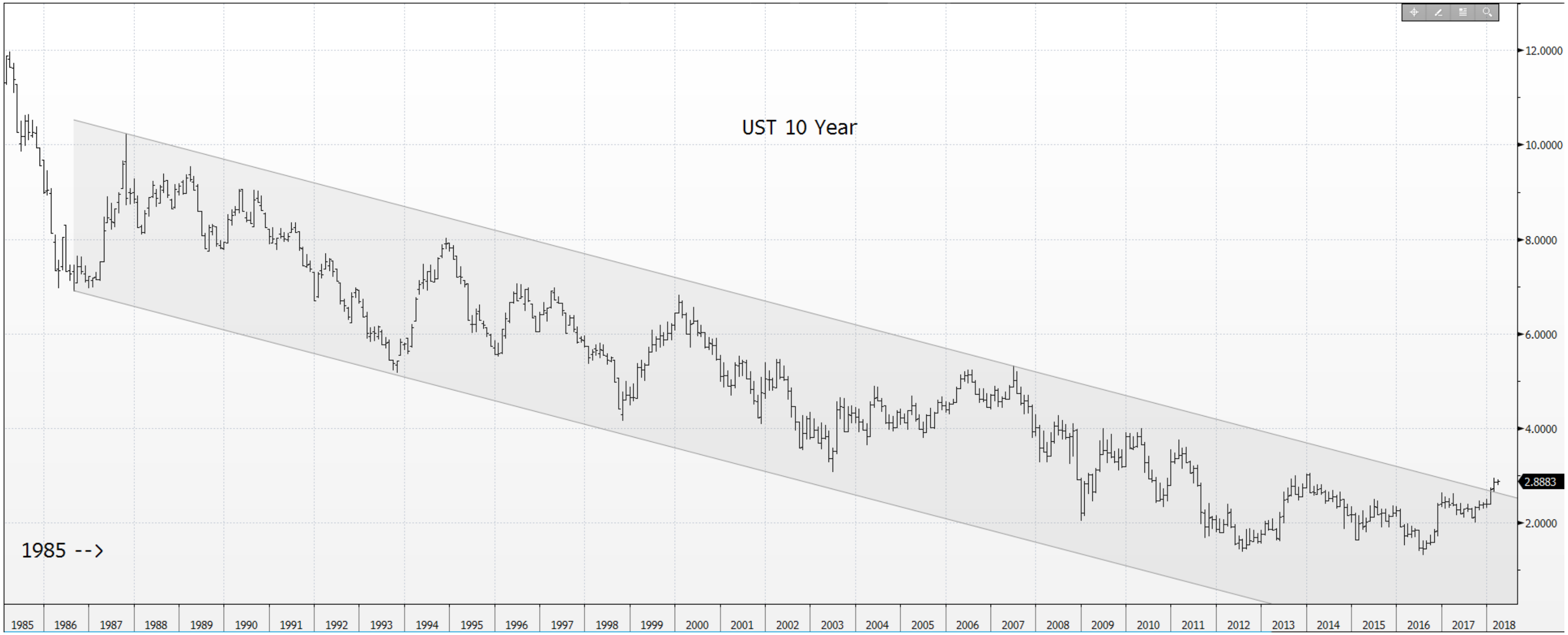
Market Overview

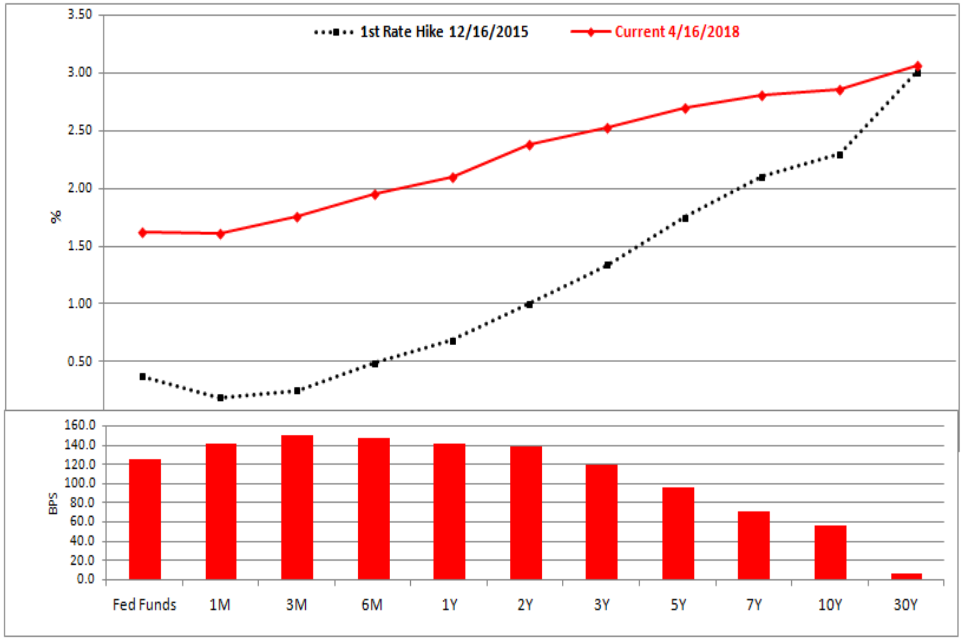
- Interest Rates
  - Level
  - Term Structure
- Credit
- Market Volatility

Transition Point for Secular Bull Market?



Source: First Empire Securities, Bloomberg

Fed Policy Drives the Curve



Tenor	1st Rate Hike 12/16/2015	Current 4/16/2018	Δ BPS
Fed Funds	0.375	1.625	125.0
1M	0.188	1.606	141.8
3M	0.249	1.754	150.5
6M	0.489	1.957	146.8
1Y	0.685	2.099	141.4
2Y	1.002	2.383	138.1
3Y	1.338	2.532	119.4
5Y	1.747	2.702	95.5
7Y	2.104	2.810	70.6
10Y	2.296	2.860	56.4
30Y	3.004	3.067	6.3

Source: First Empire Securities, Bloomberg

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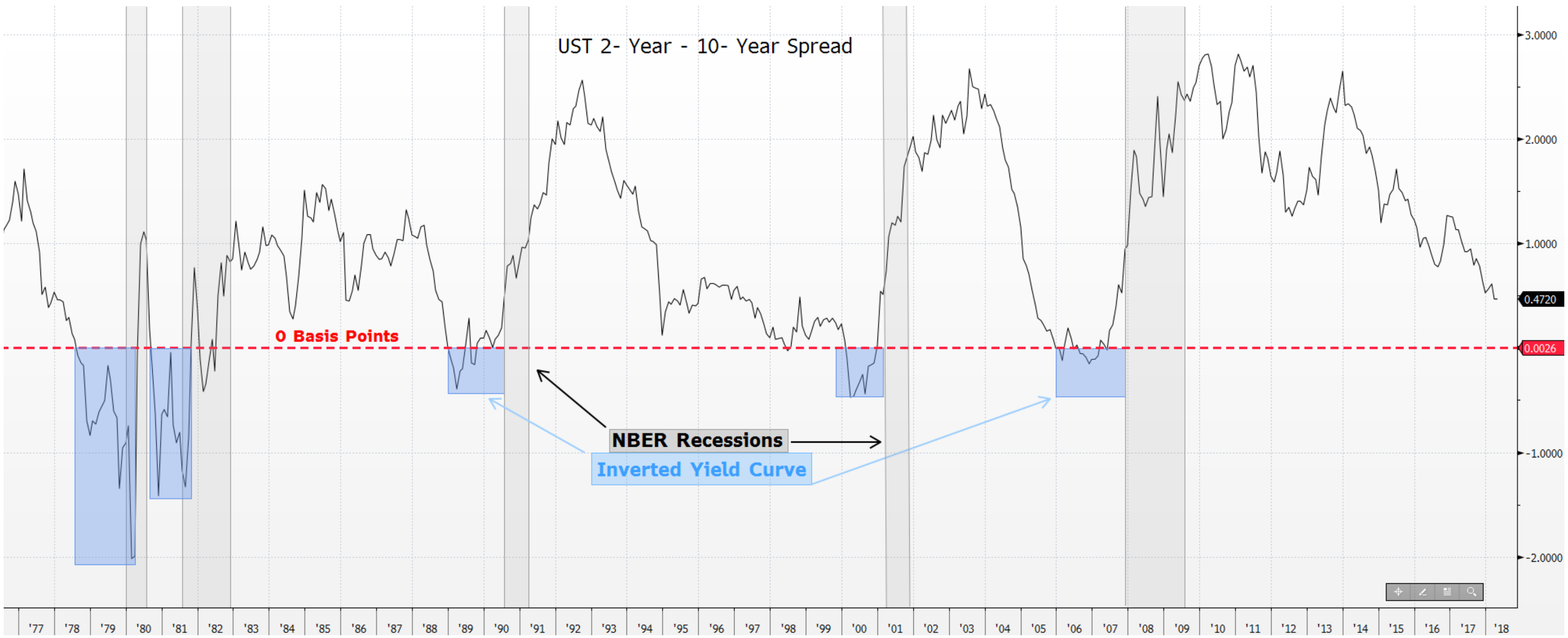
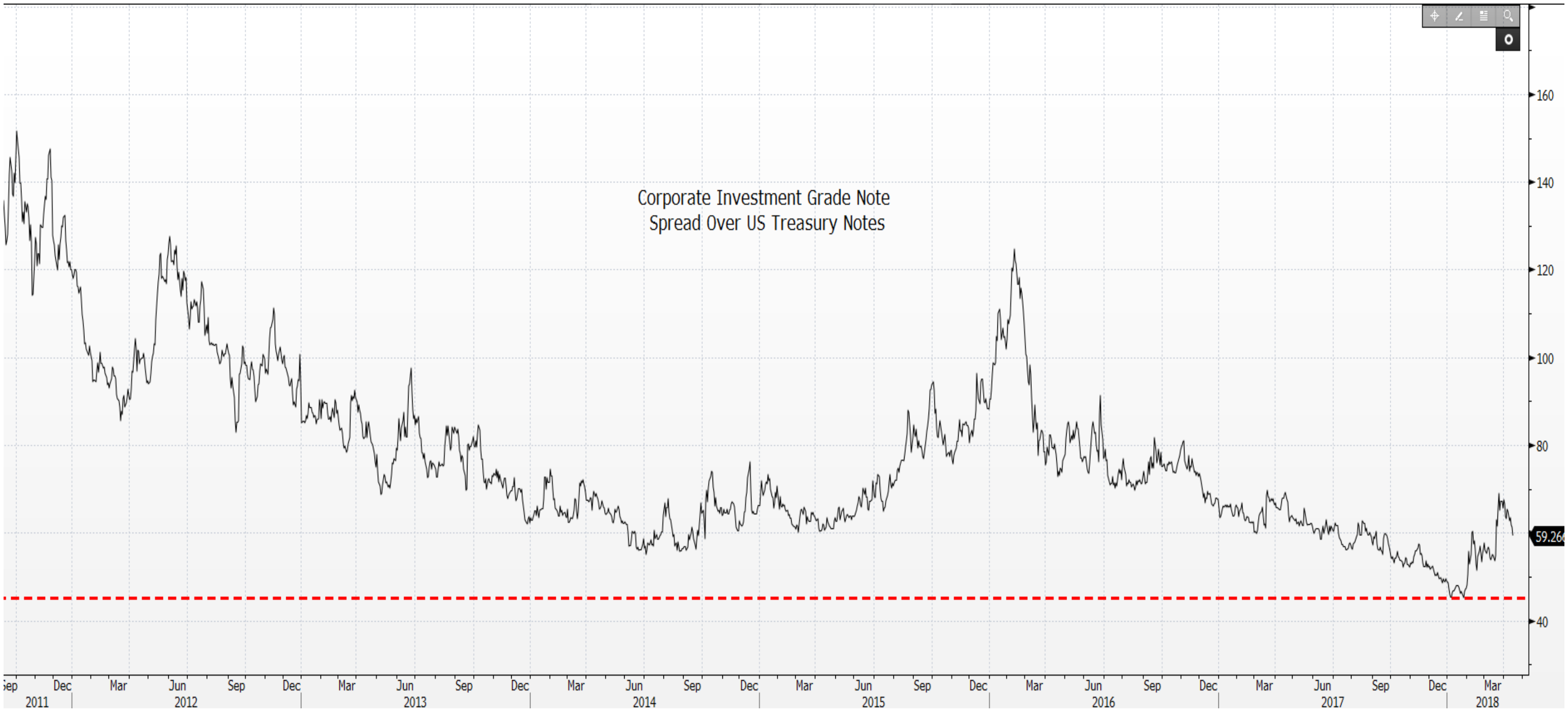


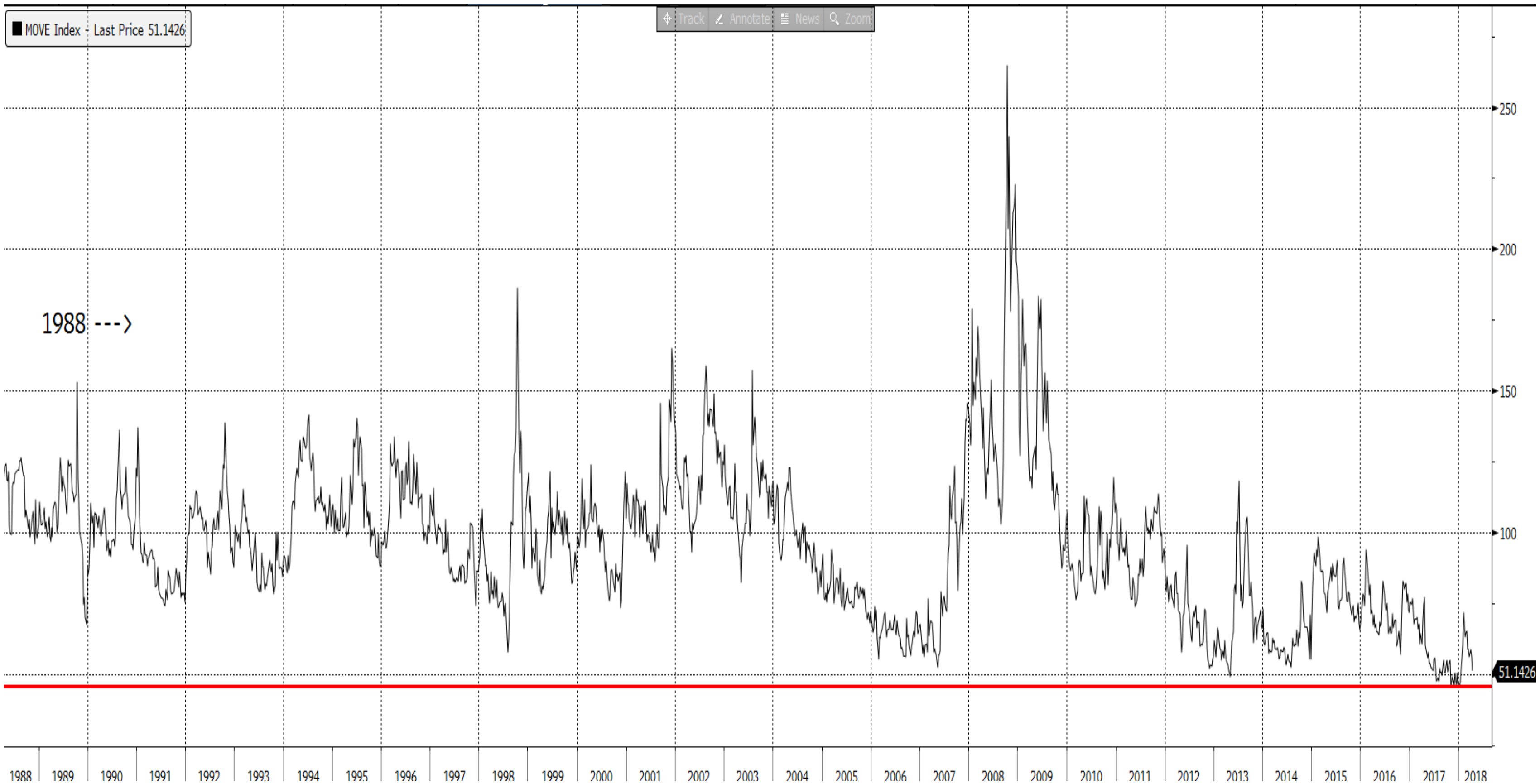
Source: First Empire Securities, Bloomberg

IG Spreads are Rich and Tracking Equity Markets



Source: First Empire Securities, Bloomberg

Rate Volatility is Low, but Unlikely to Remain So



Source: First Empire Securities, Bloomberg

Investment Portfolio Considerations

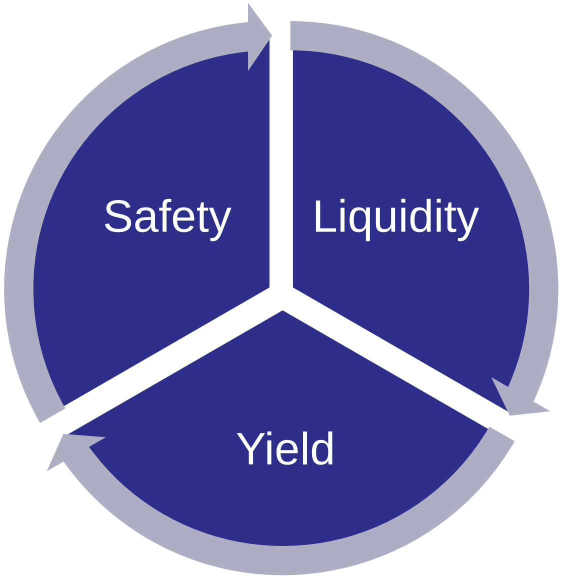
- Provides Safety, Liquidity, and Yield
- Meets Return Objectives
- Positioning for Current Market Environment

Portfolio Goals

- The goal of the portfolio is to provide secure investments that meet the operational cash flow obligations.
- Outright directional positioning is inappropriate.
- A portfolio that is invested and diversified appropriately can provide safety, liquidity, and yield that meets all requirements, as well as potentially generating excess returns to provide operational flexibility.

Does Your Investment Policy Meet Your Safety, Liquidity, and Return Requirements?

- Credit Quality
- Issue Size
- Appropriate Structure



Suitable Investment Products

US Treasuries
- Government Guaranteed
- Bullet, Floating Rate, Inflation Protected Structures

Agency Securities
- Government Sponsored Enterprise (GSE)
- Bullet, Callable, Floating Rate, or Step-up Structures

Negotiable Certificates of Deposit
- FDIC (Government Guaranteed) Insured up to $250,000
- Bullet Structure
- Higher Yields vs. US Agency Bullets

Corporate Securities
- Not Government Guaranteed
- Investment Grade Rated by a Major Ratings agency (A- or better)
- Bullet, Callable, Floating Rate, or Step-up Structures

Taxable Municipal Bonds
- General Obligations of Local and State Entities
- Revenue bonds supported by designated income stream (tolls, fees)
- Bullet, Callable, Floating Rate, or Step-up Structures

Note: Not all products or structures may be permissable or suitable investments for all municipalities.

Identifying, Understanding, and Managing Risk

- Price Volatility Risk
- Liquidity Risk
- Credit Risk
- Concentration Risk
- Call Risk
- Inflationary Risk
- Economic Risk
- Systemic Risk
- Political Risk
- Extension Risk

Flexibility of Cash Flow Structure

- Increasing or decreasing the weighted average life (WAL) of the portfolio will affect the slope of the cash flow patterns.

- A shorter WAL creates a steeper sloped wedge, while a longer WAL creates a shallower sloped wedge.

- A barbell can achieve a variety of WAL results, depending on where maturities are positioned.

Optimizing The Cash Flow Ladder

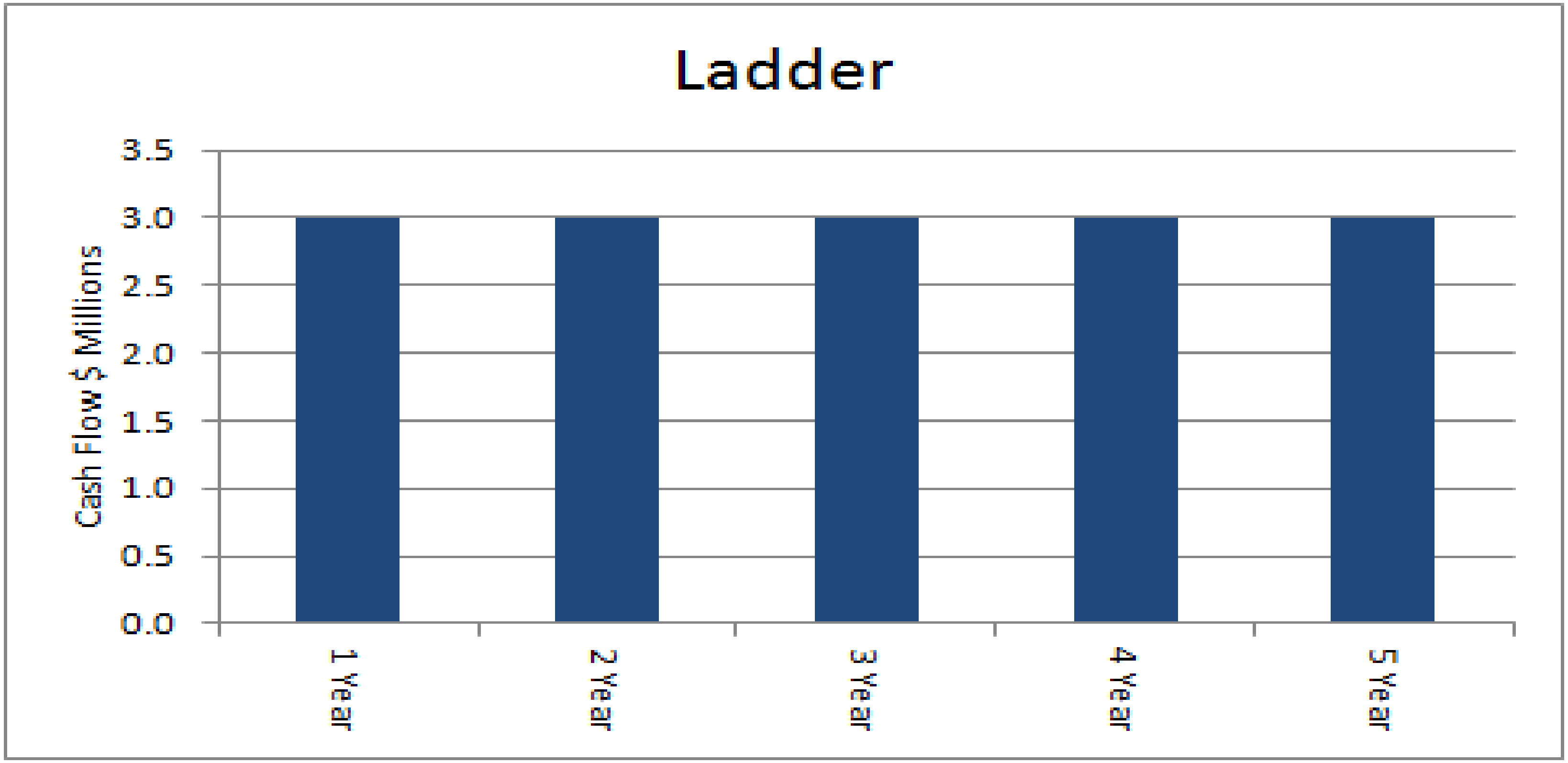
Rising Rates: Earlier cash flows and higher coupon provide reinvestment proceeds as yields rise.

Flat Rates / Sideways Markets: In a positive sloping yield curve environment with low volatility, a diversified portfolio with concentrated cash flow profile and an intermediate term WAL outperforms other structures.

Falling Rates: At the peak of the rate cycle, position further out on the yield curve. Migrate your coupon structure, moving from higher to lower. Capital appreciation becomes more important as the Fed cuts rates and creates slope in the yield curve. Generating large cash flows into a falling yield environment is undesirable as proceeds then have to be reinvested at ever lower rates.

The Cash Flow Ladder

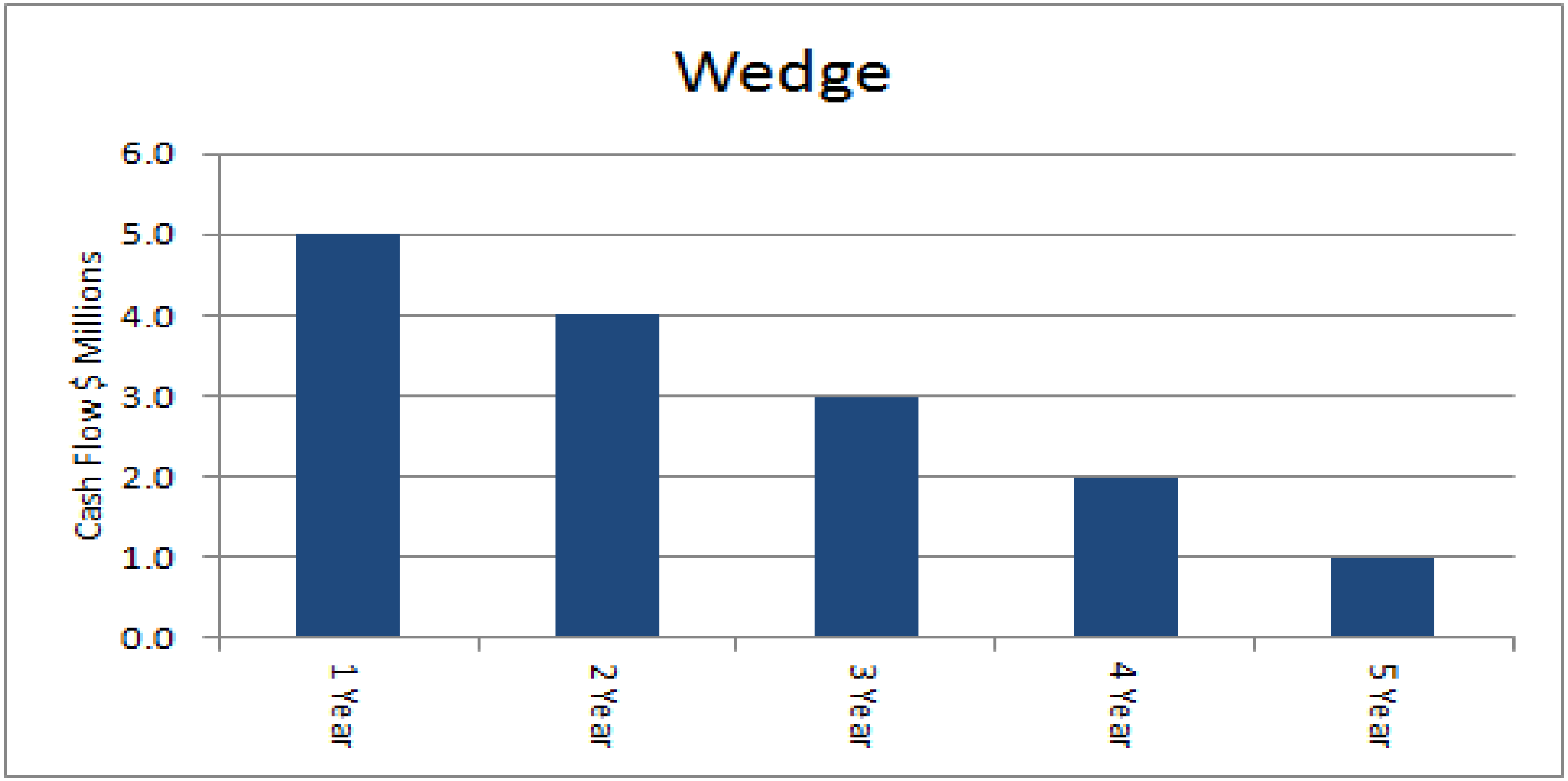
A traditional "laddered" approach distributes principal cash flows evenly across the maturity spectrum.



Source: First Empire Securities

The "Wedge"

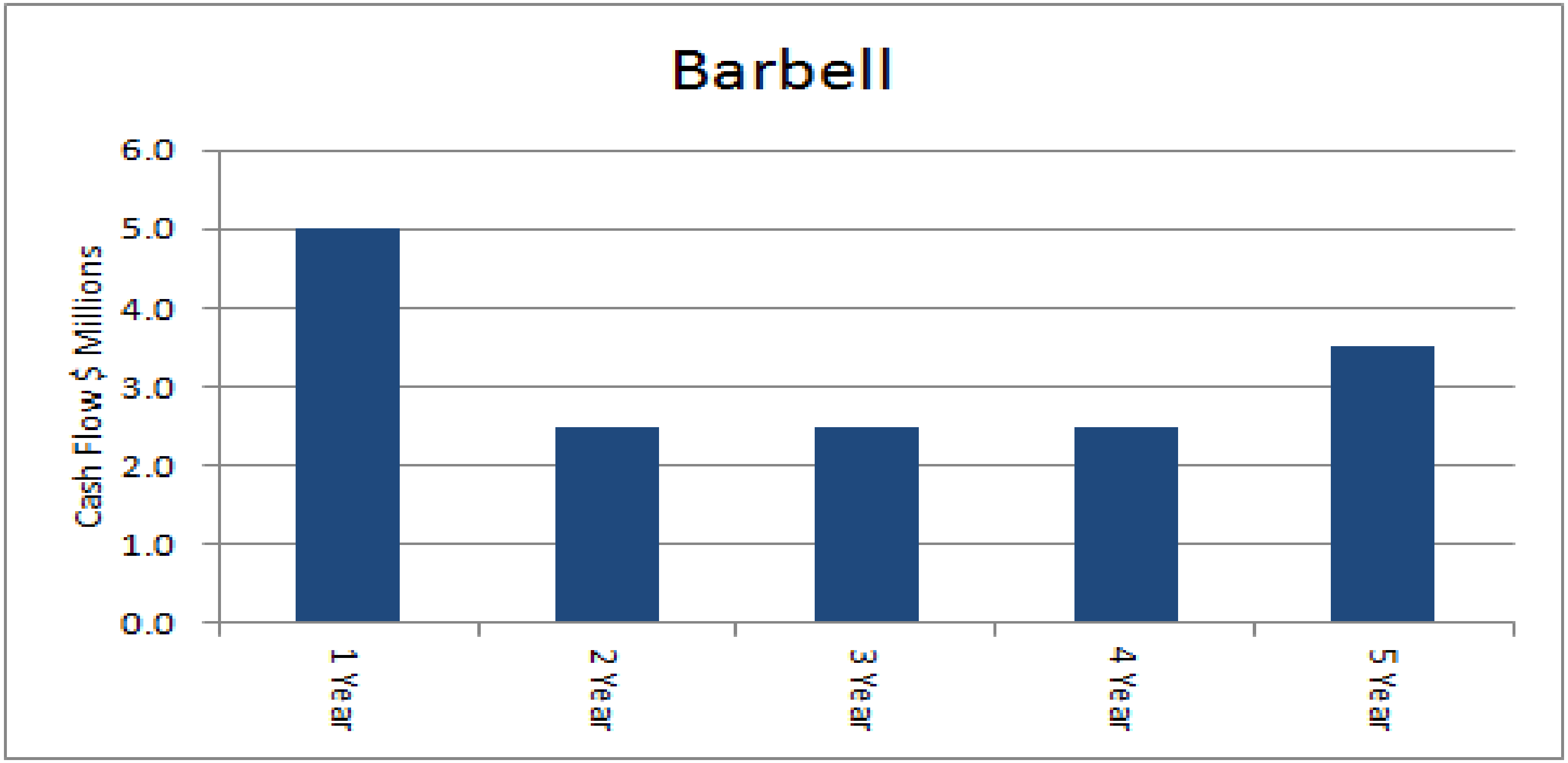
A "wedge" ladders all cash flows in a descending pattern to generate more cash flow in earlier periods.



Source: First Empire Securities

Barbell Strategy

A barbell strategy would meet all essential operational cash flow obligations, plus a pre-determined “cushion”. The longer dated bias of the investment structure allows the portfolio to capture attractive yields further out the maturity spectrum.



Source: First Empire Securities

Putting Liquidity to Work

Opportunity Cost – Waiting to Invest

If I wait in money market funds, at what yield do I need to invest in the future?

- Investment assumptions: Amount = $1,000,000 Maturity = 5 Years
- Interest rate assumptions: Money Market = 1.75% Alternative = 3.00%

Months Waiting	Assumed Fed Funds Rate	Accumulated Income	Alt Inv Yield	Accumulated Income	FOREGONE INCOME	Remaining term (Yrs)	Inc Needed through Maturity to "Breakeven"	YIELD NEEDED TO BREAK EVEN
3	**1.75%**	$4,375	**3.000%**	$7,500	**($3,125)**	4.75	$145,625	**3.07%**
6	**1.75%**	$8,750	**3.000%**	$15,000	**($6,250)**	4.50	$141,250	**3.14%**
9	**1.75%**	$13,125	**3.000%**	$22,500	**($9,375)**	4.25	$136,875	**3.22%**
12	**1.75%**	$17,500	**3.000%**	$30,000	**($12,500)**	4.00	$132,500	**3.31%**
15	**1.75%**	$21,875	**3.000%**	$37,500	**($15,625)**	3.75	$128,125	**3.42%**
18	**1.75%**	$26,250	**3.000%**	$45,000	**($18,750)**	3.50	$123,750	**3.54%**
21	**1.75%**	$30,625	**3.000%**	$52,500	**($21,875)**	3.25	$119,375	**3.67%**
24	**1.75%**	$35,000	**3.000%**	$60,000	**($25,000)**	3.00	$115,000	**3.83%**
27	**1.75%**	$39,375	**3.000%**	$67,500	**($28,125)**	2.75	$110,625	**4.02%**
30	**1.75%**	$43,750	**3.000%**	$75,000	**($31,250)**	2.50	$106,250	**4.25%**

* This "breakeven" calculator is based on several assumptions including but not limited to assuming the fed funds rate remains constant, and the alternative investment is held to maturity. The sale of any security prior to maturity may result in a capital gain or loss which may affect its total return. The risk of the alternative investment may be greater than fed funds. These risks include but are not limited to market risk, liquidity risk, prepayment risk, credit risk, basis risk, interest rate risk, and reinvestment risk.

Key Takeaways

Bull Market Transitioning to Higher Short Rates/Modestly Higher Long Rates/Flatter Curve? Mid- to Latter Stage of Monetary Cycle?

- Liquidity
- Credit Quality
- Volatility

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