Item 8

Fresno County Stable Value & Target Date Fund Review

March 21st, 2019

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Stable Value Portfolio Performance & Composition

December 31, 2018



Portfolio Composition

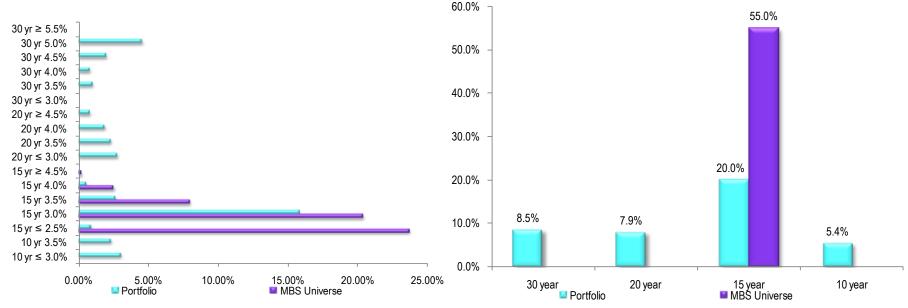
		Fresno
12/31/18	Fresno	Duration
Sector Weightings:		
Agency	0.4%	2.9
MBS	41.8%	3.5
30 year	8.5%	4.2
20 year	7.9%	3.9
15 year	20.0%	3.2
10 year	5.4%	2.8
СМО	3.6%	3.7
CMO Agency	2.2%	2.7
CMO Non-Agency	1.3%	5.2
Corporate Bonds	34.9%	2.5
Finance	11.8%	1.9
Banks	8.8%	2.0
Other	3.1%	1.7
Industrial	21.5%	2.8
Communication	2.6%	4.2
Consumer Cyclical	2.0%	2.9
Consumer Non Cyclical	7.4%	2.5
Energy	2.4%	2.3
Industrial	2.4%	2.8
Materials	2.0%	2.9
Technology	1.5%	2.6
Transportation	1.1%	3.4
Utility	1.6%	3.2
смвѕ	10.4%	1.7
CMBS Agency	7.1%	1.6
CMBS Non-Agency	3.4%	1.9
ABS	6.2%	1.9
CLO	1.7%	0.3
Other	4.6%	2.5
MMKT	2.6%	0.0

Credit Quality	AA
Weighted Average Life	3.6
Effective Duration	2.8
Effective Convexity	-0.1
Yield To Maturity	3.20
OAS	56
Total AUM	\$61,966,189

- 2018 Portfolio Composition Summary:
 - Maintained overweight allocation to spread product vs. treasuries
 - Increased allocations to corporate bonds, MMKT, and ABS vs. a decrease to CMBS, MBS, and CMO"s
 - Within corporates, increased allocation to financial institutions
 vs. a decrease to industrials and utilities



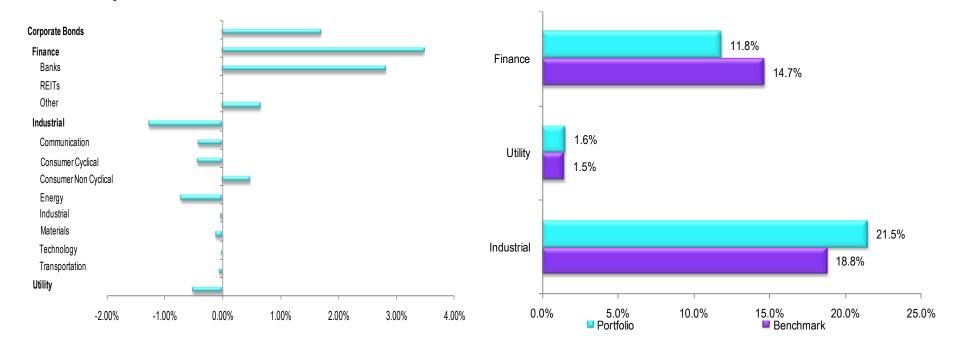
MBS Pass-Through: Term & Coupon



- Increased allocation to 10 year and 15 year MBS vs. a decrease to 20 and 30 year MBS
 - Expected a further flattening of the treasury curve and primarily followed originated coupons
- MBS portfolio holdings are diversified across coupons and term structures
 - MBS strategy continues to be focused on reducing duration / extension risk
- MBS holdings focus on specified pools whose underlying loan characteristics are less sensitive and/or responsive to changes in interest rates



Corporate Bonds

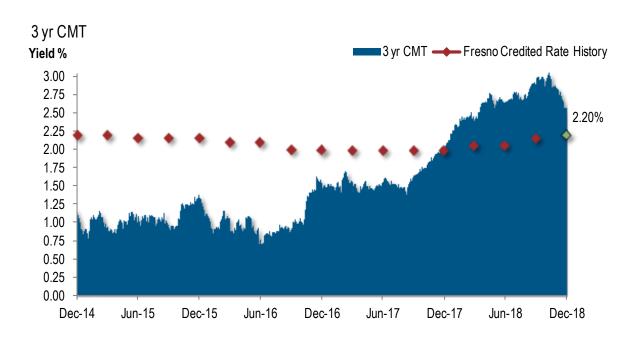


- Continue to be active in primary market to capture new issue discount at attractive prices and improve quality and diversification:
 - Bank of America Corp, Goldman Sachs Bank USA, Barclays Bank PLC, Comcast Corp, CVS Health Corp, Bayer US Finance II LLC, Abbvie Inc, Ei Du Pont
 De Nemours & Co, Halfmoon Parent Inc (Cigna), New York Life Global Funding, United Health Group
- Targeted high quality issuers in secondary market:
 - Comcast Corp, Walmart Stores Inc, Abbvie Inc, Perrigo Finance Unlimited, Sherwin Williams Co, Airgas Inc



Credited Rate History

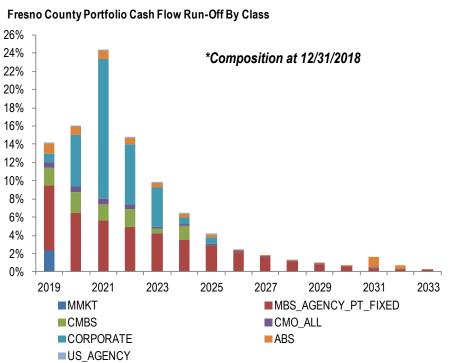
Fresno County Credited Rate History					
		2015 1Q	2.20%		
		2015 2Q	2.20%		
		2015 3Q	2.15%		
2009 4Q	3.25%	2015 4Q	2.15%		
2010 1Q	3.25%	2016 1Q	2.15%		
2010 2Q	3.25%	2016 2Q	2.10%		
2010 3Q	3.30%	2016 3Q	2.10%		
2010 4Q	3.20%	2016 4Q	2.00%		
2011 1Q	3.10%	2017 1Q	2.00%		
2011 2Q	3.10%	2017 2Q	2.00%		
2011 3Q	3.10%	2017 3Q	2.00%		
2011 4Q	3.00%	2017 4Q	2.00%		
2012 1Q	2.80%	2018 1Q	2.00%		
2012 2Q	2.70%	2018 2Q	2.05%		
2012 3Q	2.60%	2018 3Q	2.05%		
2012 4Q	2.25%	2018 4Q	2.15%		
2013 1Q	2.20%	2019 1Q	2.20%		
2013 2Q	2.20%				
2013 3Q	2.10%				
2013 4Q	2.10%				
2014 1Q	2.20%				
2014 2Q	2.10%				
2014 3Q	2.20%				
2014 4Q	2.20%				

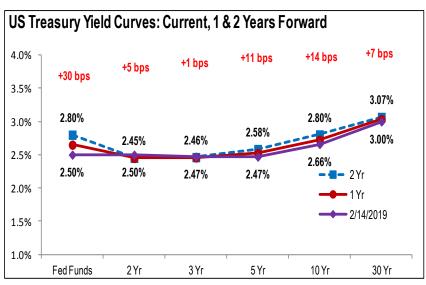


Inception Date: 11/19/2009 Book Yield (12/31): 2.69% MKT to Book (12/31): 98.2%



Portfolio Projected Cash Flows





Portfolio cash flow runoff laddered across front end of curve consistent with view on direction of short-term rates



Stable Value Portfolio Performance & Composition

January 31, 2019



Portfolio Composition

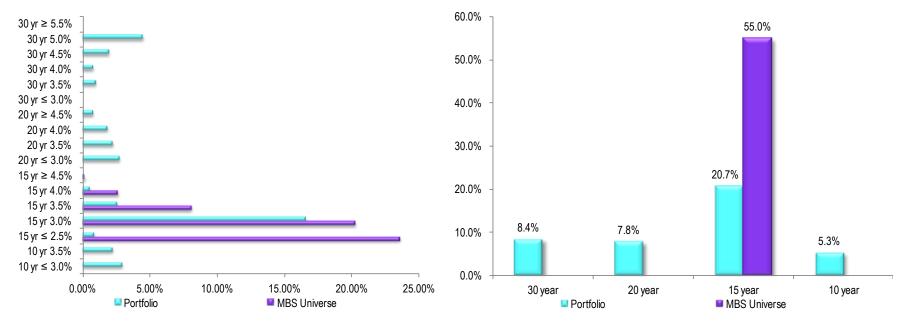
		Fresno
1/31/19	Fresno	Duration
Sector Weightings:		
Agency	0.4%	3.0
MBS	42.1%	3.4
30 year	8.4%	4.1
20 year	7.8%	3.8
15 year	20.7%	3.2
10 year	5.3%	2.7
СМО	4.3%	5.6
CMO Agency	3.0%	5.9
CMO Non-Agency	1.3%	5.0
Corporate Bonds	35.6%	2.6
Finance	12.8%	2.2
Banks	9.6%	2.3
Other	3.2%	2.0
Industrial	21.2%	2.8
Communication	2.6%	4.2
Consumer Cyclical	2.0%	2.8
Consumer Non Cyclical	7.7%	2.4
Energy	2.4%	2.2
Industrial	2.0%	2.8
Materials	2.0%	2.8
Technology	1.5%	2.6
Transportation	1.1%	3.4
Utility	1.6%	3.1
CMBS	9.8%	1.7
CMBS Agency	6.5%	1.6
CMBS Non-Agency	3.3%	1.9
ABS	6.1%	1.9
CLO	1.7%	0.2
Other	4.4%	2.5
MMKT	1.6%	0.0

Credit Quality	AA
Weighted Average Life	3.8
Effective Duration	2.9
Effective Convexity	-0.1
Yield To Maturity	3.09
OAS	51
Total AUM	\$62,400,050

- January, 2019 Portfolio Composition Summary:
 - Maintained overweight allocation to spread product vs. treasuries
 - Increased allocations to corporate bonds and MBS vs. a decrease to CMBS and MMKT
 - Within corporates, increased allocation to financial institutions

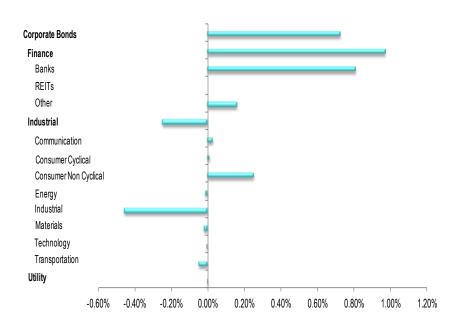


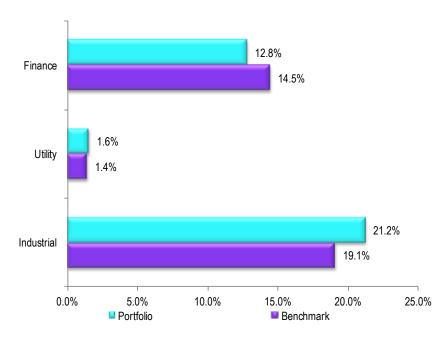
MBS Pass-Through: Term & Coupon



- Increased allocation to 15 year MBS vs. a decrease to 30 year MBS
- MBS portfolio holdings are diversified across coupons and term structures
 - MBS strategy continues to be focused on reducing duration / extension risk
- MBS holdings focus on specified pools whose underlying loan characteristics are less sensitive and/or responsive to changes in interest rates

Corporate Bonds

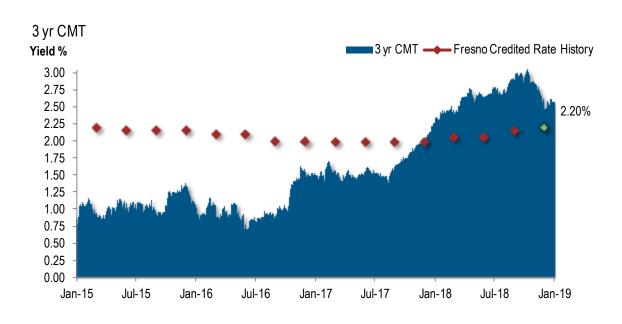




- Continue to be active in primary market to capture new issue discount at attractive prices and improve quality and diversification:
 - Marsh & Mclennan Cos Inc, Citigroup Inc
- Targeted high quality issuers in secondary market:
 - There were no corporate securities purchased in the secondary market during the month of January

Credited Rate History

Fresno County Credited Rate History						
		2015 1Q	2.20%			
		2015 2Q	2.20%			
		2015 3Q	2.15%			
2009 4Q	3.25%	2015 4Q	2.15%			
2010 1Q	3.25%	2016 1Q	2.15%			
2010 2Q	3.25%	2016 2Q	2.10%			
2010 3Q	3.30%	2016 3Q	2.10%			
2010 4Q	3.20%	2016 4Q	2.00%			
2011 1Q	3.10%	2017 1Q	2.00%			
2011 2Q	3.10%	2017 2Q	2.00%			
2011 3Q	3.10%	2017 3Q	2.00%			
2011 4Q	3.00%	2017 4Q	2.00%			
2012 1Q	2.80%	2018 1Q	2.00%			
2012 2Q	2.70%	2018 2Q	2.05%			
2012 3Q	2.60%	2018 3Q	2.05%			
2012 4Q	2.25%	2018 4Q	2.15%			
2013 1Q	2.20%	2019 1Q	2.20%			
2013 2Q	2.20%					
2013 3Q	2.10%					
2013 4Q	2.10%					
2014 1Q	2.20%					
2014 2Q	2.10%					
2014 3Q	2.20%					
2014 4Q	2.20%					

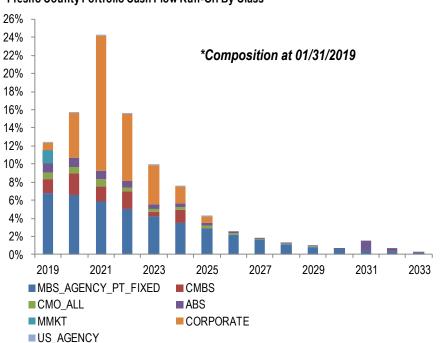


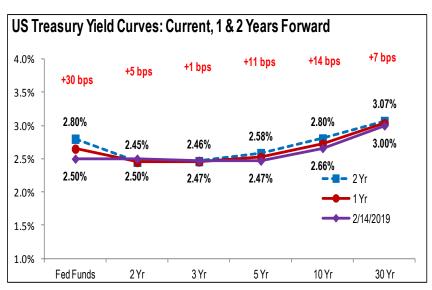
Inception Date: 11/19/2009 Book Yield (1/31): 2.75% MKT to Book (1/31): 98.7%



Portfolio Projected Cash Flows

Fresno County Portfolio Cash Flow Run-Off By Class





Portfolio cash flow runoff laddered across front end of curve consistent with view on direction of short-term rates

Stable Value Proposed Model Portfolio Comparison



Current vs. Model Portfolio

		Fresno	Model	Model
1/31/2019	Fresno	Duration	Portfolio	Portfolio
Sector Weightings:				
Agency	0.4%	3.0	0.0%	0.0
MBS	42.1%	3.4	36.3%	3.4
30 year	8.4%	4.1	5.7%	4.0
20 year	7.8%	3.8	5.4%	3.8
15 year	20.7%	3.2	22.2%	3.2
10 year	5.3%	2.7	3.0%	2.7
СМО	4.3%	5.6	4.3%	5.6
CMO Agency	3.0%	5.9	3.0%	5.9
CMO Non-Agency	1.3%	5.0	1.3%	5.0
Corporate Bonds	35.6%	2.6	49.5%	2.7
Finance	12.8%	2.2	18.4%	2.5
Banks	9.6%	2.3	13.4%	2.5
REITs	0.0%	0.0	1.0%	3.1
Other	3.2%	2.0	4.0%	2.2
Industrial	21.2%	2.8	29.4%	2.9
Communication	2.6%	4.2	2.8%	4.2
Consumer Cyclical	2.0%	2.8	2.9%	3.0
Consumer Non Cyclical	7.7%	2.4	9.9%	2.3
Energy	2.4%	2.2	4.7%	2.8
Industrial	2.0%	2.8	2.2%	2.8
Materials	2.0%	2.8	2.7%	3.0
Technology	1.5%	2.6	2.5%	3.1
Transportation	1.1%	3.4	1.6%	3.2
Utility	1.6%	3.1	1.8%	3.0
CMBS	9.8%	1.7	3.8%	2.0
CMBS Agency	6.5%	1.6	0.5%	3.2
CMBS Non-Agency	3.3%	1.9	3.3%	1.9
ABS	6.1%	1.9	6.1%	1.9
CLO	1.7%	0.2	1.7%	0.2
Other	4.4%	2.5	4.4%	2.5
MMKT	1.6%	0.0	0.0%	0.0

		Model
1/31/19	Fresno	Portfolio
Credit Quality	AA	AA
Weighted Average Life	3.8	3.7
Effective Duration	2.9	3.0
Effective Convexity	-0.1	-0.1
Yield To Maturity	3.09	3.10
OAS	51	60
Total AUM	\$62,400,050	\$62,400,050

- Portfolio structured to focus on preservation of capital, maintain ample liquidity and produce competitive yields relative to the benchmark
 - AA average credit quality
 - High overall liquidity
- Allocations to both Investment Grade corporate bonds and Securitized Products (MBS, CMBS, ABS) allow for greater portfolio management flexibility, a wider investable universe and better risk diversification
 - Allows active management of both interest rate risk and credit risk across multiple market cycles
 - More relative value opportunities available to portfolio management team
- Current corporate bond sector allocations reflect a slightly defensive posture given latter stages of the business cycle
- MBS useful for portfolio construction as the asset class provides natural liquidity through monthly pay downs which can be reinvested at current market rates
 - MBS allocations within the portfolio contain minimal extension (duration) risk and have less negative convexity compared to the benchmark
 GREAT-WEST

Stable Value IPS Comparison



Fund Allocation							
	Mi	in Allowed	Max Allowed		Max Allowed		
	Current	Sample "CORE" IPS	Current	Sample "CORE" IPS			
Asset Backed Securities	0%	0%	50%	20%	*A maximum of 20% of the account assets may be invested in non-agent Asset-Backed Securities, Mortgage-Backed Securities, and Commercial Mortgage-Backed Securities		
Mortgage Backed Securities	0%	0%	50%	20%	*A maximum of 20% of the account assets may be invested in non-agent Asset-Backed Securities, Mortgage-Backed Securities, and Commercial Mortgage-Backed Securities		
Commercial Mortgage Backed Securities	0%	0%	50%	20%	*A maximum of 20% of the account assets may be invested in non-agent Asset-Backed Securities, Mortgage-Backed Securities, and Commercial Mortgage-Backed Securities		
Corporates	0%	0%	50%	50%			
GICs	NA	NA	NA	NA			
U.S. Government	50%	0%	100%	100%			
Cash, Short Term & Other	0%	0%	NA	NA	* Neither the current or sample IPS specifies a maximum allocation to cash. For further information, please see the 5 year summary tab that includes historic data for Fresno County.		
Effective Duration	0	0	4	4	*Duration will typically be 4 years or shorter		
Weighted Average Credit Quality	AA	A-	AAA	AAA			

Credit Quality				
	Mi	in Allowed	Max Allowed	
	Current	Sample "CORE" IPS	Current	Sample "CORE" IPS
AAA	0%	NA	NA	NA
AA	0%	NA	NA	NA I
A	0%	NA	25%	NA
BBB	0%	0%	10%	10%
Credit Rating at Purchase	BBB-	BBB-	AAA	AAA
Weighting in Single Issuer	0%	0%	2%	2%

* Neither the current or sample IPS states specific amounts that are to be held in various levels of credit quality. Both the current and sample IPS' do state that a maximum of 10% may be held in BBB securities. For further information, please see the 5 year summary tab that includes historic data for Fresno County.

Maturity				
	M	in Allowed	Ma	x Allowed
	Current	Sample "CORE" IPS	Current	Sample "CORE" IPS
1-3 Yr	NA	NA	NA	NA
3-5 Yr	NA	NA	NA	NA
5-7 Yr	NA	NA	NA	NA
7-10 Yr	NA	NA	NA	NA
10-20 Yr	NA	NA	NA	NA
>20 Yr	NA	NA	NA	NA

^{*} Neither the current or sample IPS states specific amounts that are to be held in various maturity ranges. For further information, please see the 5 year summary tab that includes historic data for Fresno County.



Disclosure

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Target Date Fund Review





Period Ended 12/31/2018

Funds: •

The Great-West Lifetime Trusts, offered by Great-West Trust Company, LLC (Great-West Trust) consists of nine lifetime asset allocation funds (Great-West Lifetime 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055 Trusts). Each of the funds is a "fund-of-funds" that invests in the shares of mutual funds and other collective investment trusts

Type:

The Great-West Lifetime Trusts are designed to adjust asset allocation over time, generally becoming more conservative as the retirement transition date approaches.

Strategy: •

Each fund of the Great-West Lifetime Trusts provides a dynamic asset allocation and underlying investment selection investment strategy based on methodologies designed to primarily optimize risk-appropriate capital growth strategies prior to the designated transition year and primarily longevity-driven capital appreciation and inflation-protected income thereafter

Example:

	Lifetime 2015	Lifetime 2025	Lifetime 2035	Lifetime 2045	Lifetime 2055
	Trust	Trust	Trust	Trust	Trust
Asset Class	Allocation	Allocation	Allocation	Allocation	Allocation
Equity	40%	60%	70%	80%	90%
Fixed Income	60%	40%	30%	20%	10%
Total	100%	100%	100%	100%	100%

Composition: •

• The asset classes prescribed by the glide path may vary for each Great-West Lifetime Trust investment option. Therefore, the mix of underlying funds in each Great-West Lifetime Trust option may vary.

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Target Date Performance Returns as of February 28, 2019



Name	Net Expense Ratio	YTD	YTD %ile Ranking	1 Year	1 Year %ile Ranking	3 Year	3 Year %ile Ranking
Great-West Lifetime 2015 Trust	0.43	5.88	25	2.60	17	8.10	17
US Fund Target-Date 2015	0.73	5.47		1.82		7.12	
Morningstar Lifetime Mod 2015		5.82		2.87		7.32	
Great-West Lifetime 2020 Trust	0.43	6.56	26	2.78	11	-	
US Fund Target-Date 2020	0.78	5.95		1.59		7.59	
Morningstar Lifetime Mod 2020		6.46		2.81		8.13	
Great-West Lifetime 2025 Trust	0.43	7.36	29	2.75	7	9.98	14
US Fund Target-Date 2025	0.77	6.96		1.44		8.80	
Morningstar Lifetime Mod 2025		7.30		2.69		9.24	
Great-West Lifetime 2030 Trust	0.44	8.36	37	2.72	4	-	
US Fund Target-Date 2030	0.80	7.96		1.22		9.81	
Morningstar Lifetime Mod 2030		8.39		2.48		10.57	
Great-West Lifetime 2035 Trust	0.44	9.48	29	2.63	5	12.29	10
US Fund Target-Date 2035	0.78	8.97		1.02		10.86	
Morningstar Lifetime Mod 2035		9.52		2.16		11.78	
Great-West Lifetime 2040 Trust	0.44	10.22	30	2.37	8	-	
US Fund Target-Date 2040	0.81	9.66		0.83		11.35	
Morningstar Lifetime Mod 2040		10.38		1.83		12.56	
Great-West Lifetime 2045 Trust	0.44	10.64	23	2.19	8	13.20	1
US Fund Target-Date 2045	0.79	10.20		0.72		11.88	
Morningstar Lifetime Mod 2045		10.81		1.58		12.87	
Great-West Lifetime 2050 Trust	0.44	10.77	22	2.05	12	-	
US Fund Target-Date 2050	0.82	10.35		0.63		11.87	
Morningstar Lifetime Mod 2050		10.93		1.41		12.94	
Great-West Lifetime 2055 Trust	0.44	10.84	26	1.89	12	13.27	2
US Fund Target-Date 2055	0.79	10.51		0.61		12.11	
Morningstar Lifetime Mod 2055		10.95		1.27		12.95	

Funds in italics to be added to the Fresno County plan in the future.

Asset Class Ranges

Each of the Great-West Lifetime Trusts' asset allocations adjust from more aggressive to conservative over time. More aggressive Great-West Lifetime Trusts are weighted toward equities while more conservative funds are weighted towards fixed income investments.

The Great-West Lifetime Trusts will always be invested within the ranges below:

	Equity	Fixed Income
Great-West Lifetime 2015 Trust	35-55%	45-65%
Great-West Lifetime 2020 Trust	40-60%	40-60%
Great-West Lifetime 2025 Trust	50-70%	30-50%
Great-West Lifetime 2030 Trust	60-80%	20-40%
Great-West Lifetime 2035 Trust	75-95%	5-25%
Great-West Lifetime 2040 Trust	80-98%	2-20%
Great-West Lifetime 2045 Trust	80-98%	2-20%
Great-West Lifetime 2050 Trust	80-98%	2-20%
Great-West Lifetime 2055 Trust	80-98%	2-20%

Asset allocations (within these ranges) are set on an annual basis and rebalanced back to target allocations quarterly.

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Current Allocations:

Great-West Lifetime Trusts	2015	2020	2025	2030	2035	2040	2045	2050	2055
International	9.74%	11.36%	13.56%	16.48%	19.60%	22.12%	23.60%	24.26%	24.67%
MFS International Growth CIT	2.19%	2.56%	3.05%	3.71%	4.41%	4.98%	5.31%	5.46%	5.55%
MFS International Value CIT	2.68%	3.12%	3.73%	4.53%	5.39%	6.08%	6.49%	6.67%	6.78%
SSGA International Index SL Fund Class I	4.87%	5.68%	6.78%	8.24%	9.80%	11.06%	11.80%	12.13%	12.34%
Alternative International	3.74%	4.44%	5.41%	6.71%	8.19%	9.55%	10.63%	11.43%	12.18%
DFA Emerging Markets I	1.41%	1.73%	2.19%	2.81%	3.52%	4.17%	4.68%	5.05%	5.39%
SSGA Emerging Markets Index NL Fund Class A	1.41%	1.73%	2.19%	2.81%	3.52%	4.17%	4.68%	5.05%	5.39%
Invesco Equity Global Real Estate Secs. Trust	0.92%	0.98%	1.03%	1.09%	1.15%	1.21%	1.27%	1.33%	1.40%
Alternative	3.28%	3.31%	3.33%	3.36%	3.38%	3.41%	3.43%	3.45%	3.47%
Invesco Equity Real Estate Securities Trust	3.28%	3.31%	3.33%	3.36%	3.38%	3.41%	3.43%	3.45%	3.47%
Small Cap	3.42%	4.18%	5.19%	6.55%	8.04%	9.34%	10.22%	10.77%	11.18%
Janus Triton N	0.79%	0.96%	1.19%	1.51%	1.85%	2.15%	2.35%	2.48%	2.57%
DFA US Targeted Value I	0.92%	1.13%	1.40%	1.77%	2.17%	2.52%	2.76%	2.91%	3.02%
SSGA Russell Small Cap® Index LS Fund Class I	1.71%	2.09%	2.60%	3.27%	4.02%	4.67%	5.11%	5.38%	5.59%
Mid Cap	7.12%	7.90%	9.00%	10.42%	11.84%	12.75%	13.00%	12.77%	12.42%
Neuberger Berman Mid Growth R6	1.64%	1.82%	2.07%	2.40%	2.72%	2.93%	2.99%	2.94%	2.86%
American Century US Mid-Cap Value Equity CIT	1.92%	2.13%	2.43%	2.81%	3.20%	3.44%	3.51%	3.45%	3.35%
SSGA S&P MidCap® Index SL Fund Class I	3.56%	3.95%	4.50%	5.21%	5.92%	6.38%	6.50%	6.38%	6.21%
Large Cap	16.63%	18.44%	20.98%	24.30%	27.63%	29.78%	30.35%	29.78%	28.97%
JP Morgan Large Cap Growth CIT	1.91%	2.12%	2.41%	2.80%	3.18%	3.42%	3.49%	3.43%	3.33%
Pioneer Concentrated Gowth CIT	1.91%	2.12%	2.41%	2.80%	3.18%	3.42%	3.49%	3.43%	3.33%
American Funds American Mutual R6**	4.49%	4.98%	5.67%	6.57%	7.46%	8.03%	8.19%	8.04%	7.82%
SSGA S&P 500® Index SL Fund Class I	8.32%	9.22%	10.49%	12.13%	13.81%	14.91%	15.18%	14.88%	14.49%
Bond	56.07%	50.37%	42.53%	32.18%	21.32%	13.05%	8.77%	7.54%	7.11%
EB International Bond Fund	5.49%	5.31%	4.81%	3.88%	2.73%	1.77%	1.26%	1.13%	1.12%
JPMCB High Yield Fund	4.11%	4.06%	3.74%	3.06%	2.17%	1.42%	1.01%	0.90%	0.84%
American Century Inflation-Adjs Bond R6	11.88%	8.97%	6.17%	3.62%	1.72%	0.64%	0.16%	0.00%	0.00%
JPMCB Core Bond	5.87%	6.05%	5.76%	4.84%	3.52%	2.34%	1.70%	1.52%	1.42%
Loomis Sayles Bond CIT	3.91%	4.03%	3.84%	3.23%	2.35%	1.56%	1.13%	1.01%	0.95%
American Century Short Duration R6	10.58%	8.48%	6.30%	4.13%	2.32%	1.17%	0.62%	0.45%	0.42%
Federated Prime Cash Collective Investment Fund R6	4.45%	3.36%	2.31%	1.36%	0.64%	0.24%	0.06%	0.00%	0.00%
SSGA U.S. Bond Index SL Fund Class I	9.78%	10.11%	9.60%	8.06%	5.87%	3.91%	2.83%	2.53%	2.36%

Holdings and compositions of holdings are subject to change.

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Performance Disclosure

Performance information contained herein, prior to each Trust's inception date where applicable, is simulated, is for illustrative purposes only, and does not represent actual fund performance. As a result, this simulated performance has inherent limitations and is not indicative of future

- results. No representation is being made that any investment will achieve performance similar to that shown. The simulated performance may not reflect the impact that material economic and market factors might have had on the asset allocation mix or percentages to which one or all of funds may be allocated among the underlying funds if the fund had been in existence for the time periods shown.
- Generally, the results shown, prior to each Trust's inception, represent simulated historical performance returns based on the actual performance of the underlying funds in which the Great-West Trusts invest, adjusted for applicable operating expenses and fees of the underlying funds in which the Trusts invest.
- Underlying fund allocations shown for the Trusts are subject to change according to investment strategies as stated in the Great-West Trust
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- The Great-West Trust Lifetime Trusts are not FDIC insured, are not an obligation or deposit of, or guaranteed by Great-West Trust, or any of its affiliates and involves investment risk, including possible loss of principal.

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Disclosures

Asset allocation funds are subject to the risks of the underlying investments. Among the various risks an investor in the Great-West Trusts may face are, but not limited to, the following:

Stock value fluctuation in response to the activities of the general market, individual companies and economic conditions. Equity securities of small-sized and medium-sized companies may be more volatile than securities of larger, more established companies.

Foreign investments involve special risks, including currency fluctuations and political developments. Equity securities of companies located in emerging markets involve greater risks than investing in more established markets, including currency fluctuations, political developments and share illiquidity. Real estate securities involve greater risks than other non-diversified investments, including, but not limited to: declining property values, varying economic conditions, changes in zoning laws, or losses from casualty. Real estate securities that invest in foreign real estate involve additional risk, including currency fluctuations and political developments.

Bond value fluctuation in response to the financial condition of individual issuers, general market and economic conditions, and changes in interest rates. In general, when interest rates rise, bond values fall and investors may lose principal value. Compared to higher-rated securities, high yield bond investment options are subject to greater risk, including the risk of default.

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Securities offered or distributed through GWFS Equities, Inc., Member FINRA/SIPC and a subsidiary of Great-West Life & Annuity Insurance Company.

The Great-West collective investment trusts (CITs) are offered and maintained by trustee Great-West Trust Company, LLC and managed by its affiliate, Great-West Capital Management, LLC. The CITs are not mutual funds and are exempt from SEC registration and applicable securities laws of any state or other jurisdiction. Designed for and exclusively sold to qualified retirement plans and their participants and other eligible trusts, CITs are not available to individual retail investors. Please see the applicable CIT disclosure documents for more information.

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Benchmark: Morningstar Lifetime Mod 2015 TR

Target Date 2015 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2012	12.12	11.90	11.49			3		755	17,047
2013	9.57	8.94	10.50			3		978	21,164
2014	6.97	5.98	5.55	5.59	5.74	3		1,099	22,808
2015	-0.36	-1.24	-1.73	5.51	5.45	5		1,111	25,788
2016	8.37	7.42	7.10	5.43	5.44	3		1,094	28,524
2017	12.07	11.05	11.39	4.80	4.81	3		1,128	32,639
2018	-3.48	-4.33	-3.54	5.18	4.96	3		945	29,978

Great-West Capital Management, LLC ("GWCM" or the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. GWCM has been independently verified for the periods January 1, 2012 through December 31, 2017. The verification report is available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

GWCM is a Colorado limited liability company and Registered Investment Adviser, primarily providing investment advice to Investment Companies, Pooled Accounts, State and Municipal Government Entities, Pension and Profit Sharing Plans and Insurance Companies.

The Target Date 2015 Lifetime Composite (the "Composite") invests in a professionally selected mix of Underlying Funds that is tailored for investors planning to retire in (or otherwise begin using the invested funds on), or close to, 2015. The Composite currently invests 35-55% of its net assets in Underlying Funds that invest primarily in equity securities and 45-65% of its net assets in Underlying Funds that invest primarily in fixed income securities. The Composite was created on 07/01/2017. The Composite is comprised of all discretionary accounts managed by GWCM in this investment style.

The Morningstar Lifetime Allocation Index Family is a broadly diversified index that helps investors mitigate the challenges related to rising life expectancies, evolving risk appetites, inflation in major retirement expense categories, and postretirement income investing. The index family is designed to meet the benchmarking needs of target-date investors by offering an objective yardstick for performance comparison. Conceptually, the Morningstar Lifetime Allocation Index family are indexes of indexes. The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who intends to retire in the year 2015. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

The minimum asset level for including a account in the composite is \$15 million in order to fully manage the account to the investment strategy.

Internal Dispersion is represented by the equal-weighted standard deviation of full-period gross-of-fee returns of the accounts that were included in the composite for the entire period. Internal Dispersion is not presented for periods when less than six accounts were included in the composite for the full period. Three-year annualized Ex-post Standard Deviation of monthly returns is calculated using gross returns and is not applicable until the Composite reaches 3 years.

GWCM's composite descriptions and policies for valuing accounts, calculating performance and preparing compliant presentations are available upon request. All data are in U.S. dollars. The performance data quoted represents past performance, which does not guarantee future results. Returns for periods less than a full year are not annualized. Number of accounts represents the number of accounts in the composite at the end of the period.

Benchmark: Morningstar Lifetime Mod 2020 TR

Target Date 2020 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2015	-3.16	-3.21	-1.88			1		12	25,788
2016	7.36	7.13	7.66			3		37	28,524
2017	13.17	12.51	12.79			3		165	32,639
2018	-4.09	-4.76	-4.16	5.94	5.58	3		248	29,978

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GWCM is a Colorado limited liability company and Registered Investment Adviser, primarily providing investment advice to Investment Companies, Pooled Accounts, State and Municipal Government Entities, Pension and Profit Sharing Plans and Insurance Companies.

The Target Date 2020 - Lifetime Composite (the "Composite") invests in a professionally selected mix of Underlying Funds that is tailored for investors planning to retire in (or otherwise begin using the invested funds on), or close to, 2020. The Composite currently invests 40-60% of its net assets in Underlying Funds that invest primarily in equity securities and 40-60% of its net assets in Underlying Funds that invest primarily in fixed income securities. The Composite was created on 07/01/2017. The Composite is comprised of all discretionary accounts managed by GWCM in this investment style.

The Morningstar Lifetime Allocation Index Family is a broadly diversified index that helps investors mitigate the challenges related to rising life expectancies, evolving risk appetites, inflation in major retirement expense categories, and postretirement income investing. The index family is designed to meet the benchmarking needs of target-date investors by offering an objective yardstick for performance comparison. Conceptually, the Morningstar Lifetime Allocation Index family are indexes of indexes. The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who intends to retire in the year 2020. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

The minimum asset level for including a account in the composite is \$15 million in order to fully manage the account to the investment strategy.

Internal Dispersion is represented by the equal-weighted standard deviation of full-period gross-of-fee returns of the accounts that were included in the composite for the entire period. Internal Dispersion is not presented for periods when less than six accounts were included in the composite for the full period. Three-year annualized Ex-post Standard Deviation of monthly returns is calculated using gross returns and is not applicable until the Composite reaches 3 years.

GWCM's composite descriptions and policies for valuing accounts, calculating performance and preparing compliant presentations are available upon request. All data are in U.S. dollars. The performance data quoted represents past performance, which does not guarantee future results. Returns for periods less than a full year are not annualized. Number of accounts represents the number of accounts in the composite at the end of the period.

The first account came to this composite in August 2015. Returns are not annualized for 2015. The three-year annualized standard deviation is not presented as of December 31, 2017 because the composite does not yet have 36 monthly returns as of this date.

Benchmark: Morningstar Lifetime Mod 2025 TR

Target Date 2025 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2012	14.15	13.92	13.67			3		1,013	17,047
2013	15.29	14.60	16.28			3		1,497	21,164
2014	7.27	6.23	6.04	7.15	7.42	3		1,796	22,808
2015	-0.58	-1.49	-2.06	6.91	7.09	5		1,919	25,788
2016	9.43	8.46	8.39	6.91	7.11	3		1,973	28,524
2017	15.15	14.12	14.54	6.13	6.35	3		2,148	32,639
2018	-4.81	-5.61	-4.90	6.63	6.42	3		1,880	29,978

Great-West Capital Management, LLC ("GWCM" or the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. GWCM has been independently verified for the periods January 1, 2012 through December 31, 2017. The verification report is available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

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The Target Date 2025 - Lifetime Composite (the "Composite") invests in a professionally selected mix of Underlying Funds that is tailored for investors planning to retire in (or otherwise begin using the invested funds on), or close to, 2025. The Composite currently invests 50-70% of its net assets in Underlying Funds that invest primarily in equity securities and 30-50% of its net assets in Underlying Funds that invest primarily in fixed income securities. The Composite was created on 07/01/2017. The Composite is comprised of all discretionary accounts managed by GWCM in this investment style.

The Morningstar Lifetime Allocation Index Family is a broadly diversified index that helps investors mitigate the challenges related to rising life expectancies, evolving risk appetites, inflation in major retirement expense categories, and postretirement income investing. The index family is designed to meet the benchmarking needs of target-date investors by offering an objective yardstick for performance comparison. Conceptually, the Morningstar Lifetime Allocation Index family are indexes of indexes. The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who intends to retire in the year 2025. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

The minimum asset level for including a account in the composite is \$15 million in order to fully manage the account to the investment strategy.

Internal Dispersion is represented by the equal-weighted standard deviation of full-period gross-of-fee returns of the accounts that were included in the composite for the entire period. Internal Dispersion is not presented for periods when less than six accounts were included in the composite for the full period. Three-year annualized Ex-post Standard Deviation of monthly returns is calculated using gross returns and is not applicable until the Composite reaches 3 years. GWCM's composite descriptions and policies for valuing accounts, calculating performance and preparing compliant presentations are available upon request. All data are in U.S. dollars. The performance data quoted represents past performance, which does not guarantee future results. Returns for periods less than a full year are not annualized. Number of accounts represents the number of accounts in the composite at the end of the period.

As of December 31, 2018

Benchmark: Morningstar Lifetime Mod 2030 TR

Target Date 2030 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2015	-4.30	-4.36	-2.30			1		16	25,788
2016	8.33	8.13	9.26			3		47	28,524
2017	17.08	16.44	16.59			3		168	32,639
2018	-5.82	-6.44	-5.82	7.98	7.48	3		248	29,978

Great-West Capital Management, LLC ("GWCM" or the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. GWCM has been independently verified for the periods January 1, 2012 through December 31, 2017. The verification report is available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

GWCM is a Colorado limited liability company and Registered Investment Adviser, primarily providing investment advice to Investment Companies, Pooled Accounts, State and Municipal Government Entities, Pension and Profit Sharing Plans and Insurance Companies.

The Target Date 2030 - Lifetime Composite (the "Composite") invests in a professionally selected mix of Underlying Funds that is tailored for investors planning to retire in (or otherwise begin using the invested funds on), or close to, 2030. The Composite currently invests 60-80% of its net assets in Underlying Funds that invest primarily in equity securities and 20-40% of its net assets in Underlying Funds that invest primarily in fixed income securities. The Composite was created on 07/01/2017. The Composite is comprised of all discretionary accounts managed by GWCM in this investment style.

The Morningstar Lifetime Allocation Index Family is a broadly diversified index that helps investors mitigate the challenges related to rising life expectancies, evolving risk appetites, inflation in major retirement expense categories, and postretirement income investing. The index family is designed to meet the benchmarking needs of target-date investors by offering an objective yardstick for performance comparison. Conceptually, the Morningstar Lifetime Allocation Index family are indexes of indexes. The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who intends to retire in the year 2030. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

The minimum asset level for including a account in the composite is \$15 million in order to fully manage the account to the investment strategy.

Internal Dispersion is represented by the equal-weighted standard deviation of full-period gross-of-fee returns of the accounts that were included in the composite for the entire period. Internal Dispersion is not presented for periods when less than six accounts were included in the composite for the full period. Three-year annualized Ex-post Standard Deviation of monthly returns is calculated using gross returns and is not applicable until the Composite reaches 3 years.

GWCM's composite descriptions and policies for valuing accounts, calculating performance and preparing compliant presentations are available upon request. All data are in U.S. dollars. The performance data quoted represents past performance, which does not guarantee future results. Returns for periods less than a full year are not annualized. Number of accounts represents the number of accounts in the composite at the end of the period.

The first account came to this composite in August 2015. Returns are not annualized for 2015. The three-year annualized standard deviation is not presented as of December 31, 2017 because the composite does not yet have 36 monthly returns as of this date.

Benchmark: Morningstar Lifetime Mod 2035 TR

Target Date 2035 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2012	15.99	15.76	15.36			3	==	709	17,047
2013	21.58	20.82	22.03			3		1,166	21,164
2014	7.36	6.27	5.80	8.90	9.02	3		1,432	22,808
2015	-0.74	-1.73	-2.58	8.83	9.03	5		1,621	25,788
2016	9.92	8.93	10.07	8.99	9.27	3		1,726	28,524
2017	19.39	18.30	18.52	8.07	8.41	3		1,977	32,639
2018	-6.89	-7.69	-6.82	8.73	8.53	3		1,700	29,978

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GWCM is a Colorado limited liability company and Registered Investment Adviser, primarily providing investment advice to Investment Companies, Pooled Accounts, State and Municipal Government Entities, Pension and Profit Sharing Plans and Insurance Companies.

The Target Date 2035 - Lifetime Composite (the "Composite") invests in a professionally selected mix of Underlying Funds that is tailored for investors planning to retire in (or otherwise begin using the invested funds on), or close to, 2035. The Composite currently invests 75-95% of its net assets in Underlying Funds that invest primarily in equity securities and 5-25% of its net assets in Underlying Funds that invest primarily in fixed income securities. The Composite was created on 07/01/2017. The Composite is comprised of all discretionary accounts managed by GWCM in this investment style.

The Morningstar Lifetime Allocation Index Family is a broadly diversified index that helps investors mitigate the challenges related to rising life expectancies, evolving risk appetites, inflation in major retirement expense categories, and postretirement income investing. The index family is designed to meet the benchmarking needs of target-date investors by offering an objective yardstick for performance comparison. Conceptually, the Morningstar Lifetime Allocation Index family are indexes of indexes. The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who intends to retire in the year 2035. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

The minimum asset level for including a account in the composite is \$15 million in order to fully manage the account to the investment strategy.

Internal Dispersion is represented by the equal-weighted standard deviation of full-period gross-of-fee returns of the accounts that were included in the composite for the entire period. Internal Dispersion is not presented for periods when less than six accounts were included in the composite for the full period. Three-year annualized Ex-post Standard Deviation of monthly returns is calculated using gross returns and is not applicable until the Composite reaches 3 years. GWCM's composite descriptions and policies for valuing accounts, calculating performance and preparing compliant presentations are available upon request. All data are in U.S. dollars. The performance data quoted represents past performance, which does not guarantee future results. Returns for periods less than a full year are not annualized. Number of accounts represents the number of accounts in the composite at the end of the period.

As of December 31, 2018

Benchmark: Morningstar Lifetime Mod 2040 TR

Target Date 2040 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2015	-5.02	-5.07	-2.83			1		12	25,788
2016	9.19	8.90	10.61			3		42	28,524
2017	20.57	19.90	19.87			3		119	32,639
2018	-7.76	-8.34	-7.65	9.72	9.29	3		176	29,978

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GWCM is a Colorado limited liability company and Registered Investment Adviser, primarily providing investment advice to Investment Companies, Pooled Accounts, State and Municipal Government Entities, Pension and Profit Sharing Plans and Insurance Companies.

The Target Date 2040 - Lifetime Composite (the "Composite") invests in a professionally selected mix of Underlying Funds that is tailored for investors planning to retire in (or otherwise begin using the invested funds on), or close to, 2040. The Composite currently invests 80-98% of its net assets in Underlying Funds that invest primarily in equity securities and 2-20% of its net assets in Underlying Funds that invest primarily in fixed income securities. The Composite was created on 07/01/2017. The Composite is comprised of all discretionary accounts managed by GWCM in this investment style.

The Morningstar Lifetime Allocation Index Family is a broadly diversified index that helps investors mitigate the challenges related to rising life expectancies, evolving risk appetites, inflation in major retirement expense categories, and postretirement income investing. The index family is designed to meet the benchmarking needs of target-date investors by offering an objective yardstick for performance comparison. Conceptually, the Morningstar Lifetime Allocation Index family are indexes of indexes. The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who intends to retire in the year 2040. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

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The first account came to this composite in August 2015. Returns are not annualized for 2015. The three-year annualized standard deviation is not presented as of December 31, 2017 because the composite does not yet have 36 monthly returns as of this date.

Benchmark: Morningstar Lifetime Mod 2045 TR

Target Date 2045 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2012	16.47	16.25	15.84			3		353	17,047
2013	23.27	22.50	23.07			3		603	21,164
2014	6.87	5.77	5.25	9.55	9.51	3		748	22,808
2015	-0.98	-1.91	-3.03	9.65	9.72	5		881	25,788
2016	10.18	9.21	10.84	9.94	10.15	3		983	28,524
2017	21.55	20.47	20.53	8.96	9.30	3		1,171	32,639
2018	-8.30	-9.07	-8.17	9.85	9.66	3		1,017	29,978

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The Target Date 2045 - Lifetime Composite (the "Composite") invests in a professionally selected mix of Underlying Funds that is tailored for investors planning to retire in (or otherwise begin using the invested funds on), or close to, 2045. The Composite currently invests 80-98% of its net assets in Underlying Funds that invest primarily in equity securities and 2-20% of its net assets in Underlying Funds that invest primarily in fixed income securities. The Composite was created on 07/01/2017. The Composite is comprised of all discretionary accounts managed by GWCM in this investment style.

The Morningstar Lifetime Allocation Index Family is a broadly diversified index that helps investors mitigate the challenges related to rising life expectancies, evolving risk appetites, inflation in major retirement expense categories, and postretirement income investing. The index family is designed to meet the benchmarking needs of target-date investors by offering an objective yardstick for performance comparison. Conceptually, the Morningstar Lifetime Allocation Index family are indexes of indexes. The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who intends to retire in the year 2045. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

The minimum asset level for including a account in the composite is \$15 million in order to fully manage the account to the investment strategy.

Internal Dispersion is represented by the equal-weighted standard deviation of full-period gross-of-fee returns of the accounts that were included in the composite for the entire period. Internal Dispersion is not presented for periods when less than six accounts were included in the composite for the full period. Three-year annualized Ex-post Standard Deviation of monthly returns is calculated using gross returns and is not applicable until the Composite reaches 3 years. GWCM's composite descriptions and policies for valuing accounts, calculating performance and preparing compliant presentations are available upon request. All data are in U.S. dollars. The performance data quoted represents past performance, which does not guarantee future results. Returns for periods less than a full year are not annualized. Number of accounts represents the number of accounts in the composite at the end of the period.

Benchmark: Morningstar Lifetime Mod 2050 TR

Target Date 2050 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2015	-5.33	-5.38	-3.19			1		2	25,788
2016	8.92	8.71	10.89			3		17	28,524
2017	21.79	21.19	20.78			3		66	32,639
2018	-8.51	-9.07	-8.41	10.16	9.76	3		98	29,978

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The Target Date 2050 - Lifetime Composite (the "Composite") invests in a professionally selected mix of Underlying Funds that is tailored for investors planning to retire in (or otherwise begin using the invested funds on), or close to, 2050. The Composite currently invests 80-98% of its net assets in Underlying Funds that invest primarily in equity securities and 2-20% of its net assets in Underlying Funds that invest primarily in fixed income securities. The Composite was created on 07/01/2017. The Composite is comprised of all discretionary accounts managed by GWCM in this investment style.

The Morningstar Lifetime Allocation Index Family is a broadly diversified index that helps investors mitigate the challenges related to rising life expectancies, evolving risk appetites, inflation in major retirement expense categories, and postretirement income investing. The index family is designed to meet the benchmarking needs of target-date investors by offering an objective yardstick for performance comparison. Conceptually, the Morningstar Lifetime Allocation Index family are indexes of indexes. The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who intends to retire in the year 2050. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

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The first account came to this composite in August 2015. Returns are not annualized for 2015. The three-year annualized standard deviation is not presented as of December 31, 2017 because the composite does not yet have 36 monthly returns as of this date.

Benchmark: Morningstar Lifetime Mod 2055 TR

Target Date 2055 - Lifetime Composite

	Composite Gross	Composite Net	Benchmark	Composite 3-Yr	Benchmark 3-Yr	Number of	Internal Dispersion	Composite	Firm Assets
Year	% Return	% Return	% Return	% Std Dev	% Std Dev	Accounts	(Gross %)	Assets (\$ M)	(\$ M)
2012	16.70	16.47	16.00			3		71	17,047
2013	23.11	22.31	22.49			3		145	21,164
2014	6.28	5.16	4.74	9.72	9.68	3		201	22,808
2015	-1.26	-2.23	-3.34	9.81	9.82	5		266	25,788
2016	10.10	9.09	10.90	10.10	10.29	3		333	28,524
2017	21.96	20.84	20.95	9.11	9.44	3		429	32,639
2018	-8.74	-9.53	-8.57	10.00	9.81	3		402	29,978

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The Composite gross-of-fee returns reflect the reinvestment of income and the impact of transaction costs, but do not include the deduction of investment advisory fees or administration fees. Composite net-of-fee returns are calculated by deducting actual investment advisory fees and administration fees from each account's gross-of-fee returns. The maximum fee charged to an account in the composite is equal to an annual rate of 0.72% of the average daily net assets of the account. Actual fees may vary depending on, among other things, the applicable fee schedule and account size. Therefore, the actual performance of all the accounts in the composite on a net-of-fees basis may be different, and may be higher or lower, than the composite performance. However, such performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a separate account prospect to the gross of fee performance of the composite. While actual accounts incur transaction costs, pay investment advisory fees and administration fees, the benchmark index is shown without the impact of such charges.

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