BlackRock Council Presentation

Prepared for The Nebraska Investment Council

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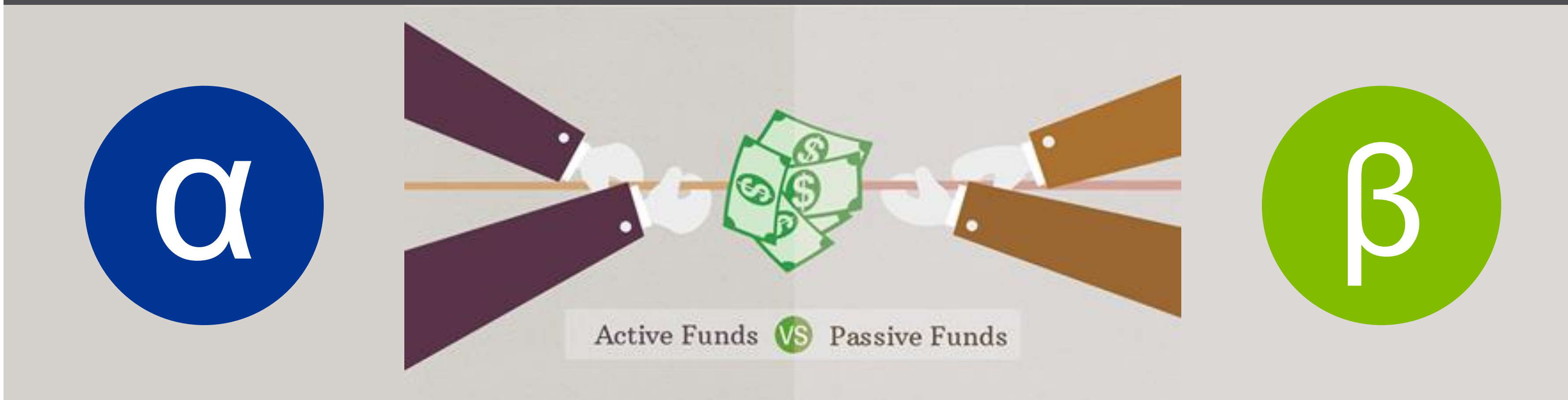
Active vs. Passive

The debate

Active investing is a zero-sum game



Active

Designed to outperform a given benchmark via security selection, market timing, or other strategies

Often characterized by:

- Higher management fees
- Incentive fees
- High turnover
- High ongoing transaction costs

Passive

Designed to give exposure to a desired asset class in a rules-based, transparent fashion

Often characterized by:

- Low management fees
- Low turnover
- Low ongoing transaction costs

Active vs. Passive
The outcome

Evidence suggests that active management is difficult, even in less efficient markets

- In many cases active managers as a group have struggled to keep pace with the market
  - The majority of 40-act regulated mutual funds underperformed the market in all asset classes
  - Removing fees from the equation, the majority of US Large Cap and Emerging Markets funds underperformed the market. Developed non-US funds performed better
  - The performance of Institutional accounts was mixed. Note that eVestment data is self reported

Percentage of managers underperforming over five years

Fund Category	Benchmark	Mutual Funds Net of fees	Mutual Funds Gross of fees	Institutional accounts
All Large-Cap Funds	S&P 500	84.15%	76.23%	85.81%
International Funds	S&P 700	55.37%	41.64%	29.05%
Emerging Market Funds	S&P Emerging BMI	69.94%	55.28%	49.51%

Source: S&P Dow Jones Indices LLC, eVestment Alliance, CRSP. Data reflected as of Dec. 31, 2015. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

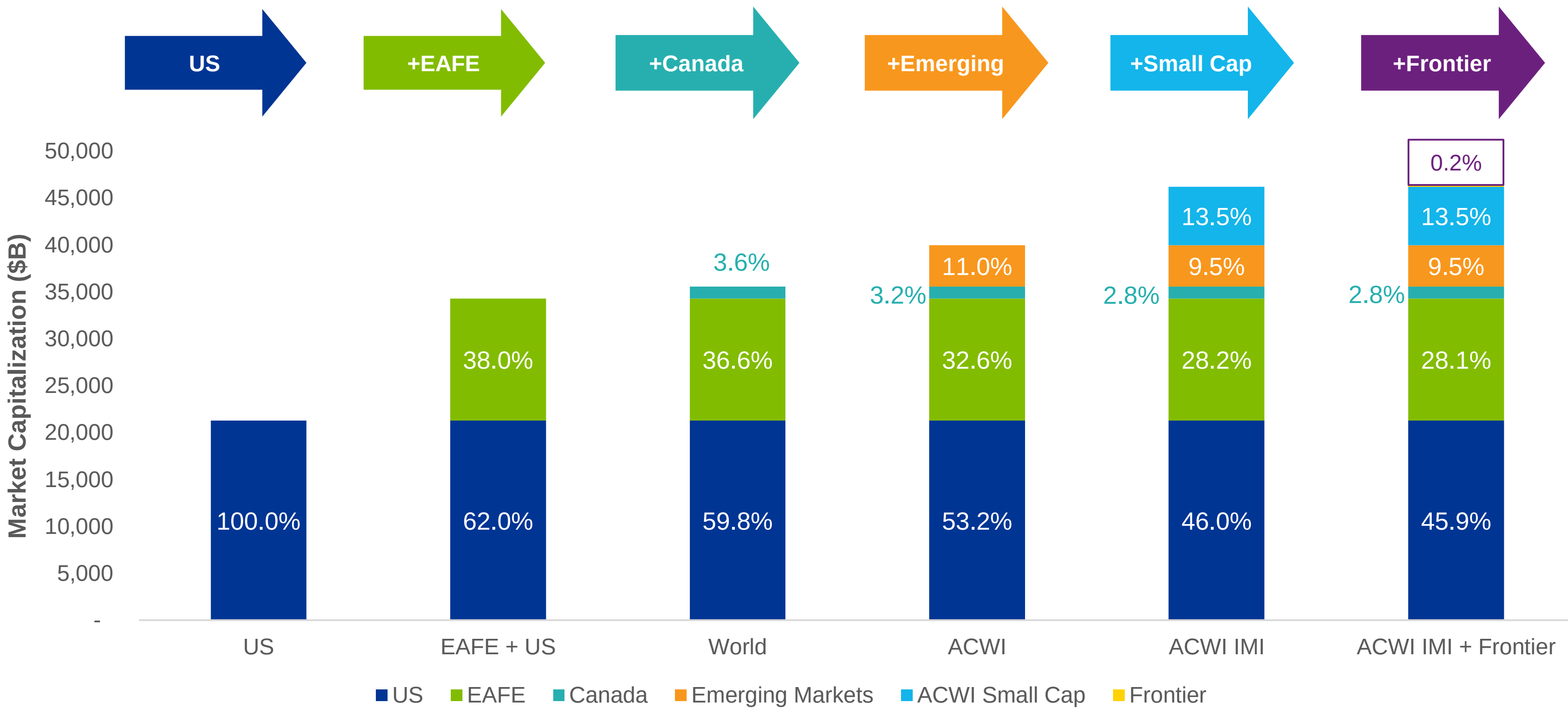
Active vs. Passive
Plan sponsor considerations

- Do you have the skill to identify managers who will outperform after fees in the future?
- If your active manager is underperforming, what actions does your governance structure require you to take?
- Non-US managers might inherently outperform the net total return benchmark due to foreign tax reclaim*. Are they calling that alpha?
- Are you getting the most out of your index assets?

*Sources: S&P Dow Jones Indices, 2016 SPIVA Report

Home Country Bias

Expanding the investable universe



	US[1]	EAFE+US[1]	World	ACWI	ACWI IMI	ACWI IMI + Frontier
Total market cap (USD, $B)	21,271	34,296	35,577	39,962	46,210	46,321
# of securities	627	1,556	1,650	2,480	8,575	8,702

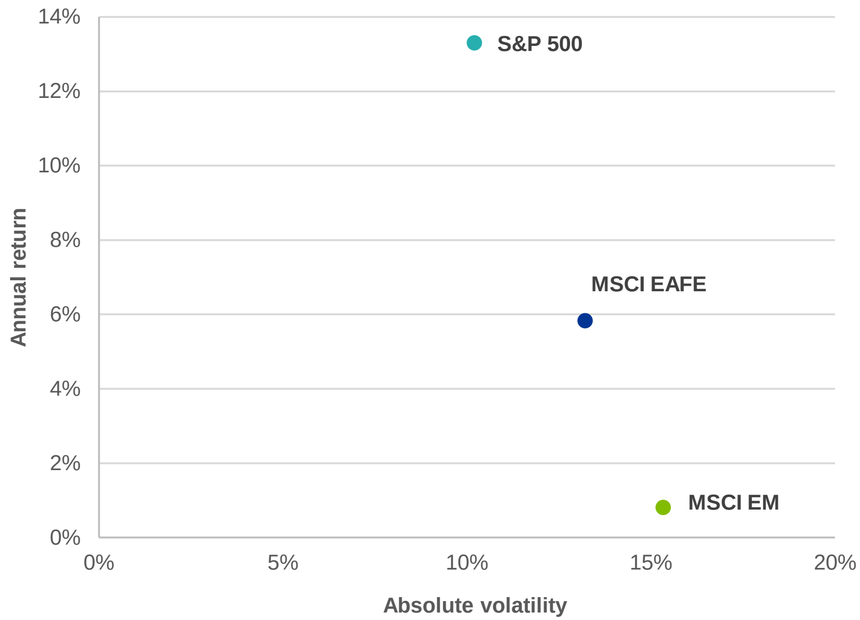
Sources: MSCI. MSCI Weightings as of 31 March 2017

1 US Assets shown above reflect MSCI US

Home Country Bias

Performance, risk, and correlation

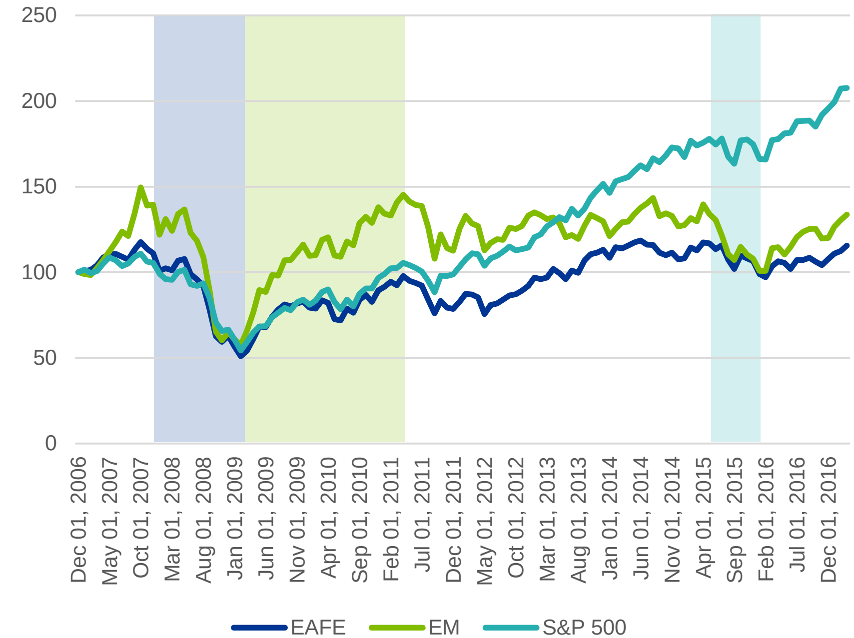
Risk & Return Characteristics



	MSCI EAFE	MSCI EM	S&P 500
MSCI EAFE	1		
MSCI EM	0.77	1	
S&P 500	0.81	0.64	1

From Mar 2012 – Mar 2017. Source: BlackRock, MSCI and S&P Dow Jones Indices.
Correlation matrix trailing 5 year as of 31 March 2017

Market regime impact on index performance

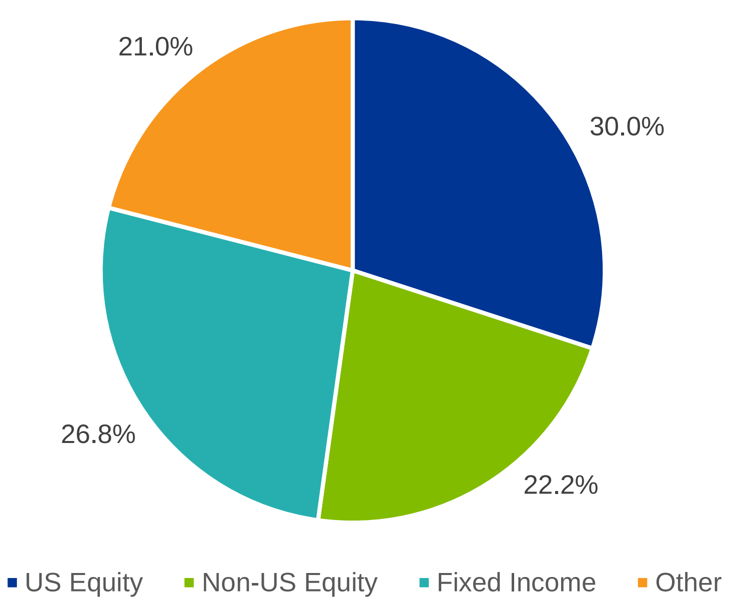


	MSCI EAFE	MSCI EM	S&P 500
Sub Prime Crisis (Nov 2007 – Feb 2009)	-46.60%	-51.21%	-41.39%
Recovery (Mar 2009 – Apr 2011)	35.19%	53.46%	35.76%
China Selloff (June 2015 – Feb 2016)	-16.83%	-24.85%	-6.79%

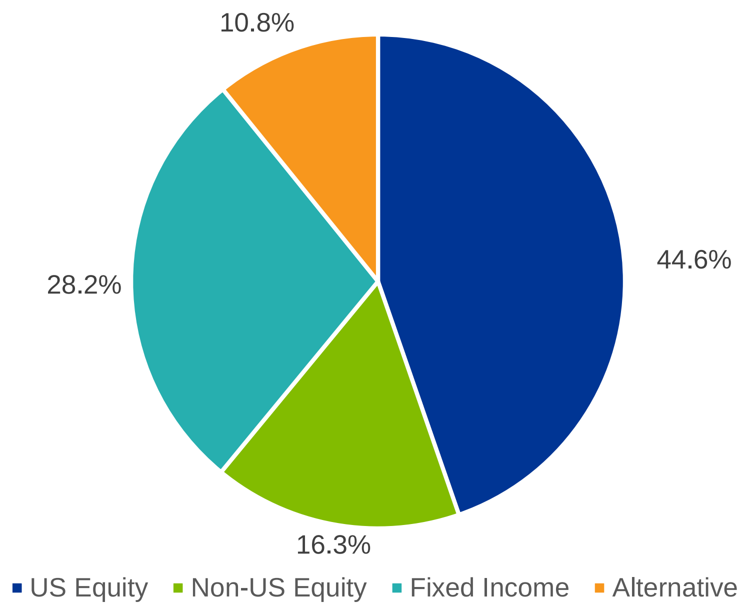
Past Performance does not guarantee future results. It is not possible to directly invest in an unmanaged index
Source: MSCI and S&P. Based on monthly index returns from 12/1/06 – 03/31/17.

Home Country Bias
Current trends

Average defined benefit public plan asset allocation



Nebraska Investment Council asset allocation



	US Equity	Non-US Equity	Fixed Income	Other
Nebraska	44.6%	16.3%	28.2%	10.8%
Avg. DB public plan	30.0%	22.2%	26.8%	21.0%
NIC weight vs. avg. DB plan	+14.6%	-5.9%	+1.4%	-10.2%

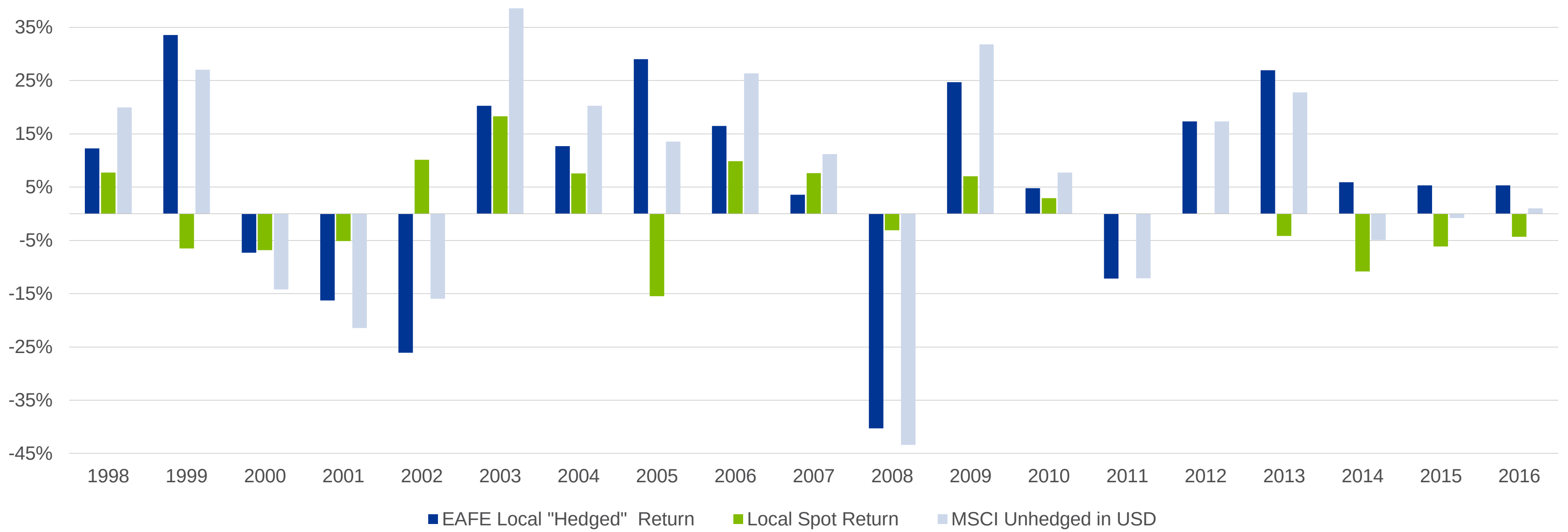
Sources - BlackRock, AON 4Q16 Performance Review as of 12/31/2016, Pensions & Investments – Median allocations of top 200 public pension plans as of 2/2017

Currency Hedging
Performance impact of currency

Investing in overseas assets introduces currency risk and makes performance more volatile

- Fluctuations in currency prices can have a meaningful short term impact on performance
- However, over long periods of time the performance impact of currency may be neutral

***Annual EAFE returns in USD 100% Hedge Ratio**



*Past performance does not guarantee future results. It is not possible to directly invest in an unmanaged index
Source – BlackRock, MSCI

Currency Hedging

To hedge or not to hedge

Currency hedging helps minimize the volatility of holding overseas assets

- Currency hedging can remove much of the effect of currency fluctuations of the domestic value of investments
- Currency hedging helps investors isolate the equity exposure they want
- Currency can be hedged at a relatively low cost
- A hedging program or currency overlay is not expected to add alpha. It only seeks to reduces risk

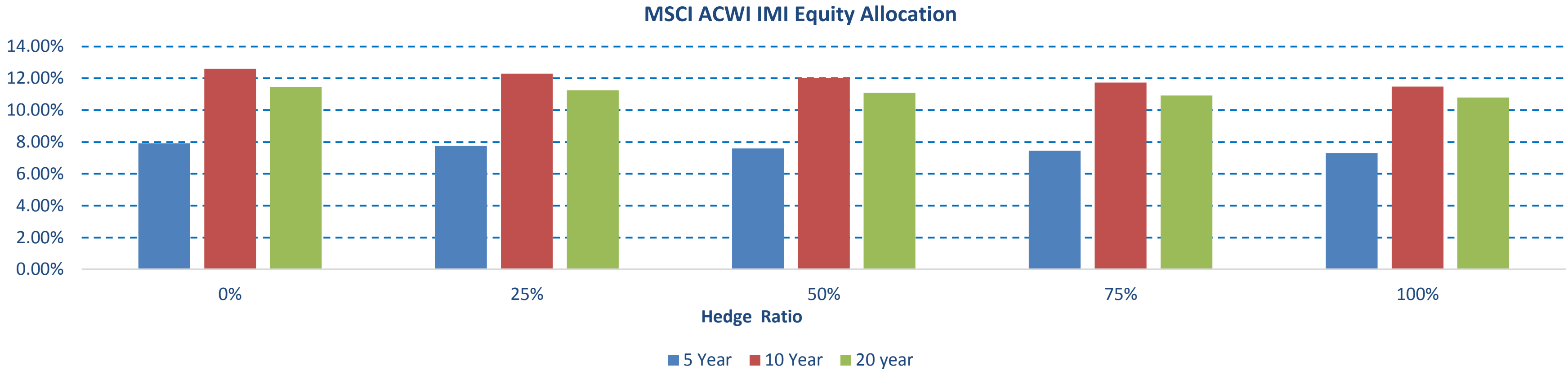
An optimal currency hedge ratio can be determined that is designed to balance costs and risks around a given strategic asset allocation

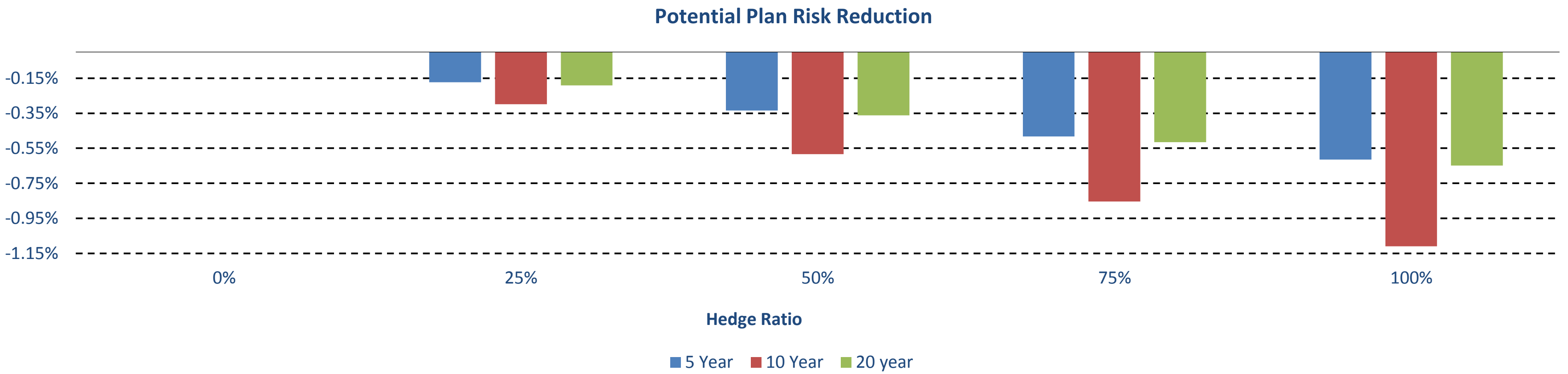
- The hedging decision is based on the belief that currency exposure adds volatility (risk) to a portfolio without the expectation of corresponding return
- In general, implementing a hedging strategy may reduce the risk of an international portfolio; however, its impact on the overall plan will depend on the size of the allocation to international assets

Currency Hedging

*Potential risk reduction from hedging**

Below is the sample of the risk reduction possible assuming equity exposure is in line with MSCI ACWI IMI market capitalization weights





*Represents potential risk reduction from rebalancing of Nebraska's current equity allocation represented on slide 7 to match the MSCI ACWI IMI Index.
Risk is calculated as the following: SQRT(12)*STDEV(sample size); Sample sizes: 5, 10 and 20 Year ; Period Ending December 2016
Sources: *MSCI World, MSCI World ex-US, MSCI Emerging Markets, Bloomberg Barclays US Aggregate , Russell 1000, FTSE NAREIT, LPX50 , Barclays 3 Month T-Bill*
As the hedge ratio increases, the total transaction cost associated with hedging will increase.

Appendix

A. Presenter Biographies

B. Disclosures

Presenter Biographies

Scott Dohemann, CFA, *Managing Director*, is Head of US Index Strategy within BlackRock's ETF & Index Investments Group.

Mr. Dohemann's service with the firm dates back to 1998, including his years with Barclays Global Investors (BGI), which merged with BlackRock in 2009. Prior to his current Beta Strategy role, he was part of the Transition Management team where he was responsible for advising clients on transition activity as well as further developing the transition product. At BGI, Mr. Dohemann fulfilled a similar transition management role as a senior transition manager in the group both in advising clients and in undertaking responsibilities for a team of portfolio managers and operational specialists. Prior to joining BGI, he worked for Merrill Lynch as a financial consultant in the Private Client Group.

Mr. Dohemann earned a BSc in finance from San Diego State University in 1992.

Diane Parish, *Managing Director*, is a member of the US and Canada Institutional team within BlackRock's Institutional Client Business. She is responsible for developing and maintaining relationships with institutional investors, including corporations and public and private pension plans.

Previously Ms. Parish was a fixed income portfolio manager in BlackRock's Portfolio Management Group, specializing in managing insurance company portfolios. Prior to joining BlackRock in 1995, Ms. Parish was a Director and fixed income portfolio manager at CS First Boston Investment Management Corporation, with responsibility for institutional portfolios. Before joining the investment affiliate, Ms. Parish was a Vice President in the fixed income research department of The First Boston Corporation. She began her career at the Frank Russell Company, where she advised pension fund clients on fixed income managers and investment strategies.

Ms. Parish earned a BA degree in business administration from the University of Washington and an MBA degree in finance from Columbia University.

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Important Notes cont'd

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Index

It is not possible to directly invest in an unmanaged index.

Risk

Investing in the bond market is subject to certain risks including market, interest-rate, issuer, credit, and inflation risk. Equities may decline in value due to both real and perceived general market, economic, and industry conditions. Mortgage and asset-backed securities may be sensitive to changes in interest rates, subject to early repayment risk, and while generally backed by a government, government-agency or private guarantor there is no assurance that the guarantor will meet its obligations. High-yield, lower-rated, securities involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. Investors will, at times, incur a tax liability. Income from municipal bonds may be subject to state and local taxes and at times the alternative minimum tax. Derivatives may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested.

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