

# STRATEGIC ASSET ALLOCATION & MODERN PORTFOLIO PROPOSAL

## EVERGREEN FOUNDATION ENDOWMENT

**Presented by:**

Venkata Sai Prasad Kancharana

Ms in Quantitative Risk Analysis & Management

# AGENDA

- Client Objectives & IPS framework
- Risk tolerance and policy constraints
- Capital market assumptions & methodology
- Model portfolios: Conservative, Moderate, Growth
- Efficient frontier & opportunity set
- Risk, diversification & compliance review
- Key observations & recommendation



# Client Overview & Investment Objective

## Client Profile

- Evergreen Foundation Endowment (~\$1.0B)
- Perpetual investment horizon
- Mission-driven capital with intergenerational equity

## Primary Investment Objective

- Preserve and grow real (inflation-adjusted) purchasing power
- Support stable annual spending for Foundation programs

## Return Objective

- Target nominal return:  $\text{CPI} + 4.0\%$  (net of fees)



# Spending Policy & Liquidity Needs



## Spending Policy

- Annual distribution: 4.0% of a 3-year trailing average market value
- Board discretion to smooth distributions during stressed periods

## Liquidity Requirements

- Maintain sufficient liquid assets to fund 6–9 months of distributions
- Target cash & liquidity allocation: ~4–6%
- Minimum allowable cash: 3%

# Risk Tolerance & Governance Constraints

## Risk Profile

- Moderate risk tolerance
- Willing to accept interim volatility to achieve long-term real returns

## Risk Limits

- Target long-term volatility: ~10%–16%
- No portfolio-level leverage without approval

## Governance Emphasis

- Diversification, transparency, and policy discipline



# Policy Asset Allocation (Targets & Ranges)

## Policy Allocation Framework

ASSET CLASS	TARGET	RANGE
Global Equity	40%	30-55%
Private Equity	12%	8-20%
Real Assets	12%	6-18%
Hedge Funds	8%	0-15%
Credit	10%	5-15%
Core Fixed Income	12%	5-25%
Cash	6%	3-10%

# Capital Market Assumptions (Inputs)

## Key Inputs Used in Portfolio Construction

- Long-term expected returns by asset class
- Annualized covariance and correlation matrix
- Conservative, policy-consistent assumptions

## Philosophy

- Emphasis on long-term behavior rather than short-term forecasts
- Diversification benefits explicitly incorporated



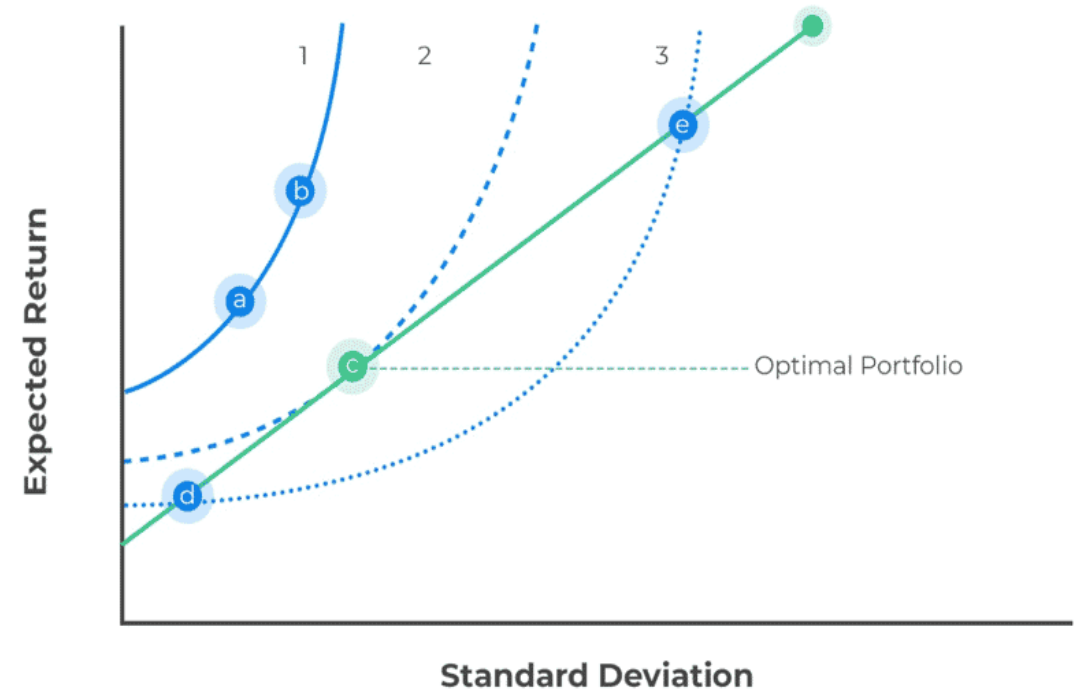
# Portfolio Construction Methodology

## Approach

- Mean-Variance Optimization (MVO) framework
- Objective: maximize risk-adjusted return

## Key Constraints Applied

- Full investment (weights sum to 100%)
- No short selling
- Asset class ranges per IPS
- Illiquid assets  $\leq 25\%$
- Cash  $\geq 3\%$





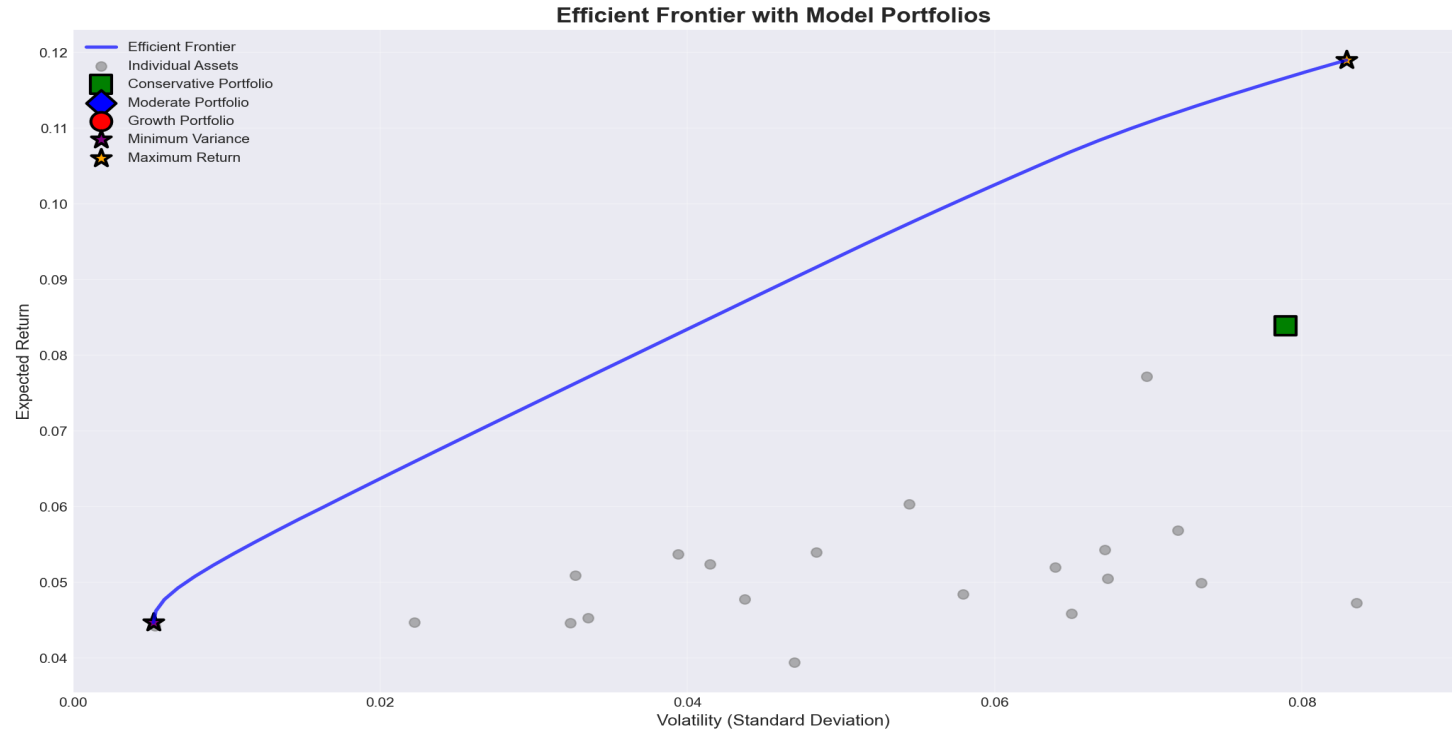
# Building Different Portfolios with Various Ranges

ASSET CLASS	CONSERVATIVE RANGE	MODERATE RANGE	GROWTH RANGE
Global Equity	20-35%	35-50%	45-55%
Private Equity	0-10%	8-15%	12-20%
Real Assets	5-12%	8-15%	10-18%
Hedge Funds	0-10%	5-12%	5-15%
Credit	10-20%	8-15%	5-12%
Core Fixed Income	20-35%	10-20%	5-12%
Cash	5-10%	3-7%	3-5%

## Rationale for Three Model Portfolios

- Conservative: Capital preservation focus
- Moderate: Balanced risk-return profile
- Growth: Long-term return maximization

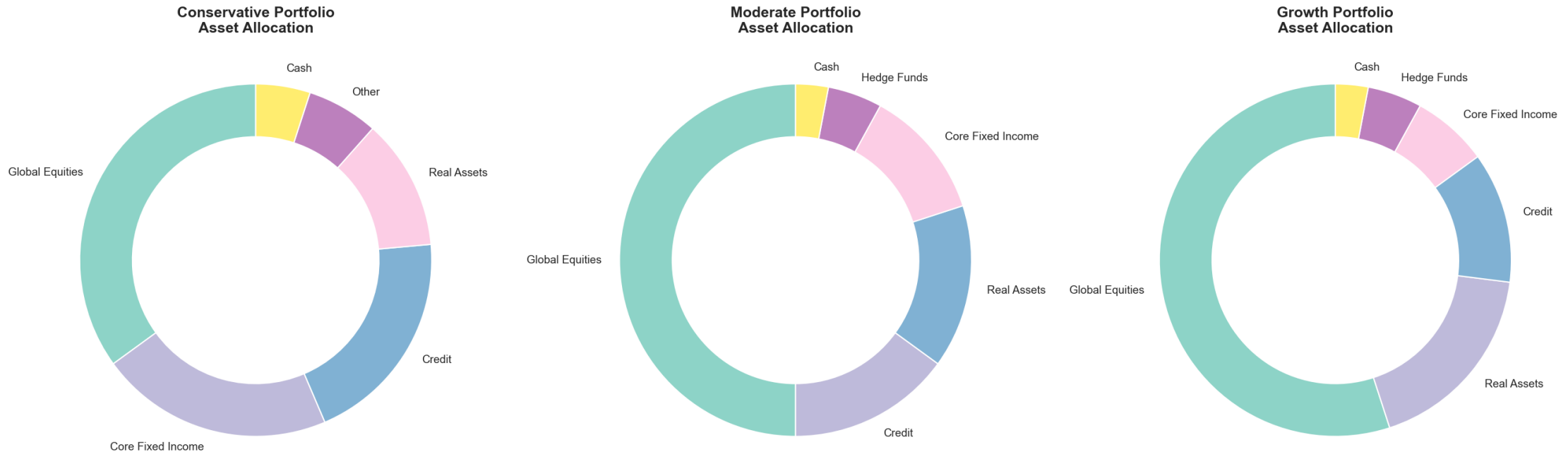
# Efficient Frontier (Feasible Opportunity Set)



- Frontier reflects only IPS-compliant portfolios
- Demonstrates trade-off between risk and expected return
- Model portfolios lie on or near the efficient frontier

# Asset Allocation by Category

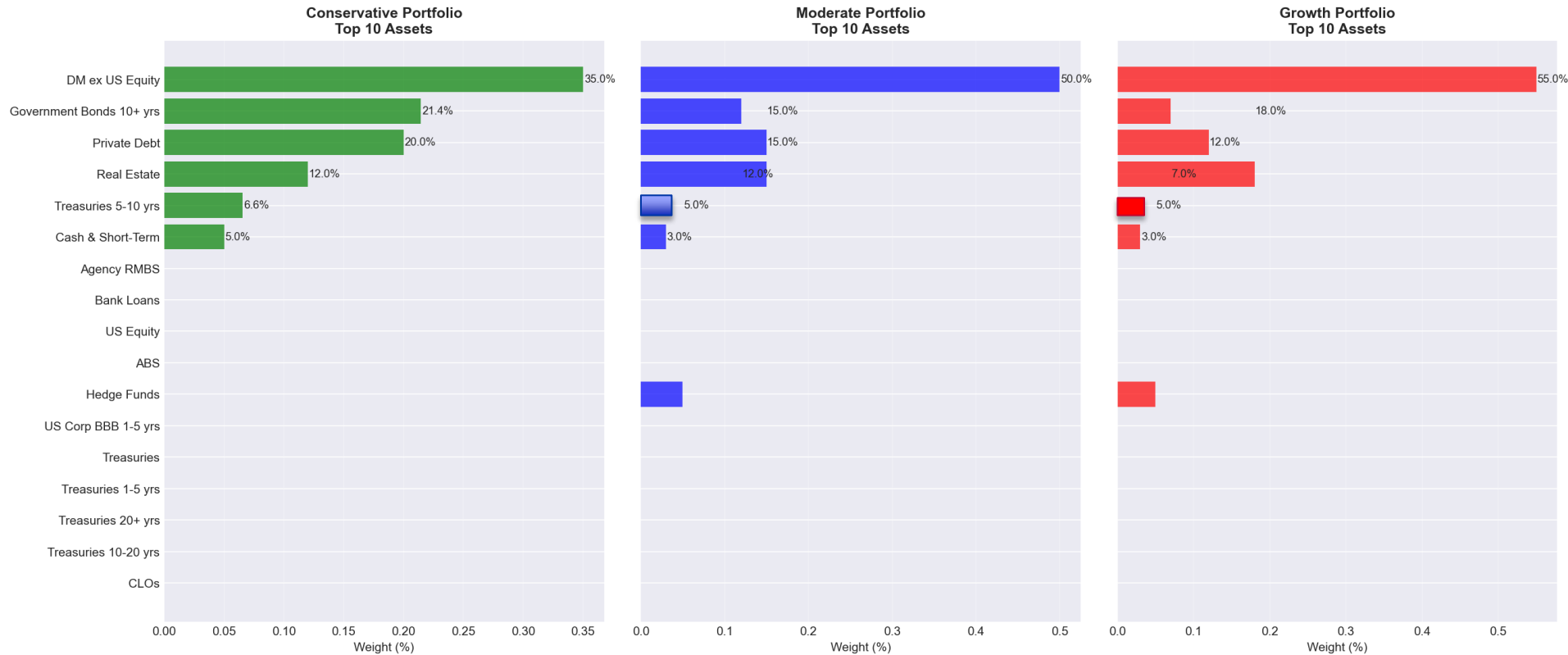
Portfolio Asset Allocation (Pie Charts)



- Clear differentiation across portfolios
- Increasing equity and illiquidity from Conservative → Growth
- All allocations remain within IPS ranges

# Portfolio Composition: Top Holdings

Portfolio Weights Comparison (Top 10 Assets per Portfolio)

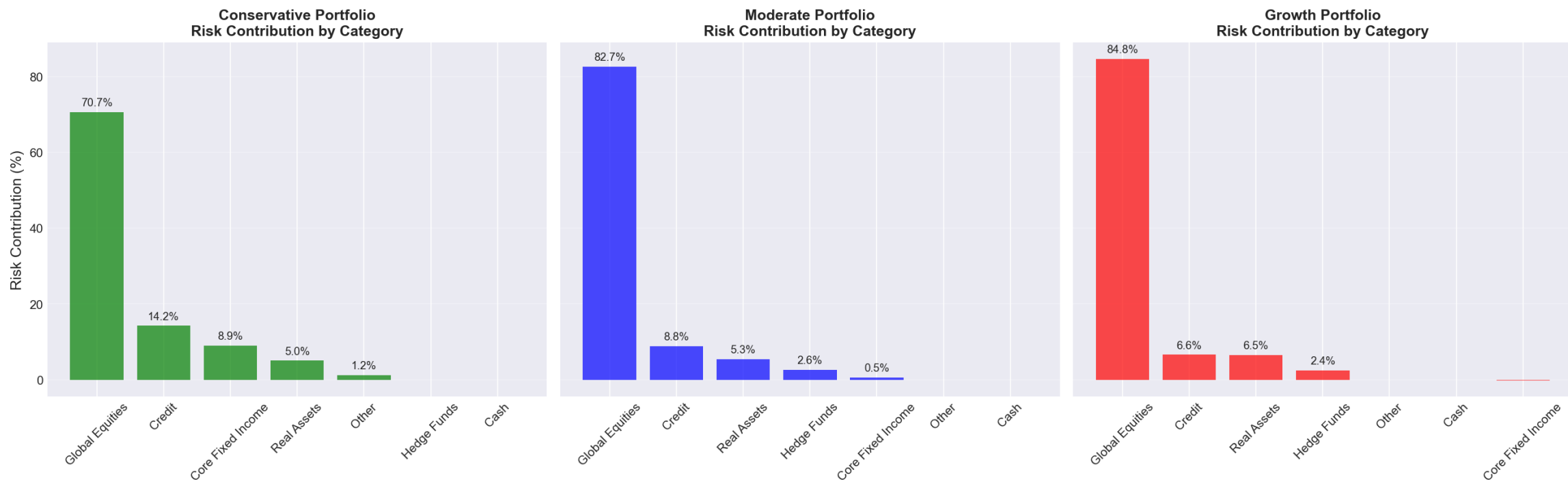


- Broad diversification across assets
- No excessive concentration in single assets
- Implementation-ready structure



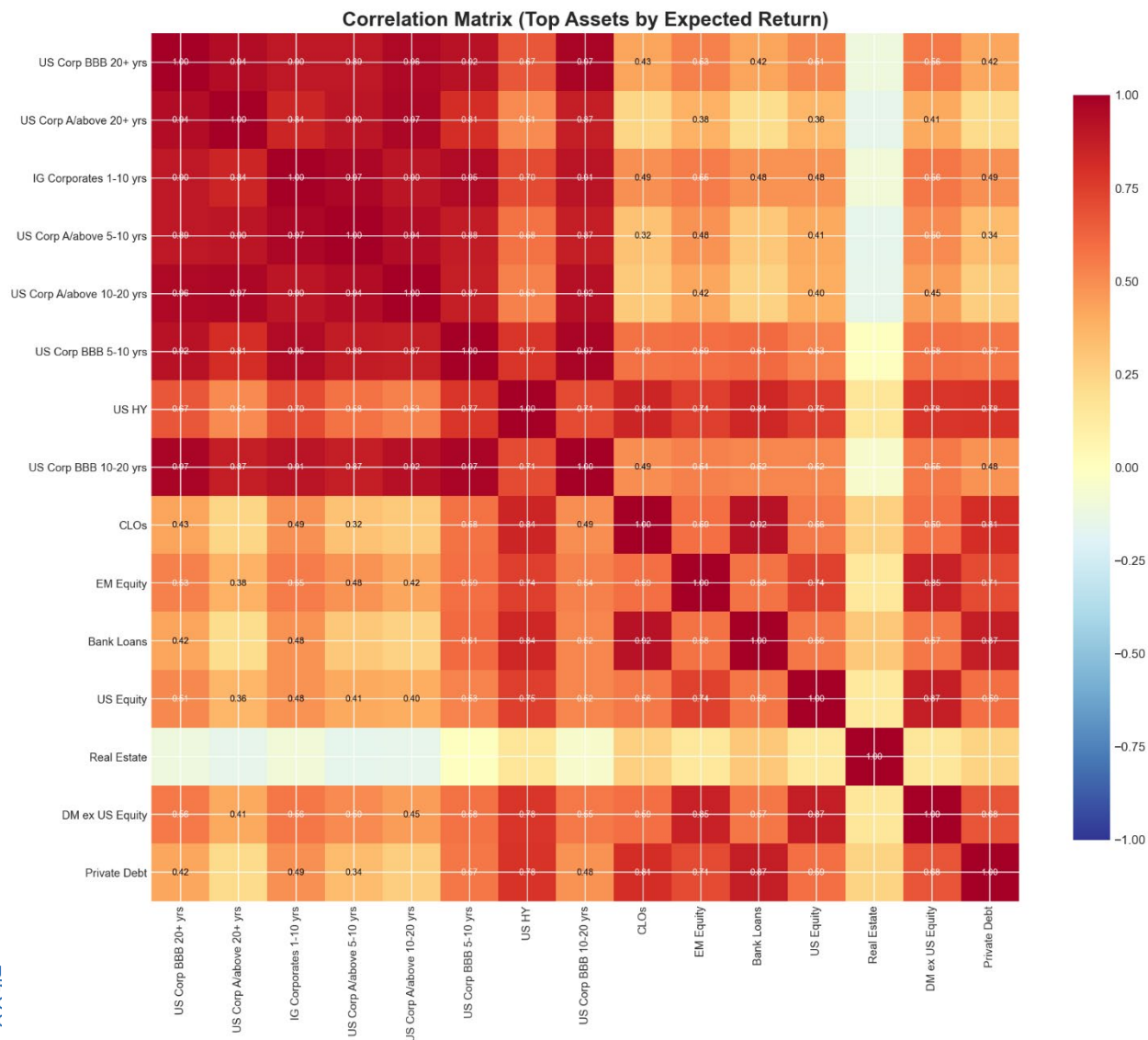
# Risk Contribution Analysis

Risk Contribution Analysis by Category



- Risk contribution differs materially from capital allocation
- Equity assets dominate total portfolio risk
- Defensive assets provide volatility dampening

# Correlation & Diversification Benefits



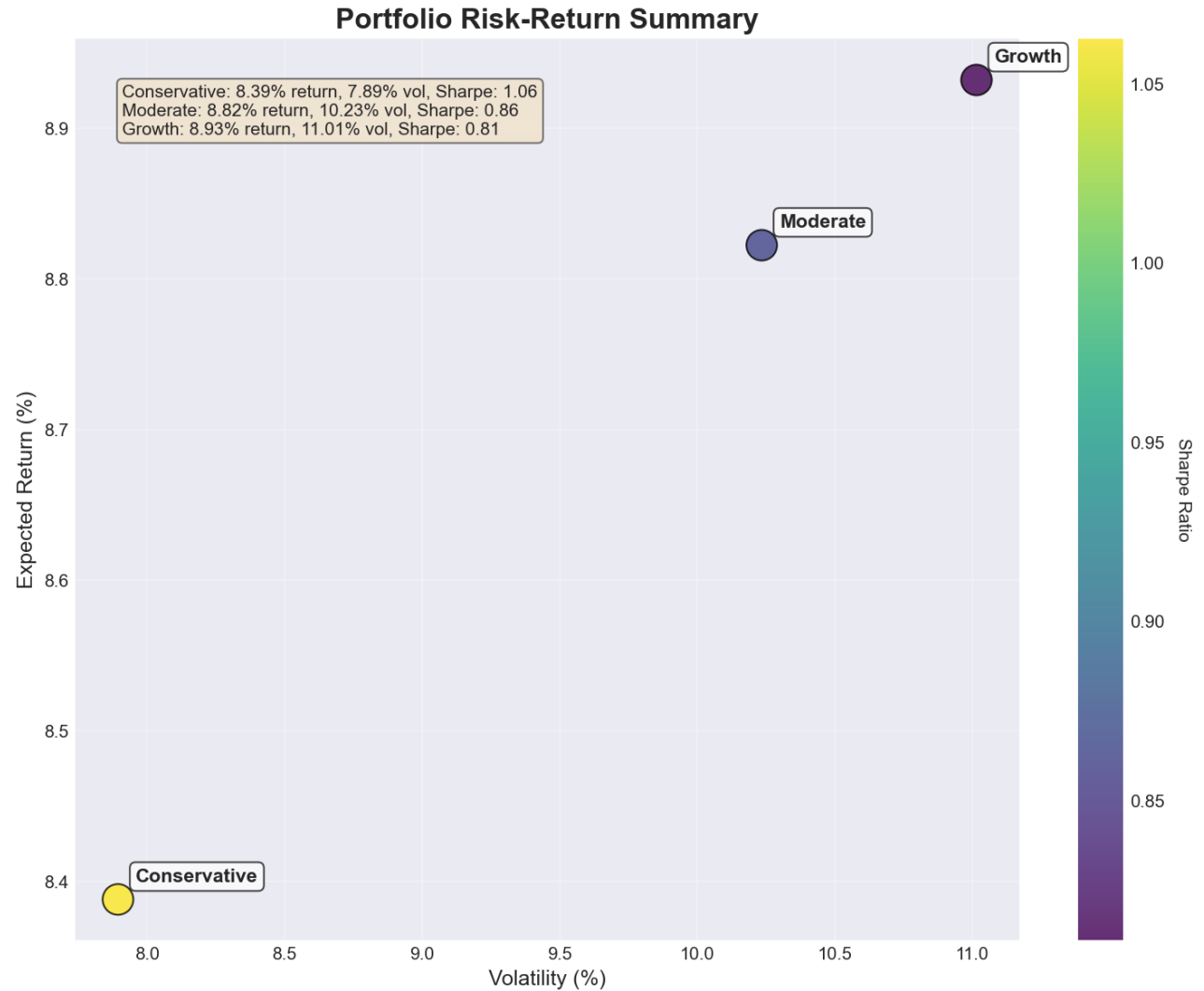
## Key Takeaways

- Low to moderate correlations across asset classes
- Alternatives and real assets enhance diversification
- Improved downside risk resilience

# Risk–Return Profile Summary

## Comparison

- Conservative: Lower return, lower volatility
- Moderate: Balanced return and risk
- Growth: Higher expected return with higher volatility
- All portfolios fall within IPS volatility target range



# Constraint Compliance & Trade-offs

## Summary

- All asset class allocations within policy ranges
- Illiquid exposure remains below stated limits
- Cash minimum satisfied
- Volatility aligned with target band

## Key Observations

- Higher illiquidity improves expected return but raises risk
- Diversification meaningfully reduces portfolio volatility
- Moderate portfolio aligns most closely with IPS targets
- Growth portfolio maximizes long-term purchasing power





# Conclusion & Next Steps

## Conclusion

- IPS-aligned, governance-driven portfolios constructed
- Clear risk-return trade-offs presented
- Strong diversification achieved

## Next Steps

- Stress testing and scenario analysis
- Monte Carlo analysis of purchasing power
- Manager selection and implementation planning





# Thank You