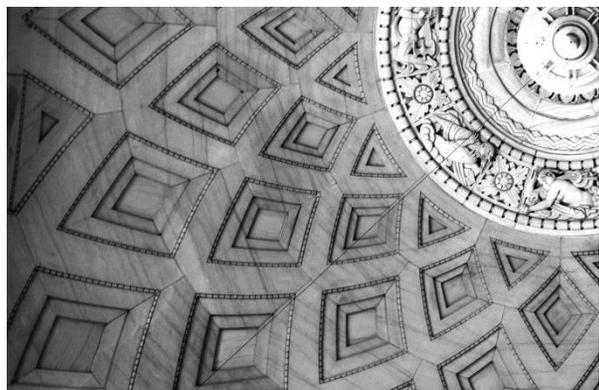




ARCHITECTS OF INVESTMENT SOLUTIONS



State of North Carolina

MAY 23, 2018

STATE OF NORTH CAROLINA

TABLE OF CONTENTS

SECTION I:	Galliard Capital Management Firm Update
SECTION II:	State of North Carolina Stable Value Fund Review
SECTION III:	Investment Manager Performance and Positioning

GALLIARD CAPITAL MANAGEMENT

WHO WE ARE

CLIENT ALIGNED STABLE VALUE & FIXED INCOME INVESTMENT SOLUTIONS FOR OVER 20 YEARS

\$90.5 B
TOTAL AUM

\$79.3 B
TOTAL STABLE VALUE AUM
115+ stable value separate accounts

110
EMPLOYEES
ON STAFF

SENIOR PROFESSIONALS AVERAGE YEARS OF EXPERIENCE:
Stable value portfolio management team – **25**
Fixed income team – **21**
Contract management & negotiation team – **23**

STABLE VALUE & FIXED INCOME PRODUCTS • SEPARATE ACCOUNTS • COLLECTIVE FUNDS

230+
INSTITUTIONAL
CLIENTS



2017 NEW BUSINESS
10 new clients
\$5.1 B new assets

25 Fortune 100 clients
57 Fortune 500 clients

CLIENT TYPES CORPORATE • FOUNDATIONS/ ENDOWMENTS • HEALTHCARE • INSURANCE RESERVES • OPERATING FUNDS • PUBLIC ENTITIES • TAFT-HARTLEY

HIGHLIGHTS

Galliard is now a signatory to the United Nations-supported **Principles for Responsible Investment**

Galliard ranked in the **top 10** in Pensions & Investments report of largest managers of assets held by **100 largest corporate DC** plans
(The Corporate DC 100: The Largest Money Managers, published March 7, 2016)

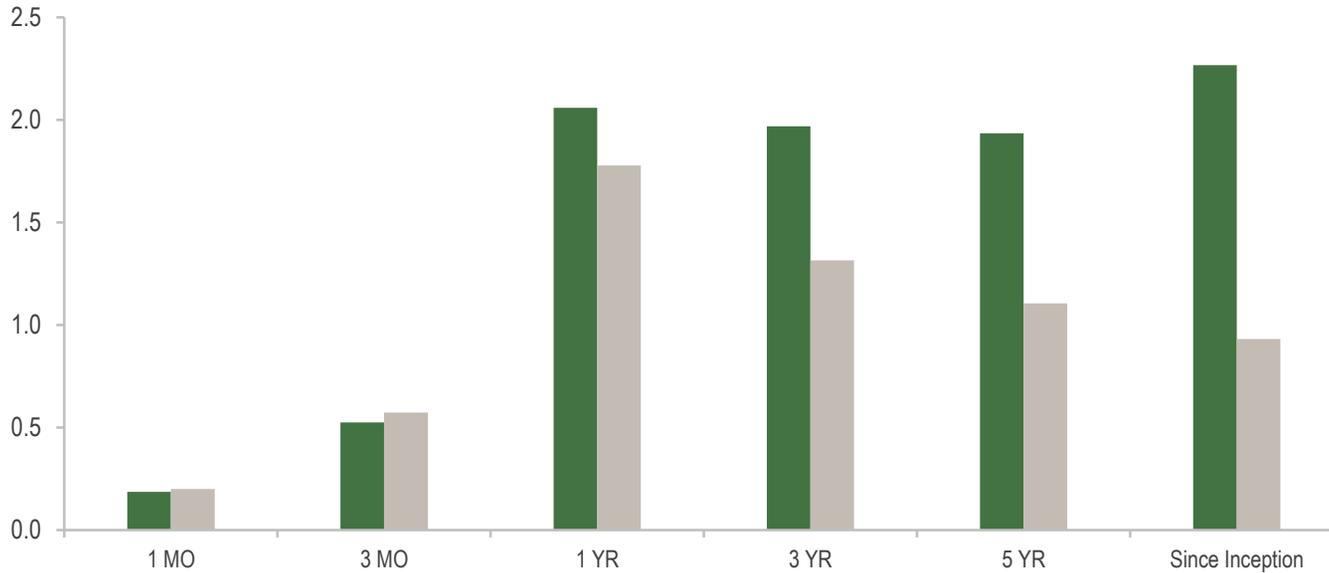
Galliard **ranked #2** by total AUM in the Pensions & Investments rankings of stable value managers
(Largest Money Managers Report, published May 29, 2017, data as of December 31, 2016)

Data as of 3/31/18

STABLE VALUE PORTFOLIO REVIEW - NORTH CAROLINA 401(K) STABLE VALUE FUND

First Quarter 2018

ANNUALIZED INVESTMENT PERFORMANCE AS OF 3/31/18¹



Book Value Performance	1 Mo.	3 Mo.	1 Yr.	3 Yr.	5 Yr.	Since Inception³
■ Portfolio (net of all fees - NAV level) ²	0.19	0.52	2.06	1.97	1.93	2.27
■ 3 Year Constant Maturity Treasury	0.20	0.57	1.78	1.31	1.10	0.93
Benchmark ⁴	0.27	0.73	2.64	2.05	1.85	1.78
Value Added (net of all fees - NAV level)⁵	(0.01)	(0.05)	0.28	0.65	0.83	1.34

1: Returns for periods of less than one year are not annualized.

2: Returns are net of all fees, including book value contract fees, Galliard investment management fees, and, if applicable, external manager fees, Wells Fargo collective fund administrative fees, and plan administrative reimbursement.

3: Galliard assumed management of this portfolio on December 1, 2010. Performance for periods referenced prior to this date include historical performance of another investment advisor.

4: The BofA Merrill Lynch US 3-Month Treasury Bill Index+150 Basis Points

5: May not add due to rounding.

STATE OF NORTH CAROLINA
SUPPLEMENTARY PERFORMANCE INFORMATION

FIRST QUARTER 2018

Fund Component	Benchmark Component	1Q'18 Weight	Portfolio Contribution to Gross Return	Portfolio Contribution to Net Return	Benchmark Contribution to Total Return
WF Adv Government Money Market	BofA Merrill Lynch U.S. 3 Month T-Bill	0.52%	0.003	0.003	0.004
Wells Fargo Stable Return Fund	50% BofA Merrill Lynch 1-3 Year U.S. Treasury Index, 50% Citigroup 3 Month T-Bill	6.64%	0.031	0.031	0.005
Dodge & Cox – ISA	Bloomberg Barclays U.S. Intermediate Aggregate Bond Index	12.98%	(0.138)	(0.142)	(0.137)
Jennison – WF CTF 'N'	Bloomberg Barclays U.S. Intermediate Government/Credit Bond Index	13.99%	(0.114)	(0.117)	(0.137)
Prudential – FI SA	Bloomberg Barclays U.S. Intermediate Aggregate Bond Index	14.27%	(0.152)	(0.156)	(0.151)
Payden & Rygel – FI SA	Bloomberg Barclays U.S. 1-3 Year Government/Credit Bond Index	14.77%	(0.020)	(0.026)	(0.029)
Galliard – WF CTF 'F'	Bloomberg Barclays U.S. 1-3 Year Government Bond Index	16.80%	(0.032)	(0.028)	(0.024)
Great West – ISA	Bloomberg Barclays U.S. Intermediate Aggregate Bond Index	20.03%	(0.201)	(0.204)	(0.211)
Total Fund Market Value Return			(0.622)	(0.639)	(0.681)

STABLE VALUE PORTFOLIO REVIEW - NORTH CAROLINA 401(K) STABLE VALUE FUND

First Quarter 2018

NORTH CAROLINA 401(K) STABLE VALUE FUND

ACCOUNT SUMMARY

Benchmark	The BofA Merrill Lynch US 3-Month Treasury Bill Index +150 Basis Points, 3 Year Constant Maturity Treasury
Galliard Inception Date	December 1, 2010
Net Asset Value	\$2,554,897,656

PORTFOLIO CHARACTERISTICS

	Portfolio 12/31/17	Portfolio 3/31/18
Average Quality - Book Value¹	AA-	AA-
Average Quality - Market Value²	AA	AA
Number of Contract Issuers	5	5
Blended Yield (after all fees)³	2.10%	2.16%
Yield to Maturity	2.44%	2.89%
Effective Duration	3.16 years	3.17 years
Market/Book Value Ratio	100.34%	99.13%

1: Average holdings quality of the contracts and other book value assets in the portfolio. The Weighted Average Quality of the portfolio has NOT been assessed by a nationally recognized statistical rating organization. The Weighted Average Quality shown represents an average quality of the individual holdings' Composite Ratings, as rated by S&P, Moody's and Fitch.

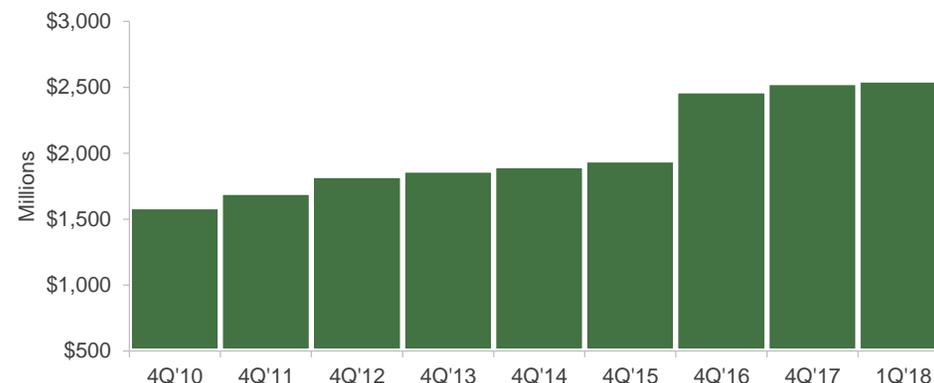
2: Average holdings quality of the underlying assets of the portfolio. The Weighted Average Quality of the portfolio has NOT been assessed by a nationally recognized statistical rating organization. The Weighted Average Quality shown represents an average quality of the individual holdings' Composite Ratings, as rated by S&P, Moody's and Fitch.

3: Blended Yield is net of all fees, including book value contract fees, Galliard investment management fees, and, if applicable, external manager fees, Wells Fargo collective fund administrative fees, and plan administrative reimbursement.

4: Includes Receivables and Payables.

5: Total % of portfolio may not add to 100% due to rounding.

HISTORICAL FUND ASSETS



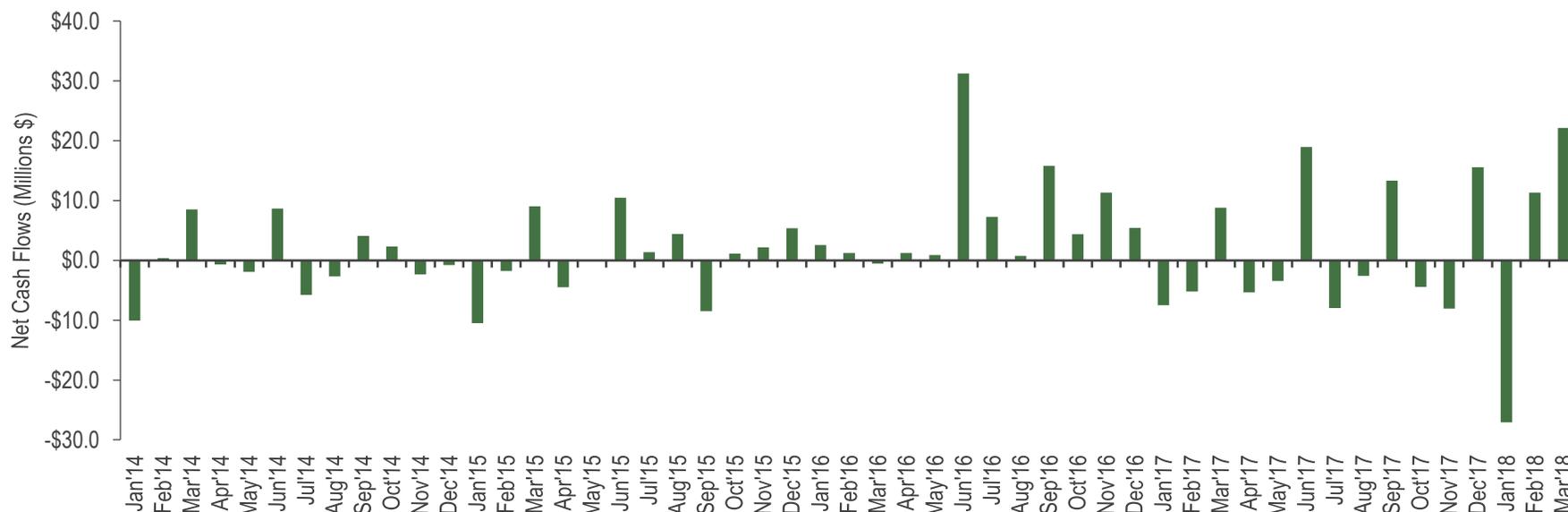
PORTFOLIO DISTRIBUTION

	% Portfolio 12/31/17	% Portfolio 3/31/18
Liquidity Buffer: Cash & Equivalents⁴	0.8	2.1
Liquidity Buffer: WF Stable Return Fund	6.6	5.4
Short Portfolio⁵	31.7	31.6
Intermediate Portfolio⁵	60.9	60.8
Total	100.0%⁶	100.0%⁶

STABLE VALUE PORTFOLIO REVIEW - NORTH CAROLINA 401(K) STABLE VALUE FUND

First Quarter 2018

HISTORICAL CASHFLOWS



	2014	2015	2016	2017	1Q'18
Beginning Assets	\$1,870.9	\$1,904.2	\$1,948.6	\$2,472.8	\$2,535.1
Net Cash Flow (\$)¹	-\$0.3	\$8.8	\$81.5³	\$12.2	\$6.4
Net Cash Flow (%)	-0.02%	0.46%	4.18%	0.49%	0.25%
Estimated Investment Earnings	\$33.6	\$35.7	\$46.9	\$50.1	\$13.4
Ending Assets²	\$1,904.2	\$1,948.6	\$2,472.8	\$2,535.1	\$2,554.9

1: Contributions, Withdrawals and Investment Transfers

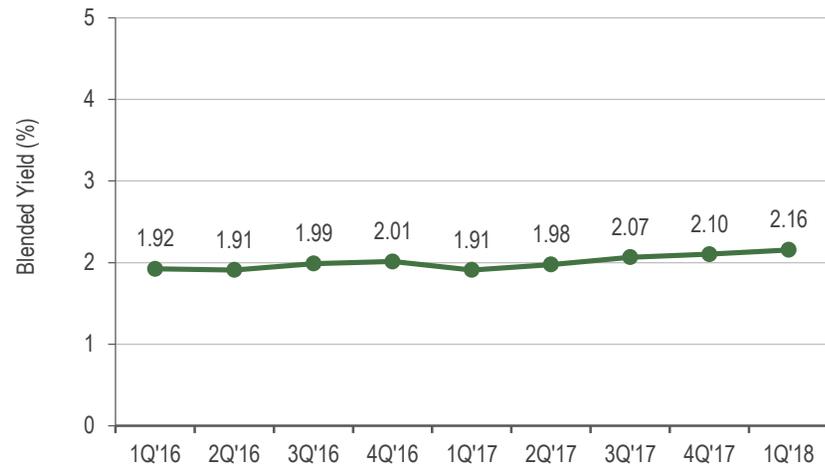
2: Cashflows may not net to final assets due to rounding.

3: Approximately \$395.8 M of new inflow and transfer activity related to the 1/4/16 merger of North Carolina 457 plan assets have been removed for illustrative purposes.

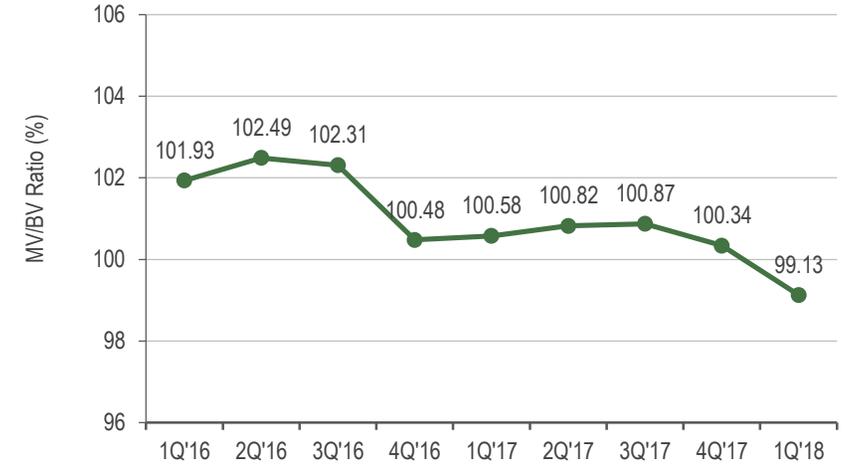
STABLE VALUE PORTFOLIO REVIEW - NORTH CAROLINA 401(K) STABLE VALUE FUND

First Quarter 2018

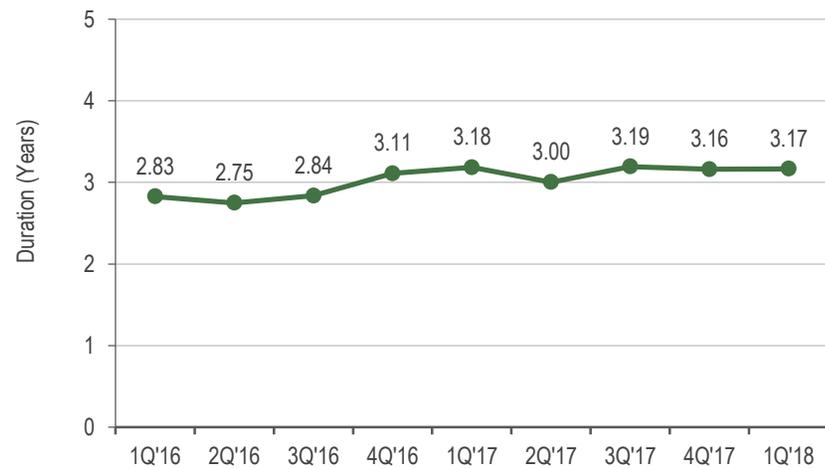
HISTORICAL BLENDED YIELD¹



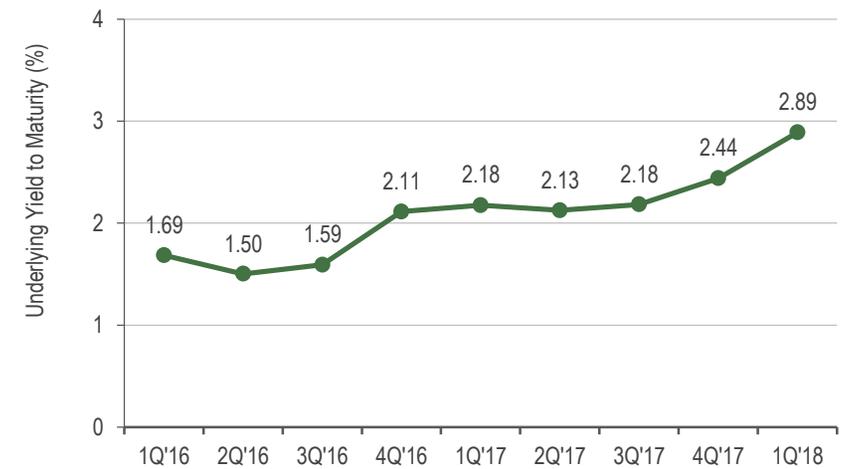
HISTORICAL MARKET VALUE TO BOOK VALUE RATIO



HISTORICAL DURATION



HISTORICAL UNDERLYING YIELD TO MATURITY



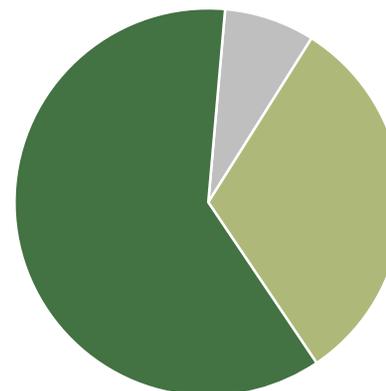
¹: Blended Yield is net of all fees, including book value contract fees, Galliard investment management fees, and, if applicable, external manager fees, Wells Fargo collective fund administrative fees, and plan administrative reimbursement.

STABLE VALUE PORTFOLIO REVIEW - NORTH CAROLINA 401(K) STABLE VALUE FUND

First Quarter 2018

STRATEGY DISTRIBUTION¹

	Portfolio 12/31/17	Portfolio 3/31/18
■ Liquidity Buffer ²	7.4	7.6
■ Short	31.7	31.6
■ Intermediate	60.9	60.8



CONTRACT ISSUER DISTRIBUTION & RATING SUMMARY³

	% Portfolio 12/31/17	% Portfolio 3/31/18	Rating 12/31/17	Rating 3/31/18
American General Life Ins. Co.	14.8	14.8	A+	A+
Great-West Life & Annuity Ins. Co.	20.2	20.1	AA	AA
Metropolitan Life Ins. Co.	12.9	12.9	AA-	AA-
Nationwide Life Ins. Co.	16.9	16.8	A+	A+
Prudential Ins. Co. of America	27.9	27.8	AA-	AA-

1: Book Value.

2: Includes Receivables and Payables.

3: The quality rating shown represents the individual holdings' Composite Ratings, as rated by S&P, Moody's and Fitch. Ratings shown as NR/NA are not rated or not available security ratings.

NORTH CAROLINA 401(K) STABLE VALUE FUND PORTFOLIO HOLDINGS

March 31, 2018

Asset ID	Security Description	Contract Type	Manager	Contract Value (\$)	Market Value (\$)	Market/Book Value Ratio (%)	% of Portfolio	Crediting Rate (%) ¹	UCA Yield (%)	Maturity ²	Effective Duration (yrs)	Galliard Composite Rating	Wrap Fees (bps)
LIQUIDITY BUFFER													
	Cash Receivable / (Payable)			-1,256,577	-1,256,577	100.0	0.0	1.82	1.82		0.10	AAA	
VP45600\$1	WF Government Institutional MM #1751			22,087	22,087	100.0	0.0	1.82	1.82		0.10	AAA	
9983008\$P	WF/BlackRock Short Term Investment Fund S			55,449,990	55,449,990	100.0	2.2	1.82	1.82		0.10	AAA	
949907109	Wells Fargo Stable Return Fund		Galliard	138,976,333	138,976,333	100.0	5.4	2.20	2.20		2.61	AA-	
TOTAL LIQUIDITY BUFFER				193,191,833	193,191,833	100.0	7.6	2.09	2.09		1.91	AA	
SHORT PORTFOLIO													
946996EE1	American General Life Ins. Co.	SBIC	Payden & Rygel	377,639,235	373,843,300	99.0	14.8	1.71	2.65	N.S.M.	1.58	A+	18.0
896994GW4	Nationwide Life Ins. Co.	SBIC	Galliard	429,732,701	425,277,442	99.0	16.8	1.85	2.79	N.S.M.	1.87	A+	18.0
TOTAL SHORT PORTFOLIO				807,371,936	799,120,743	99.0	31.6	1.78	2.73		1.74	A+	
INTERMEDIATE PORTFOLIO													
391997NH2	Great-West Life & Annuity Ins. Co.	SAGIC	Great West	513,883,193	502,530,988	97.8	20.1	2.17	2.99	N.S.M.	3.93	AA	15.0
590994VM8	Metropolitan Life Ins. Co.	SAGIC	Dodge & Cox	329,092,550	326,756,534	99.3	12.9	2.71	3.24	N.S.M.	3.97	AA-	20.0
744999CV3	Prudential Ins. Co. of America	SBIC	Jennison Assoc.	352,215,565	352,023,860	99.9	13.8	2.80	2.78	N.S.M.	4.13	AA-	17.0
744999CV3	Prudential Ins. Co. of America	SBIC	Prudential	359,142,580	358,947,105	99.9	14.1	2.80	3.33	N.S.M.	4.30	AA-	17.0
TOTAL INTERMEDIATE PORTFOLIO				1,554,333,887	1,540,258,487	99.1	60.8	2.57	3.07		4.07	AA-	
TOTAL PORTFOLIO				2,554,897,656	2,532,571,063	99.1	100.0	2.29	2.89		3.17	AA-	

1: Crediting rates are net of wrap fees and any other fees being netted out of the rates.

2: N.S.M. = No Stated Maturity

STATE OF NORTH CAROLINA EXPENSE DISCLOSURE

TOTAL ANNUAL OPERATING EXPENSES

Total Annual Operating Expenses are deducted directly from the Fund's net asset value and reduce the investment option's rate of return.

Expense	Expense Ratio (as of 9/30/17)	Per \$1000	Est. Annual Revenue
Investment Management Fees paid to Galliard	0.066%	\$0.66	\$1,694,153
Investment Management Fees paid to Non-Affiliated Investment Advisors	0.062%	\$0.62	\$1,588,682
Investment Contract Fees ¹	0.160%	\$1.60	\$4,091,588
Acquired Fund Fees ²	0.028%	\$0.28	\$715,487
-Investment Contract Fees	0.010%	\$0.10	\$246,364
-Other Acquired Fund Fees and Non-Affiliated Investment Management Fees paid to Non-Affiliated Investment Advisors ³	0.018%	\$0.18	\$469,122
12b-1 Distribution Fee	None	None	None
Other Expenses	0.027%	\$0.27	\$680,908
Total Annual Fund Operating Expense⁴	0.343%	\$3.43	\$8,770,818

¹These are fees paid to create and maintain the investments used by a stable value fund

²These are fees borne indirectly by the Fund when it acquires an interest in another fund which pays its own separate fees

³Includes audit fees for the cost of producing a report by a qualified auditor

⁴Total Annual Fund Operating Expenses are reflected daily in the Fund's net asset value (NAV)

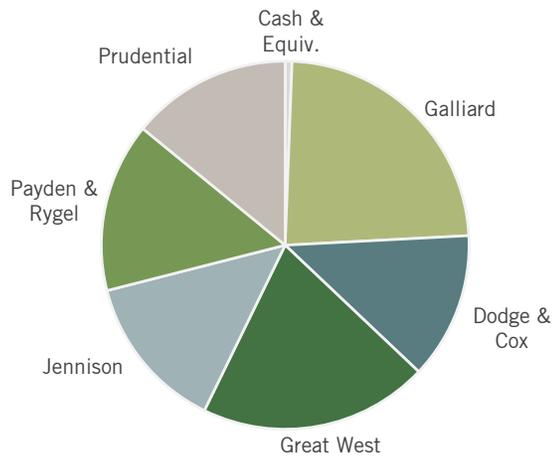
STATE OF NORTH CAROLINA STABLE VALUE FUND

MANAGER STYLES

	Investment Approach	Sector Rotation	Active Duration/ Yield Curve Mgmt.	Issue Selection	SECTOR EMPHASIS
GALLIARD					Diversified high quality spread sector emphasis, multi-sector relative value
DODGE & COX					Corporate credit, Agency MBS
GREAT WEST					Agency RMBS, corporate credit
JENNISON					Credit, yield-curve positioning
PAYDEN & RYGEL					Corporate credit, structured credit, multi-sector relative value
PRUDENTIAL					Multi-sector relative value, agency MBS, global focus

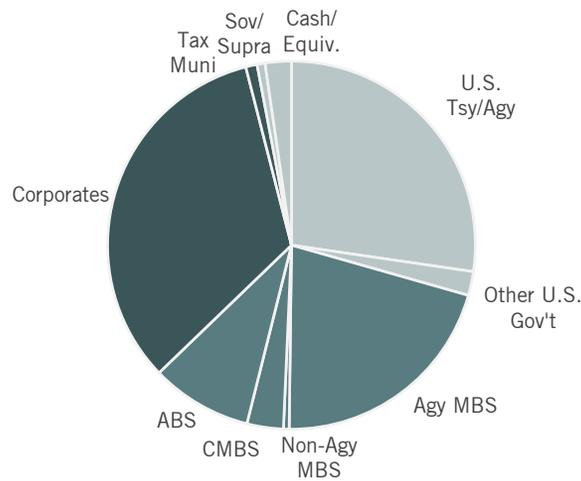
STATE OF NORTH CAROLINA PORTFOLIO AS OF 3/31/18

MANAGER ALLOCATION



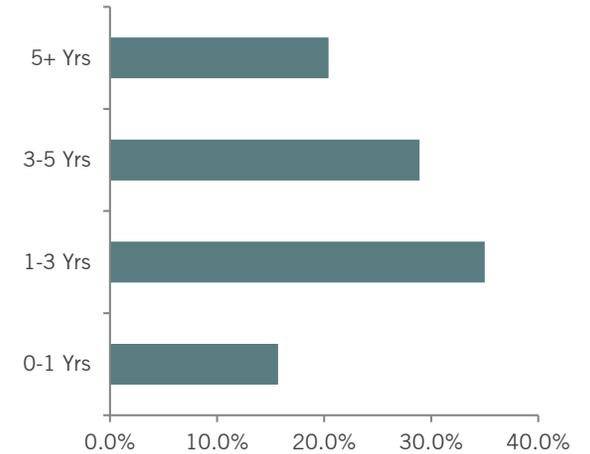
STIF	2.2%
Galliard	22.2%
Dodge & Cox	12.9%
Great West	20.1%
Jennison	13.8%
Payden & Rygel	14.8%
Prudential	14.1%
TOTAL EM	75.9%
TOTAL PORT	100%

UNDERLYING FIXED INCOME SECTOR ALLOCATION



U.S. Tsy/Agy	27.3%
Other U.S. Gov't	2.1%
Agy MBS	20.8%
Non-Agy MBS	0.5%
CMBS	3.2%
ABS	8.9%
Corporates	33.2%
Tax Muni	1.0%
Sov/Supra	0.7%
Cash/Equiv.	2.3%

UNDERLYING DURATION DISTRIBUTION



0-1 Yrs	15.7%
1-3 Yrs	35.0%
3-5 Yrs	28.9%
5+ Yrs	20.4%

STATE OF NORTH CAROLINA STABLE VALUE FUND

MARKET VALUE PERFORMANCE SUMMARY

SHORT DURATION

Manager	3 Months	1 Year	3 Years	5 Years	Since Inception	Inception
Payden & Rygel	-0.14%	0.68%	0.93%	1.00%	1.86%	7/1/2009
Bloomberg Barclays U.S. 1-3 Yr. Govt/Credit	<u>-0.20%</u>	<u>0.24%</u>	<u>0.66%</u>	<u>0.76%</u>	<u>1.30%</u>	
	0.06%	0.44%	0.27%	0.24%	0.56%	
Galliard*	-0.19%	0.79%	1.07%	1.09%	1.82%	1/1/2010
Bloomberg Barclays U.S. 1-3 Yr. Gov't/Credit	<u>-0.20%</u>	<u>0.24%</u>	<u>0.66%</u>	<u>0.76%</u>	<u>1.30%</u>	
	0.01%	0.55%	0.41%	0.33%	0.52%	

INTERMEDIATE DURATION

Manager	3 Months	1 Year	3 Years	5 Years	Since Inception	Inception
Dodge & Cox	-1.06%	1.22%	1.48%	-	1.57%	3/1/2015
Bloomberg Barclays U.S. Intermediate Aggregate	<u>-1.05%</u>	<u>0.51%</u>	1.02%	-	<u>1.14%</u>	
	-0.01%	0.71%	0.46%	-	0.43%	
Great-West Life	-1.01%	0.61%	1.10%	1.49%	1.95%	10/1/2011
Bloomberg Barclays U.S. Intermediate Aggregate**	<u>-1.05%</u>	<u>0.42%</u>	<u>0.89%</u>	<u>1.34%</u>	<u>1.64%</u>	
	0.04%	0.19%	0.21%	0.15%	0.31%	
Jennison	-0.81%	0.98%	1.16%	1.55%	2.47%	8/1/2010
Bloomberg Barclays U.S. Intermediate Govt/Credit	<u>-0.98%</u>	<u>0.35%</u>	<u>0.94%</u>	<u>0.25%</u>	<u>2.12%</u>	
	0.17%	0.63%	0.22%	1.30%	0.35%	
Prudential	-1.06%	0.98%	-	-	1.65%	2/1/2016
Bloomberg Barclays U.S. Intermediate Aggregate	<u>-1.05%</u>	<u>0.51%</u>	-	-	<u>0.88%</u>	
	-0.01%	0.47%	-	-	0.77%	

All performance is gross of investment management fees.

* Index being shown for comparison purposes only, the fund is managed to a targeted duration.

**Bloomberg Barclays U.S. Intermediate Aggregate. Prior to 7/1/17 was Bloomberg Barclays U.S. Intermediate Aggregate A or Better .

STATE OF NORTH CAROLINA STABLE VALUE FUND PERFORMANCE COMMENTARY – EXCESS RETURN

PAYDEN & RYGEL (+6 Q1 2018)

- Duration and yield curve positioning were primary drivers of performance
- Benefits from corporate positioning were offset by ABS

GALLIARD (+1 Q1 2018)

- Higher interest rates across the yield curve resulted in negative total returns
- Allocations to TIPS and Taxable Municipals proved beneficial, as did security selection in Corporate holdings

DODGE & COX (-1 Q1 2018)

- Shorter duration positioning benefited performance
- Allocation and security selection within corporates detracted from performance

GREAT WEST (+4 Q1 2018)

- Short duration positioning was primary driver of performance
- The allocation to mortgages contributed positively but was partially offset by security selection within the sector
- The sector overweight to corporates and underweight to treasuries detracted from performance

JENNISON (+17 Q1 2018)

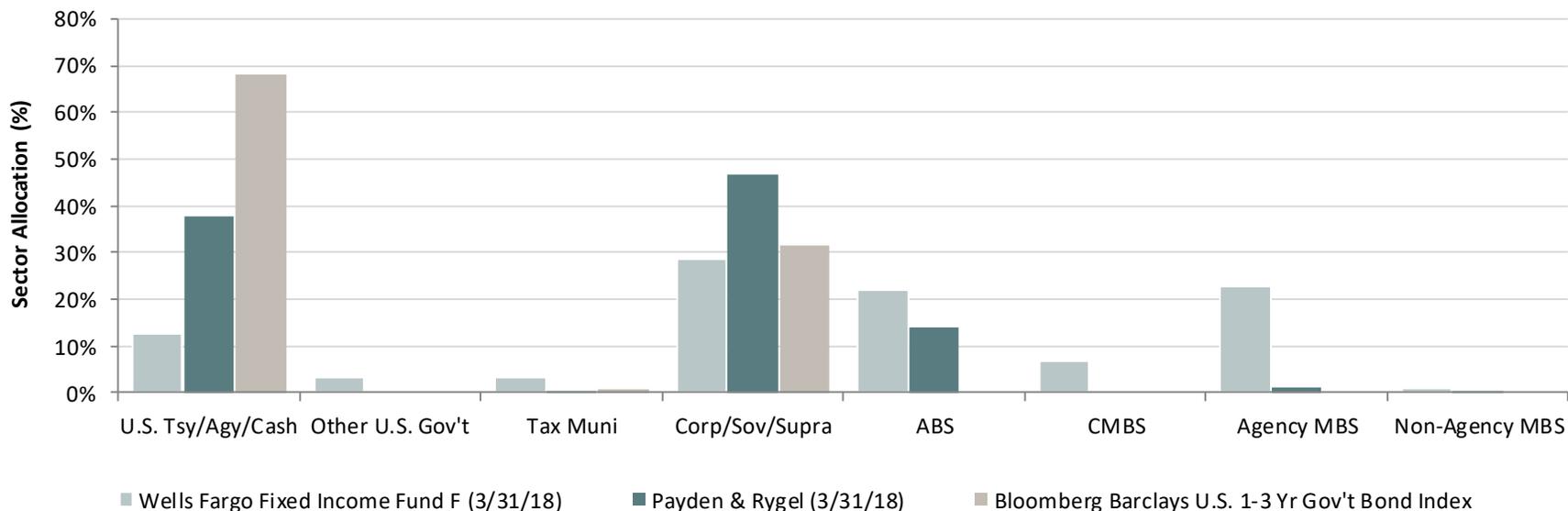
- Outperformance was driven by the curve flattening positioning
- Sector allocation offset the slight benefit from security selection

PRUDENTIAL (-1 Q1 2018)

- Sector allocation was the primary driver of underperformance with the benefit from MBS not able to offset the detractor from corporate and structured credit sectors
- Long duration positioning detracted from performance

STATE OF NORTH CAROLINA STABLE VALUE FUND SHORT PORTFOLIOS AS OF 3/31/18

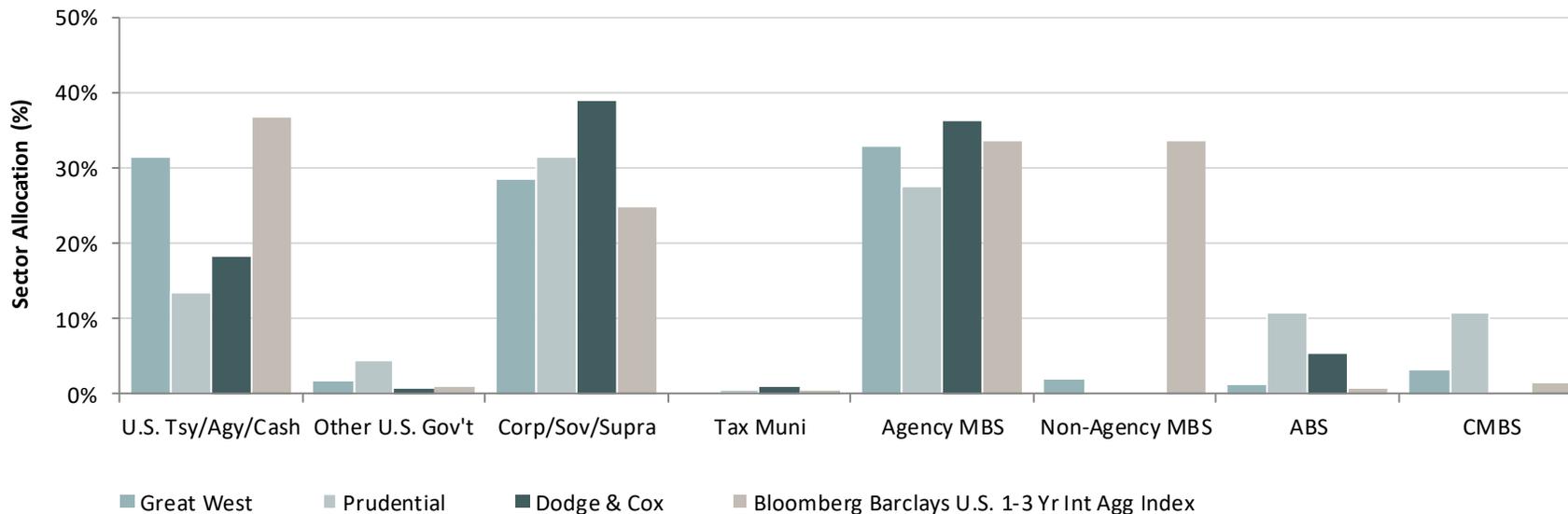
CHARACTERISTICS & SECTOR ALLOCATIONS



Characteristic	Wells Fargo Fixed Income Fund F	Payden & Rygel	Bloomberg Barclays U.S. 1-3 Yr Gov't/Credit Bond Index
Weighted Average Quality	AA+	AA-	AA
Yield to Maturity	2.79%	2.65%	2.47%
Effective Duration	1.87 Yrs	1.58 Yrs	1.85 Yrs

STATE OF NORTH CAROLINA STABLE VALUE FUND INTERMEDIATE PORTFOLIOS AS OF 3/31/18

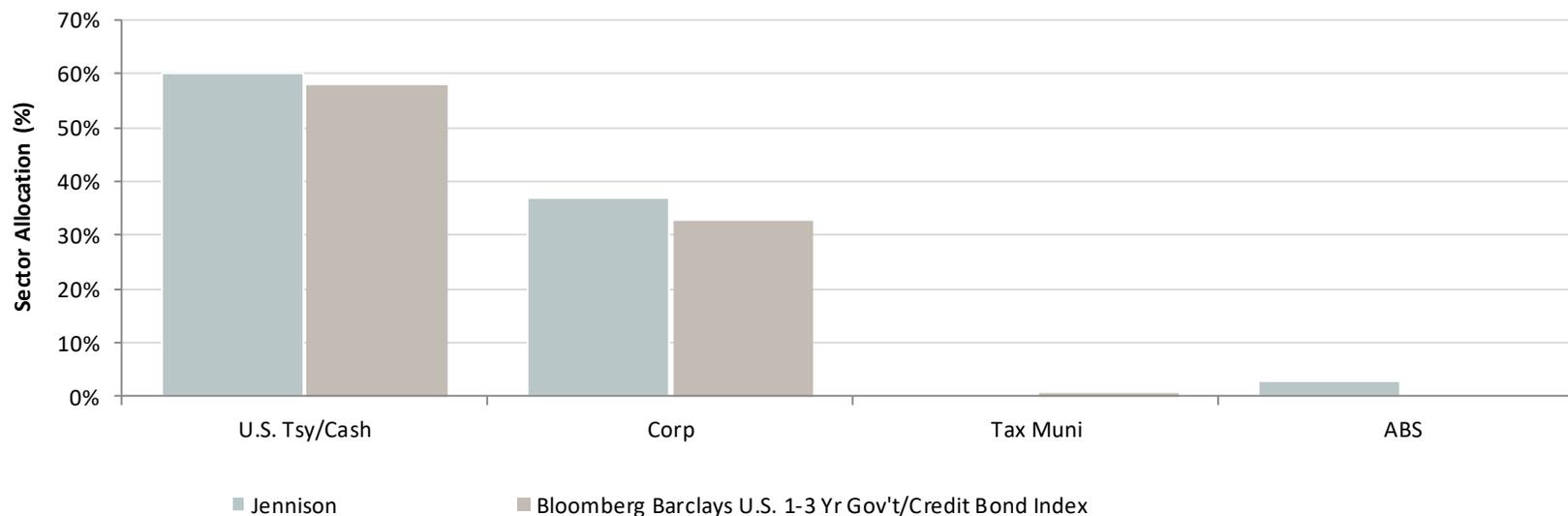
INTERMEDIATE AGGREGATE



Characteristic	Dodge & Cox	Great West	Prudential	Bloomberg Barclays U.S. Int Agg Bond Index
Effective Duration	3.97 Yrs	3.93 Yrs	4.30 Yrs	4.28 Yrs
Weighted Average Quality	AA-	AA+	Aa2	AA+
Yield to Maturity	3.24%	2.99%	3.33%	2.98%

STATE OF NORTH CAROLINA STABLE VALUE FUND INTERMEDIATE PORTFOLIOS AS OF 3/31/18

INTERMEDIATE GOV'T/CREDIT



Characteristic	Jennison	Bloomberg Barclays U.S. Int Gov't/Credit Bond Index
Weighted Average Quality	AA	AA
Yield to Maturity	2.78%	2.81%
Effective Duration	4.13 Yrs	3.90 Yrs
Weighted Average Maturity	6.92 Yrs	4.27 Yrs

NORTH CAROLINA STABLE VALUE FUND

- **GOALMAKER ALLOCATION IMPACT**
- **“CLEAN SLATE” UPDATE**

GOALMAKER ALLOCATION CHANGES

STABLE VALUE FUND

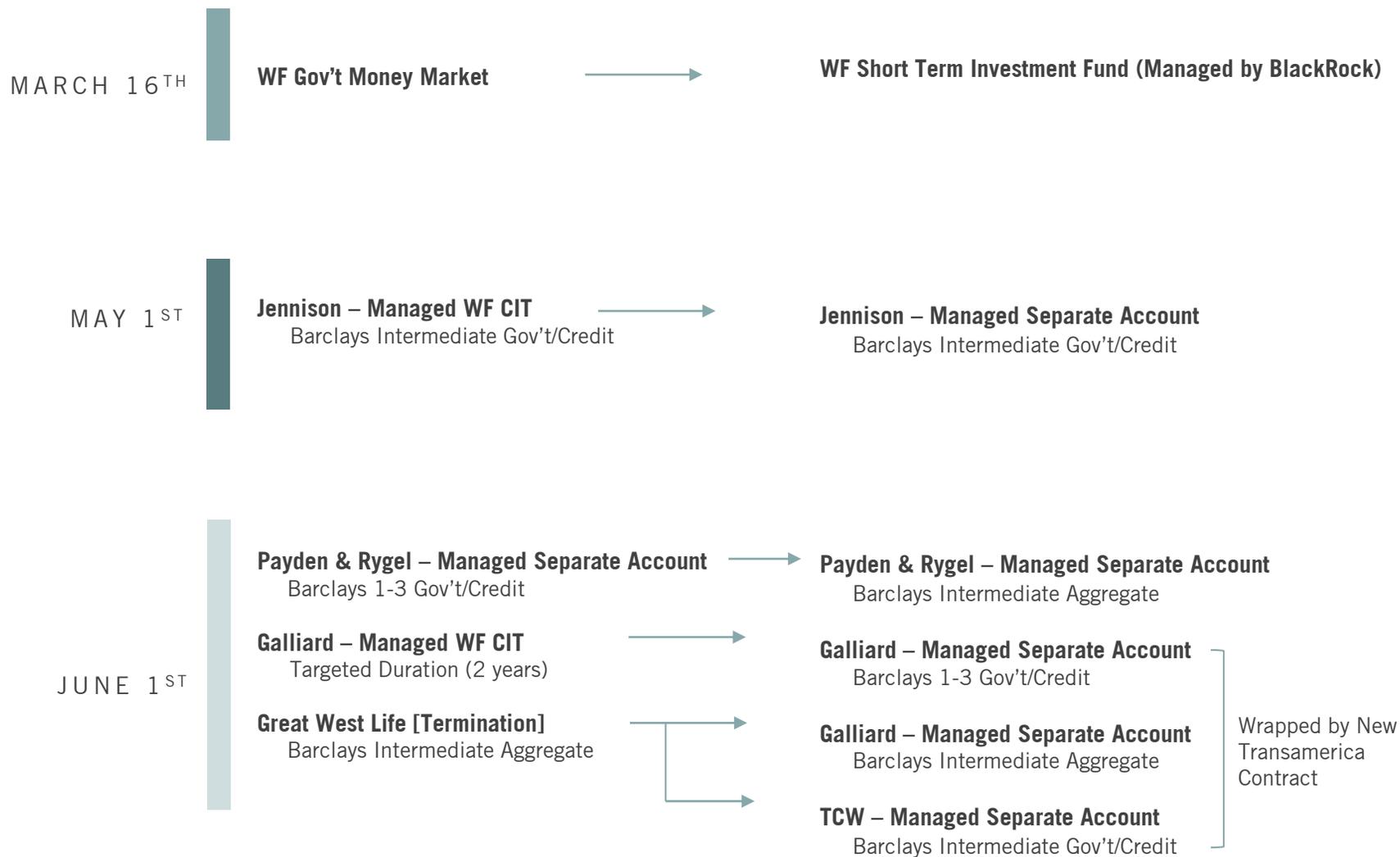
Projected Impact: Approx. (\$365 million); -14%

- Impact to Fund's MV/BV: Approx. -0.15%

Source of Funds:

- Wells Fargo Stable Return Fund: Approx. \$139 million
- Balance of ~\$226 million via withdrawals from the Fund's contracts (Pro Rata)
 - AGL: ~36 million (16%)
 - GWL: ~\$49 million (22%)
 - MetLife: ~32 million (14%)
 - Nationwide: ~\$41 million (18%)
 - Prudential: ~\$68 million (30%)

“CLEAN SLATE” UPDATE STABLE VALUE FUND



“CLEAN SLATE” UPDATE
PROPOSED STRUCTURE

	Liquidity Buffer	Short Duration	Intermediate Duration					
Allocation [%]	2.5%	32%	64.5%					
Investment Vehicle	STIF	FI SA	FI SA	FI SA	FI SA	FI SA	FI SA	FI ISA
Investment Manager	BlackRock	Galliard	Galliard (14%)	TCW (10%)	Payden & Rygel (10%)	Prudential (10%)	Jennison (10%)	Dodge & Cox (10.5%)
Benchmark	N/A	1-3 G/C	Int Agg	Int G/C	Int Agg	Int Agg	Int G/C	Int Agg
Contract Providers	N/A	Transamerica, Nationwide, AGL, Prudential	Transamerica, Nationwide	Transamerica	AGL	Prudential	Prudential	MetLife
% Change vs. 3/31	+0.4%	+16.2%	NEW +14%	NEW +10%	-4.8%	-4.1%	-3.8%	-2.4%

**“CLEAN SLATE” UPDATE
OBSERVATIONS**

Annual Expenses	As of 3/31	Proposed
Investment Management Fees Paid to Galliard	0.066%	0.072%*
Investment Management Fees Paid to Sub-Advisors	0.075%	0.058%
Investment Contract Fees	0.16%	0.17%
CIT Fees (Trustee/Admin)	0.015%	0.002%
Plan Admin/Service Fees	0.027%	0.027%
Total	0.343%	0.330%
Estimated Savings: 0.013% ; \$1.5 million		

*No change to Galliard fee schedule; increase due to reduced fund assets as a result of GoalMaker allocation changes.