



**EDUCATION SESSION – ALTERNATIVE PASSIVE INVESTING**

Ms. Tucker introduced herself and noted that staff committed to research ways to improve the public equity passive program as part of the 2012 public equity annual plan. Over the last year, Ms. Tucker researched alternatives to traditional market-capitalization weighted passive investing. Staff is interested in the Committee's feedback on what could be an interesting way to restructure the public equity program. Ms. Tucker reviewed some of the Board's investment beliefs for the CTF and additional equity-related investment beliefs. These included the mission of maximizing returns at a prudent level of risk; long-term time horizon; and the importance of diversification, risk management, liquidity, and transparency. These beliefs support the alternative passive strategies.

Ms. Tucker noted that traditional passive investing means investing in market-capitalization benchmarks. Market capitalization is one measure of the value of a publicly traded firm. A company's market-capitalization weighting in an index will increase as its price rises, resulting in peak prices coinciding with the highest weightings. She reviewed two risk measures: beta and volatility. Both describe price movement, or variability of returns. Beta measures a stock's price sensitivity relative to the market while volatility is a measure of absolute price movement. Ms. Tucker also reviewed tracking error, which is a measure of a portfolio's performance deviation from an underlying benchmark and can be thought of as relative volatility.

Ms. Tucker noted the objective of passive investing is to match return and risk characteristics of the benchmark. Passive investing provides WSIB broad-based diversification at extremely low fees. However, index providers differ in their definition of "market," markets are subject to bubbles and crashes, and the degree of market efficiency may vary over time. The two alternative strategies being discussed, fundamental value and low volatility, address the susceptibility to market crashes and bubbles as well as market efficiency.

Ms. Tucker reviewed the structure of the WSIB's passive equity investments. The WSIB uses passive equity investing in select markets: U.S. and non-U.S. developed markets. Passive investing relies on appropriate selection of index and benchmark. Investment return should match the index return with a small allowance for deviation, or tracking error. The WSIB has selected the MSCI Investable Market family of indices for its equity portfolio.

[Mr. Ragan joined the meeting by teleconference at 1:33 p.m.]

Ms. Tucker reviewed reasons for considering alternative passive strategies. The WSIB current passive strategy results in significant exposure to the market-capitalization weighting construction methodology. Staff believes the risk profile of the passive equity portfolio could be improved on an absolute basis by implementing a tilt to value and low volatility. The expectation would be for a value tilt to improve the performance of the portfolio over time while a low volatility tilt would reduce downside exposure. Ms. Tucker reviewed charts comparing the return dispersion of a market capitalization index, fundamental index, and low volatility index. The chart showed much higher upside on the fundamental strategy with the downside being

close to that of market-capitalization investing, while the low volatility index provided meaningful downside protection.

Research has shown that, over the long term, there has been some consistent behavior that contradicts efficient market theories. Four anomalies that have demonstrated persistence are value, size, momentum, and volatility. Of the phenomena that have demonstrated persistence, staff focused on value and volatility. Ms. Tucker noted that there are drawbacks to academic research and one must be cautious and try to understand the rationale that might be driving the observed factors or tilts. She reviewed some possible reasons for why these phenomena have persisted and performed better than traditional market capitalization strategies. Behavioral investing is one school of thought as investors do not behave perfectly rationally and suffer from cognitive errors such as overconfidence, lottery effect, and representativeness.

Staff views any deviation from market capitalization weightings as no longer pure passive investing as it represents a decision to do something different. However, while there is an active component inherent to the construction process, this is different from the types of decisions an active manager undertakes, as the active decisions are limited to construction rules. Fundamental and low volatility investing strategies offer many of the advantages of market-capitalization passive while offering an opportunity to adjust the performance and risk profile of the program. The alternative strategies offer transparent methodology and replicability. They also offer low turnover and fees, though higher than market capitalization passive. They also add the key benefit of making more fundamental sense—not buying into strength or selling into a weakness. Adding alternative strategies to the passive portfolio should increase the risk/reward relationship over a long period of time, which reduces absolute risk in the portfolio. However, because they differ by definition from the traditional market-capitalization index structure, introducing them increases relative risk, or the risk of underperforming the market.

Ms. Tucker reviewed an example of fundamental value weighting construction, as well as charts demonstrating the style factors of fundamental index style tilts and the persistence of the value tilt over the 30-year period from 1981 to 2011. She reviewed the advantages and drawbacks of a fundamental value strategy and the reasons for investing in a fundamental value index rather than a traditional market-capitalization weighted value index.

Ms. Tucker reviewed the reasons for investing in low volatility passive strategies. Financial theory proposes that investors should be rewarded for taking on risk. Volatility is a measure of market risk for stocks; therefore, investors expect to be rewarded for investing in higher volatility stocks. However, research has shown that lower volatility stocks have actually performed better than higher volatility stocks. While low volatility passive has produced higher returns, staff's primary motivation for introducing the factor is for its defensive characteristics. Ms. Tucker reviewed the style factor characterization of the MSCI Minimum Volatility index as of June 2012, noting its high dividend tilt and mid-capitalization tilt. She reviewed the advantages and drawbacks of low volatility indices, noting the protection offered by their

defensive nature, outperformance, and diversification. The drawbacks include diminished upside in bull markets, higher cost than traditional passive, more dispersion of returns, and limited live data. In addition, since construction methodology is more varied, it requires very careful attention to composition and turnover in particular.

Ms. Tucker reviewed the profile of the public equity program as of June 30, 2012, showing the value and growth characteristics of the portfolio. The current public equity portfolio is expected to perform within 0.84 percent of the benchmark. She reviewed the profile of the program with one-third of the current U.S. passive portfolio replaced with a fundamental index strategy. Such a portfolio would be expected to perform within 0.96 percent of the benchmark. Replacing another third of the current U.S. passive portfolio with a low volatility strategy would result in expected returns falling within 1.4 percent of the benchmark return.

[Ms. Williams left the meeting at 2:18 p.m.]

Ms. Tucker noted the staff's desire for feedback from the Committee regarding maintaining traditional passive exposure; introducing a fundamental value strategy; and/or introducing a low volatility strategy. She concluded by stating staff's desire to build on this preliminary research and potentially pursue an implementation plan for alternative passive investing. Fundamental weighting is the most intuitive and most closely aligned with the advantages of traditional passive investing. Low volatility is also intriguing, although index construction and constraints would play a larger role in evaluation. Together, fundamental value and low volatility are compelling for their combined risk and return characteristics. Adding value and low volatility exposure to the public equity portfolio makes sense in a broader portfolio context given the modest growth tilt of the private equity portfolio.

Discussion regarding the limited live data available for the low volatility strategy, importance of construction methodology, appeal of downside protection, and the possibility of internal passive management, importance of appropriate construction methodology. The Committee expressed a desire to hear more about these strategies during the 2013 Public Equity annual plan presentation.

#### **OTHER ITEMS**

There was no further business to come before the Public Markets Committee and the meeting adjourned at 2:47 p.m.