Section I: Stable Value Funds: Purpose, Mission & Strategy

Section II: Stable Value Strategy Inputs

Section III: Galliard Recommendations

State of North Carolina Strategy Summary & Recommendations

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State of North Carolina
Agenda

- The following pages contain background information on the stable value asset class, a summary of the analysis that is performed in conjunction with setting the stable value investment strategy and a recommended changed to the State of North Carolina's portfolio structure.
- Section II highlights a few of the important factors that help determine the stable value portfolio's investment strategy.
- Section III lays out recommended changes to the portfolio structure to achieve the objectives outlined on the following pages.

Section I – Stable Value Funds: Purpose, Mission & Strategy

Stable Value Overview

Stable Value Funds: Purpose, Mission & Strategy

Stable Value Fund Background:

- Has been among the most popular choices for plan participants since 1970's
- Comprises almost 25% of defined contribution plan asses currently (>$600 Billion in assets)*
- Has outperformed money market funds by over 3% compounded over long time periods with less volatility
- Delivers returns similar to short/intermediate bonds with significantly less volatility
- Has achieved its goals of principal preservation and competitive yield through many different economic interest rate environments

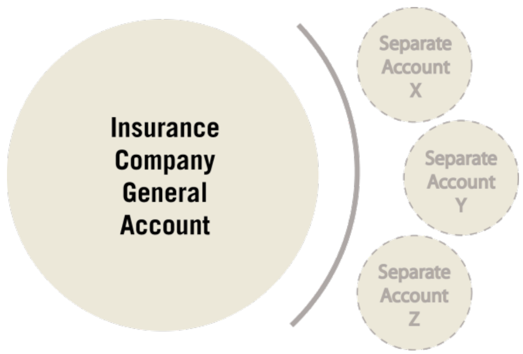
*Stable Value Investment Association

Stable Value Portfolio Constructions

- Stable value funds are designed to be conservatively managed capital preservation investments options within defined contribution plans. Stable value seeks to provide capital preservation with consistent, steady positive returns
- Portfolios are comprised of high quality short-to intermediate-duration fixed income securities (bonds) paired with benefit responsive wrap agreements
- Wrap agreements smooth the volatility (earnings) experienced on the underlying fixed income securities. Stable value “wrap contracts” allow participants to transact at book value (principal plus accrued interest) without experiencing the price fluctuations of the underlying securities (i.e., returns comparable to a short/intermediate duration bond portfolio with liquidity and volatility comparable to money market funds

Insurance Company Separate Account GIC

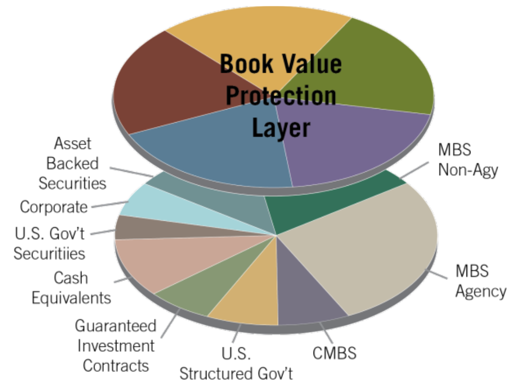
Separate account assets are segregated from insurance company General Account



Issuer: Owns Separate Account assets
Plan : Contract holder/First priority creditor of Separate

Synthetic GIC (Wrap Contract)

Synthetic GIC structure underlies book value protection (wrap) from underlying investments

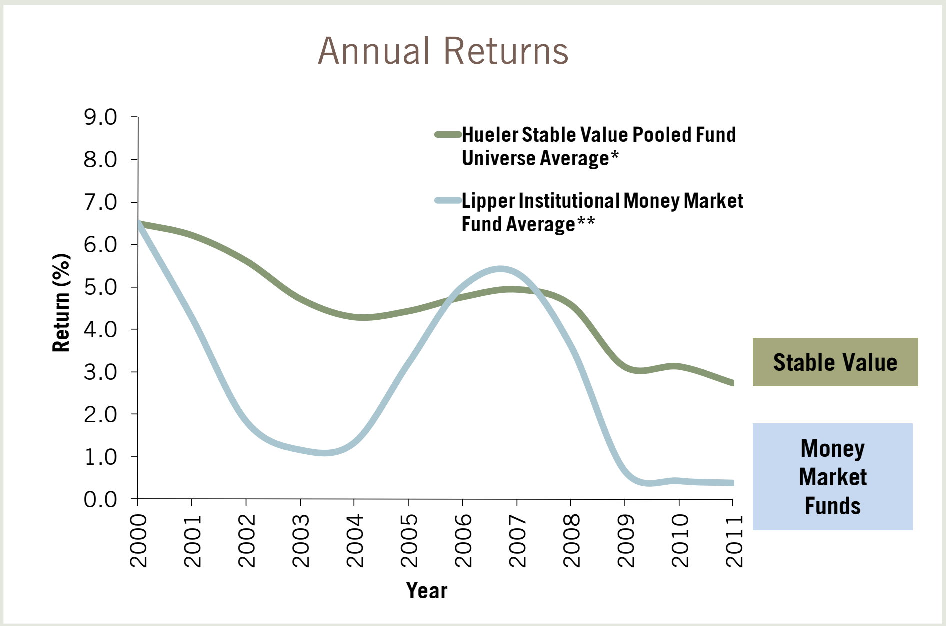


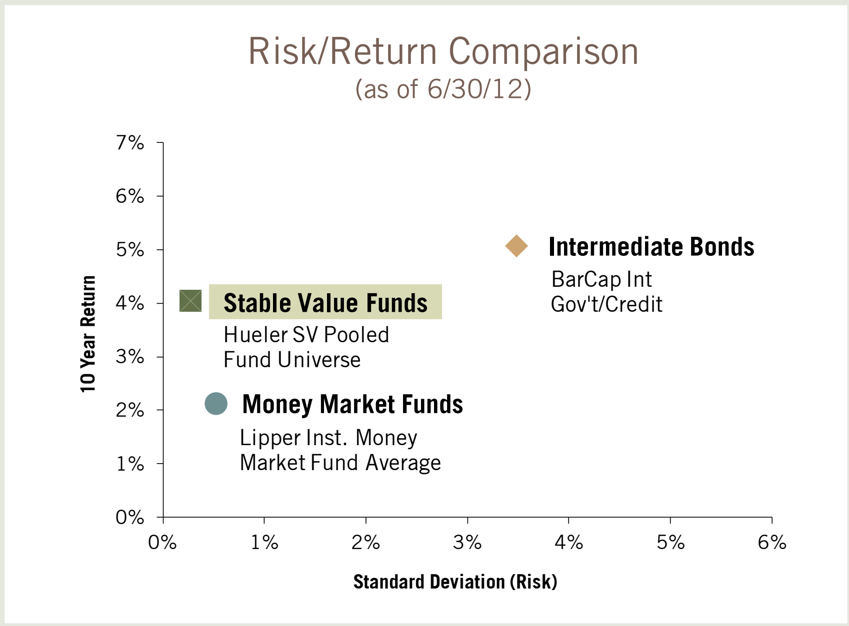
Issuer: Banks and Insurance companies issuing book value contracts
Plan : Owns assets

Introduction to Stable Value Investing

Returns Versus Competing Options

Investment Performance Comparison





Stable value funds have historically delivered a very attractive return pattern versus money market funds.

Stable Value funds offer bond-like returns with less volatility than money market funds.

*As of 5/31/12, the Hueler Analytics Stable Value Pooled Fund Universe represented investment strategies of $108.0 billion in stable value assets across 16 pooled funds. The universe reports performance before investment management fees.
**Lipper Institutional Money Market Fund performance has been increased by the average stable value fund fee of 35 basis points

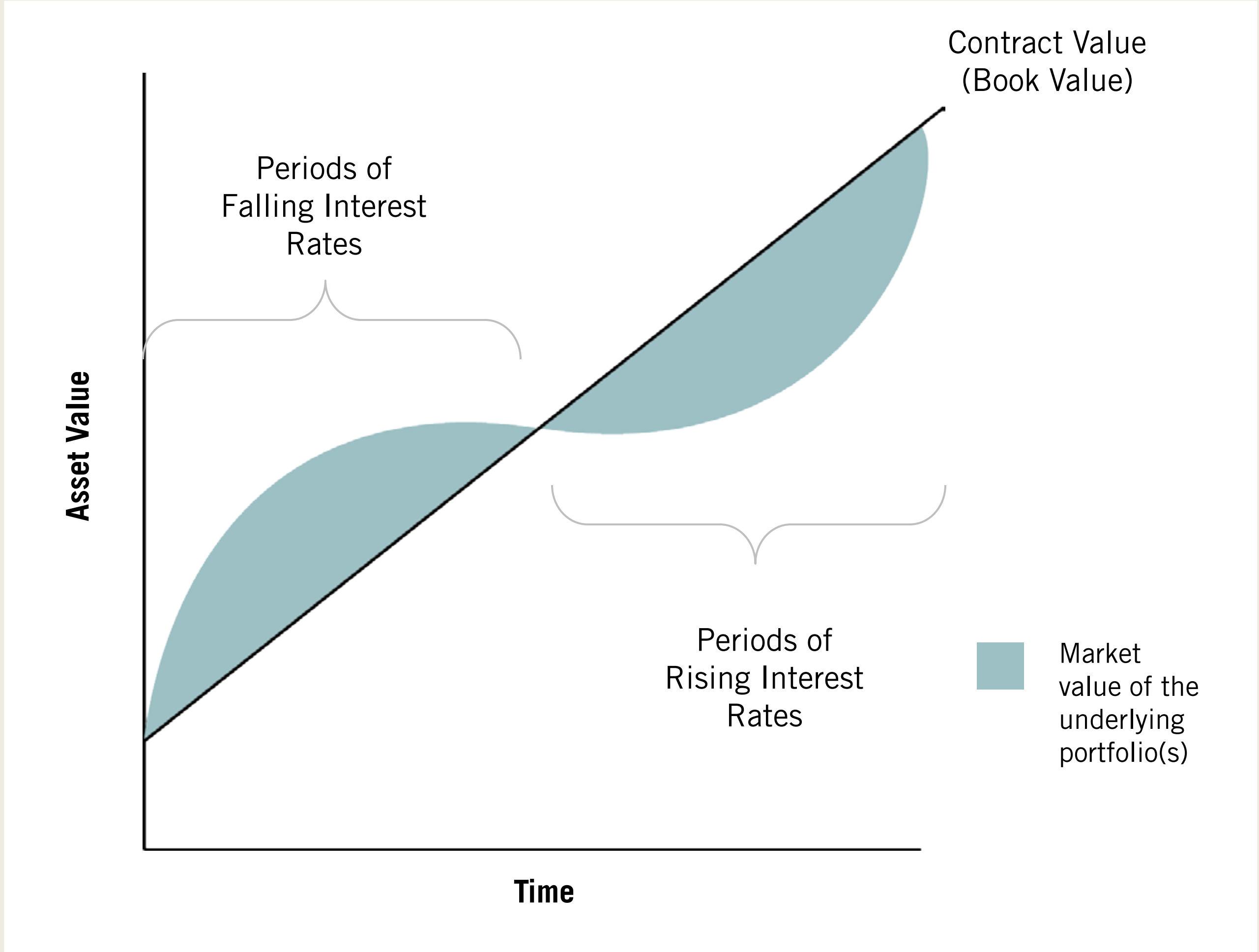
Stable Value Overview

Wrapper Contracts Smooth Out Market Fluctuations

Wrapper agreements are designed to help preserve principal and provide a stable crediting rate as identified by the solid, bold line.

The wrap agreement's crediting rate formula is designed to provide a stable return during a rising or falling interest rates. The agreements smooth the impact of fluctuating interest rates and bond prices by amortizing the gains and loses over the duration of the portfolio.

The smooth function allows the stale value portfolio yield to track the general direction of the interest rate changes without the day-to-day price volatility of traditional bond portfolios.



Objective of Stable Value Investing: Minimize volatility (changes) in the Fund's yield, while protecting principal

Section II – The Deep Dive: The State of North Carolina Stable Value Fund

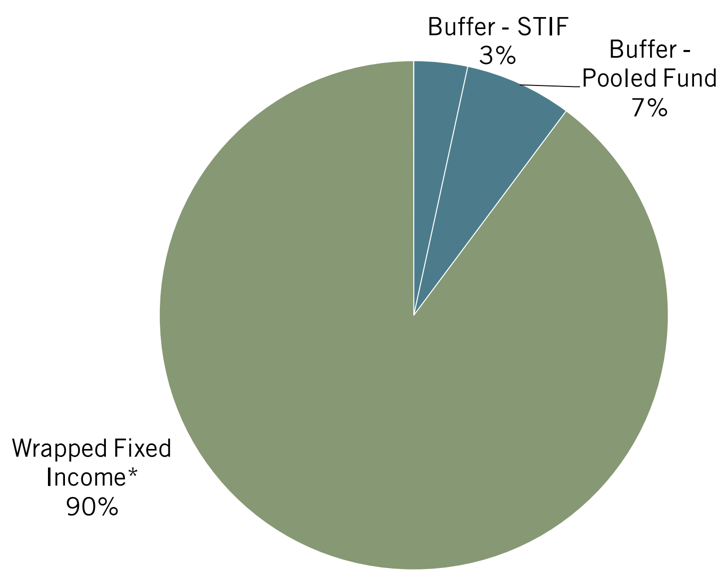
State of North Carolina

Stable Value Fund Investment Strategy Summary

Component #1- Liquidity Structure

- The stable value portfolio is constructed with a liquidity buffer to shield the wrapped fixed income strategies from daily participant directed activity (distributions, transfers, etc).
- Buffer investments typically range from 10% up to 30% of portfolio holdings based on plan-specific factors (see next page for details).
- In addition to shielding the fixed income investments, the buffer also provides a source of liquidity so that outflows do not adversely impact future crediting rates.
- The 10% target cash buffers for the State of North Carolina Stable Value Funds are reasonable and Galliard does not propose any changes at this time.

Current Allocation – Liquidity Structure (No Change)



*Includes benefit responsive wrap contracts and insurance company separate accounts

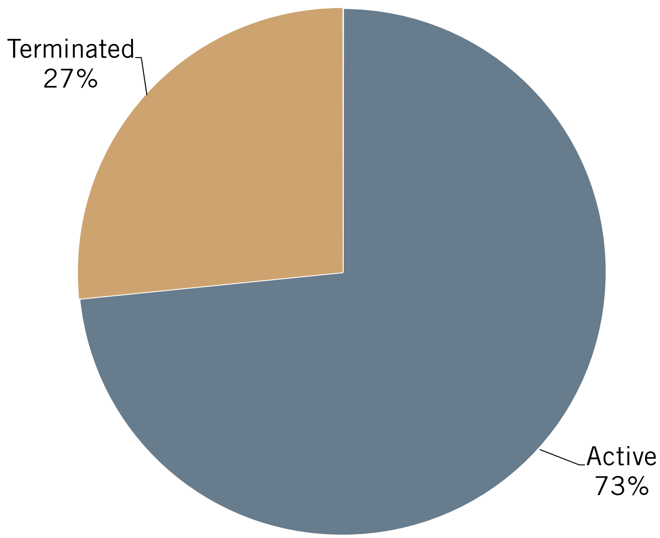
State of North Carolina

Stable Value Fund Investment Strategy Summary

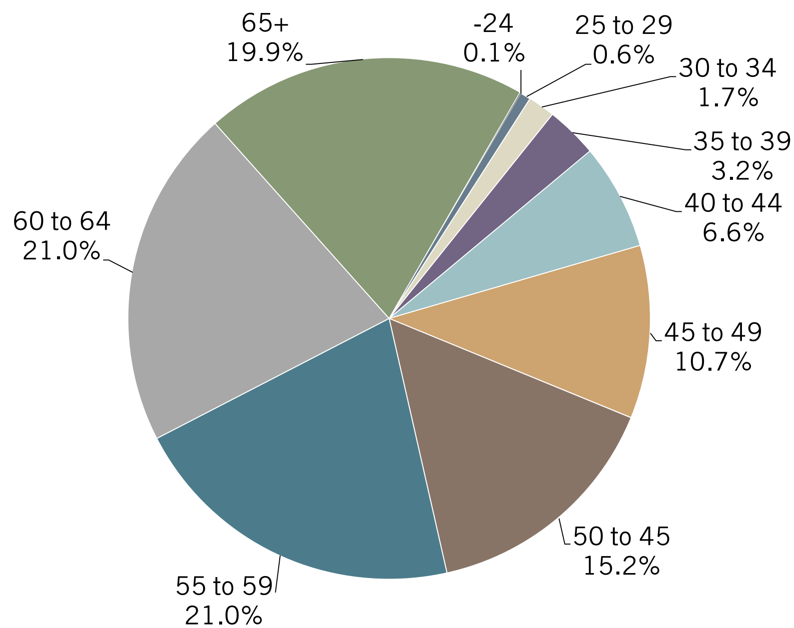
Factors Impacting Liquidity Structure - The benefit responsive wrap contract issuers underwrite each plan to assess risk. Issuers look at several factors in their review process:

- Plan Design and Administrative Features
- Participant Demographic Data (see below)
- Stable Value Fund Historical Cash Flows
- Historical Plan Investment Option Balances

State of NC 401(k) Plan Stable Value Fund Distribution by Status



State of NC 401(k) Plan Stable Value Fund Distribution by Age



State of North Carolina Underwriting

- **The large active participant balance and the diverse age demographics offer a favorable underwriting profile.**
- **The statistics for the 457 plan are very close to those of the 401(k) plan.**

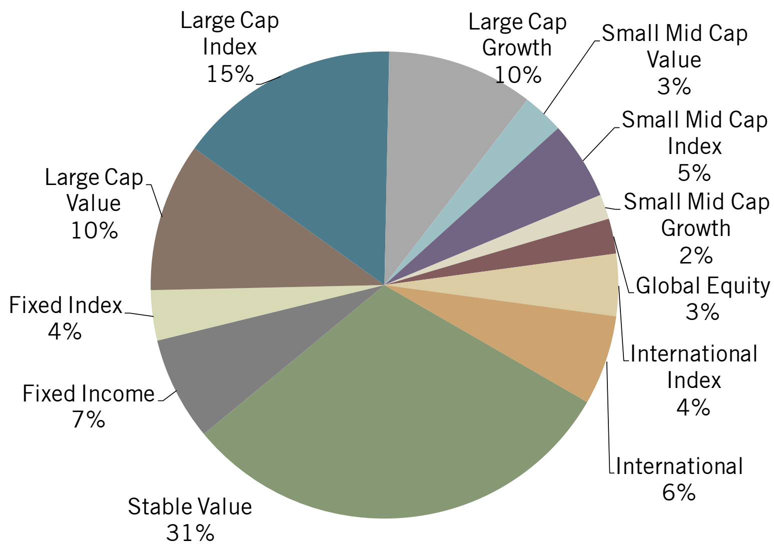
State of North Carolina

Stable Value Fund Investment Strategy Summary

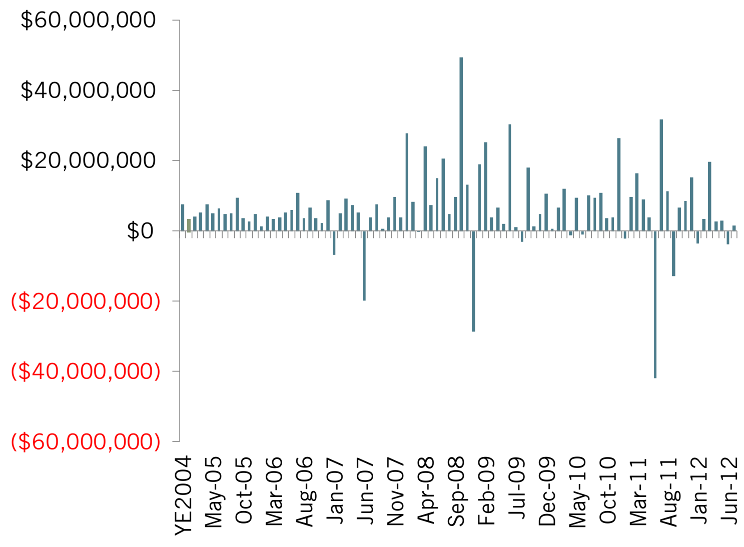
Factors Impacting Liquidity Structure (continued):

- Issuers also assess the withdrawal risk by reviewing the plan's investment option balances and cash flow
- A thorough analysis of cash flows provide the wrap issuers with a tool to quantify expected distributions

State of NC 401(k) Plan Investment Option Balances



State of NC 401(k) Stable Value Cashflows



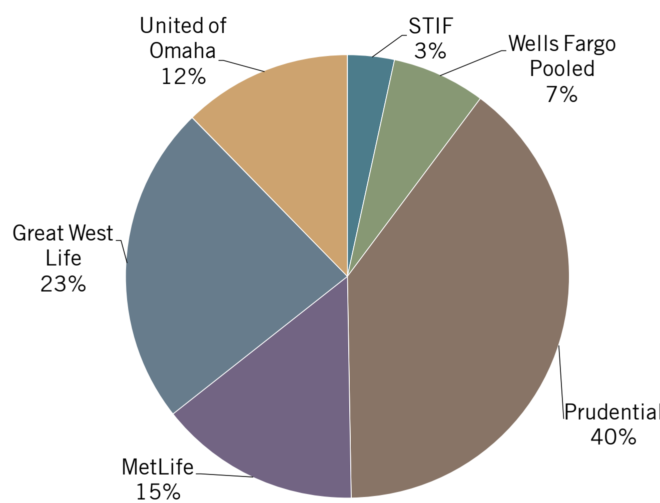
State of North Carolina Underwriting:

- Although an allocation of 31% of plan assets is slightly larger than average, it is in line with reasonable allocations for state plans.
- The positive participant-directed cash flows also lessen the withdrawal risk and support the target liquidity buffer.
- The asset allocation and stable value cash flow pattern for the 457 plan is substantially similar to the above data

Component #2: Wrap Contract Diversification

- Industry best practice is to have between four and six wrap contract issuers, with per issuer allocation typically ranging between 15% and 30% of portfolio assets
- Larger plans (such as North Carolina) typically deploy a higher number of wrap agreements to avoid large nominal exposures to a single wrap issuer.
- Largest nominal exposure is to Prudential at $851 million (40%).

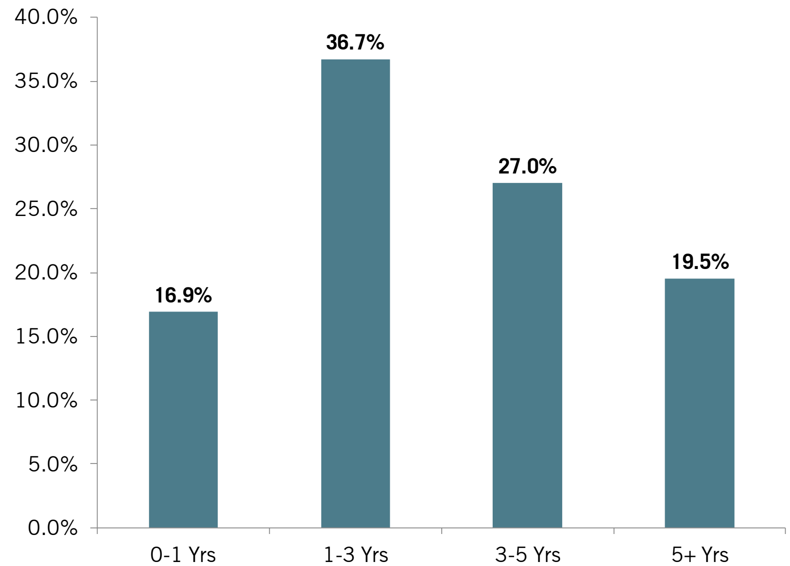
Current Allocation Diversification by Wrap



Component #3 – Portfolio Duration

- Stable value funds are typically managed to a duration between 2.0 and 3.0 years.
- This range allows for the capture of a significant portion of the slope of the yield curve without sacrificing responsiveness to changes in market interest rates.
- At approximately 2.51 years (as of 8/31/12), the State of North Carolina portfolios are defensively positioned to take advantage of future increases in market interest rates.

Duration Graph

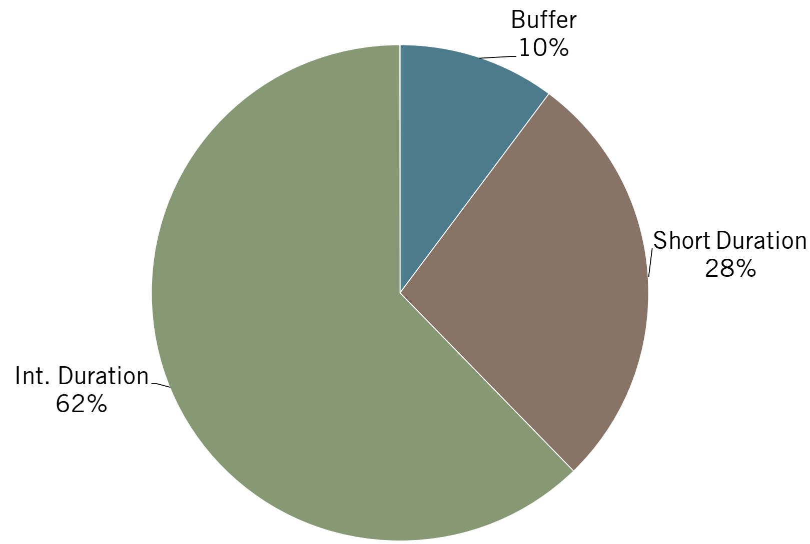


State of North Carolina
Stable Value Fund Investment Strategy Summary

Component #4 – Strategy Allocation

- Galliard's typical stable value fund has approximately 40% to 60% of portfolio assets allocated to the short duration component.
- Given the State of North Carolina funds' positive cash flows, the current asset allocation is reasonable and we are not proposing changes to the benchmarks at this time.

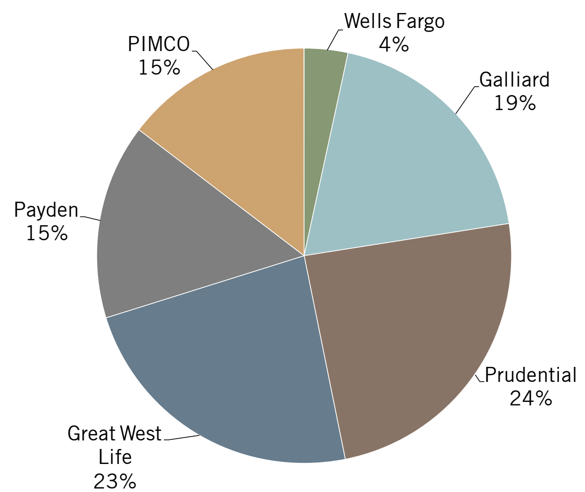
Current Allocation Asset Allocation by Strategy (No Change)



Component #5 – Manager Diversification

- Although the majority of Galliard's clients have opted to use a single-manager approach, multiple managers are more common with larger stable value portfolios (similar to State of North Carolina).
- Where clients opt to use multiple managers, client-specific preferences factor heavily into the manager and benchmark selection process.
- These portfolios typically include between four and six managers (including Galliard)
- The objective of manager style diversification is to limit the overall allocation to a single manager, improve returns, and consistency of performance.

Current Allocation Diversification by Manager



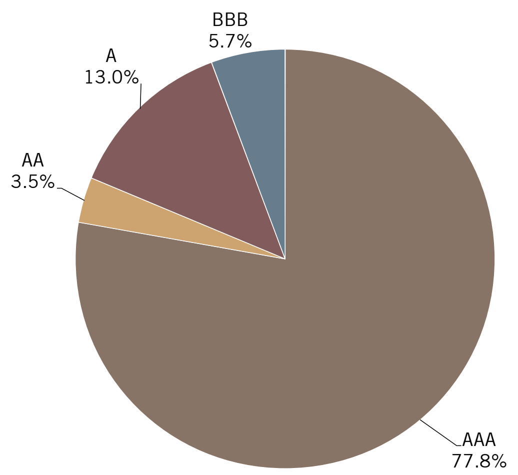
State of North Carolina

Stable Value Fund Investment Strategy Summary

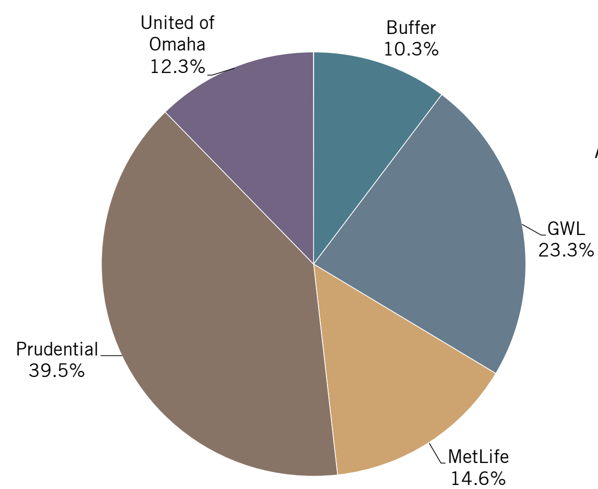
Summary Portfolio Characteristics - While investment strategies may vary by client, there are several common characteristic of a Galliard-managed stable value portfolios:

- **High Credit Quality**: Typically between 75% and 85% of the portfolio holdings are allocated to top-rated securities.
- **Diversification**: Portfolios are diversified across wrap issuers, managers, sectors, and issues.
- **Sector**: Portfolios are well diversified across the high quality sectors of the fixed income market.
- **Liquidity**: Buffers are used to insulate the wrapped fixed income strategies from withdrawals. In addition, the underlying wrapped portfolios are constructed with highly liquid securities to ensure that unexpected liquidity requirements can be satisfied with a minimal impact to the long-term earnings power of the fund.
- **Duration**: A conservative duration position ranging from 2.00 years to 3.00 years.

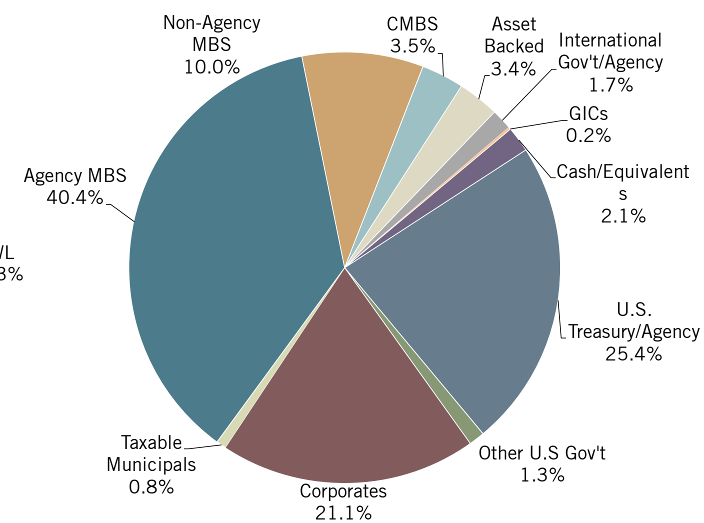
Credit Quality



Diversification by Wrap Issuer



Sector Allocation



Section III – Portfolio Recommendations

Goal for the North Carolina Stable Value Funds

- Upon award of the State of North Carolina Stable Value mandate, Galliard's goals were to:
  - Increase manager diversification
  - Increase wrap issuer diversification
- The objective of these goals is to:
  - Lower nominal exposure to individual managers and wrap issuers
  - Reduce the risk that an unexpected event with a manager or wrap issuer would have a significant impact to the stable value funds
  - Improve risk adjusted returns
- Initial diversification was added in the short space with the Galliard-managed short duration portfolio and the United of Omaha wrap agreement.

Galliard's External Manager Program

Overview

Introduction to Galliard's External Manager Oversight Program:

- Established in 1998
- Dedicated staff
  - Augmented by the fixed income team
- Currently oversee 19 managers
  - ~$18 billion in client assets
- Established commingled and separate account products
- All managers subjected to comprehensive review emphasizing:
  - Team structure and investment process
  - Portfolio characteristics and performance
  - Risk management and compliance

Galliard's External Manager Program

Disciplined Oversight

Our oversight sub committee formally reviews manager recommendations, portfolio strategy and compliance reporting

- Monthly analysis of manager portfolio statistics and performance and roll-up reporting
- Oversight of style adherence
- Quarterly performance grading against benchmark and peers
- Monthly or quarterly compliance monitoring; on-going review of compliance exceptions and downgrades
- Formal manager portfolio review and firm updates at least semi-annually; on-going review of material portfolio and organizational changes
- On-site due diligence visits
- Access to manager research, white papers, etc.
- Oversight sub committee formally reviews manager recommendations, portfolio strategy and compliance reporting

Galliard's External Manager Program

Jennison Associates

Overview:

- Jennison Associates has been a wholly-owned subsidiary of The Prudential Insurance Company of America since 2001.
- Jennison's investment process uses a bottom-up approach that focuses on fundamental research and individual security selection. Jennison does not generally make duration/interest rate calls; however, when the firm believes there are significant yield curve dislocations, views may be expressed.

Assets Under Management (as of June 30, 2012):

- Fixed Income AUM of $62 billion
- Stable Value AUM of $14 billion

Galliard Recommendation:

- Jennison's bottom up, risk controlled approach complements other managers utilized in Galliard's external manager program. Further it is our expectation that the ability to add value will not be significantly impacted by new, more restrictive wrap guidelines. Jennison has experience managing portfolios for stable value plans, predominantly using the BarCap Intermediate Gov/Credit benchmark. The team managing the active intermediate strategy has significant investment management experience and long tenure with Jennison. It is our recommendation to add this strategy to Galliard's multi-manager offerings.

External Manager Review & Current Positioning

Jennison Associates (as of 8/31/12)

Performance

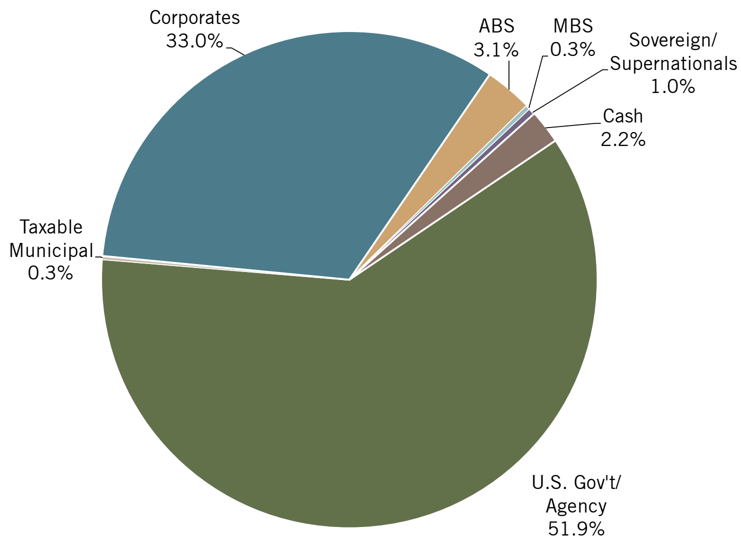
	3 Mo	YTD	1 Yr	3 Yr	5 Yr	Since Inception**
Portfolio	1.81	2.61	7.33	--	--	4.95
Benchmark***	1.48	2.10	5.42	5.81	6.01	4.21

*Returns for periods of less than one year are not annualized. Returns shown are before fees.
**Galliard Performance Inception: August 1, 2010
***Barclays Capital Int Govt/Credit

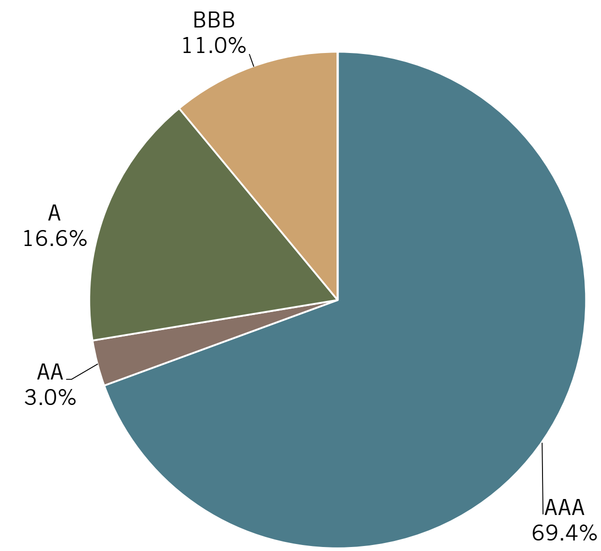
Portfolio Characteristics

	Portfolio	Benchmark
Weighted Average Quality	AAA	AA+
Weighted Average Maturity	6.60 years	4.32 years
Yield to Maturity	1.37%	1.28%
Effective Duration	3.90 years	3.93 years

Sector Distribution*



Quality Distribution*



*The external managers provide portfolio holdings, and the securities are classified using Galliard's analytics and methodology.

Correlation of Excess Returns & Summary

Correlation of Excess Returns using 7 Years of Performance as of 6/30/12

Firm Name	Great West	Jennison	PIMCO	Prudential
Great West	1.00	0.04	-0.47	0.20
Jennison	0.04	1.00	0.53	-0.12
PIMCO	-0.47	0.53	1.00	-0.17
Prudential	0.20	-0.12	-0.17	1.00

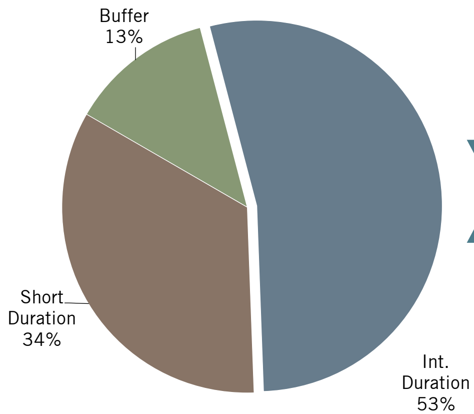
- Correlations: describe the tendency for investment returns on different assets to shift together over time. Investments that move together perfectly in tandem are positively correlated. Conversely, negatively correlated assets feature performance patterns that are exact opposites. Investments with no relationship pattern are uncorrelated.
- Managers with uncorrelated returns help to improve the consistency of performance over various market environments

***Information disclosure**: Galliard Capital Management has exercised reasonable professional care in the preparation of this material. We cannot, however, guarantee the accuracy of all information contained herein.

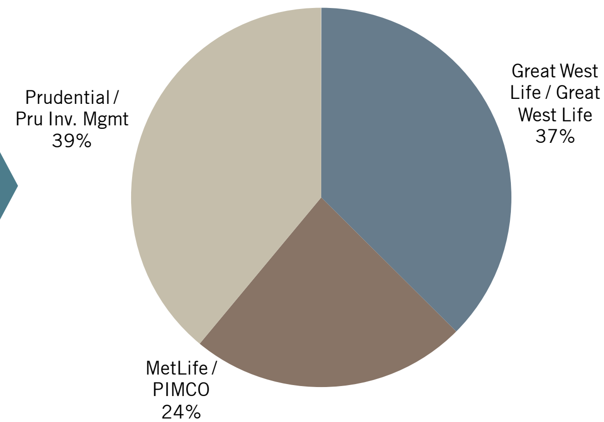
Fee Comparison

Intermediate Duration Component

Current Asset Allocation

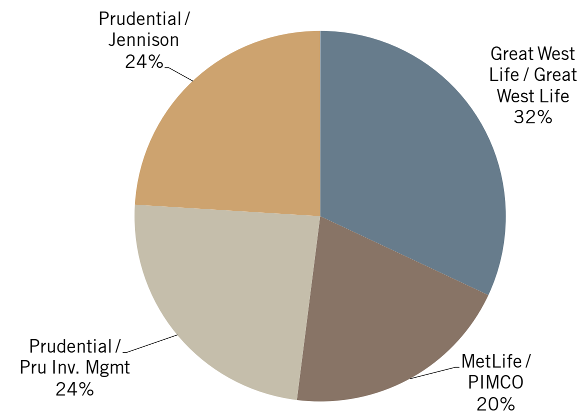


Current Intermediate Allocation



Wrapper / Manager	Benchmark	Allocation	Wrap Fee	Manager Fee
Great West Life / Great West Life	Barclay's Int. Agg (Ex BBBs)	37%	0.15%	0.05%
MetLife / PIMCO	Barclay's Int. Aggregate	24%	0.20%	0.22%
Prudential / Pru Inv. Mgmt*	Barclay's Int. Aggregate	39%	0.17%	0.06%
*Weighted average wrap fee		**100%**	**0.17%**	**0.10%**

Proposed Intermediate Allocation



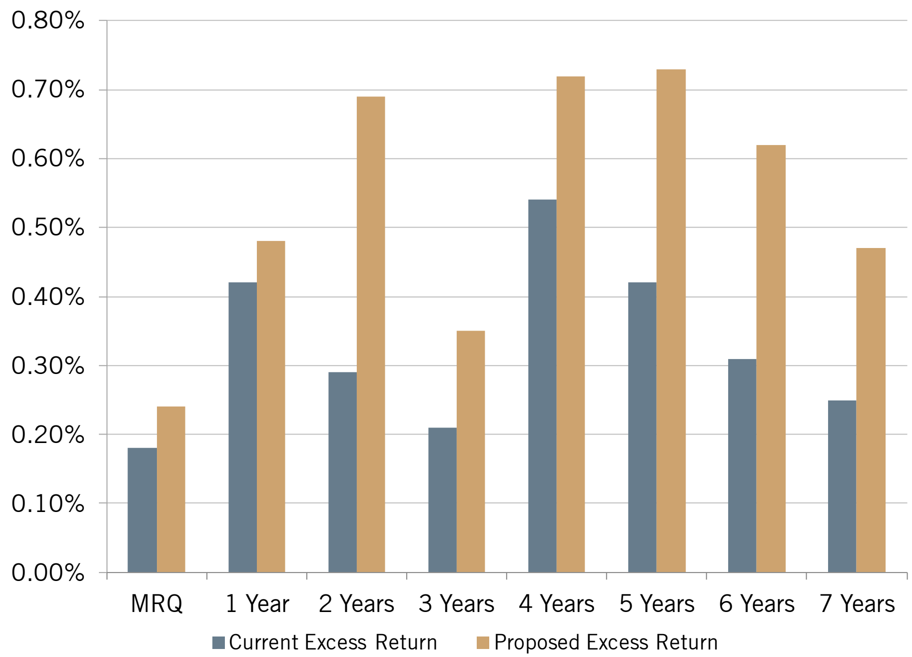
Wrapper / Manager	Benchmark	Allocation	Wrap Fee	Manager Fee
Great West Life / Great West Life	Barclay's Int. Agg (Ex BBBs)	32%	0.15%	0.05%
MetLife / PIMCO	Barclay's Int. Aggregate	20%	0.20%	0.22%
Prudential / Pru Inv. Mgmt*	Barclay's Int. Aggregate	24%	0.17%	0.06%
Prudential / Jennison*	Barclay's Int. Govt./Credit	24%	0.17%	0.10%
*Weighted average wrap fee		**100%**	**0.17%**	**0.10%**

- There will be no material change to the fees on the intermediate duration segment.
- With the higher estimated fee on the Payden short duration wrap, the weighted average fees at the portfolio level will increases by approximately 0.01%

Performance Comparison

Intermediate Duration Component

Period Excess Returns Through 6-30-12



Benefits of Adding Jennison

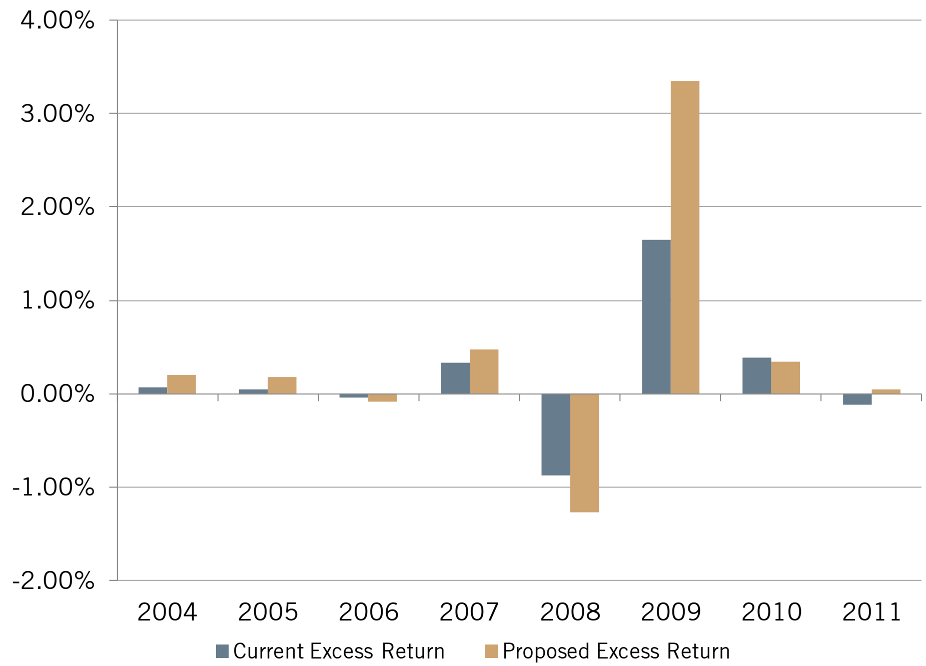
- Uncorrelated returns
- Broader exposure to corporate credits
- Active versus passive management approach

As of 6/30/12	MRQ	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years
Current Int. Portfolio	1.49%	2.33%	5.51%	4.76%	6.39%	6.35%	6.51%	5.51%
Current Int. Benchmark	1.31%	1.91%	5.22%	4.55%	5.85%	5.93%	6.20%	5.26%
Current Excess Return	+0.18%	+0.42%	+0.29%	+0.21%	+0.54%	+0.42%	+0.31%	+0.25%
Proposed Portfolio	1.59%	2.43%	5.95%	4.90%	6.55%	6.59%	6.77%	5.68%
Proposed Portfolio Benchmark	1.35%	1.95%	5.26%	4.55%	5.83%	5.86%	6.15%	5.21%
Proposed Excess Return	+0.24%	+0.48%	+0.69%	+0.35%	+0.72%	+0.73%	+0.62%	+0.47%
Difference	0.06%	0.06%	0.40%	0.14%	0.18%	0.31%	0.31%	0.22%

Performance Comparison

Intermediate Duration Component

Calendar Year Excess Returns

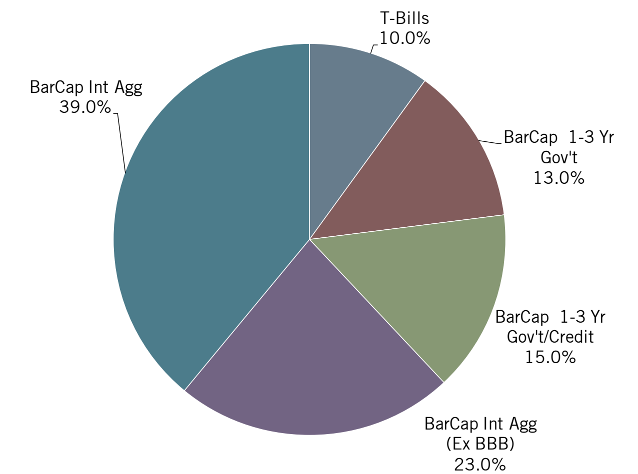


	2004	2005	2006	2007	2008	2009	2010	2011
Current Int. Portfolio	3.77%	2.10%	4.53%	7.40%	4.29%	7.67%	6.43%	5.82%
Current Int. Portfolio Benchmark	3.70%	2.05%	4.57%	7.07%	5.17%	6.02%	6.04%	5.94%
Current Excess Return	0.07%	0.05%	-0.04%	0.33%	-0.88%	1.65%	0.39%	-0.12%
Proposed Int. Portfolio	3.74%	2.12%	4.37%	7.62%	3.91%	9.15%	6.33%	5.96%
Proposed Int. Portfolio Benchmark	3.54%	1.94%	4.46%	7.15%	5.18%	5.80%	5.99%	5.91%
Proposed Excess Return	0.20%	0.18%	-0.09%	0.47%	-1.27%	3.35%	0.34%	0.05%
Difference	0.13%	0.12%	-0.04%	0.14%	-0.38%	1.70%	-0.06%	0.18%

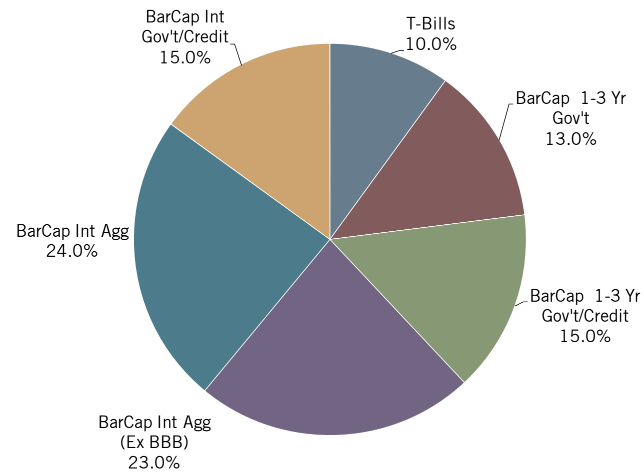
Performance Comparison

Intermediate Duration Component

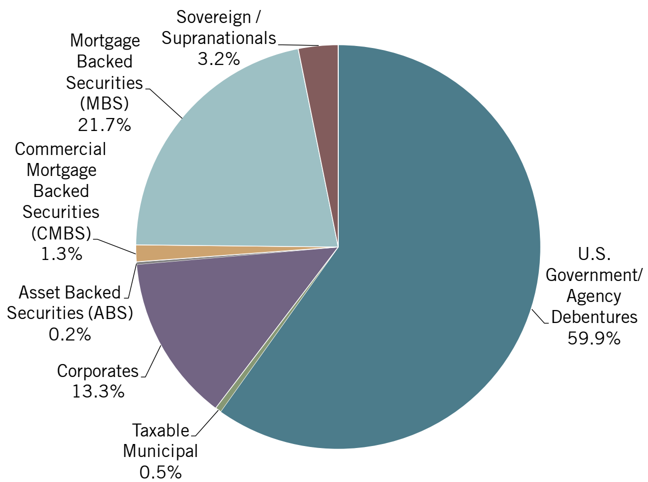
Current Benchmark Allocation



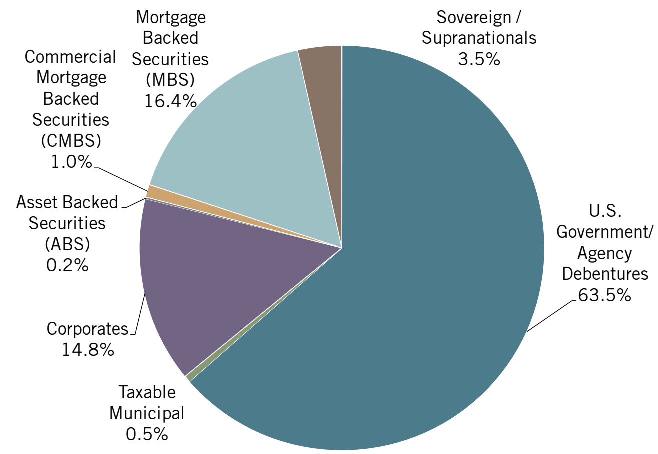
Proposed Benchmark Allocation



Current Sector Allocation



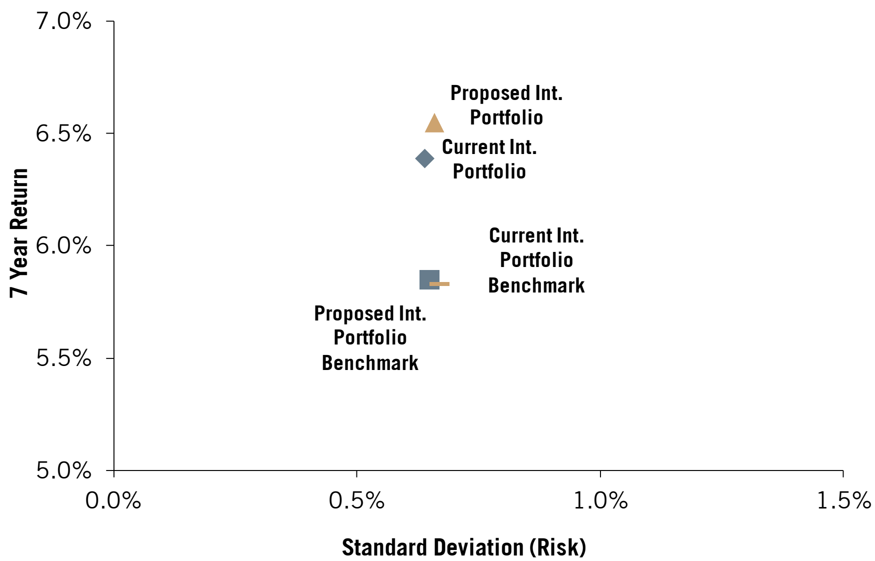
Proposed Sector Allocation



Performance Comparison

Intermediate Duration Component: 3 – Year Risk Return

3 Year Risk vs. Return (as of 6/30/12)



As of 6/30/12	3 Yr Return	3 Yr Std. Deviation
Current Int. Portfolio	6.39%	0.64%
Current Int. Portfolio Benchmark	5.85%	0.65%
Proposed Int. Portfolio	6.55%	0.66%
Proposed Int. Portfolio Benchmark	5.83%	0.67%

Sharpe Ratio

Measures the return premium (excess return per unit of deviation (or rise). Return premium is the portfolio return over the benchmark return. Risk is measured by the standard deviation of the portfolio returns

As of 6/30/12	3 Yrs
Current Int. Portfolio	0.83
Proposed Int. Portfolio	1.09

Tracking Error

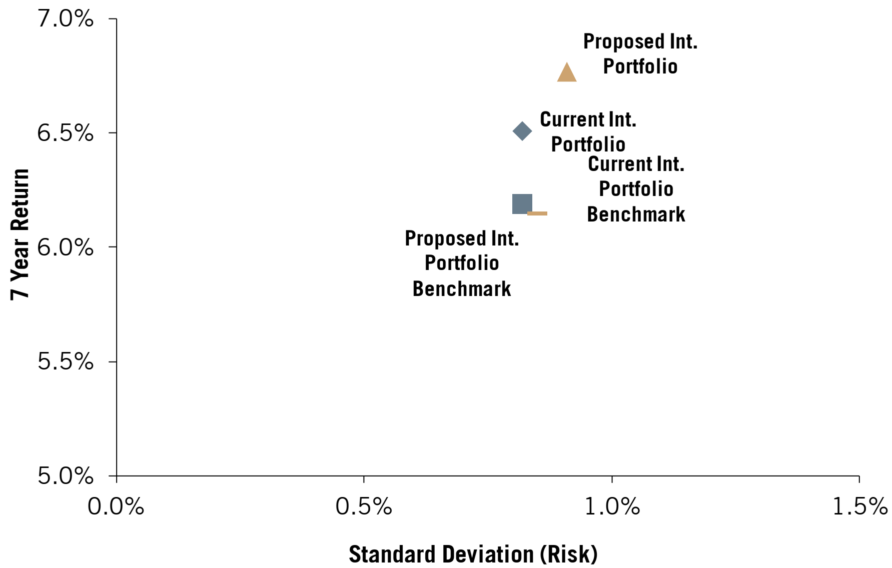
A measure of how closely a portfolio follows the index to which it is benchmarked.

As of 6/30/12	3 Yrs
Current Int. Portfolio	0.52
Proposed Int. Portfolio	0.58

Performance Comparison

Intermediate Duration Component: 5 – Year Risk Return

5 Year Risk vs. Return (as of 6/30/12)



As of 6/30/12	5 Yr Return	5 Yr Std. Deviation
Current Int. Portfolio	6.51%	0.82%
Current Int. Portfolio Benchmark	6.19%	0.82%
Proposed Int. Portfolio	6.77%	0.91%
Proposed Int. Portfolio Benchmark	6.15%	0.85%

Sharpe Ratio

Measures the return premium (excess return per unit of deviation (or rise). Return premium is the portfolio return over the benchmark return. Risk is measured by the standard deviation of the portfolio returns

As of 6/30/12	5 Yrs
Current Int. Portfolio	0.38
Proposed Int. Portfolio	0.69

Tracking Error

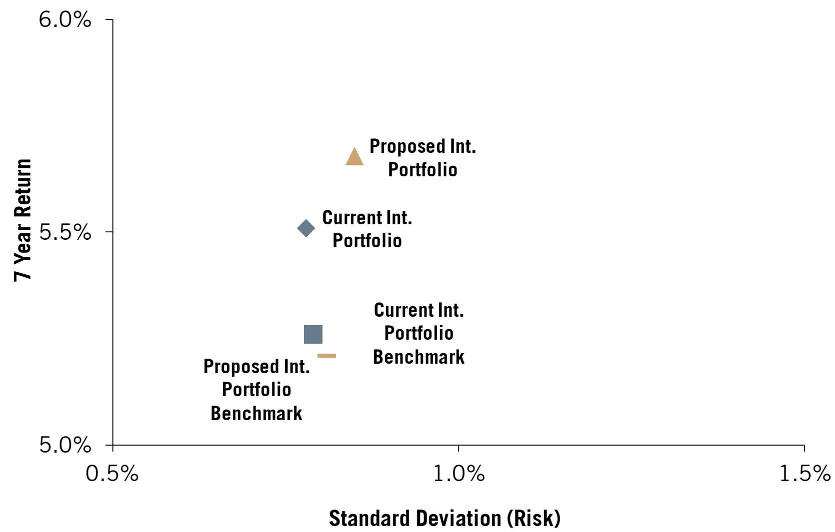
A measure of how closely a portfolio follows the index to which it is benchmarked.

As of 6/30/12	5 Yrs
Current Int. Portfolio	0.73
Proposed Int. Portfolio	0.79

Performance Comparison

Intermediate Duration Component: 7 – Year Risk Return

7 Year Risk vs. Return (as of 6/30/12)



As of 6/30/12	7 Yr Return	7 Yr Std. Deviation
Current Int. Portfolio	5.51%	0.78%
Current Int. Portfolio Benchmark	5.26%	0.79%
Proposed Int. Portfolio	5.68%	0.85%
Proposed Int. Portfolio Benchmark	5.21%	0.81%

Sharpe Ratio

Measures the return premium (excess return per unit of deviation (or rise). Return premium is the portfolio return over the benchmark return. Risk is measured by the standard deviation of the portfolio returns

As of 6/30/12	7 Yrs
Current Int. Portfolio	0.33
Proposed Int. Portfolio	0.69

Tracking Error

A measure of how closely a portfolio follows the index to which it is benchmarked.

As of 6/30/12	7 Yrs
Current Int. Portfolio	0.78
Proposed Int. Portfolio	0.83

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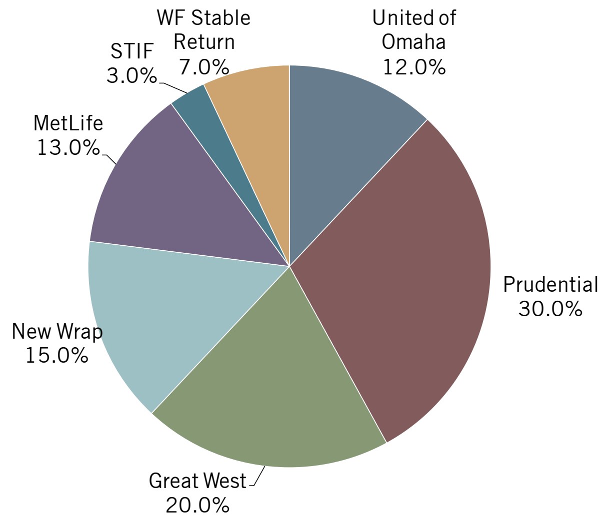
Proposed Portfolio Changes

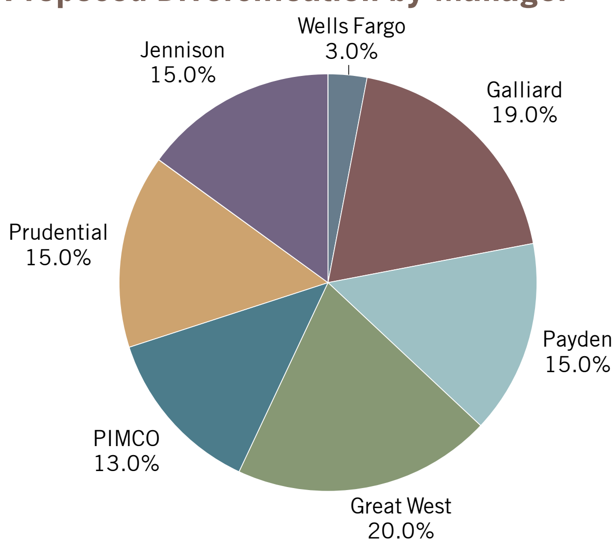
Proposed Diversification by Wrap Issuers



Wrapper Allocation Changes

Wrapper	Change
Prudential	-10.0%
Great West	-3.0%
MetLife	-2.0%
New Wrap	+15%

Proposed Diversification by Manager



Manager Allocation Changes

Manager	Change
Prudential	-10.0%
Great West	-3.0%
PIMCO	-2.0%
Jennison	+15%

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Summary Benefits

- Improved book value wrap issuer diversification (4 to 5 issuers). Maximum wrap issuer exposure reduced from 40% to 30% of portfolio assets.
- Improved manager style diversification (5 to 6 managers). Maximum manager exposure reduced from 24% to 20%.
- Minimal increase in fees. Weighted average management fee expected to increase from 8.2 basis points to 8.5 basis points. Weighted average wrap fees expected to increase from 16.3 basis points to 17.3 basis points (0.013%).
- Average annual returns expected to improve by 0.20% to 0.30% (based on historical analysis)