

## Understanding Investment Risk and Return

- Founder and Principal Advisor, Variplan, LLC
  - Certified Financial Planner
  - Registered Investment Advisor
  - SEA Benefit Provider Since 1999
- Federal Times' "Money Matters" Columnist
- "Ask the Experts" Panelist at [www.federaltimes.com](http://www.federaltimes.com)

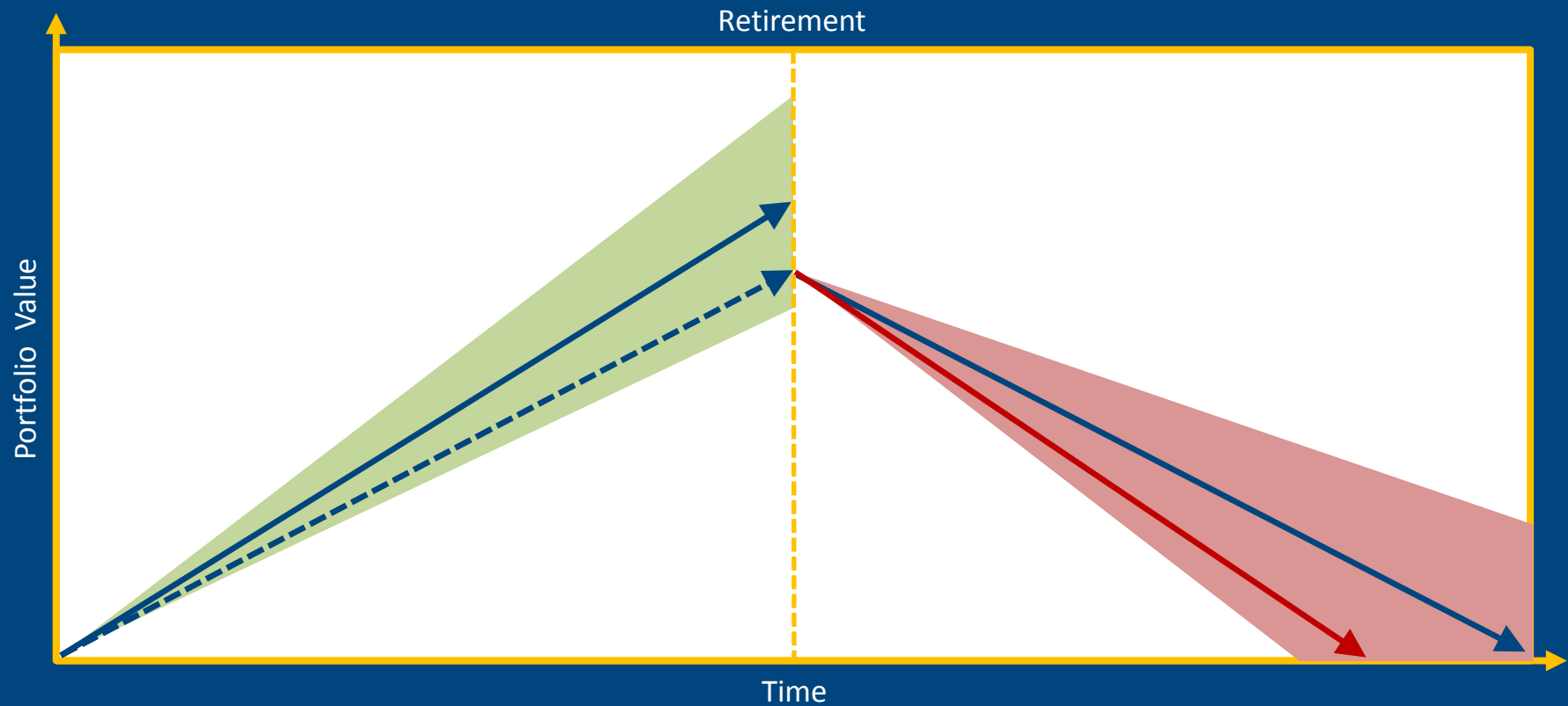
# Course Content

1. Success and Failure in Retirement Investing
2. Defining Retirement Resources, Goals and Constraints
- 3. Understanding Investment Risk and Return**
4. How Diversification Really Works
5. Asset Classes and Types – Diversification and Concentration
6. Understanding Asset Allocation and Hedging
7. Setting Investment Performance Expectations
8. Managing Investment Costs
9. The Case for Index Investing
10. Accounting for Inflation in Retirement Planning
11. Managing Portfolio Liquidity
12. Organizing Your Portfolio

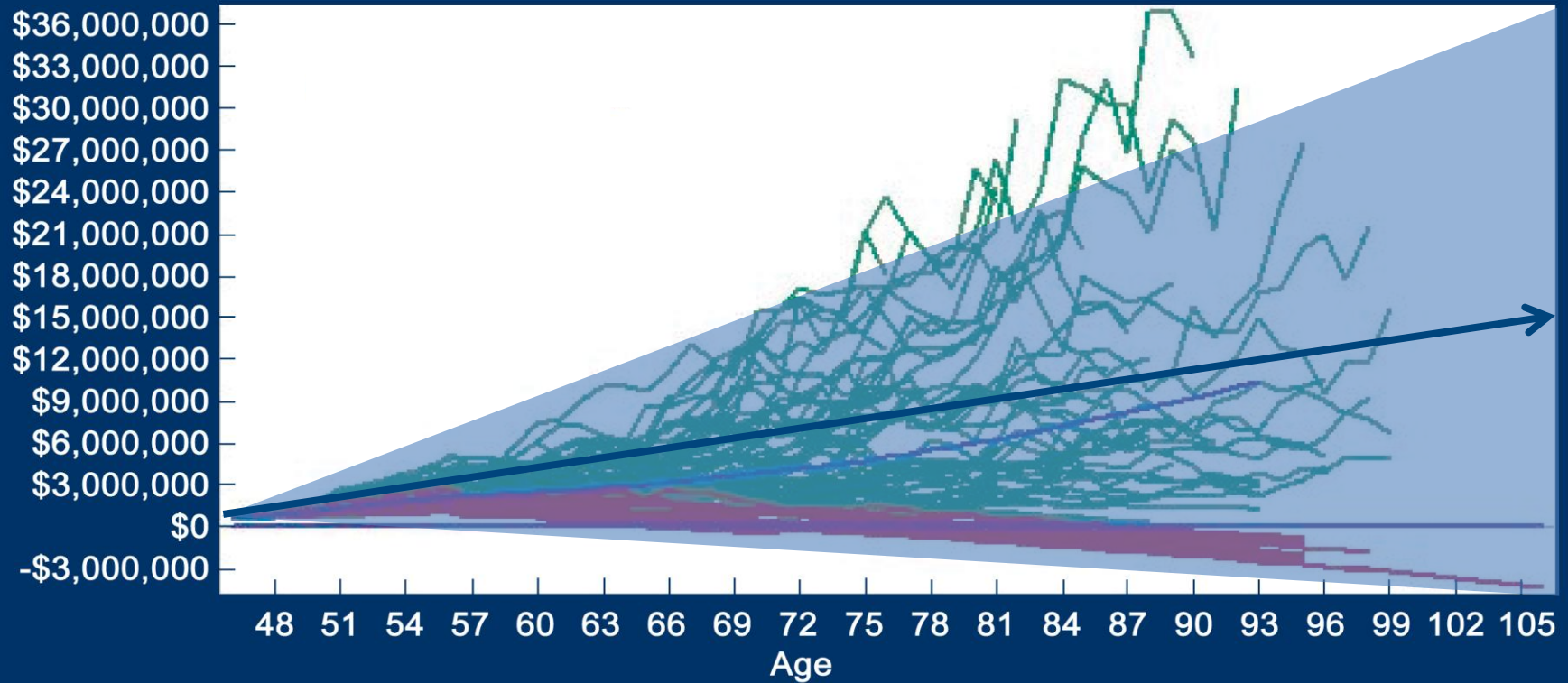
# SEA Member Benefits

- Free Hour of Consulting / Analysis
  - \$250 Vantage Discount
- Email Questions to me at [mmiles@variplan.com](mailto:mmiles@variplan.com)

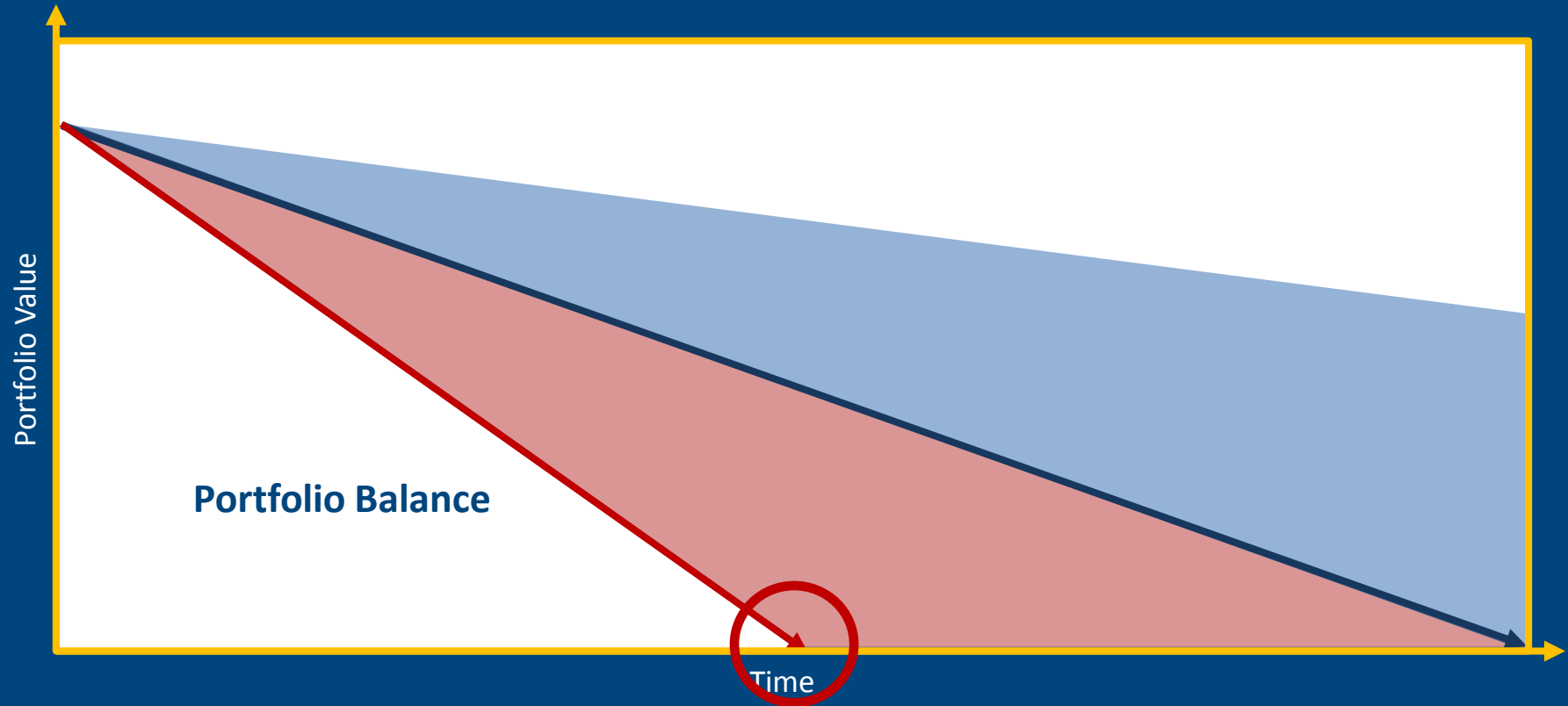
# The Game Changes as You Approach Retirement



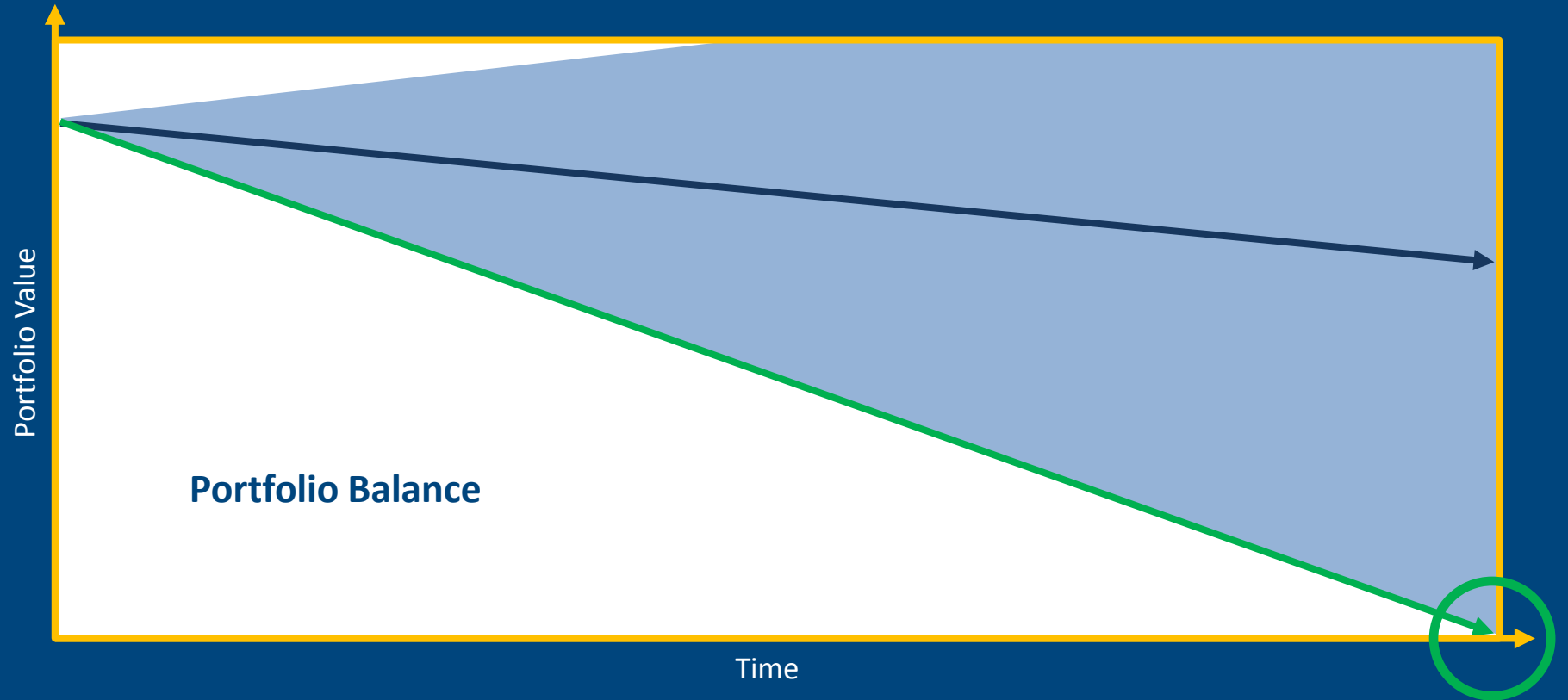
# Same Plan – Many Possible Outcomes



# The Effect of Investment Risk

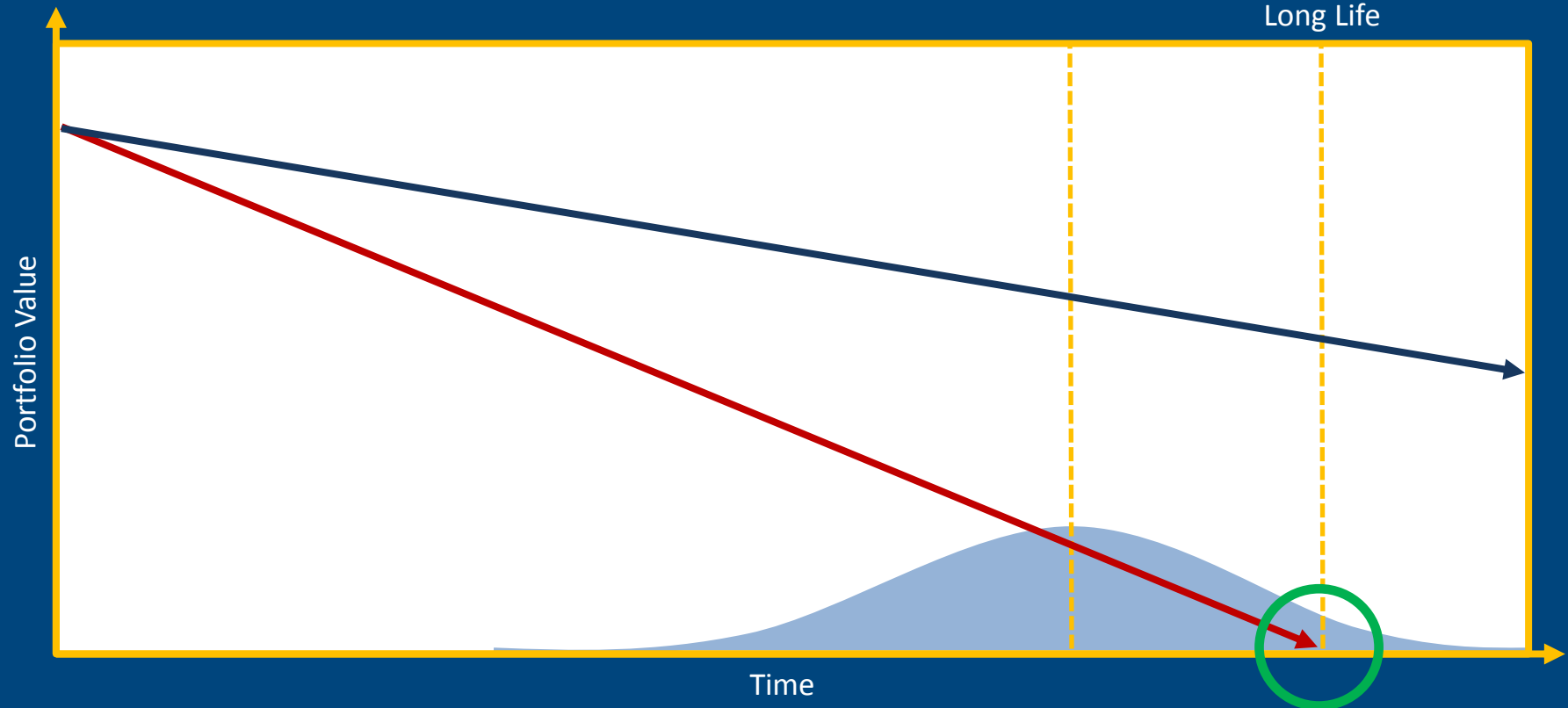


# Optimal Solution

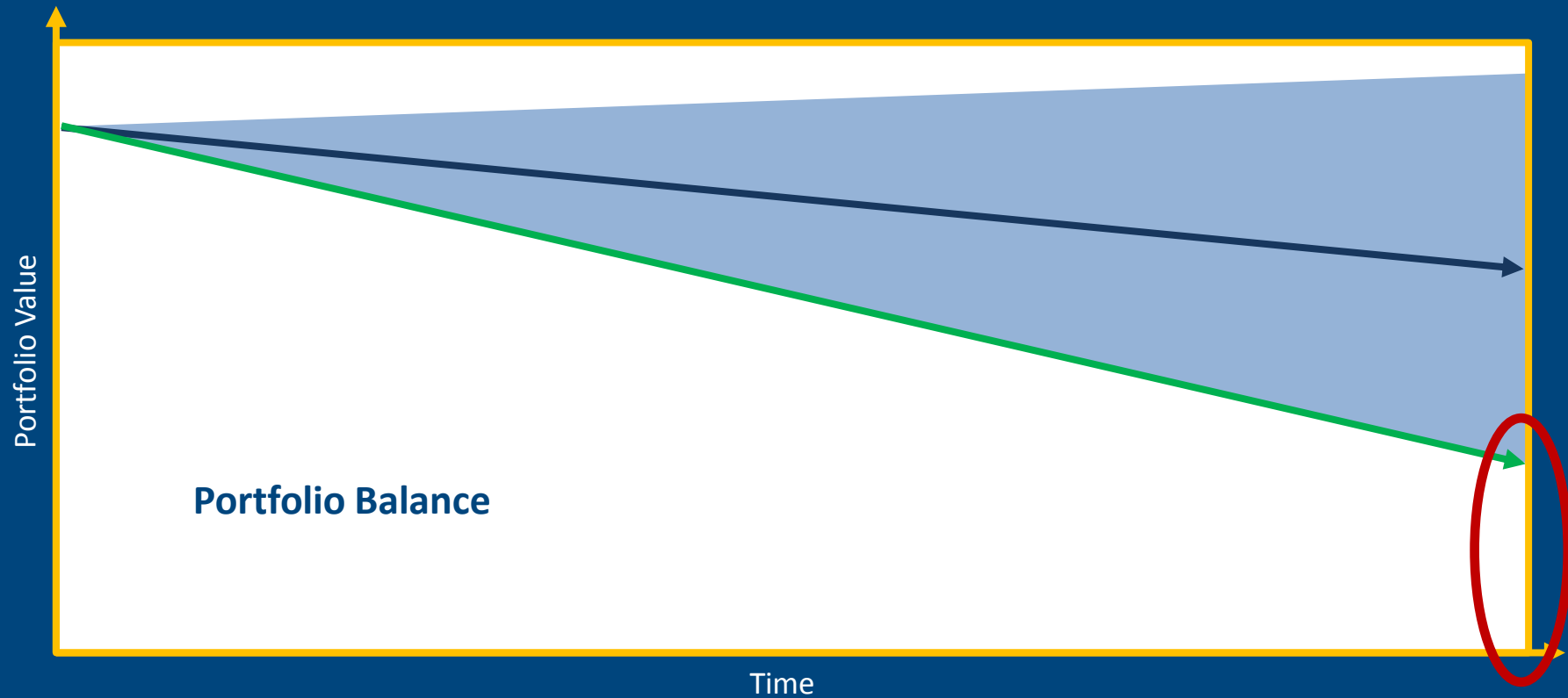




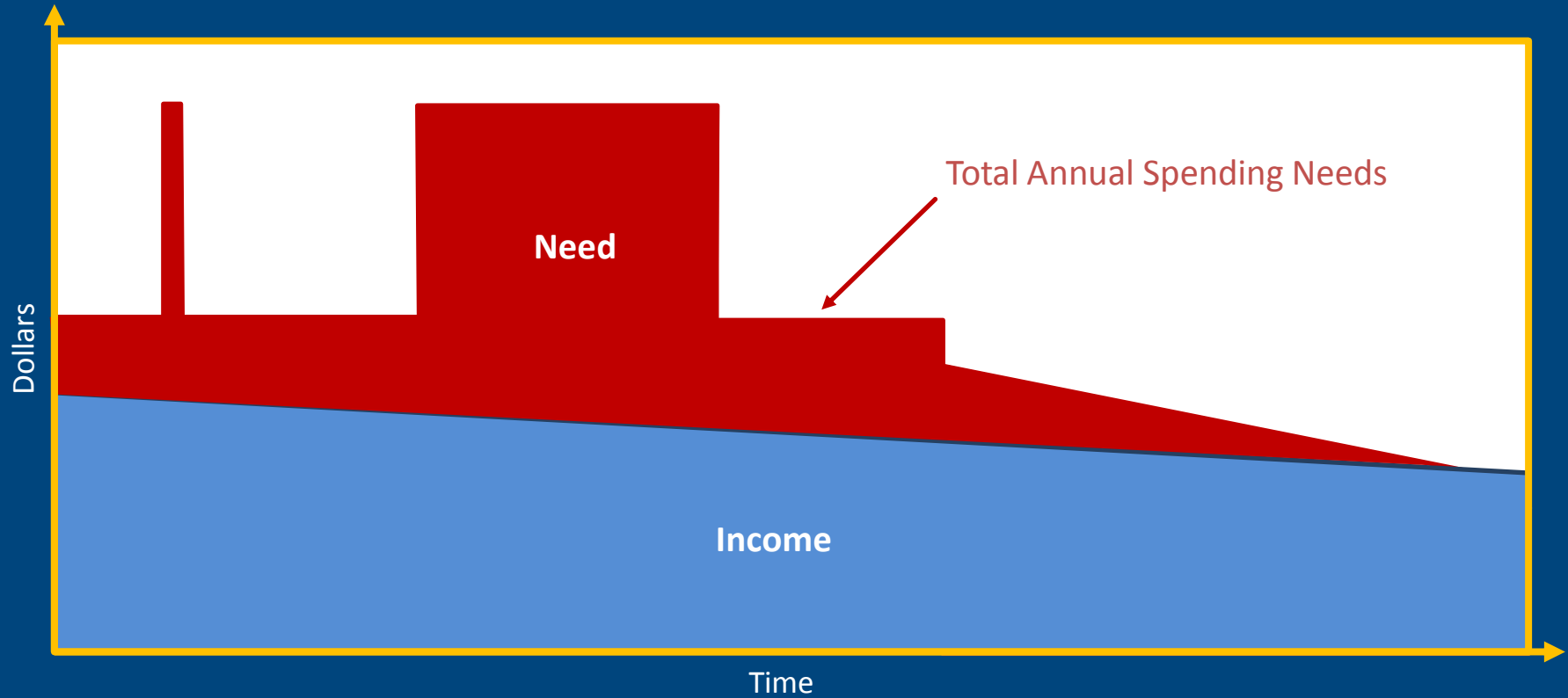
# Optimal



# Too Conservative



# Impact on the Portfolio



# Impact on Planning and Management

- Resources must be clearly identified or estimated
- Goals must be translated into cash flow requirements
- Planning should recognize and accommodate constraints
- Management should seek to minimize the impact of constraints

## Understanding Investment Risk and Return

# Financial Planning and Management



- Wants
- Needs

- **Guaranteed**
  - Annuities
  - Insurance
- **At Risk**
  - **Liquid Assets**
    - Cash
    - Marketable Securities
  - **Illiquid Assets**
    - Real Estate
    - Business Interests

- **Action**
  - Constraints
- **Decisions**
- **Analysis**
  - Assumptions
  - Experience
  - Probabilities
  - Estimates

- **Risk**
- **Return**

- Cash Flow
- Wealth

Inflation & Taxes

Investment risk is the possibility that an investment will produce an unexpected return.

Investment risk applies to:

- Average Rate of Return
- Periodic Returns (Sequence)

# Investment Return

Investment return is the change in value that an investment produces in exchange for taking risk.

Investment return consists of:

- Yield
- Price Appreciation / Depreciation



# Investment Risk and Return

- Risk and return are tied together.
  - Risk is the means to an end.
- Risk and return can be quantified and managed.
  - You should expect to be paid to take risk.

# Investment Risk and Return

When it comes to investing for retirement income, the primary objective is to realize the expected return in each and every period.

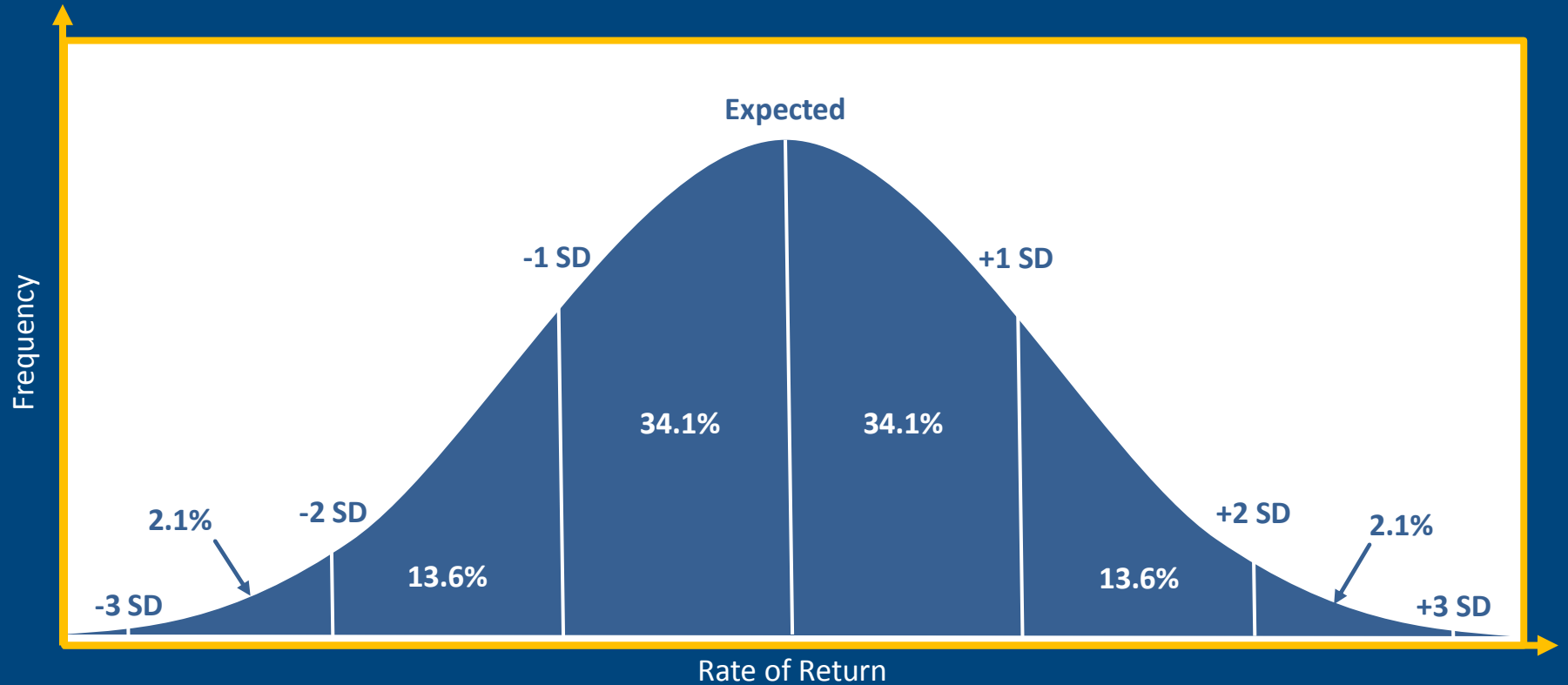
Predictability is the most valuable commodity.

# Quantifying Risk and Return

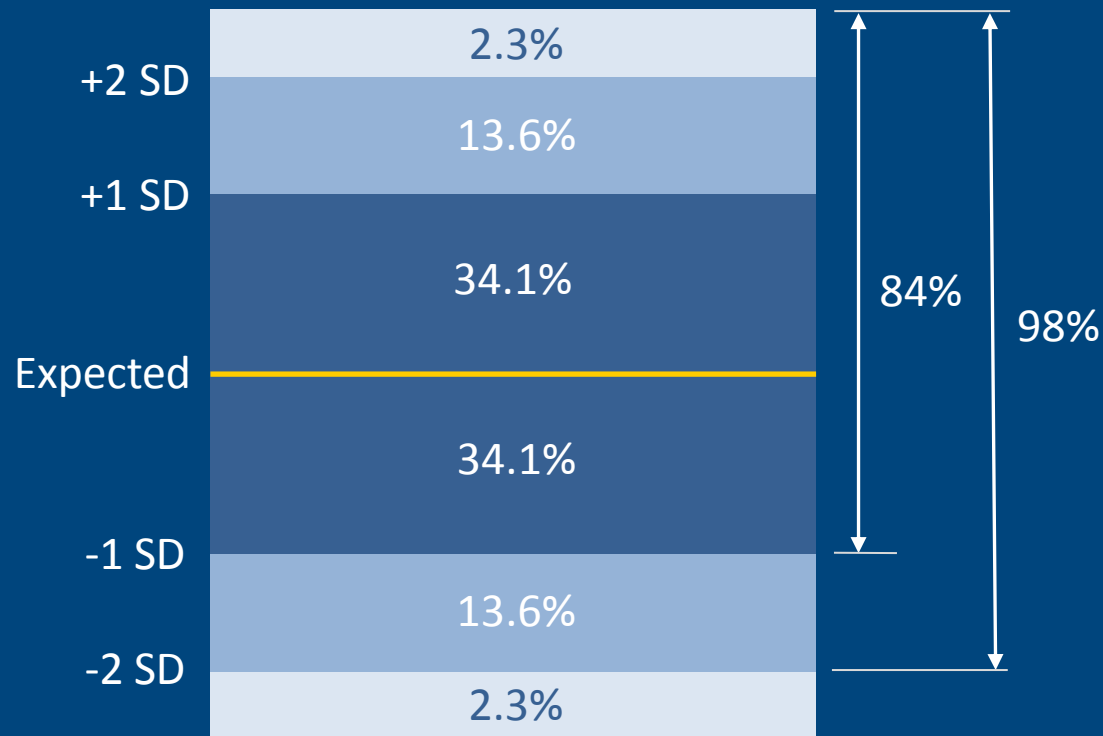
Return is expressed as a percentage of the amount invested.

Risk is usually expressed as Standard Deviation.

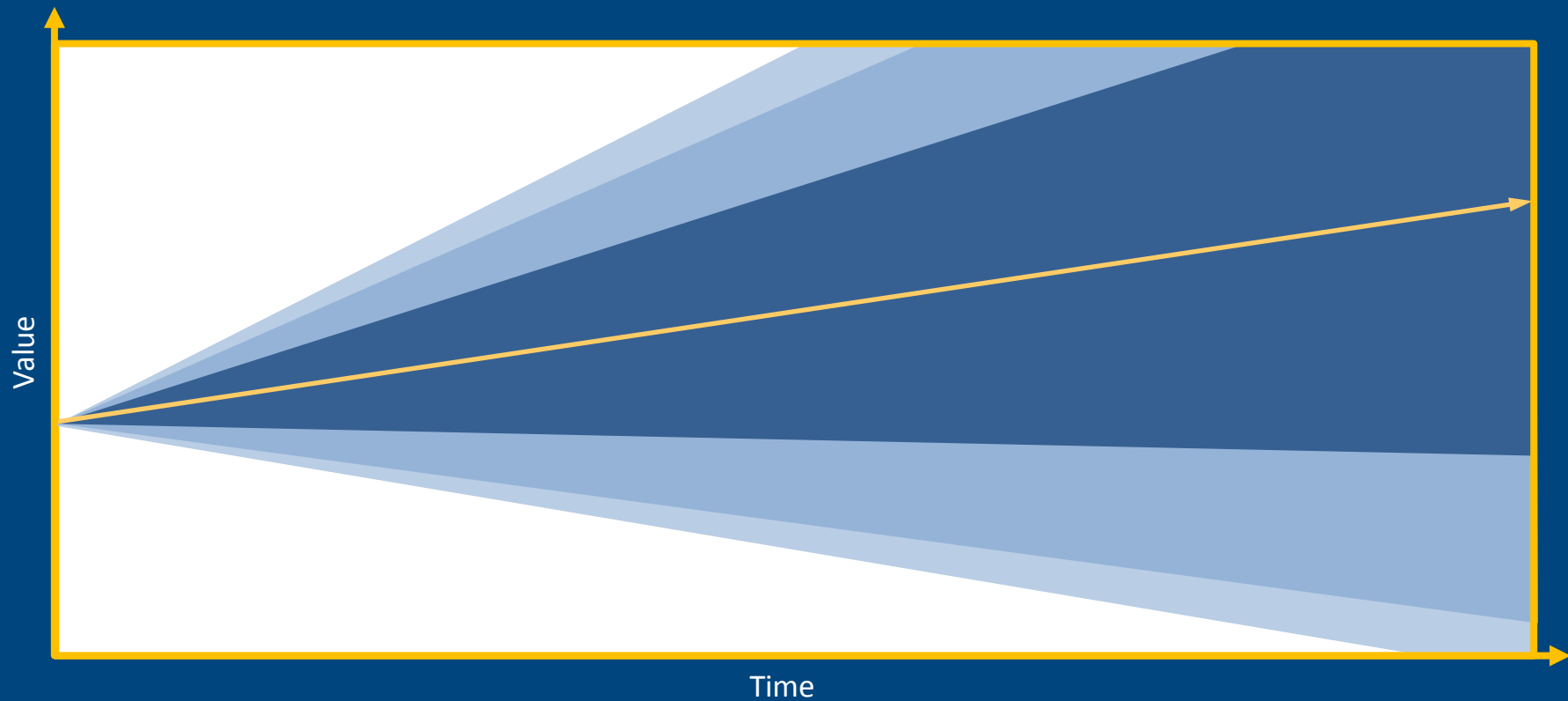
# Standard Deviation



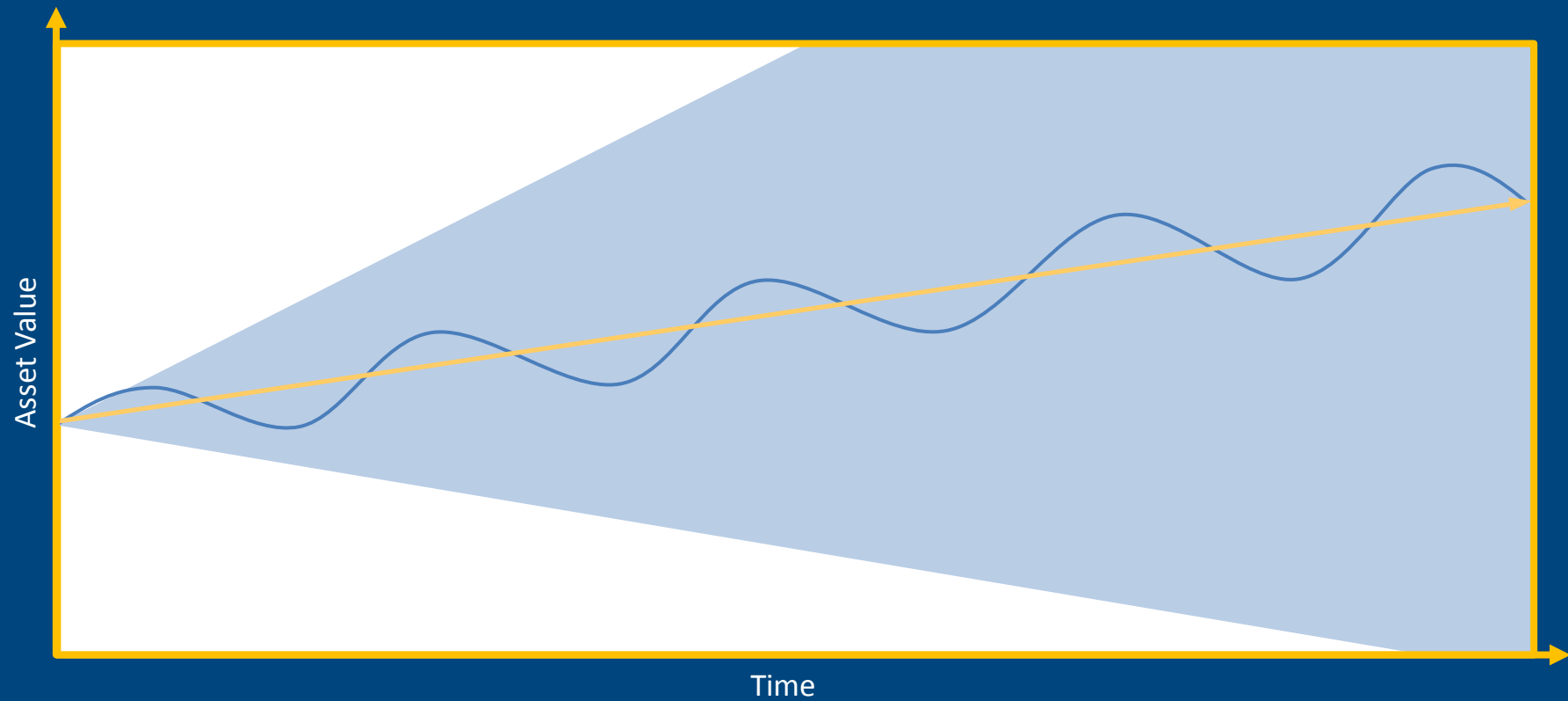
# Standard Deviation



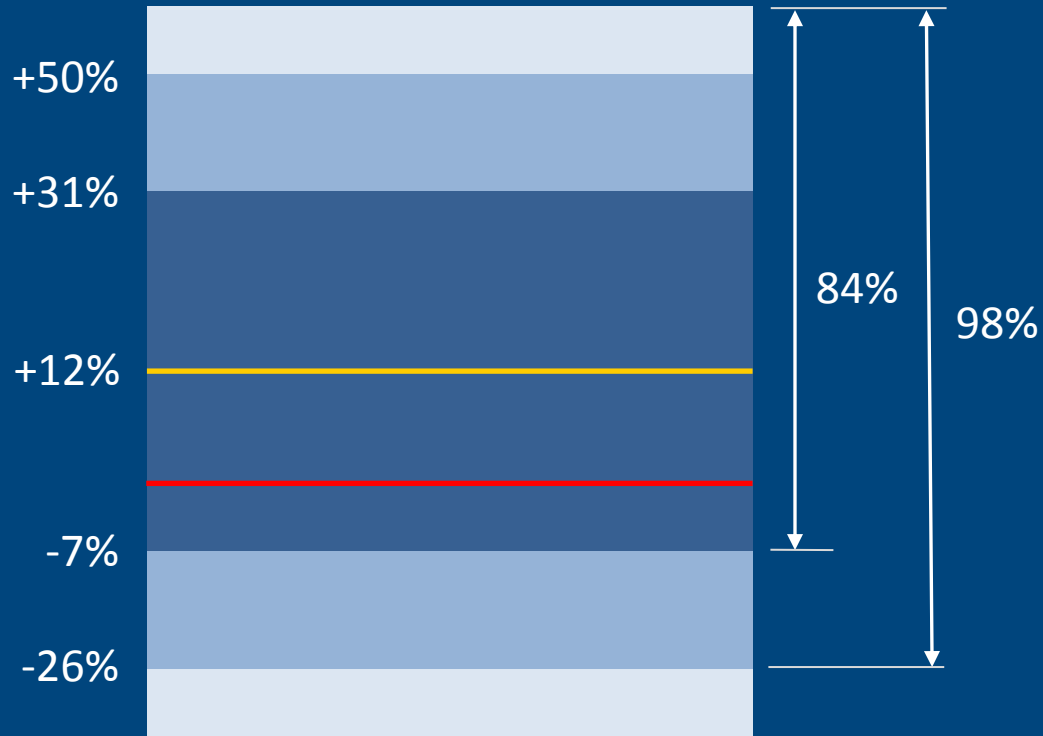
# Standard Deviation



# Components

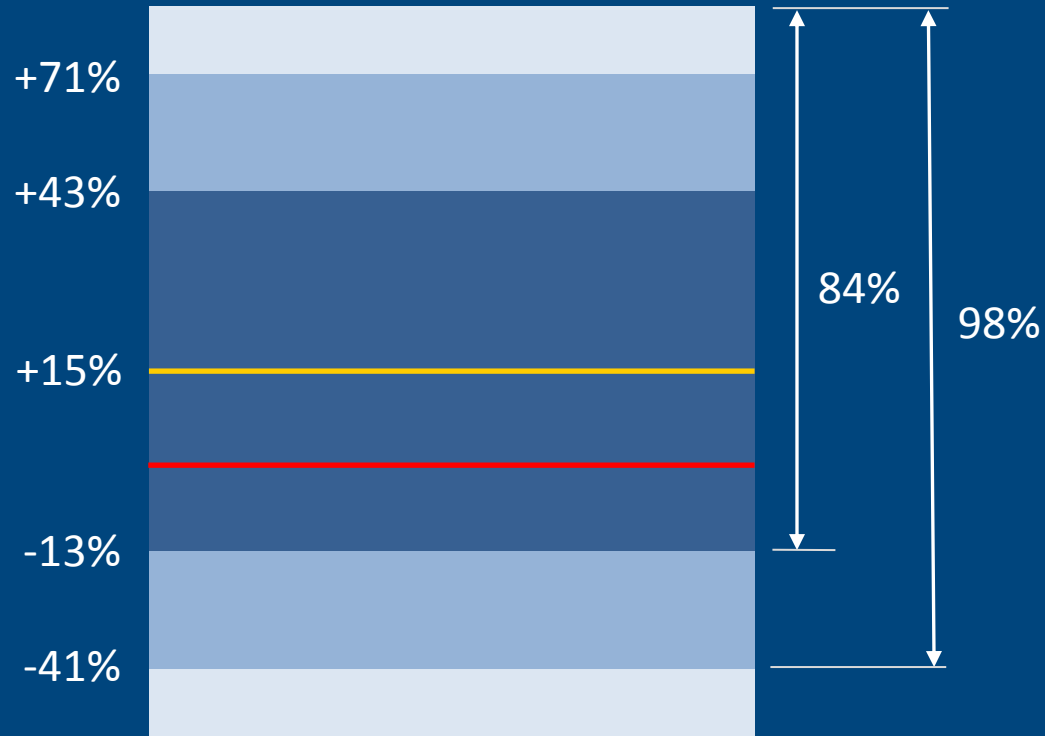


# Large Cap U.S. Stocks – C Fund

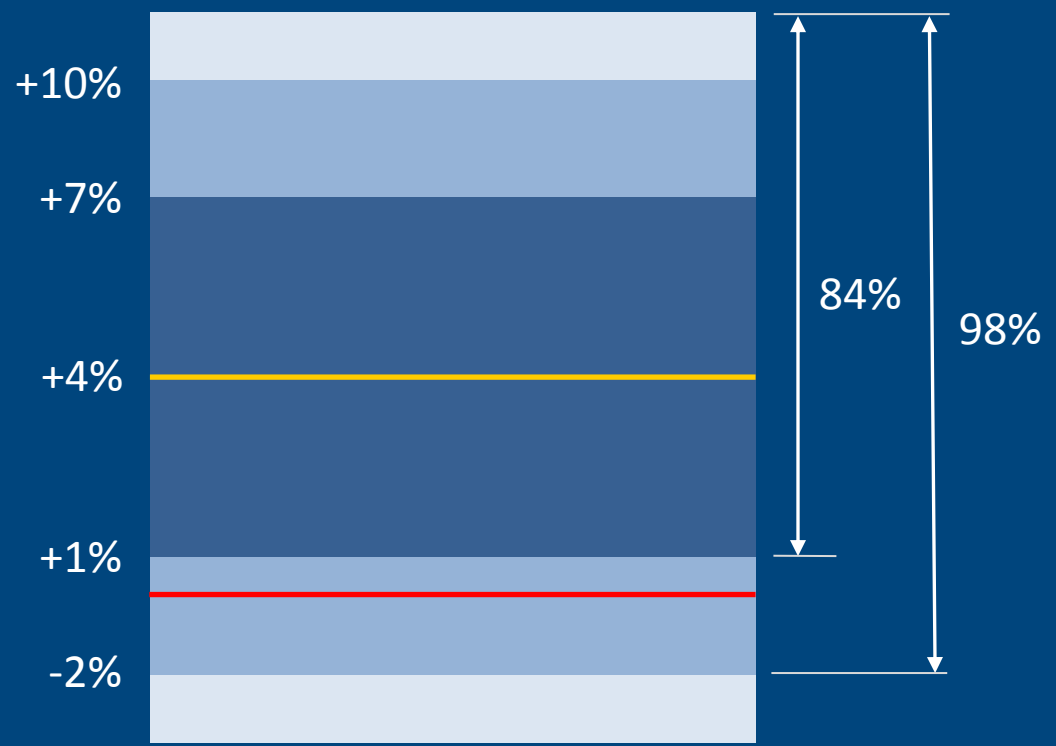




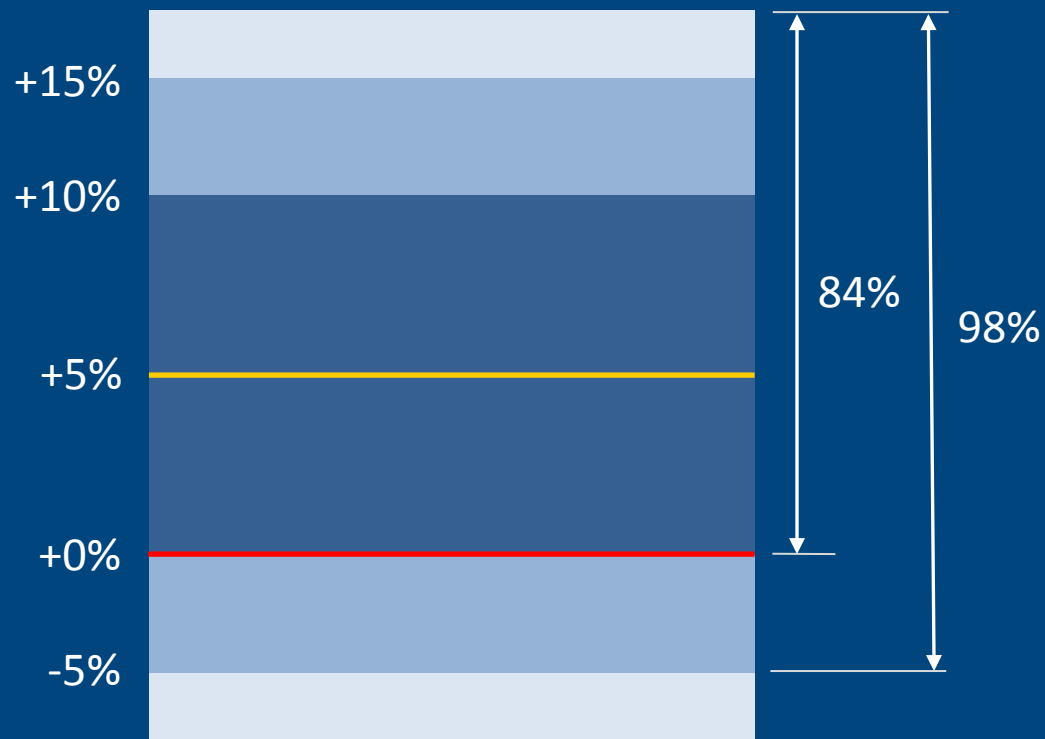
# Small Cap U.S. Stocks – S Fund



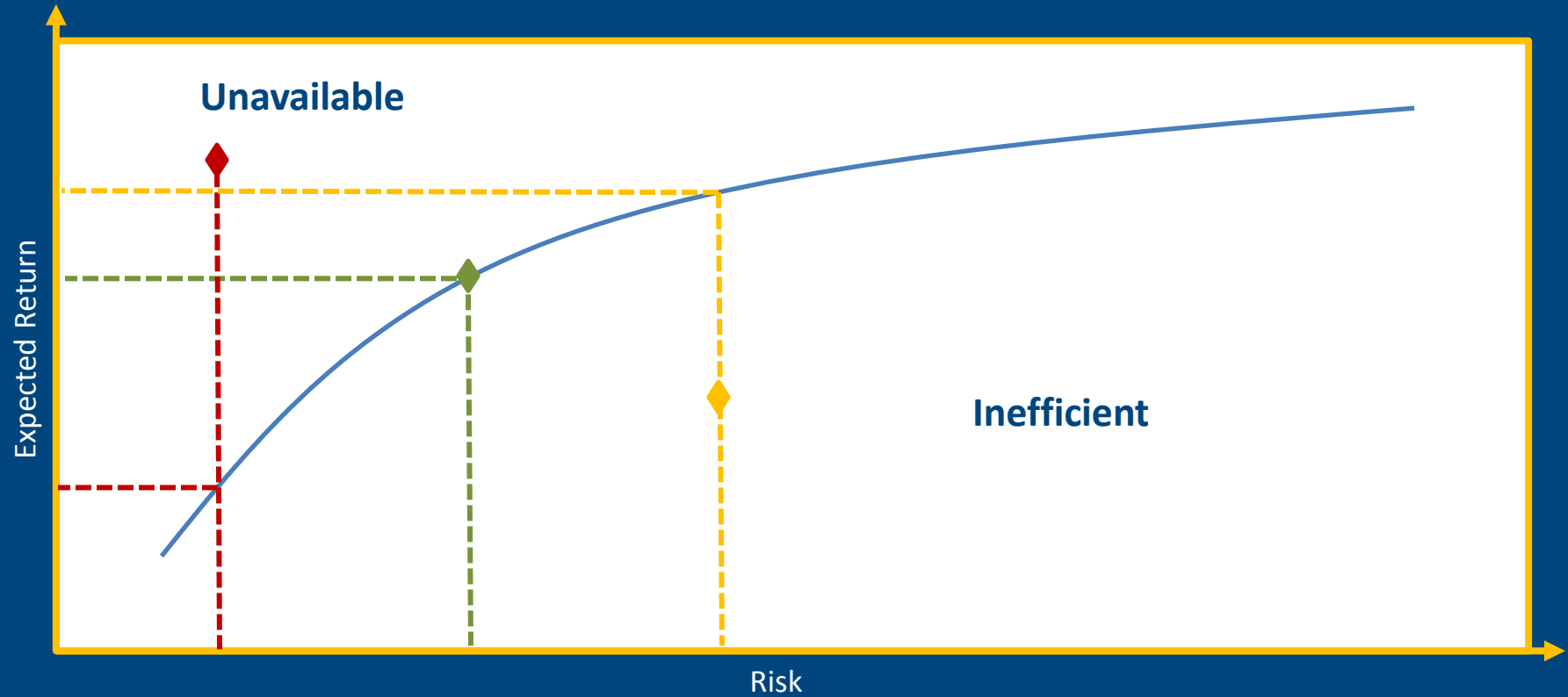
# Cash and Equivalents – G Fund



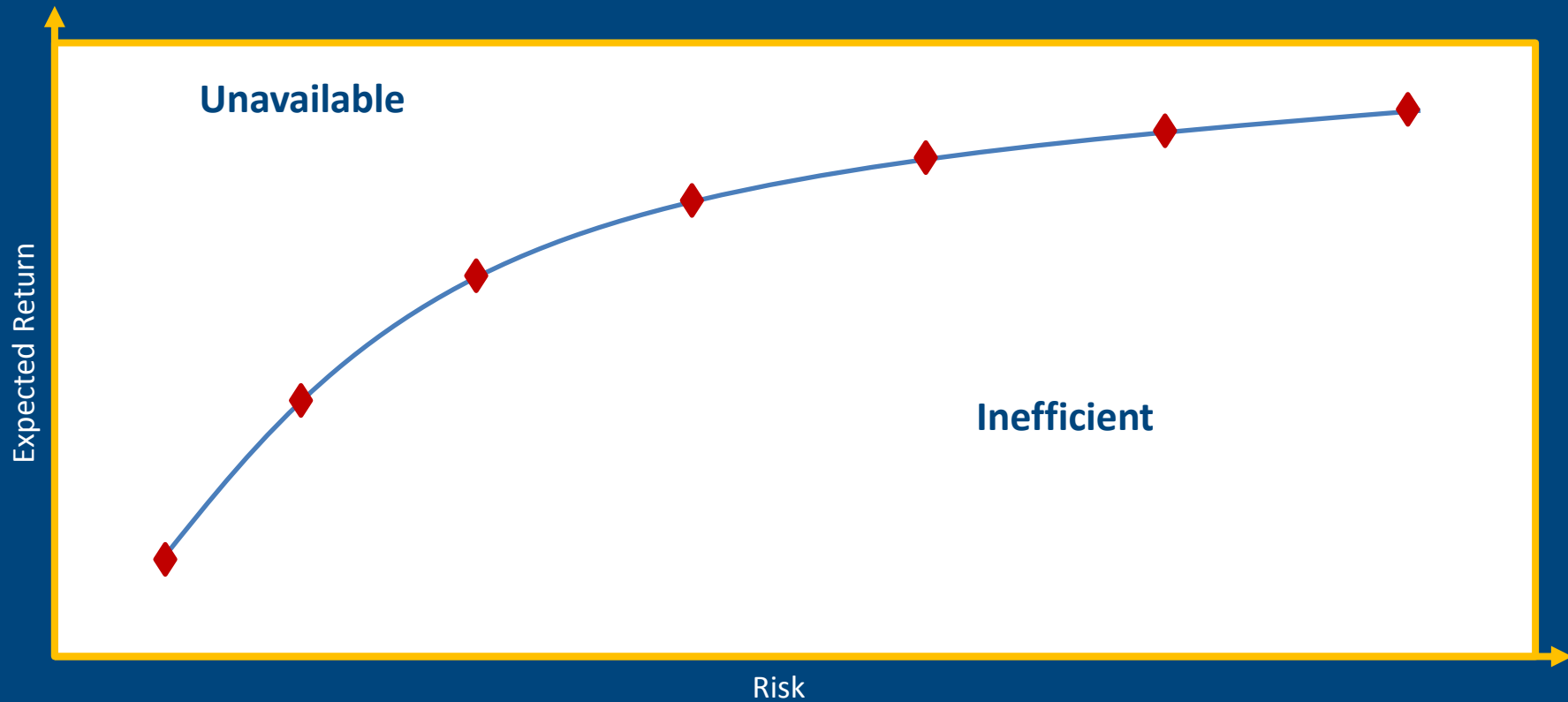
# Diversified U.S. Bonds – F Fund



# The Efficient Frontier

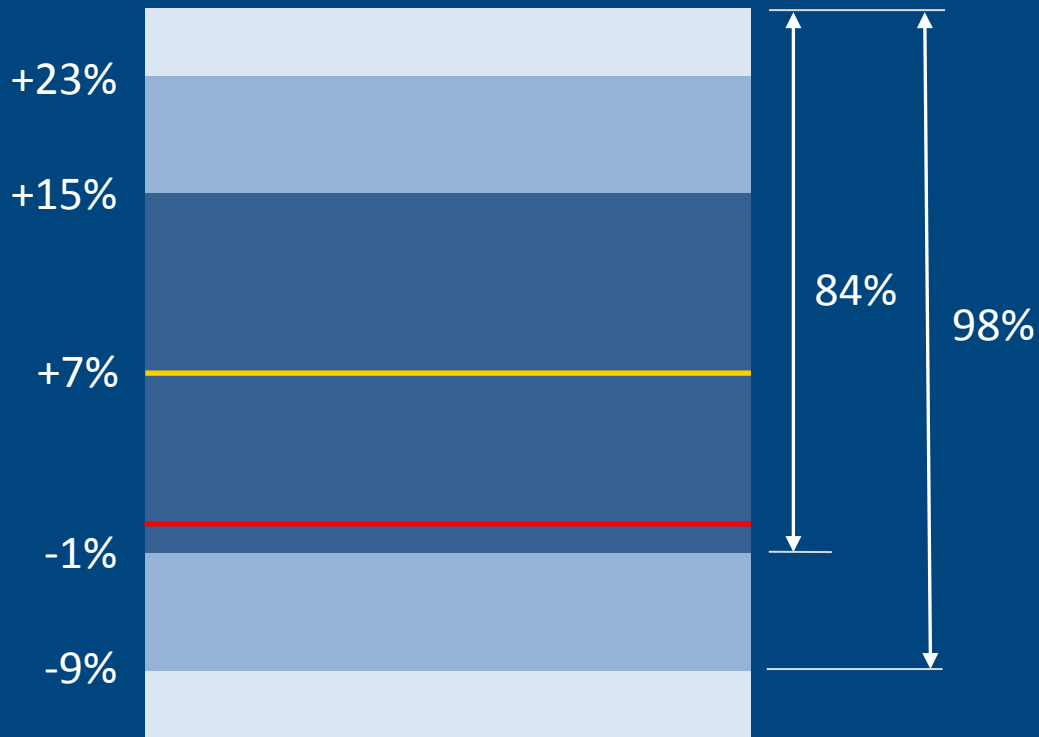


# Designing Efficient Portfolios



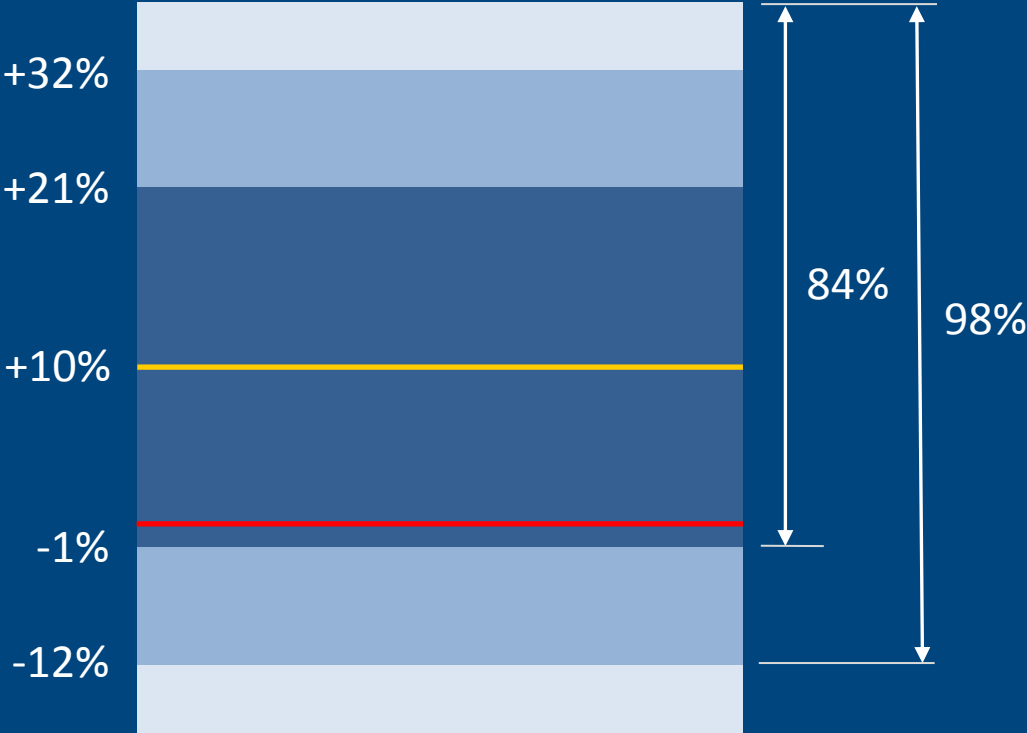
# Conservative

- 20% C Fund
- 7% S Fund
- 3% I Fund
- 10% G Fund
- 60% F Fund



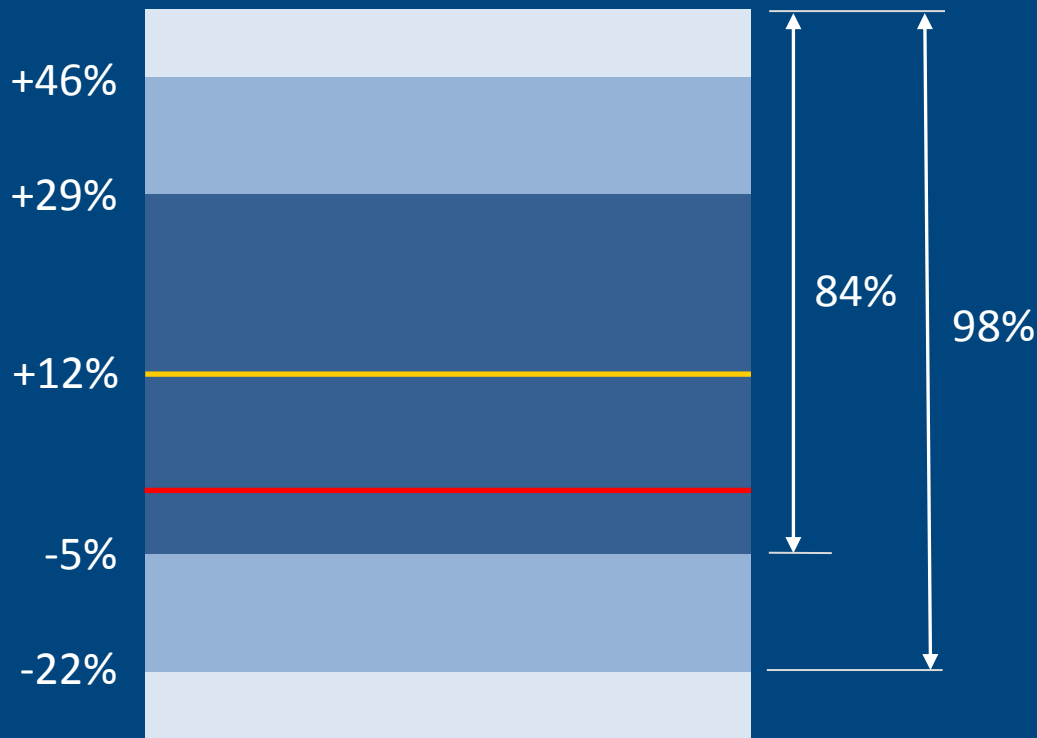
# Balanced

- 40% C Fund
- 15% S Fund
- 5% I Fund
- 3% G Fund
- 37% F Fund



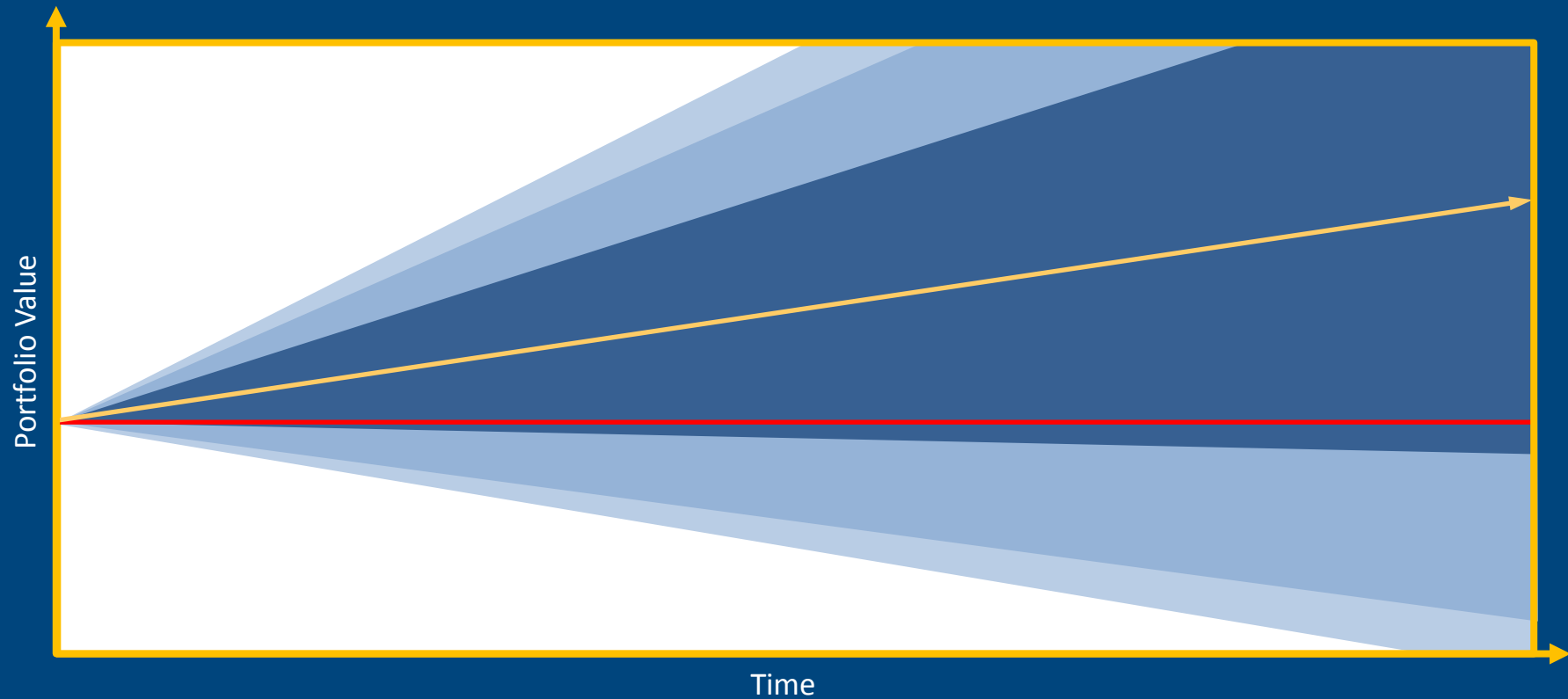
# Aggressive

55% C Fund  
26% S Fund  
9% I Fund  
1% G Fund  
9% F Fund

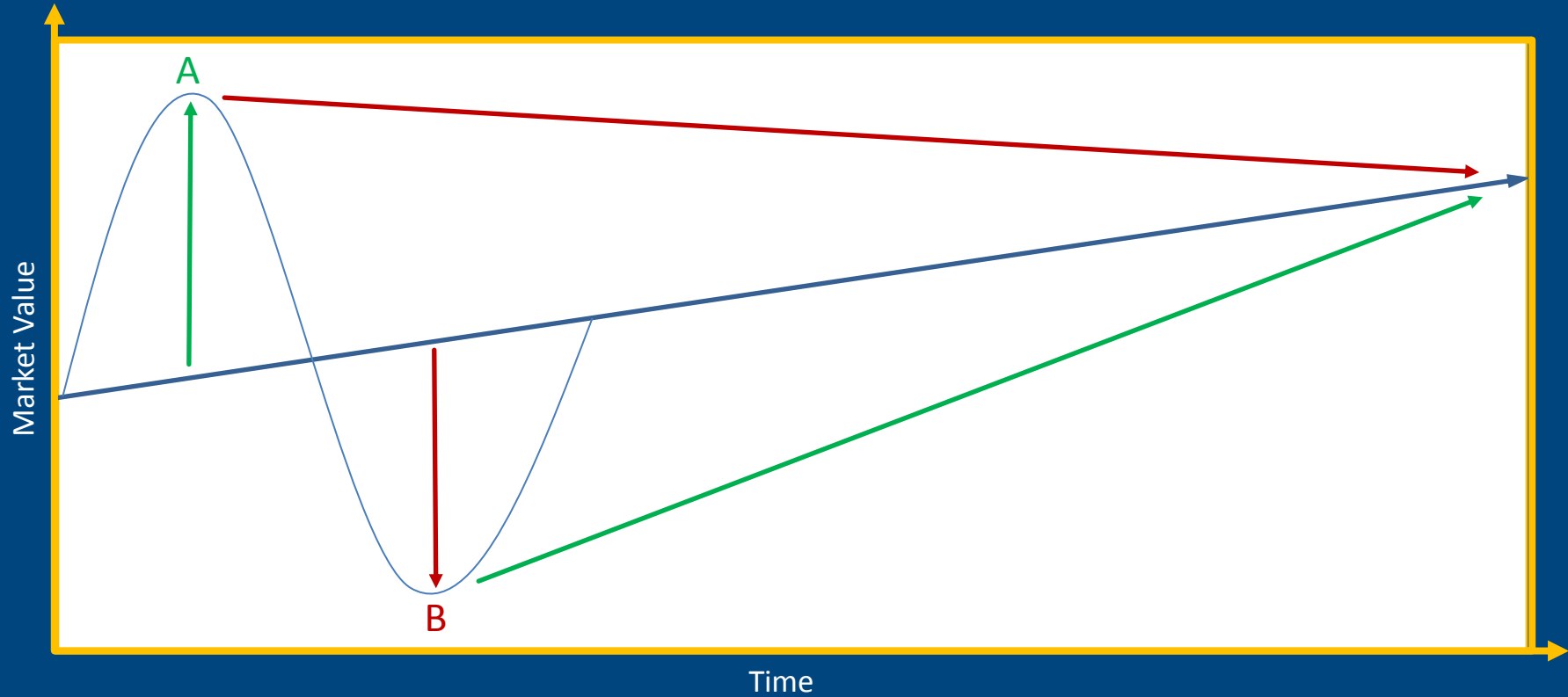




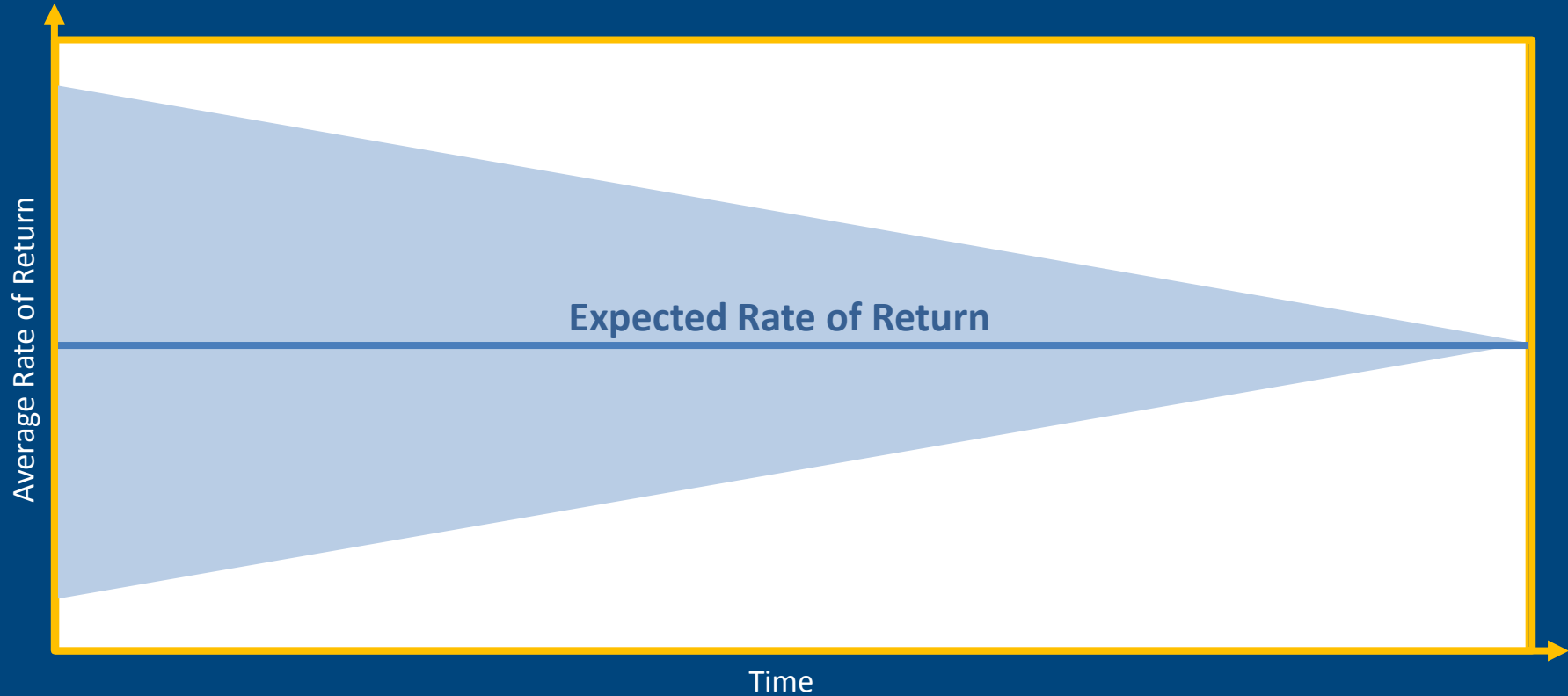
# Balanced



# Mean Regression



# Mean Regression



# Next Week's Webinar

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2. Defining Retirement Resources, Goals and Constraints
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