



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



DECEMBER 2024 (ANALYSIS DATE SEPTEMBER 30, 2024)

San Jose Police and Fire Department Retirement Plan – Investment Committee

Quarterly Risk Summary

Summary

- Total risk of 10.7% is well below the board limit of 12%
- High utilization of passive strategies (> 50%) in public markets keeps overall relative and active risk low
- The current portfolio performs slightly better than the policy benchmark in most historic drawdown scenarios and stress tests
- Capital allocations with respect to size and country allocation, two main public equity risk drivers, are close to San Jose's custom benchmark allocations.
- Style factors are typically a large driver of active risk. We do not observe any large active style factor exposures in the portfolio.

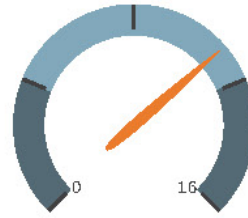
Portfolio volatility



Portfolio: 10.7%



Policy: 10.7%

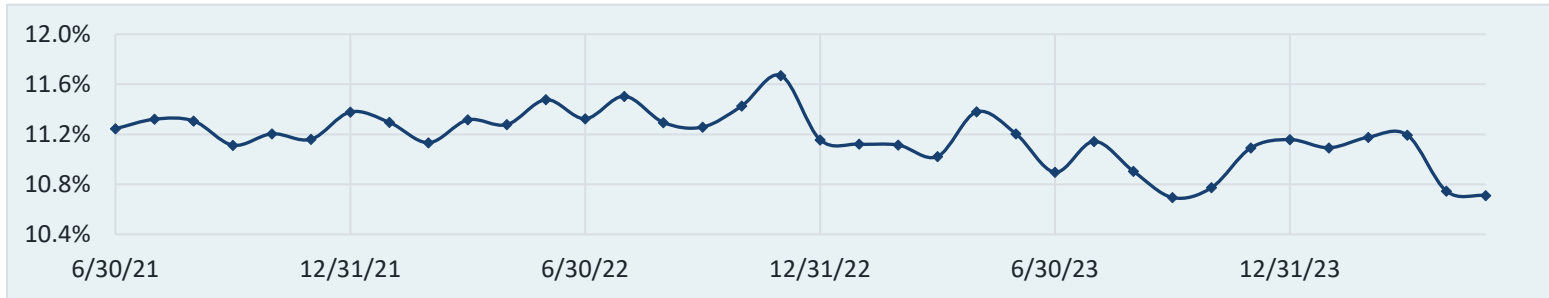


Peer Group: 10.9%



Liability: 10.4%

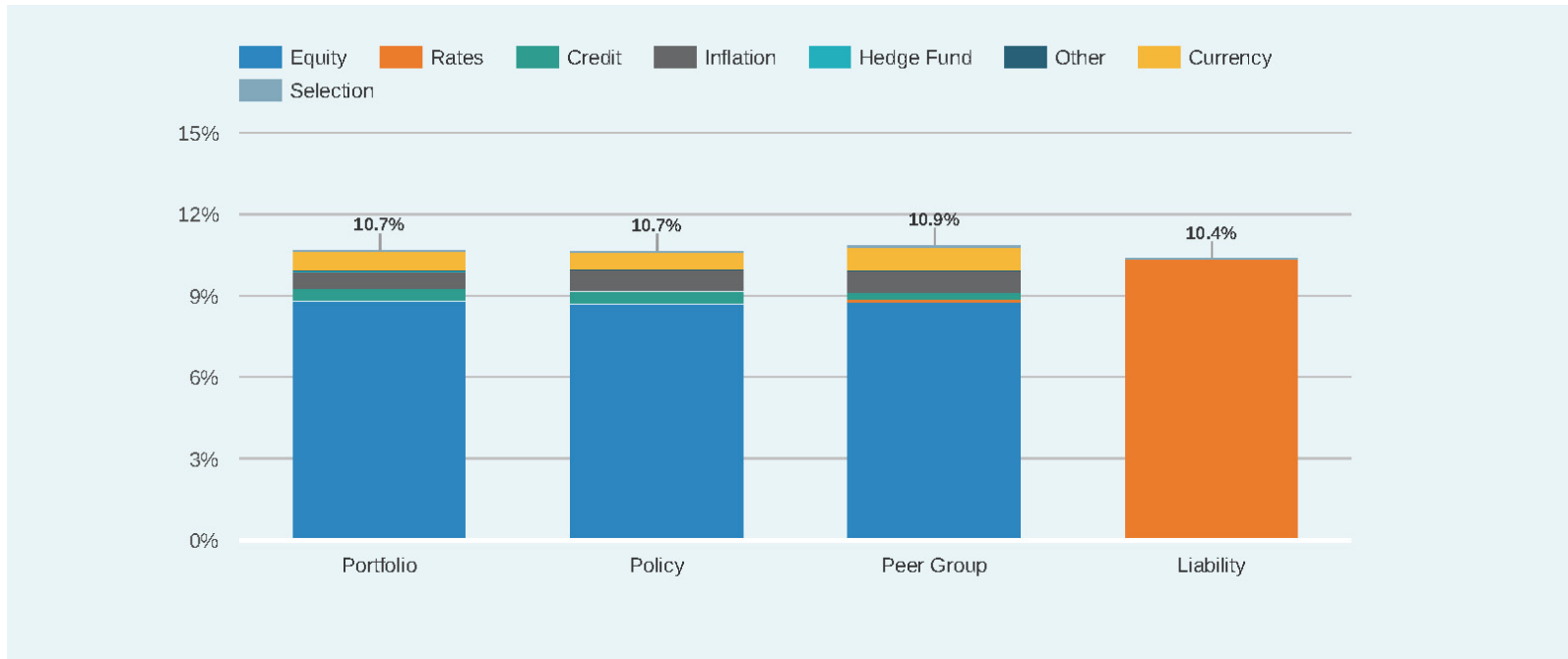
Portfolio volatility currently matches the policy level



Over 90% of portfolio volatility comes from growth assets.

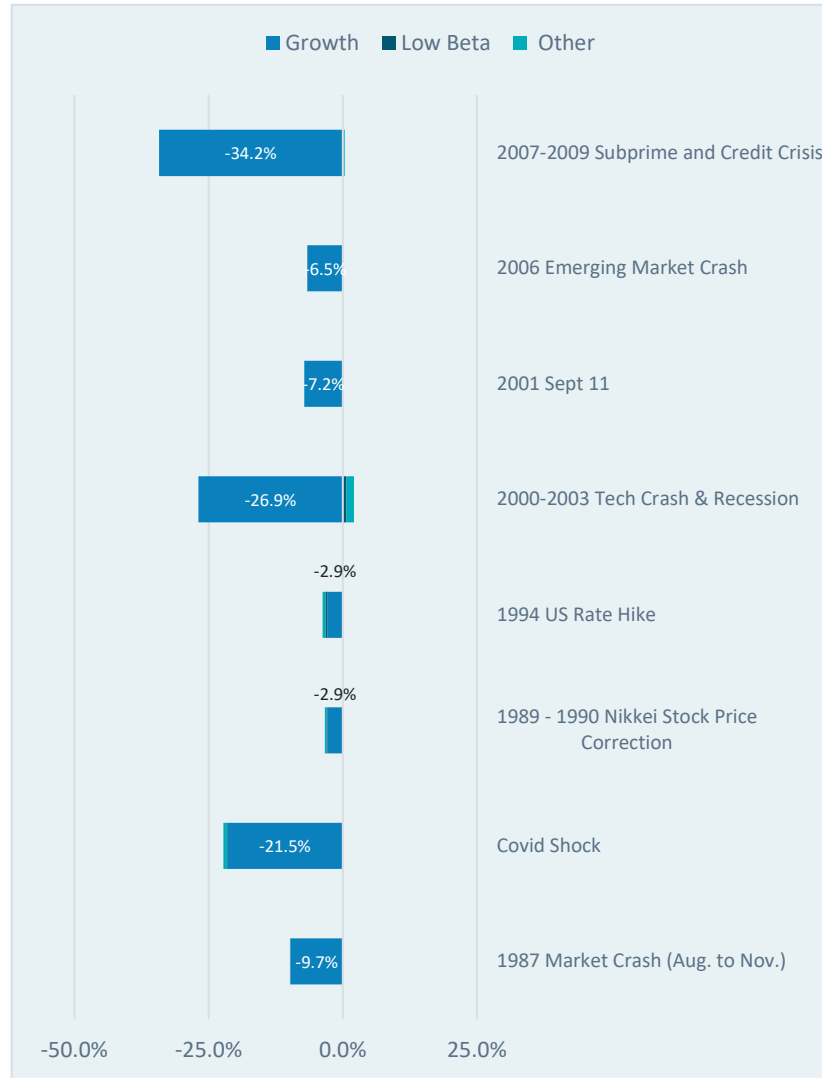
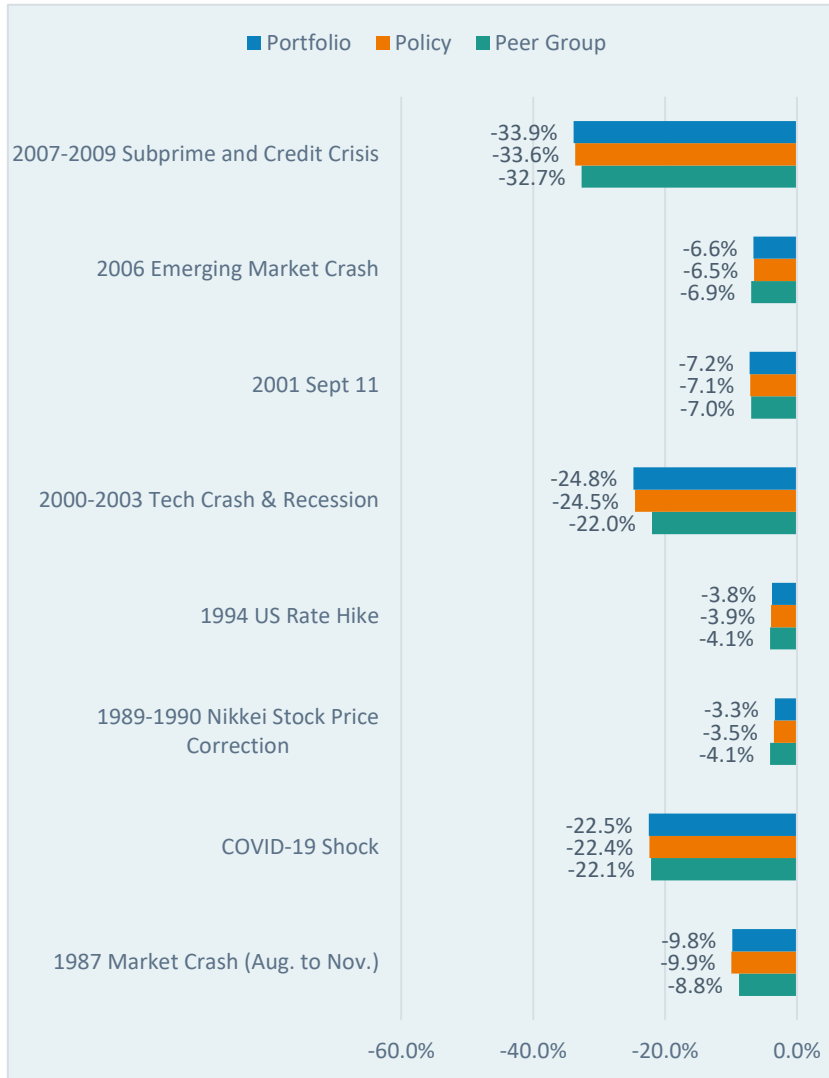


Risk factor decomposition



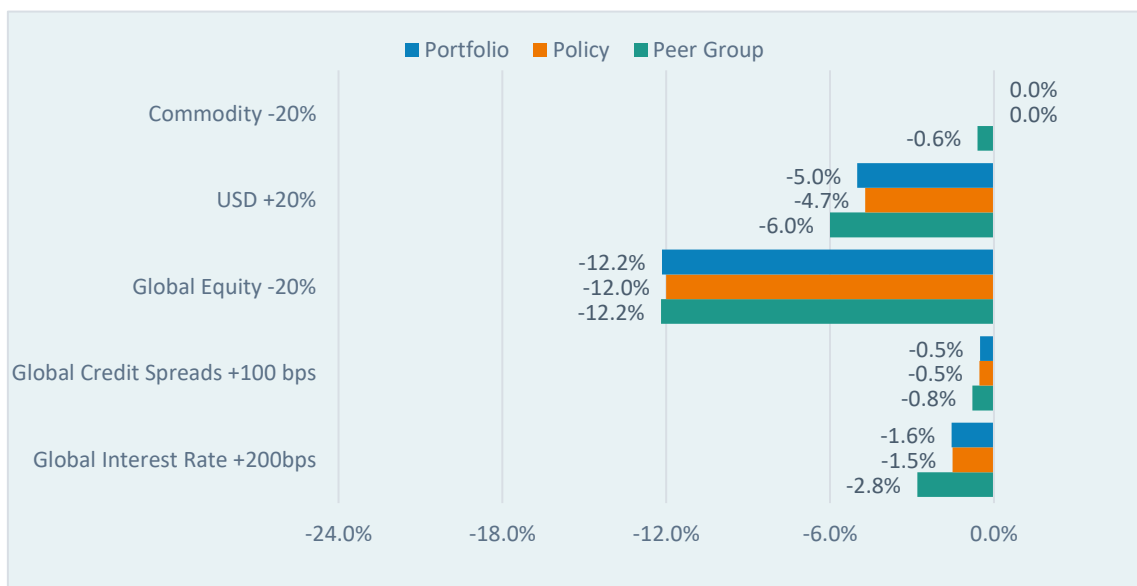
While equity factors are the dominant source of risk in the portfolio, currency, inflation, and credit factors contribute to overall risk

Historical scenarios



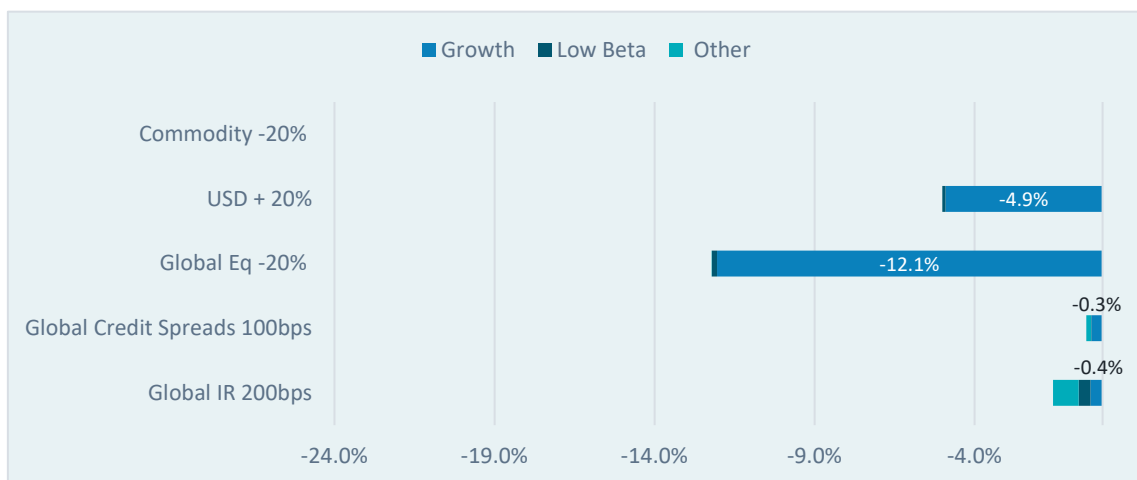
Portfolio performs like the policy in most historic scenarios

Stress tests



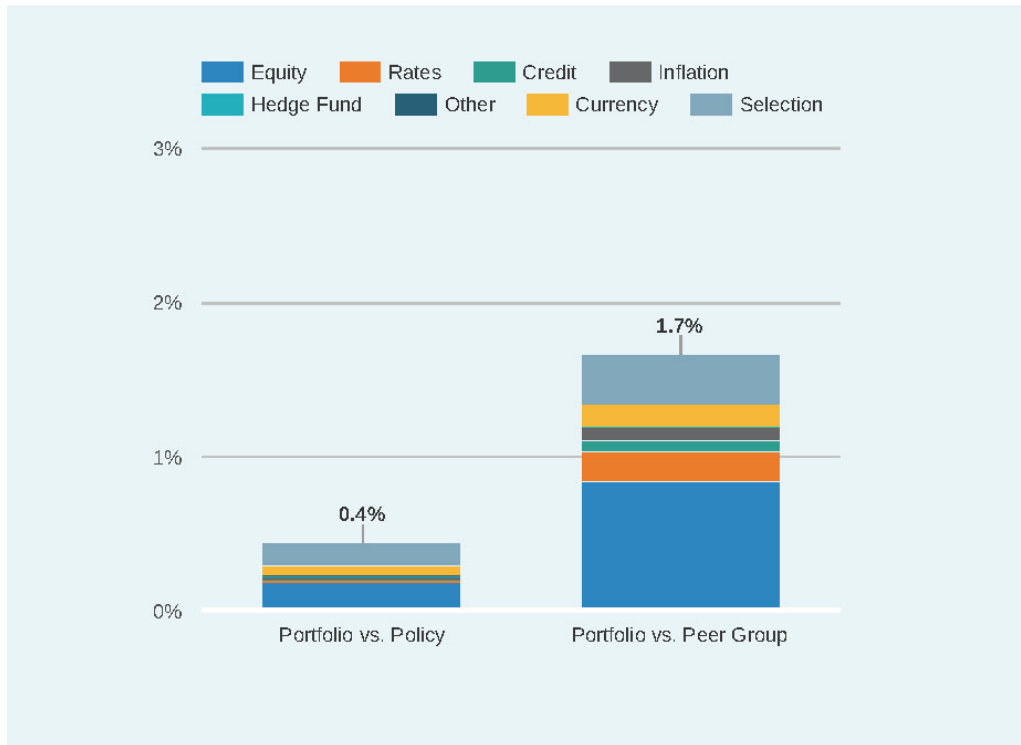
Portfolio is most sensitive to changes in equities and currency markets

Portfolio is less exposed to interest rate risk and credit spread risk



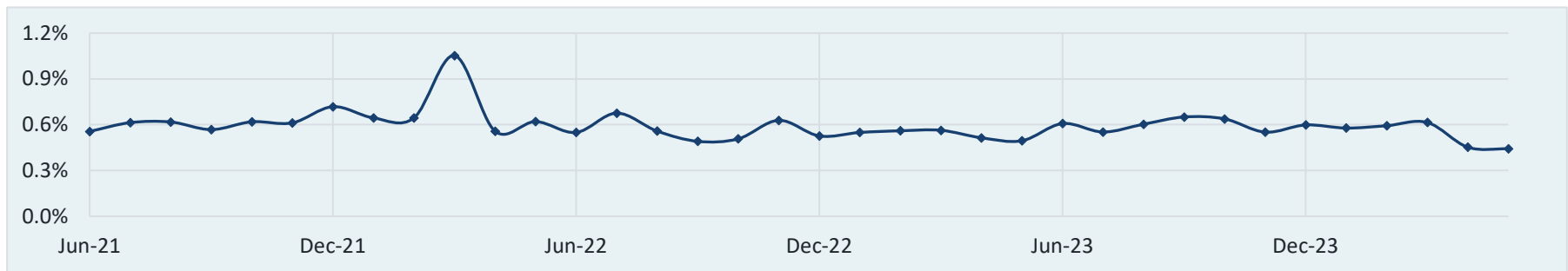
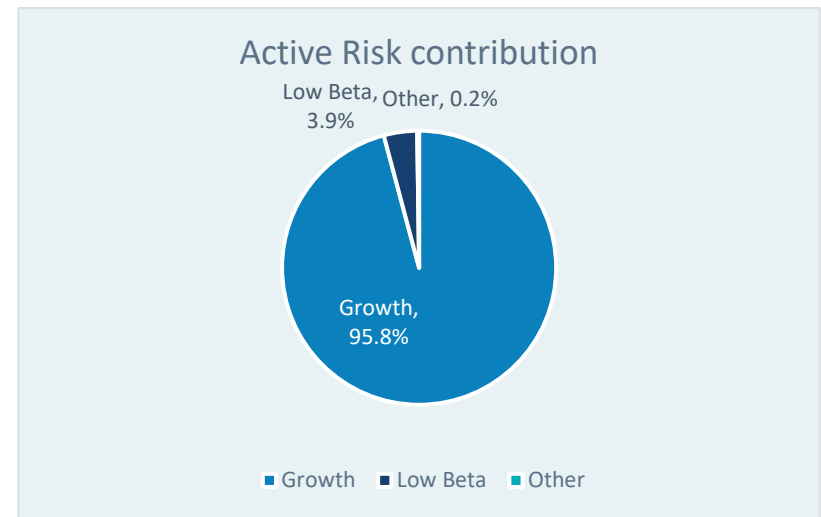
Stress tests are conducted using uncorrelated shocks.

Active risk factor decomposition



Active risk (or tracking error) provides insight into amount of excess performance we expect to see in portfolio

Active risk profile has shifted to reflect more 'beta' versus idiosyncratic exposures



Active public equity style factor exposures



The largest active style factor exposure was Value

No style factors exceeded +/-0.2

Values greater than 0.2 are generally considered significant

Appendix

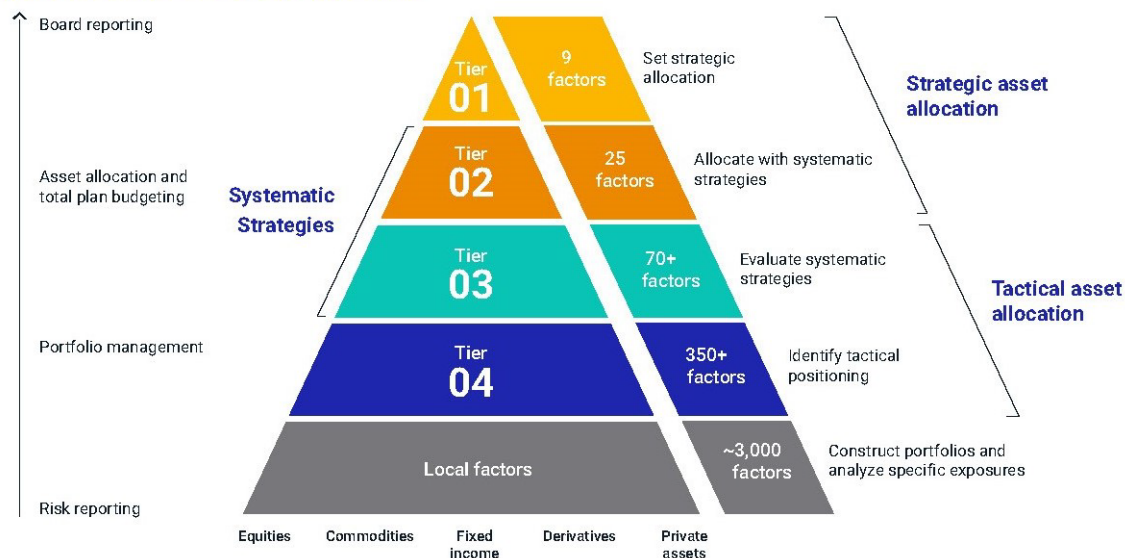
Modeling differences

Account Type	Verus + MSCI Managed Services (through 3/31/2024)	Verus Alone (after 3/31/2024)	Likely Effect
Public Markets Separate Accounts	Custodial holdings are loaded to Barra by MSCI; any discrepancy in account value is assumed to have the same composition as the recognized holdings	Custodial holdings are loaded to Barra by Verus; any discrepancy in account value is assumed to have the same composition as the asset class benchmark	A slightly lower measurement of active risk
Public Markets Commingled Accounts	Manager-provided holdings are loaded to Barra by Verus; any discrepancy in account value is assumed to have the same composition as the recognized holdings	Manager-provided holdings are loaded to Barra by Verus; any discrepancy in account value is assumed to have the same composition as the asset class benchmark	A slightly lower measurement of active risk
Private Markets	Most accounts modeled with public markets proxy index; ad-hoc modeling of some accounts using Barra private markets assets	All accounts modeled with public markets proxy index	A marginally lower measurement of both total risk and policy risk
Hedge Funds	Barra returns-based modeling	All accounts modeled with public markets proxy index	A slightly lower measurement of active risk (due to small hedge fund allocation); also, significantly less style risk
Emerging Markets Debt	Benchmark is 50/50 blend of JP Morgan hard currency and local currency indices (per IPS)	Benchmark is Bloomberg EMD Index (hard currency)	A slightly lower measurement of total currency risk (due to small EMD allocation)

About the model

- The City of San Jose Retirement Services currently uses the MSCI Barra Multi-Asset Class Model (**MAC.XL**)
- **MAC** was built specifically for multi-asset class portfolios like pension funds (older models were built for stock and bond portfolio managers)
- The “**XL**” version represents the longest available investment horizon (8-year “half-life”)
- Each security in the portfolio is modeled as a combination of common variables called “**factors**”
- Thousands of factor “**exposures**” are added-up at various levels or “**tiers**”
- The nine **Tier 1** factors shown in this report are most appropriate for committee oversight
- Style factors, aka Tier 3, are also of interest when examining active risk

The MSCI Multi-Asset Class Factor Model



Source: MSCI

Active style factor (Tier 3) descriptions

Style Factor	Description	Intpretation
Size	Captures the return differences between large-cap stocks and small-cap stocks	A positive exposure indicates large capitalization. A negative exposure indicates small capitalization.
Value	Explains the return component attributable to a stock's book-to-price ratio, and earnings yield.	A positive exposure indicates an undervalued stock. A negative exposure indicates an overvalued stock.
Yield	Explains the return component attributable to a stock's dividend yield	A positive exposure indicates a higher dividend yield. A negative exposure indicates a lower dividend yield.
Momentum	Explains the return differences of stocks based on their relative performance over the trailing 6-12 months	A positive exposure indicates a high medium-term momentum (good recent performance). A negative exposure indicates a low medium-term momentum (poor recent performance)
Quality	Captures common variation in stock returns due to differences in the level of company leverage	A positive value indicates high leverage. A negative value indicates low leverage
Volatility	Explains returns associated with high volatility stock	A positive exposure indicates a high volatility. A negative exposure indicates a low volatility.
Liquidity	Describes return differences of stocks based on their relative trading activity	A positive exposure indicates a high liquidity. A negative exposure indicates a low liquidity.
Growth	Describes return differences of stocks based on their prospects for sales or earnings growth	A positive exposure indicates a high historical/predicted growth. A negative exposure indicates a low historical/predicted growth.
Macro	Describes return differences of stocks based on sensitivity to commodities (Oil/Gold) and foreign exchange rates	A positive exposure indicates high sensitivity to macro factors. A negative exposure indicates low sensitivity to these factors.

Notices & disclosures

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