# Target Date Analysis

PREPARED FOR Sample Target Date Fund Analysis

PREPARED BY Fiduciary Advisors, LLC Kestra Investment Services, LLC

#### TARGET DATE FUNDS

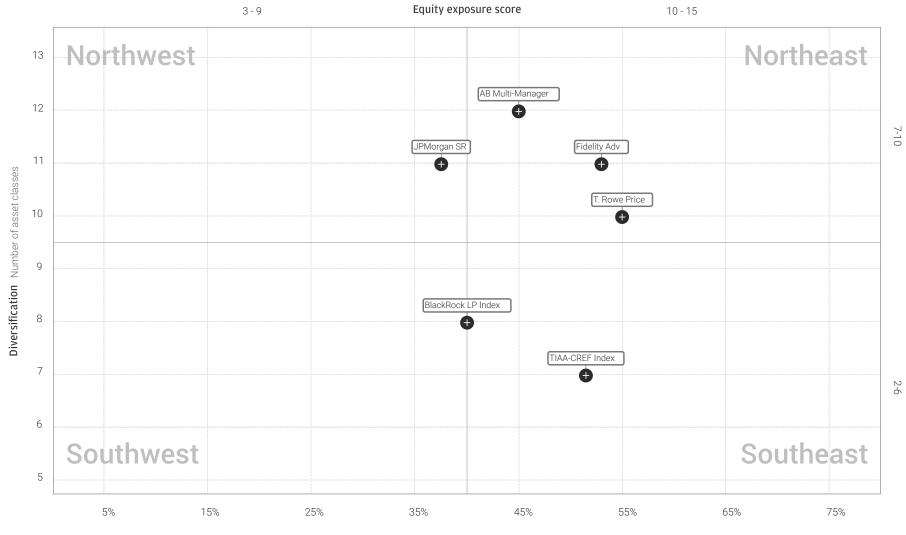
- AllianceBernstein Multi-Manager Select
- BlackRock LifePath Index
- Fidelity Advisor Freedom
- JPMorgan SmartRetirement
- T. Rowe Price Retirement
- TIAA-CREF Lifecycle Index

The fund companies displayed in this report appear based upon advisor request. References to specific mutual and commingled funds in this report are for illustrative purposes only and are not intended to be, and should not be interpreted as, recommendations. This report should not be relied on to make investment decisions.



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### Target Date Compass<sup>™</sup>



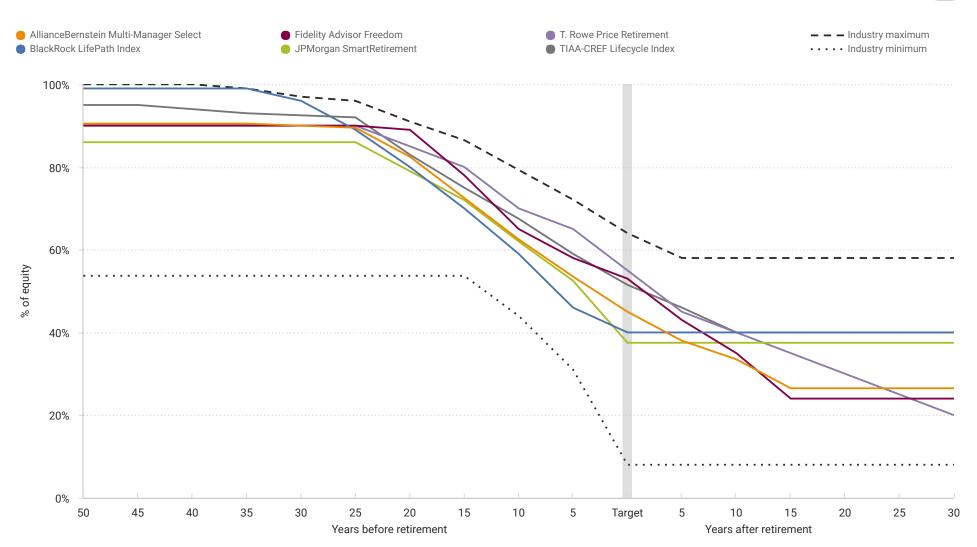
Percentage of equity exposure at target date

As of 09/30/2018. © 2018 Morningstar, Inc. All Rights Reserved. Percentage of equity exposure at target date: Strategic allocation to non-fixed income asset classes at target date, typically age 65. Asset class diversification: Calculated using the target date funds' asset allocation breakdown to 12 J.P. Morgan-defined separate asset classes. The 12 asset classes include: U.S. large cap equity, U.S. small cap equity, I.S. small cap equity, International equity, Emerging markets equity, REITs, Commodities, U.S. fixed income, High yield, U.S. TIPs, International fixed income and Emerging markets debt. If a selected mutual fund has less than 5 asset classes, the fund will not be depicted in the above chart. Please see Target Date Compass Methodology for additional information. Commingled fund information not shown due to lack of data availability. See Disclosure page for commingled fund details.

### Asset Class Summary

Asset class	AllianceBernstein Multi-Manager Select	BlackRock LifePath Index	Fidelity Advisor Freedom	JPMorgan SmartRetirement	T. Rowe Price Retirement	TIAA-CREF Lifecycle Index
U.S. large cap	<b>I</b>	<b>S</b>			<b>S</b>	
U.S. mid cap	<b>S</b>					
U.S. small cap	<b>I</b>	<b>I</b>	<b>I</b>		<b>S</b>	<b>I</b>
International equity						
Emerging markets equity	<b>I</b>	<b>I</b>	<b>I</b>		<b>S</b>	<b>I</b>
U.S. fixed income	<b>I</b>	<b>I</b>	<b>I</b>	<b>S</b>	<b>I</b>	<b>I</b>
U.S. TIPS	<b>I</b>	<b>I</b>	<b>I</b>		<b>S</b>	<b>I</b>
High yield fixed income	<b>I</b>		<b>I</b>		<b>I</b>	
International fixed income	<b>S</b>					
Emerging markets debt	<b>S</b>		<b>S</b>			<b>S</b>
REITs						
Commodities	<b>S</b>		<b>I</b>	<b>I</b>		
Total # of asset classes	12	8	11	11	10	7

### Equity Glide Path Comparison



As of 09/30/2018, with the exception of Industry minimum and Industry maximum, which are as of 06/30/2018. © 2018 Morningstar, Inc. All Rights Reserved. Commingled fund information not shown due to lack of data availability. See Disclosure page for commingled fund details.

### Target Date Series Snapshot

	AllianceBernstein Multi-Manager Select	BlackRock LifePath Index	Fidelity Advisor Freedom	JPMorgan SmartRetirement	T. Rowe Price Retirement	TIAA-CREF Lifecycle Index
MUTUAL FUND ASSETS						
(\$mm) as of 09/30/2018	\$818	\$21,023	\$18,444	\$50,382	\$158,848	\$16,373
Earliest inception date	12/15/2014	05/31/2011	07/24/2003	05/15/2006	09/30/2002	09/30/2009
GLIDE PATH	·	·	·	·	·	
% of equity at age 65	45.0%	40.0%	53.0%	37.5%	55.0%	51.5%
% of equity at landing point	26.5%	40.0%	24.0%	37.5%	20.0%	40.0%
Glide path end (age)	80	65	80	65	95	75
# of asset classes	12	8	11	11	10	7
Tactical	N/A	No	Yes	Yes	Yes	No
FUND STRUCTURE			• •		·	
Fund of funds	Yes	No	Yes	Yes	Yes	Yes
Open architecture (%)	-	0%	0%	0%	0%	0%
Active exposure (%)	62.97%	0.55%	91.68%	99.51%	88.32%	2.07%
UNDERLYING FUND INFORMATION	·	·	·	·	·	
# of underlying funds	30	9	28	23	22	6
Average manager tenure (years)	8.51	6.29	5.16	7.26	9.47	6.62
Longest manager tenure (years)	26.26	13.83	11.26	19.63	26.00	12.91

	3 m	onth	1 ye	ar	3 ye	ear	5 y	ear	10 y	ear	15 y	year		
Target date fund name	Total return	% rank in cat	Total return	% rank in cat	Since inception return	Inception date								
US FUND TARGET-DATE RETIREMENT														
AB Multi-Manager Select Retire Allc I	1.22	67	2.43	60	5.10	55	_	_	-	_	_	_	3.60	12/15/2014
BlackRock LifePath® Index Retire K	1.66	21	3.88	12	6.47	15	5.20	9	-	_	_	-	5.34	05/31/2011
Fidelity Advisor Freedom® Income Z6	0.63	86	1.97	80	4.82	68	3.70	67	4.60	77	4.04	61	4.07	07/24/2003
JPMorgan SmartRetirement® Income R6	1.69	17	3.26	33	6.06	23	4.86	22	6.30	10	_	-	5.17	05/15/2006
TIAA-CREF Lifecycle Index Ret Inc Instl	2.04	10	4.57	5	6.57	13	5.40	4	-	_	_	-	6.48	09/30/2009
TOTAL FUNDS IN CATEGORY	-	199	-	189	_	164	_	137	-	93	-	19	_	-
S&P Target Date Retirement Income TR USD	1.55	_	3.71	_	5.35	-	4.37	_	5.10	_	4.88	_	4.46	12/29/2000
US FUND TARGET-DATE 2000-2010	<u>.</u>		<u>.</u>						<u>.</u>				`	
AB Multi-Manager Select 2010 I	1.62	38	3.66	33	6.70	38	-	-	-	_	-	-	4.75	12/15/2014
Fidelity Advisor Freedom® 2005 Z6	1.02	76	3.18	61	6.27	55	4.72	69	5.55	67	_	-	4.84	11/06/2003
Fidelity Advisor Freedom® 2010 Z6	1.32	66	4.11	20	7.39	8	5.52	19	6.42	27	5.52	36	5.59	07/24/2003
T. Rowe Price Retirement I 2005 I	1.75	27	3.64	37	6.83	28	_	_	_	_	_	_	7.11	09/29/2015
T. Rowe Price Retirement I 2010 I	1.97	10	4.26	19	7.59	1	_	_	_	_	-	_	7.90	09/29/2015
TIAA-CREF Lifecycle Index 2010 Instl	2.19	4	4.73	1	6.96	19	5.73	9	_	_	_	_	6.97	09/30/2009
TOTAL FUNDS IN CATEGORY	-	145	-	137	_	113	_	91	_	76	_	15	_	_
S&P Target Date 2010 TR USD	1.84	_	4.36	-	6.38	-	5.09	_	5.84	_	5.62	-	4.60	12/29/2000

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The performance data quoted represents past performance and is not a guarantee or prediction of future results. Investment returns and principal value of an investment will fluctuate so that shares or units when redeemed may be worth less than their original cost. Current performance may be lower or higher than the return data quoted herein. To obtain performance data current to the most recent month-end for JP Morgan funds, please visit www.jpmorganfunds.com or call 1-800-480-4111. To obtain performance data current to the most recent month-end for all other fund providers, please contact your financial advisor.

All performance information is shown net of fees. Total return assumes reinvestment of dividends and capital gains distributions but is not adjusted for sales charges or redemptions fees. Performance may reflect the waiver of a portion of the fund's advisory or administrative fees for certain periods since the inception date. If fees had not been waived, performance would have been less favorable. Performance information may include extended performance returns, provided by Morningstar, where available. Performance includes the reinvestment of income. Since inception return and Inception date for mutual funds reflect extended performance and inception date of the Fund's oldest share class, respectively. Inception date for commingled funds reflects the data for the specific series and share class selected. Total funds in category and % rank in cat(egory) refer to Morningstar's open end and exchange traded fund universe. See Disclosure page for ranking criteria details.

	3 mo	onth	1 ye	ar	3 ує	ear	5 yı	ear	10 y	ear	15 y	/ear		
Target date fund name	Total return	% rank in cat	Total return	% rank in cat	Since inception return	Inception date								
US FUND TARGET-DATE 2015														
AB Multi-Manager Select 2015 I	1.61	75	4.11	58	7.60	28	_	_	_	_	_	-	5.39	12/15/2014
Fidelity Advisor Freedom® 2015 Z6	1.71	65	5.12	15	8.52	1	6.22	15	6.78	36	_	-	5.85	11/06/2003
T. Rowe Price Retirement I 2015 I	2.01	30	4.91	23	8.50	1	-	_	-	_	_	-	8.89	09/29/2015
TIAA-CREF Lifecycle Index 2015 Instl	2.42	8	5.30	11	7.65	26	6.21	15	-	_	_	-	7.48	09/30/2009
TOTAL FUNDS IN CATEGORY	-	151	-	139	_	111	-	77	-	49	_	-	-	-
S&P Target Date 2015 TR USD	2.11	-	5.09	_	7.42	_	5.85	_	6.53	_	6.21	-	4.88	12/29/2000
US FUND TARGET-DATE 2020			·				·							
AB Multi-Manager Select 2020 I	2.07	55	4.84	51	8.41	25	-	-	-	_	-	-	6.03	12/15/2014
BlackRock LifePath® Index 2020 K	1.91	63	4.58	58	7.44	57	5.90	49	_	_	_	-	5.99	05/31/2011
Fidelity Advisor Freedom® 2020 Z6	2.09	52	5.89	14	9.31	4	6.74	13	7.10	33	6.27	27	6.35	07/24/2003
JPMorgan SmartRetirement® 2020 R6	2.02	56	4.33	66	7.68	48	6.36	24	7.74	7	_	-	6.04	05/15/2006
T. Rowe Price Retirement I 2020 I	2.26	31	5.97	11	9.75	1	_	_	_	_	_	_	10.21	09/29/2015
TIAA-CREF Lifecycle Index 2020 Instl	2.71	7	6.13	8	8.59	19	6.83	11	_	_	_	_	8.12	09/30/2009
TOTAL FUNDS IN CATEGORY	_	268	-	253	_	205	_	171	_	107	_	20	_	_
S&P Target Date 2020 TR USD	2.33	_	5.78	_	8.36	_	6.49	_	7.09	_	6.67	-	5.09	12/29/2000

	3 mo	onth	1 ye	ear	3 y	ear	5 y	ear	10 y	ear	15	year		
Target date fund name	Total return	% rank in cat	Total return	% rank in cat	Since inception return	Inception date								
US FUND TARGET-DATE 2025														
AB Multi-Manager Select 2025 I	2.41	51	5.83	55	9.62	26	_	_	-	_	_	-	6.97	12/15/2014
BlackRock LifePath® Index 2025 K	2.42	49	5.93	51	8.80	55	6.74	39	-	_	_	_	6.67	05/31/2011
Fidelity Advisor Freedom® 2025 Z6	2.30	61	6.56	29	10.05	7	7.31	15	7.67	31	_	-	6.43	11/06/2003
JPMorgan SmartRetirement® 2025 R6	2.47	42	5.30	69	8.84	52	7.18	20	8.34	9	_	-	5.93	07/31/2007
T. Rowe Price Retirement I 2025 I	2.44	48	6.69	26	10.70	1	-	-	-	_	_	-	11.24	09/29/2015
TIAA-CREF Lifecycle Index 2025 Instl	3.14	9	7.24	8	9.72	19	7.55	7	-	_	_	_	8.82	09/30/2009
TOTAL FUNDS IN CATEGORY	-	238	-	223	_	180	-	141	-	72	_	-	-	-
S&P Target Date 2025 TR USD	2.72	_	6.86	_	9.45	_	7.13	_	7.59	_	7.11	-	5.33	12/29/2000
US FUND TARGET-DATE 2030	-		<u>.</u>				·							
AB Multi-Manager Select 2030 I	2.89	42	6.57	61	10.69	23	-	-	-	_	_	-	7.99	12/15/2014
BlackRock LifePath® Index 2030 K	2.80	49	7.04	49	10.00	49	7.42	41	-	_	_	-	7.25	05/31/2011
Fidelity Advisor Freedom® 2030 Z6	2.81	48	8.10	13	11.71	1	8.26	8	8.01	30	6.91	27	7.00	07/24/2003
JPMorgan SmartRetirement® 2030 R6	2.77	53	6.49	63	10.00	48	7.88	22	8.77	6	_	-	6.76	05/15/2006
T. Rowe Price Retirement   2030	2.53	74	7.45	37	11.59	3	-	_	-	_	_	-	12.17	09/29/2015
TIAA-CREF Lifecycle Index 2030 Instl	3.53	9	8.24	11	10.81	19	8.23	9	-	_	_	_	9.51	09/30/2009
TOTAL FUNDS IN CATEGORY	-	257	-	242	_	195	_	161	-	97	_	20	_	_
S&P Target Date 2030 TR USD	3.15	-	7.99	-	10.47	_	7.78	_	8.02	_	7.44	-	5.50	12/29/2000

	3 mo	onth	1 ye	ar	3 y	ear	5 y	ear	10 y	ear	15 y	year		
Target date fund name	Total return	% rank in cat	Total return	% rank in cat	Since inception return	Inception date								
US FUND TARGET-DATE 2035														
AB Multi-Manager Select 2035 I	3.21	47	7.63	62	11.69	23	_	_	-	_	_	-	8.76	12/15/2014
BlackRock LifePath® Index 2035 K	3.20	50	8.17	46	11.11	48	8.08	37	-	_	_	_	7.77	05/31/2011
Fidelity Advisor Freedom® 2035 Z6	3.34	36	9.63	10	12.99	4	8.99	10	8.54	32	_	-	6.99	11/06/2003
JPMorgan SmartRetirement® 2035 R6	3.13	56	6.99	80	10.72	65	8.33	29	9.24	12	_	-	6.45	07/31/2007
T. Rowe Price Retirement I 2035 I	2.56	89	8.05	51	12.25	12	-	-	-	_	_	-	12.91	09/29/2015
TIAA-CREF Lifecycle Index 2035 Instl	3.99	7	9.32	13	11.91	18	8.90	11	-	_	_	_	10.17	09/30/2009
TOTAL FUNDS IN CATEGORY	-	233	-	218	_	175	_	136	-	67	_	_	-	_
S&P Target Date 2035 TR USD	3.52	_	8.99	_	11.44	-	8.39	-	8.39	_	7.71	-	5.66	12/29/2000
US FUND TARGET-DATE 2040							·							
AB Multi-Manager Select 2040 I	3.29	64	8.01	70	12.22	29	_	-	-	-	_	_	9.14	12/15/2014
BlackRock LifePath® Index 2040 K	3.54	38	9.12	36	12.12	31	8.67	30	-	-	_	-	8.27	05/31/2011
Fidelity Advisor Freedom® 2040 Z6	3.59	36	9.97	14	13.17	5	9.10	17	8.59	32	7.38	23	7.47	07/24/2003
JPMorgan SmartRetirement® 2040 R6	3.35	60	7.64	77	11.49	57	8.76	28	9.46	10	_	-	7.25	05/15/2006
T. Rowe Price Retirement I 2040 I	2.60	91	8.50	56	12.81	15	-	-	-	_	_	-	13.50	09/29/2015
TIAA-CREF Lifecycle Index 2040 Instl	4.37	7	10.45	7	13.03	9	9.53	3	-	-	_	-	10.64	09/30/2009
TOTAL FUNDS IN CATEGORY	-	257	-	242	_	195	-	161	-	97	_	20	-	-
S&P Target Date 2040 TR USD	3.72	-	9.68	_	12.11	-	8.79	-	8.67	_	7.93	-	5.79	12/29/2000

	3 mc	onth	1 ye	ar	3 y	ear	5 y	ear	10 y	ear	15 y	/ear		
Target date fund name	Total return	% rank in cat	Total return	% rank in cat	Since inception return	Inception date								
US FUND TARGET-DATE 2045														
AB Multi-Manager Select 2045 I	3.49	61	8.38	74	12.56	35	_	_	-	_	_	-	9.32	12/15/2014
BlackRock LifePath® Index 2045 K	3.78	36	9.75	31	12.75	29	9.11	20	-	_	_	_	8.60	05/31/2011
Fidelity Advisor Freedom® 2045 Z6	3.68	45	10.05	21	13.20	9	9.14	19	8.63	37	_	-	6.22	06/01/2006
JPMorgan SmartRetirement® 2045 R6	3.49	61	7.86	87	11.61	73	8.83	32	9.56	7	_	-	6.83	07/31/2007
T. Rowe Price Retirement I 2045 I	2.73	92	8.78	61	13.02	16	_	-	-	_	_	-	13.71	09/29/2015
TIAA-CREF Lifecycle Index 2045 Instl	4.69	2	11.15	4	13.53	2	9.80	3	-	_	_	_	10.80	09/30/2009
TOTAL FUNDS IN CATEGORY	-	233	-	218	_	175	_	136	-	66	_	-	_	-
S&P Target Date 2045 TR USD	3.81	_	9.98	_	12.54	_	9.05	-	8.79	_	_	-	7.17	05/31/2005
US FUND TARGET-DATE 2050	·		* 				-		* 		-			
AB Multi-Manager Select 2050 I	3.54	57	8.39	76	12.69	35	_	-	-	-	_	_	9.41	12/15/2014
BlackRock LifePath® Index 2050 K	3.85	33	10.01	23	12.93	22	9.32	12	-	-	_	-	8.81	05/31/2011
Fidelity Advisor Freedom® 2050 Z6	3.69	47	10.01	24	13.16	11	9.14	25	8.60	41	_	-	6.14	06/01/2006
JPMorgan SmartRetirement® 2050 R6	3.45	66	7.86	87	11.57	78	8.83	39	9.57	6	_	_	6.85	07/31/2007
T. Rowe Price Retirement I 2050 I	2.73	91	8.78	64	13.02	18	_	-	-	_	_	-	13.71	09/29/2015
TIAA-CREF Lifecycle Index 2050 Instl	4.77	2	11.33	5	13.72	2	9.93	2	-	_	_	_	10.87	09/30/2009
TOTAL FUNDS IN CATEGORY	-	253	-	238	_	190	-	156	-	74	_	6	-	-
S&P Target Date 2050 TR USD	3.87	_	10.26	_	12.92	_	9.29	_	8.96	_	_	-	6.99	05/31/2006

	3 m	onth	1 ye	ear	3 yı	ear	5 y	ear	10 y	ear	15 y	/ear		
Target date fund name	Total return	% rank in cat	Total return	% rank in cat	Since inception return	Inception date								
US FUND TARGET-DATE 2055														
AB Multi-Manager Select 2055 I	3.57	59	8.46	79	12.53	53	_	_	-	_	_	-	9.25	12/15/2014
BlackRock LifePath® Index 2055 K	3.84	37	9.99	29	12.97	23	9.45	15	-	-	_	-	8.97	05/31/2011
Fidelity Advisor Freedom® 2055 Z6	3.58	57	9.94	33	13.14	18	9.14	34	_	_	_	-	8.72	06/01/2011
JPMorgan SmartRetirement® 2055 R6	3.50	63	7.83	92	11.59	85	8.84	43	_	_	_	-	10.54	01/31/2012
T. Rowe Price Retirement I 2055 I	2.73	92	8.87	68	12.99	22	_	_	_	_	_	-	13.68	09/29/2015
TIAA-CREF Lifecycle Index 2055 Instl	4.84	2	11.49	7	13.90	3	10.03	2	_	_	_	-	9.53	04/29/2011
TOTAL FUNDS IN CATEGORY	-	233	-	218	_	173	_	112	-	9	_	-	-	-
S&P Target Date 2055 TR USD	3.88	_	10.32	_	13.13	_	9.42	_	9.10	_	-	-	5.84	05/31/2007
US FUND TARGET-DATE 2060+	<u>.</u>		·						·				`	
BlackRock LifePath® Index 2060 K	3.82	51	10.00	39	-	-	_	-	-	_	_	-	15.92	02/29/2016
Fidelity Advisor Freedom® 2060 Z6	3.58	69	9.98	40	13.13	23	_	_	-	_	_	-	8.63	08/05/2014
JPMorgan SmartRetirement® 2060 R6	3.46	73	7.87	95	_	_	_	_	-	_	_	-	12.35	08/31/2016
T. Rowe Price Retirement I 2060 I	2.76	93	8.78	79	12.90	41	_	_	-	_	_	-	13.59	09/29/2015
TIAA-CREF Lifecycle Index 2060 Instl	4.91	1	11.74	5	14.09	2	_	_	_	_	_	-	9.36	09/26/2014
TOTAL FUNDS IN CATEGORY	-	218	-	190	_	70	_	9	_	_	_	_	-	_
S&P Target Date 2060+ TR USD	3.97	_	10.60	_	13.34	_	9.50	_	-	_	-	-	11.17	05/28/2010

### Calendar Year Performance

								Total retur	n						
Target date fund name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
US FUND TARGET-DATE RETIREMENT															
AB Multi-Manager Select Retire Allc I	9.01	5.09	(1.47)	-	-	-	-	-	-	-	_	-	-	_	-
BlackRock LifePath® Index Retire K	10.75	5.82	(0.31)	5.78	7.72	9.17	_	_	-	-	_	-	-	_	-
Fidelity Advisor Freedom® Income Z6	8.07	5.20	(0.64)	3.73	4.45	6.33	2.14	7.84	18.23	(13.49)	5.75	6.39	3.15	3.77	-
JPMorgan SmartRetirement® Income R6	11.22	5.31	(0.97)	5.17	7.91	10.30	1.13	11.35	21.62	(16.97)	5.17	-	_	_	-
TIAA-CREF Lifecycle Index Ret Inc Instl	10.50	5.50	(0.03)	6.15	8.42	9.59	4.45	9.96	_	_	_	-	_	_	-
S&P Target Date Retirement Income TR USD	8.54	5.01	(0.18)	4.86	6.28	7.51	3.98	9.09	11.37	(13.09)	6.19	8.77	3.53	7.05	12.83
US FUND TARGET-DATE 2000-2010															
AB Multi-Manager Select 2010 I	11.34	6.38	(1.58)	_	_	_	_	_	_	_	_	-	_	_	-
Fidelity Advisor Freedom® 2005 Z6	10.44	5.81	(0.62)	4.31	7.97	8.56	0.37	11.19	24.57	(25.43)	7.44	9.44	5.24	6.47	-
Fidelity Advisor Freedom® 2010 Z6	12.32	6.33	(0.61)	4.65	10.83	10.28	(0.15)	12.53	25.83	(26.41)	7.63	9.55	5.25	6.63	_
T. Rowe Price Retirement I 2005 I	10.74	6.69	_	_	_	_	_	_	_	_	_	-	_	_	-
T. Rowe Price Retirement I 2010 I	11.82	7.18	_	_	_	_	_	_	_	-	_	-	_	_	-
TIAA-CREF Lifecycle Index 2010 Instl	11.15	5.74	(0.06)	6.31	10.80	10.51	3.33	10.77	_	-	_	-	_	_	-
S&P Target Date 2010 TR USD	9.95	5.82	(0.21)	5.07	9.42	8.94	2.61	10.56	14.61	(17.42)	6.40	10.48	3.97	8.88	18.09
US FUND TARGET-DATE 2015															
AB Multi-Manager Select 2015 I	12.79	7.12	(1.56)	_	_	_	_	_	_	_	_	-	_	_	-
Fidelity Advisor Freedom® 2015 Z6	14.09	6.93	(0.69)	4.89	11.59	10.58	(0.21)	12.62	26.65	(28.21)	8.02	10.72	6.34	7.78	-
T. Rowe Price Retirement I 2015 I	13.52	7.25	-	-	-	-	_	-	-	-	_	-	-	_	-
TIAA-CREF Lifecycle Index 2015 Instl	12.23	6.13	(0.04)	6.40	12.79	11.31	2.56	11.31	-	-	-	-	-	_	-
S&P Target Date 2015 TR USD	11.39	6.56	(0.16)	5.49	12.16	10.32	1.53	11.85	17.48	(21.32)	6.50	11.92	4.37	9.98	20.90

								Total retur	n						
Target date fund name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
US FUND TARGET-DATE 2020															
AB Multi-Manager Select 2020 I	13.99	7.60	(1.43)	_	_	_	_	_	_	_	_	_	_	_	_
BlackRock LifePath® Index 2020 K	12.34	6.32	(0.42)	6.15	11.36	11.35	_	_	_	_	_	_	_	_	-
Fidelity Advisor Freedom® 2020 Z6	15.39	7.23	(0.64)	5.08	12.95	11.47	(1.07)	13.95	29.82	(33.58)	8.63	11.90	6.90	8.72	_
JPMorgan SmartRetirement® 2020 R6	14.14	5.87	(0.65)	6.92	13.77	14.58	(0.76)	15.02	29.39	(28.79)	5.58	-	-	-	-
T. Rowe Price Retirement I 2020 I	15.90	7.57	-	-	_	-	-	-	-	_	_	-	_	_	-
TIAA-CREF Lifecycle Index 2020 Instl	13.67	6.65	(0.14)	6.48	15.59	12.28	1.53	11.97	-	_	_	-	_	_	-
S&P Target Date 2020 TR USD	12.80	7.22	(0.19)	5.67	14.76	11.48	0.58	12.93	19.95	(24.78)	6.59	13.13	4.71	10.89	23.31
US FUND TARGET-DATE 2025															
AB Multi-Manager Select 2025 I	16.18	7.89	(1.09)	-	_	-	-	-	-	_	_	-	-	_	-
BlackRock LifePath® Index 2025 K	14.43	6.87	(0.45)	6.47	13.48	12.34	_	_	_	_	_	_	_	_	-
Fidelity Advisor Freedom® 2025 Z6	16.64	7.36	(0.68)	5.42	16.20	12.87	(2.39)	15.06	31.04	(35.18)	8.75	12.33	7.17	9.08	_
JPMorgan SmartRetirement® 2025 R6	16.43	6.19	(0.89)	7.45	17.07	16.14	(2.42)	15.73	31.47	(31.21)	_	-	_	_	-
T. Rowe Price Retirement I 2025 I	17.82	7.56	_	-	_	_	_	_	_	_	_	_	_	_	_
TIAA-CREF Lifecycle Index 2025 Instl	15.36	7.30	(0.25)	6.62	18.21	13.30	0.56	12.59	-	_	_	-	_	_	-
S&P Target Date 2025 TR USD	14.55	7.82	(0.25)	5.56	17.03	12.51	(0.28)	13.82	22.03	(27.75)	6.64	14.21	5.28	11.77	25.74

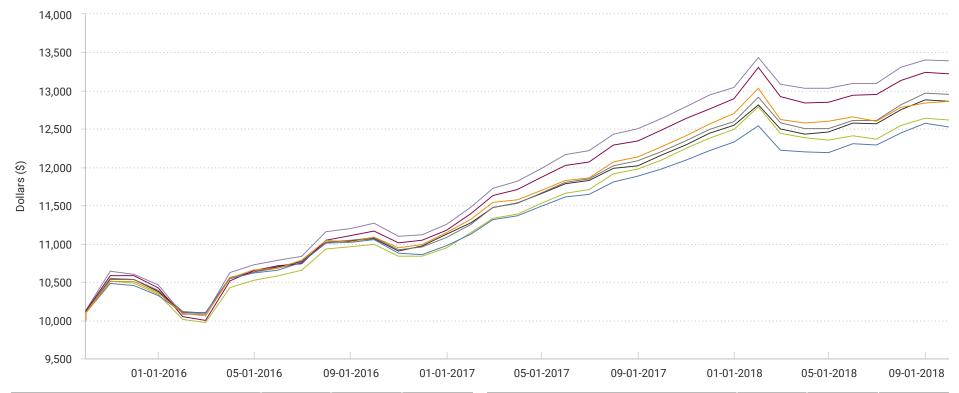
								Total retur	n						
Target date fund name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
US FUND TARGET-DATE 2030															
AB Multi-Manager Select 2030 I	18.03	8.61	(0.58)	_	_	_	_	_	_	_	_	_	_	_	-
BlackRock LifePath® Index 2030 K	16.36	7.29	(0.50)	6.64	15.40	13.28	_	_	_	_	_	_	_	_	-
Fidelity Advisor Freedom® 2030 Z6	19.44	8.02	(0.71)	5.48	17.59	13.34	(2.91)	15.36	31.85	(38.73)	9.24	13.40	7.89	9.36	-
JPMorgan SmartRetirement® 2030 R6	19.00	6.23	(1.25)	7.71	19.94	17.24	(4.03)	16.53	32.98	(33.69)	6.43	_	_	_	-
T. Rowe Price Retirement   2030	19.52	7.77	_	_	_	_	_	_	_	_	_	_	_	_	-
TIAA-CREF Lifecycle Index 2030 Instl	17.06	7.83	(0.33)	6.68	20.95	14.31	(0.32)	13.18	_	_	-	-	_	_	-
S&P Target Date 2030 TR USD	16.19	8.35	(0.30)	5.64	19.14	13.43	(1.17)	14.52	23.70	(30.48)	6.67	15.28	5.58	12.29	27.30
US FUND TARGET-DATE 2035															
AB Multi-Manager Select 2035 I	20.07	8.64	(0.43)	_	_	_	_	_	_	_	_	_	_	_	-
BlackRock LifePath® Index 2035 K	18.29	7.74	(0.56)	6.82	17.02	14.07	_	_	_	_	_	_	_	_	-
Fidelity Advisor Freedom® 2035 Z6	21.67	8.35	(0.77)	5.51	20.24	14.26	(4.32)	16.04	32.38	(39.40)	9.25	13.51	7.96	10.01	-
JPMorgan SmartRetirement® 2035 R6	20.54	6.50	(1.44)	7.79	22.19	18.16	(4.65)	16.69	34.13	(34.47)	_	-	_	_	-
T. Rowe Price Retirement I 2035 I	21.03	7.68	_	-	-	_	_	_	_	-	_	_	_	_	-
TIAA-CREF Lifecycle Index 2035 Instl	18.72	8.47	(0.54)	6.80	23.61	15.28	(1.21)	13.67	_	_	_	_	_	_	-
S&P Target Date 2035 TR USD	17.78	8.85	(0.35)	5.69	20.84	14.12	(1.71)	15.02	24.99	(32.60)	6.75	15.92	5.81	12.66	28.43

								Total retur	n						
Target date fund name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
US FUND TARGET-DATE 2040															
AB Multi-Manager Select 2040 I	21.26	8.69	(0.47)	_	_	_	_	_	_	_	_	_	_	_	-
BlackRock LifePath® Index 2040 K	19.95	8.10	(0.56)	6.90	18.66	15.03	_	_	_	_	_	_	_	_	-
Fidelity Advisor Freedom® 2040 Z6	21.94	8.38	(0.74)	5.43	20.63	14.39	(4.52)	16.27	33.30	(40.66)	9.35	14.05	8.06	10.25	-
JPMorgan SmartRetirement® 2040 R6	21.95	6.88	(1.60)	7.91	23.02	18.29	(4.80)	16.86	33.87	(34.59)	6.50	-	-	-	-
T. Rowe Price Retirement I 2040 I	22.11	7.75	_	-	_	-	_	_	-	_	_	-	_	_	-
TIAA-CREF Lifecycle Index 2040 Instl	20.37	9.01	(0.67)	6.85	25.18	15.69	(1.42)	13.76	-	-	_	-	-	_	-
S&P Target Date 2040 TR USD	18.87	9.23	(0.40)	5.69	22.10	14.69	(2.17)	15.38	25.97	(34.00)	6.98	16.40	6.00	12.97	29.46
US FUND TARGET-DATE 2045															
AB Multi-Manager Select 2045 I	21.74	8.89	(0.70)	-	_	-	-	-	-	-	_	-	-	_	-
BlackRock LifePath® Index 2045 K	21.07	8.28	(0.64)	7.10	20.32	15.61	-	-	-	-	-	-	-	-	-
Fidelity Advisor Freedom® 2045 Z6	21.91	8.36	(0.81)	5.56	21.23	14.68	(4.83)	16.43	33.61	(41.27)	9.75	-	-	-	-
JPMorgan SmartRetirement® 2045 R6	22.17	6.90	(1.61)	7.89	23.02	18.42	(4.74)	16.56	34.30	(33.54)	_	-	-	_	-
T. Rowe Price Retirement I 2045 I	22.55	7.75	_	-	_	-	_	_	-	-	_	-	-	_	-
TIAA-CREF Lifecycle Index 2045 Instl	21.18	9.31	(0.71)	6.85	25.23	15.67	(1.41)	13.77	_	_	_	-	_	_	-
S&P Target Date 2045 TR USD	19.56	9.54	(0.46)	5.67	23.14	15.15	(2.56)	15.62	26.40	(35.24)	6.97	16.82	-	-	_

								Total retur	n						
Target date fund name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
US FUND TARGET-DATE 2050															
AB Multi-Manager Select 2050 I	22.06	9.06	(0.91)	_	_	_	_	_	_	_	_	_	_	_	_
BlackRock LifePath® Index 2050 K	21.43	8.41	(0.67)	7.28	21.61	16.37	_	-	_	_	_	_	_	_	_
Fidelity Advisor Freedom® 2050 Z6	21.77	8.40	(0.69)	5.43	21.56	15.00	(5.37)	16.62	34.22	(42.25)	9.78	-	-	_	-
JPMorgan SmartRetirement® 2050 R6	22.13	6.82	(1.45)	7.83	23.01	18.37	(4.80)	17.02	33.94	(33.53)	-	-	-	_	_
T. Rowe Price Retirement I 2050 I	22.55	7.75	-	-	_	_	-	-	-	-	_	-	-	_	_
TIAA-CREF Lifecycle Index 2050 Instl	21.52	9.49	(0.66)	6.80	25.25	15.58	(1.41)	13.79	-	-	_	-	-	_	_
S&P Target Date 2050 TR USD	20.18	9.74	(0.47)	5.69	24.13	15.49	(2.87)	15.62	26.40	(35.24)	6.97	-	-	-	-
US FUND TARGET-DATE 2055															
AB Multi-Manager Select 2055 I	22.02	9.02	(1.41)	-	_	_	-	-	-	-	_	-	-	_	_
BlackRock LifePath® Index 2055 K	21.51	8.37	(0.60)	7.50	22.95	16.83	_	-	_	_	_	_	_	_	_
Fidelity Advisor Freedom® 2055 Z6	21.73	8.42	(0.72)	5.54	22.19	15.18	-	-	-	-	-	-	-	_	_
JPMorgan SmartRetirement® 2055 R6	22.12	6.89	(1.51)	7.86	23.10	_	_	-	-	_	_	_	_	_	_
T. Rowe Price Retirement I 2055 I	22.57	7.65	-	-	_	_	_	-	-	_	_	_	_	_	_
TIAA-CREF Lifecycle Index 2055 Instl	21.72	9.74	(0.74)	6.86	25.15	15.74	-	-	-	_	_	-	-	_	-
S&P Target Date 2055 TR USD	20.48	9.94	(0.54)	5.64	24.96	15.81	(2.87)	15.62	26.40	(35.24)	-	-	-	-	-
US FUND TARGET-DATE 2060+															
BlackRock LifePath® Index 2060 K	21.51	_	_	_	_	_	_	-	_	_	_	_	_	_	_
Fidelity Advisor Freedom® 2060 Z6	21.80	8.41	(0.85)	_	_	_	_	-	_	_	_	_	_	_	_
JPMorgan SmartRetirement® 2060 R6	22.07	_	_	_	_	_	_	-	_	_	_	_	_	_	_
T. Rowe Price Retirement I 2060 I	22.53	7.37	_	_	_	_	_	_	_	_	_	_	_	_	_
TIAA-CREF Lifecycle Index 2060 Instl	21.88	9.84	(0.64)	-	_	_	_	-	-	_	_	_	_	_	_
S&P Target Date 2060+ TR USD	20.75	10.08	(0.66)	5.64	24.96	15.81	(2.87)	-	-	-	-	-	-	-	_

#### Growth of 10K | 2020 Funds

09/30/2015 - 09/30/2018



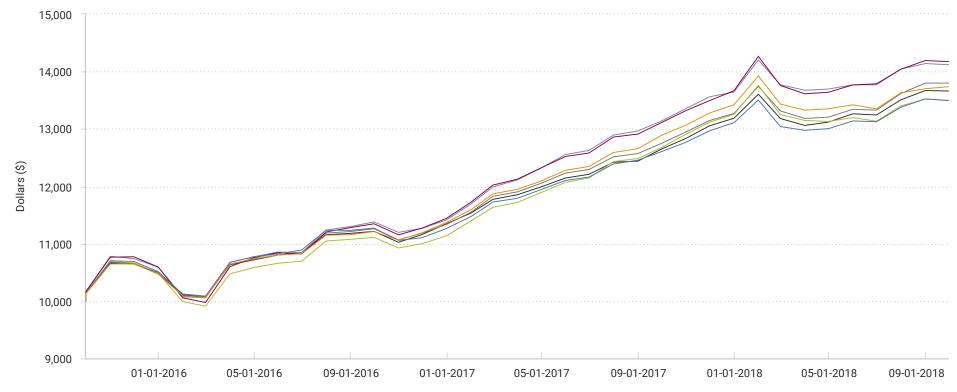
Target date fund name	Cumulative return	Annualized return	Ending value
AllianceBernstein Multi-Manager Select	28.61%	8.74%	\$12,860.74
BlackRock LifePath Index	25.25%	7.79%	\$12,525.33
Fidelity Advisor Freedom	32.20%	9.74%	\$13,220.04
JPMorgan SmartRetirement	26.16%	8.05%	\$12,616.31

Target date fund name	Cumulative return	Annualized return	Ending value
T. Rowe Price Retirement	33.90%	10.21%	\$13,390.26
TIAA-CREF Lifecycle Index	29.52%	8.99%	\$12,951.94
S&P Target Date 2020	28.61%	8.74%	\$12,860.58

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#### Growth of 10K | 2030 Funds

09/30/2015 - 09/30/2018



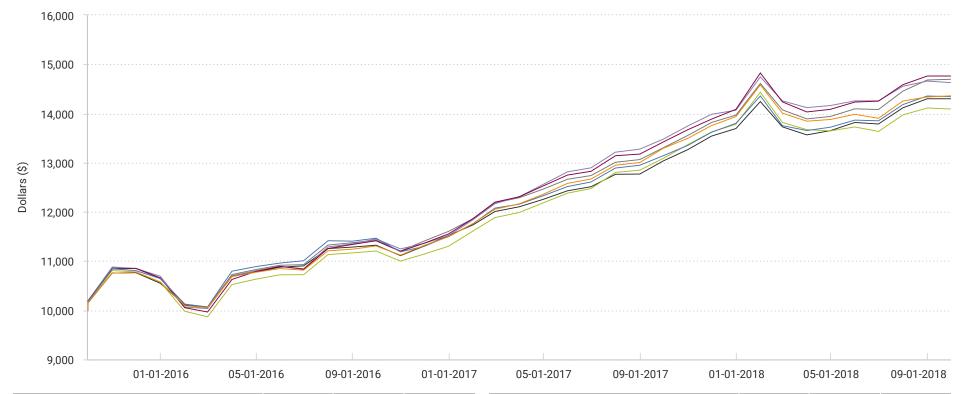
Target date fund name	Cumulative return	Annualized return	Ending value
AllianceBernstein Multi-Manager Select	37.36%	11.15%	\$13,736.04
BlackRock LifePath Index	34.93%	10.49%	\$13,492.72
Fidelity Advisor Freedom	41.73%	12.31%	\$14,172.74
JPMorgan SmartRetirement	34.98%	10.50%	\$13,498.02

Target date fund name	Cumulative return	Annualized return	Ending value
T. Rowe Price Retirement	41.18%	12.17%	\$14,118.06
TIAA-CREF Lifecycle Index	37.99%	11.32%	\$13,798.59
S&P Target Date 2030	36.60%	10.94%	\$13,660.30

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#### Growth of 10K | 2040 Funds

09/30/2015 - 09/30/2018



Target date fund name	Cumulative return	Annualized return	Ending value
AllianceBernstein Multi-Manager Select	43.60%	12.80%	\$14,360.09
BlackRock LifePath Index	43.43%	12.76%	\$14,343.07
Fidelity Advisor Freedom	47.63%	13.85%	\$14,762.65
JPMorgan SmartRetirement	40.92%	12.10%	\$14,091.85

Target date fund name	Cumulative return	Annualized return	Ending value
T. Rowe Price Retirement	46.28%	13.50%	\$14,628.08
TIAA-CREF Lifecycle Index	46.96%	13.68%	\$14,696.17
S&P Target Date 2040	43.00%	12.65%	\$14,300.47

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#### 3-Year Rolling Returns | 2020 Funds

Time period: 10/01/2003 - 09/30/2018 | Rolling window: 3 years 1 month shift

AllianceBernstein Multi-Manager Select
BlackRock LifePath Index

Fidelity Advisor Freedom
JPMorgan SmartRetirement

T. Rowe Price Retirement
TIAA-CREF Lifecycle Index

1st to 25th Percentile

26th to 50th Percentile

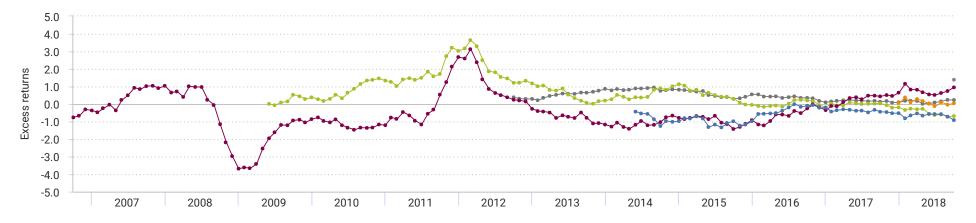
51st to 75th Percentile

76th to 100th Percentile

Rolling Percentile Ranks - US Fund Target Date 2020



Rolling Excess Returns vs. S&P Target Date 2020



### 3-Year Rolling Returns | 2030 Funds

Time period: 10/01/2003 - 09/30/2018 | Rolling window: 3 years 1 month shift

AllianceBernstein Multi-Manager Select
BlackRock LifePath Index

1st to 25th Percentile

🛑 JPMorgan SmartRetirement

26th to 50th Percentile

Fidelity Advisor Freedom

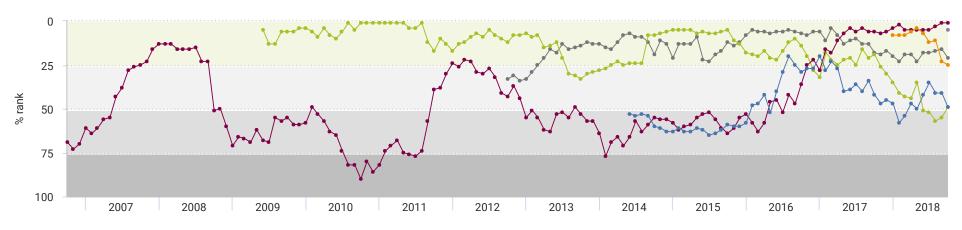
51st to 75th Percentile

76th to 100th Percentile

T. Rowe Price Retirement

TIAA-CREF Lifecycle Index

Rolling Percentile Ranks - US Fund Target Date 2030



Rolling Excess Returns vs. S&P Target Date 2030



#### 3-Year Rolling Returns | 2040 Funds

Time period: 10/01/2003 - 09/30/2018 | Rolling window: 3 years 1 month shift

AllianceBernstein Multi-Manager Select
BlackRock LifePath Index

Fidelity Advisor Freedom
JPMorgan SmartRetirement

T. Rowe Price Retirement
TIAA-CREF Lifecycle Index

1st to 25th Percentile

26th to 50th Percentile

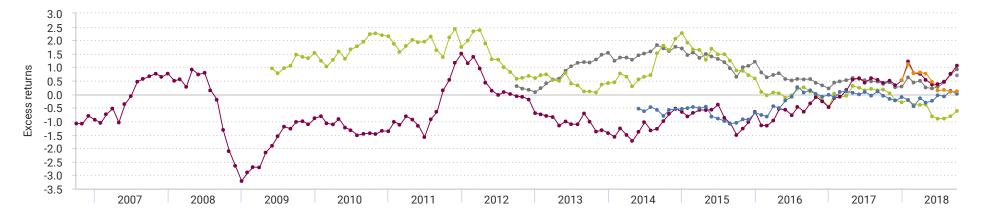
51st to 75th Percentile

76th to 100th Percentile

Rolling Percentile Ranks - US Fund Target Date 2040



Rolling Excess Returns vs. S&P Target Date 2040



#### 5-Year Rolling Returns | 2020 Funds

Time period: 10/01/2003 - 09/30/2018 | Rolling window: 5 years 1 month shift

AllianceBernstein Multi-Manager Select
BlackRock LifePath Index

1st to 25th Percentile

26th to 50th Percentile



76th to 100th Percentile

T. Rowe Price Retirement

TIAA-CREF Lifecycle Index

Rolling Percentile Ranks - US Fund Target Date 2020



Fidelity Advisor Freedom

JPMorgan SmartRetirement

Rolling Excess Returns vs. S&P Target Date 2020



### 5-Year Rolling Returns | 2030 Funds

Time period: 10/01/2003 - 09/30/2018 | Rolling window: 5 years 1 month shift

AllianceBernstein Multi-Manager Select
BlackRock LifePath Index

Fidelity Advisor Freedom
JPMorgan SmartRetirement

T. Rowe Price Retirement
TIAA-CREF Lifecycle Index

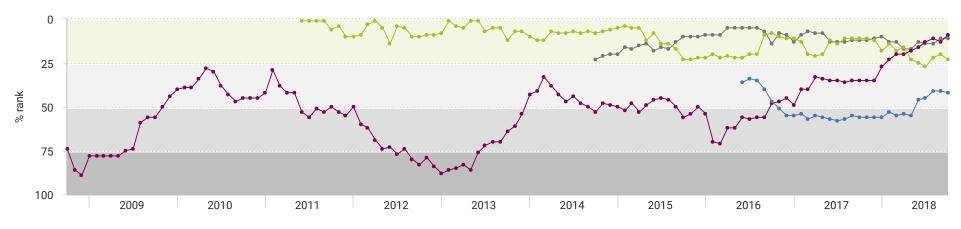
1st to 25th Percentile

26th to 50th Percentile



76th to 100th Percentile

Rolling Percentile Ranks - US Fund Target Date 2030



Rolling Excess Returns vs. S&P Target Date 2030



#### 5-Year Rolling Returns | 2040 Funds

Time period: 10/01/2003 - 09/30/2018 | Rolling window: 5 years 1 month shift

AllianceBernstein Multi-Manager Select
BlackRock LifePath Index

Fidelity Advisor Freedom
JPMorgan SmartRetirement

T. Rowe Price Retirement
TIAA-CREF Lifecycle Index



26th to 50th Percentile



76th to 100th Percentile

Rolling Percentile Ranks - US Fund Target Date 2040

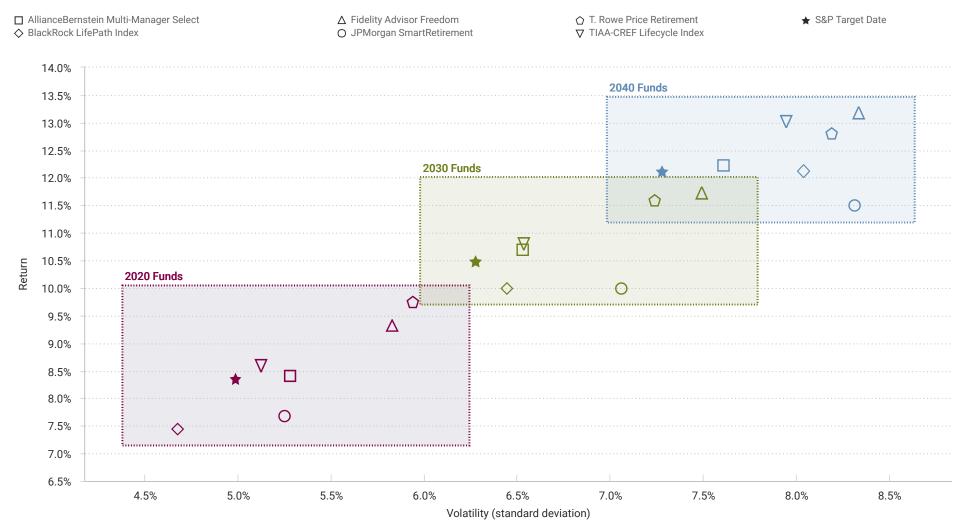


Rolling Excess Returns vs. S&P Target Date 2040



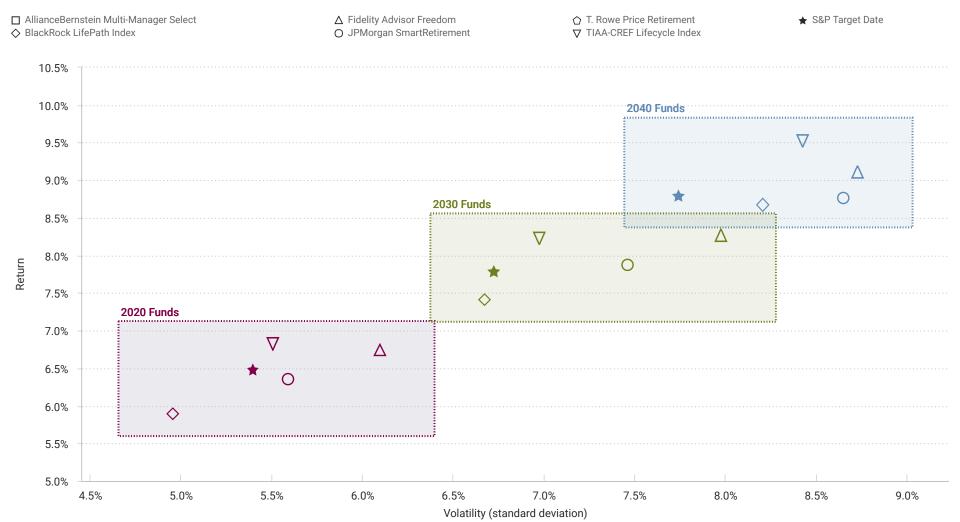
#### 3-Year Risk/Return Comparison

Monthly return data



#### 5-Year Risk/Return Comparison

Monthly return data



### 10-Year Risk/Return Comparison

Monthly return data



### **Risk/Return Statistics**

		3 ye	ar			5 ye	ar			10 y	ear	
Target date fund name	Total return	Standard deviation	Sharpe ratio	Info ratio	Total return	Standard deviation	Sharpe ratio	Info ratio	Total return	Standard deviation	Sharpe ratio	Info ratio
US FUND TARGET-DATE 2020												
AB Multi-Manager Select 2020 I	8.41	5.28	1.42	0.04	_	_	_	_	_	_	_	_
BlackRock LifePath® Index 2020 K	7.44	4.68	1.40	(1.05)	5.90	4.95	1.08	(0.65)	_	_	_	_
Fidelity Advisor Freedom® 2020 Z6	9.31	5.83	1.44	0.73	6.74	6.10	1.01	0.20	7.10	10.97	0.62	0.01
JPMorgan SmartRetirement® 2020 R6	7.68	5.25	1.29	(0.75)	6.36	5.59	1.04	(0.14)	7.74	10.73	0.69	0.41
T. Rowe Price Retirement I 2020 I	9.75	5.94	1.49	1.03	_	_	-	-	_	-	_	_
TIAA-CREF Lifecycle Index 2020 Instl	8.59	5.12	1.50	0.44	6.83	5.50	1.14	0.69	_	_	_	_
S&P Target Date 2020 TR USD	8.36	4.99	1.49	-	6.49	5.40	1.10	-	7.09	9.89	0.68	_
US FUND TARGET-DATE 2030												
AB Multi-Manager Select 2030 I	10.69	6.53	1.50	0.24	_	_	_	-	_	_	_	-
BlackRock LifePath® Index 2030 K	10.00	6.45	1.41	(0.53)	7.42	6.67	1.03	(0.39)	_	_	_	_
Fidelity Advisor Freedom® 2030 Z6	11.71	7.49	1.44	0.72	8.26	7.98	0.96	0.27	8.01	13.09	0.59	(0.00)
JPMorgan SmartRetirement® 2030 R6	10.00	7.06	1.29	(0.34)	7.88	7.46	0.98	0.07	8.77	13.43	0.63	0.38
T. Rowe Price Retirement I 2030 I	11.59	7.24	1.47	0.65	_	-	-	-	_	-	_	-
TIAA-CREF Lifecycle Index 2030 Instl	10.81	6.54	1.51	0.53	8.23	6.97	1.10	0.76	_	-	_	-
S&P Target Date 2030 TR USD	10.47	6.28	1.52	-	7.78	6.72	1.07	-	8.02	12.07	0.64	-

### **Risk/Return Statistics**

		3 ye	ear		5 year			10 year				
Target date fund name	Total return	Standard deviation	Sharpe ratio	Info ratio	Total return	Standard deviation	Sharpe ratio	Info ratio	Total return	Standard deviation	Sharpe ratio	Info ratio
US FUND TARGET-DATE 2040												
AB Multi-Manager Select 2040 I	12.22	7.61	1.49	0.11	_	_	_	_	_	_	_	_
BlackRock LifePath® Index 2040 K	12.12	8.04	1.39	0.01	8.67	8.20	0.99	(0.09)	_	_	_	-
Fidelity Advisor Freedom® 2040 Z6	13.17	8.33	1.47	0.62	9.10	8.73	0.98	0.19	8.59	14.26	0.58	(0.04)
JPMorgan SmartRetirement® 2040 R6	11.49	8.31	1.27	(0.38)	8.76	8.65	0.95	(0.02)	9.46	14.41	0.63	0.44
T. Rowe Price Retirement   2040	12.81	8.19	1.45	0.35	_	_	_	_	_	_	_	_
TIAA-CREF Lifecycle Index 2040 Instl	13.03	7.95	1.52	0.97	9.53	8.43	1.06	0.78	_	_	_	_
S&P Target Date 2040 TR USD	12.11	7.28	1.54	_	8.79	7.74	1.06	-	8.67	13.44	0.62	-

#### Fee Summary

Target date fund name	Ticker	Net expense ratio	Gross expense ratio
US FUND TARGET-DATE RETIREMENT			
AB Multi-Manager Select Retire Allc I	TDAIX	0.58	3.44
BlackRock LifePath® Index Retire K	LIRKX	0.11	0.17
Fidelity Advisor Freedom® Income Z6	FEGLX	0.37	0.37
JPMorgan SmartRetirement® Income R6	JSIYX	0.41	0.45
TIAA-CREF Lifecycle Index Ret Inc Instl	TRILX	0.10	0.31
Category Mean Net Expense Ratio	-	0.78	_
US FUND TARGET-DATE 2000-2010			
AB Multi-Manager Select 2010 I	TDIBX	0.58	2.78
Fidelity Advisor Freedom® 2005 Z6	FYGLX	0.38	0.38
Fidelity Advisor Freedom® 2010 Z6	FUGLX	0.40	0.40
T. Rowe Price Retirement I 2005 I	TRPFX	0.40	0.57
T. Rowe Price Retirement I 2010 I	TRPAX	0.39	0.46
TIAA-CREF Lifecycle Index 2010 Instl	TLTIX	0.10	0.25
Category Mean Net Expense Ratio	-	0.70	_
US FUND TARGET-DATE 2015			
AB Multi-Manager Select 2015 I	TDCIX	0.58	1.36
Fidelity Advisor Freedom® 2015 Z6	FIGLX	0.42	0.42
T. Rowe Price Retirement I 2015 I	TRFGX	0.43	0.46
TIAA-CREF Lifecycle Index 2015 Instl	TLFIX	0.10	0.23
Category Mean Net Expense Ratio	-	0.72	-

Target date fund name	Ticker	Net expense ratio	Gross expense ratio
US FUND TARGET-DATE 2020			
AB Multi-Manager Select 2020 I	TDDIX	0.58	1.05
BlackRock LifePath® Index 2020 K	LIMKX	0.11	0.15
Fidelity Advisor Freedom® 2020 Z6	FOGLX	0.44	0.44
JPMorgan SmartRetirement® 2020 R6	JTTYX	0.45	0.47
T. Rowe Price Retirement   2020	TRBRX	0.47	0.48
TIAA-CREF Lifecycle Index 2020 Instl	TLWIX	0.10	0.21
Category Mean Net Expense Ratio	-	0.79	-
US FUND TARGET-DATE 2025			
AB Multi-Manager Select 2025 I	TDIGX	0.58	0.94
BlackRock LifePath® Index 2025 K	LIBKX	0.11	0.16
Fidelity Advisor Freedom® 2025 Z6	FPGLX	0.45	0.45
JPMorgan SmartRetirement® 2025 R6	JNSYX	0.46	0.47
T. Rowe Price Retirement   2025	TRPHX	0.50	0.51
TIAA-CREF Lifecycle Index 2025 Instl	TLQIX	0.10	0.20
Category Mean Net Expense Ratio	-	0.77	_

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#### Fee Summary

Target date fund name	Ticker	Net expense ratio	Gross expense ratio	Target date fund name	Ticker	Net expense ratio	Gross expense ratio		
US FUND TARGET-DATE 2030				US FUND TARGET-DATE 2040					
AB Multi-Manager Select 2030 I	TDIHX	0.58	1.00	AB Multi-Manager Select 2040 I	TDJIX	0.58	1.15		
BlackRock LifePath® Index 2030 K	LINKX	0.11	0.17	BlackRock LifePath® Index 2040 K	LIKKX	0.11	0.19		
Fidelity Advisor Freedom® 2030 Z6	FDGLX	0.48	0.48	Fidelity Advisor Freedom® 2040 Z6	FKGLX	0.50	0.50		
JPMorgan SmartRetirement® 2030 R6	JSMYX	0.48	0.49	JPMorgan SmartRetirement® 2040 R6	SMTYX	0.50	0.51		
T. Rowe Price Retirement I 2030 I	TRPCX	0.53	0.54	T. Rowe Price Retirement I 2040 I	TRPDX	0.58	0.59		
TIAA-CREF Lifecycle Index 2030 Instl	TLHIX	0.10	0.20	TIAA-CREF Lifecycle Index 2040 Instl	TLZIX	0.10	0.19		
Category Mean Net Expense Ratio	-	0.81	_	Category Mean Net Expense Ratio	-	0.82	_		
US FUND TARGET-DATE 2035	<u>.</u>	<u>.</u>		US FUND TARGET-DATE 2045					
AB Multi-Manager Select 2035 I	TDIMX	0.58	1.05	AB Multi-Manager Select 2045 I	TDNIX	0.58	1.26		
BlackRock LifePath® Index 2035 K	LIJKX	0.11	0.17	BlackRock LifePath® Index 2045 K	LIHKX	0.11	0.18		
Fidelity Advisor Freedom® 2035 Z6	FHGLX	0.49	0.49	Fidelity Advisor Freedom® 2045 Z6	FCGLX	0.50	0.50		
JPMorgan SmartRetirement® 2035 R6	SRJYX	0.49	0.50	JPMorgan SmartRetirement® 2045 R6	JSAYX	0.50	0.51		
T. Rowe Price Retirement I 2035 I	TRPJX	0.56	0.58	T. Rowe Price Retirement I 2045 I	TRPKX	0.59	0.61		
TIAA-CREF Lifecycle Index 2035 Instl	TLYIX	0.10	0.19	TIAA-CREF Lifecycle Index 2045 Instl	TLXIX	0.10	0.20		
Category Mean Net Expense Ratio	-	0.78	_	Category Mean Net Expense Ratio	-	0.79	_		

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#### Fee Summary

Target date fund name	Ticker	Net expense ratio	Gross expense ratio
US FUND TARGET-DATE 2050			
AB Multi-Manager Select 2050 I	TDLIX	0.58	2.07
BlackRock LifePath® Index 2050 K	LIPKX	0.11	0.19
Fidelity Advisor Freedom® 2050 Z6	FVGLX	0.50	0.50
JPMorgan SmartRetirement® 2050 R6	JTSYX	0.50	0.52
T. Rowe Price Retirement I 2050 I	TRPMX	0.59	0.61
TIAA-CREF Lifecycle Index 2050 Instl	TLLIX	0.10	0.20
Category Mean Net Expense Ratio	-	0.83	-
US FUND TARGET-DATE 2055			
AB Multi-Manager Select 2055 I	TDIPX	0.58	2.01
BlackRock LifePath® Index 2055 K	LIVKX	0.10	0.21
Fidelity Advisor Freedom® 2055 Z6	FBGLX	0.50	0.50
JPMorgan SmartRetirement® 2055 R6	JFFYX	0.50	0.54
T. Rowe Price Retirement I 2055 I	TRPNX	0.59	0.65
TIAA-CREF Lifecycle Index 2055 Instl	TTIIX	0.10	0.24
Category Mean Net Expense Ratio	-	0.79	-
US FUND TARGET-DATE 2060+			
BlackRock LifePath® Index 2060 K	LIZKX	0.11	0.60
Fidelity Advisor Freedom® 2060 Z6	FNGLX	0.50	0.50
JPMorgan SmartRetirement® 2060 R6	JAKYX	0.51	3.06
T. Rowe Price Retirement I 2060 I	TRPLX	0.59	0.91
TIAA-CREF Lifecycle Index 2060 Instl	TVIIX	0.10	0.48
Category Mean Net Expense Ratio	-	0.80	-

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#### Target Date Quadrants Defined

#### NW

#### Quadrant Characteristics

- Lower level of equity exposure at the target date
- Higher number of asset classes-tend to include both traditional and extended asset classes

#### Investment Orientation

- Focus on ensuring income replacement at retirement
- Focus on managing volatility more efficiently
- Believe higher diversification can potentially create more optimal portfolios

#### Plan Profile

- · Seek to help meet participants' income replacement goals at retirement
- May have participants who exhibit typical savings behavior
- Prefer target date funds that seek to manage downside risk
- Believe broad diversification is likely to improve portfolio outcomes
- Believe diversification can be achieved by extending beyond traditional asset classes

#### NE Quadrant Characteristics

- Higher level of equity exposure at the target date
- Higher number of asset classes-tend to include both traditional and extended asset classes

#### **Investment Orientation**

- Focus on managing longevity risk post-retirement
- Focus on managing growth more efficiently
- Believe higher diversification can potentially create more optimal portfolios

#### Plan Profile

- Seek to help maximize participants' savings throughout their lifetimes
- May have participants who more closely exhibit optimal behavior
- Prefer target date funds that seek to maximize upside return potential
- Believe broad diversification is likely to improve portfolio outcomes
- Believe diversification can be achieved by extending beyond traditional asset classes

#### SW

#### Quadrant Characteristics

- Lower level of equity exposure at the target date
- Lower number of asset classes-tend to maintain focus on traditional asset classes

#### **Investment Orientation**

- Focus on ensuring income replacement at retirement
- Focus on managing volatility
- Believe lower diversification can provide appropriate levels of portfolio optimization

#### Plan Profile

- Seek to help meet participants' income replacement goals at retirement
- May have participants who exhibit typical savings behavior
- Prefer target date funds that seek to manage downside risk
- Believe broad diversification is not likely to improve portfolio outcomes
- Believe diversification can be achieved primarily with traditional asset classes, such as stocks and bonds

#### SE

#### Quadrant Characteristics

- Higher level of equity exposure at the target date
- Lower number of asset classes—tend to maintain focus on traditional asset classes

#### Investment Orientation

- · Focus on managing longevity risk post-retirement
- Focus on managing growth
- Believe lower diversification can provide appropriate levels of portfolio optimization

#### Plan Profile

- Seek to help maximize participants' savings throughout their lifetimes
- May have participants who more closely exhibit optimal behavior
- Prefer target date funds seeking to maximize upside return potential
- Believe broad diversification is not likely to improve portfolio outcomes
- Believe diversification can be achieved primarily with traditional asset classes, such as stocks and bonds

#### Disclosures

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**FUND PERFORMANCE:** Performance data is total return, and is preliminary and subject to revision. Please note current performance may be higher or lower than the performance data shown.

**EXTENDED PERFORMANCE RETURNS:** An approximation of pre-inception returns for a fund share class based on the fee-adjusted performance of an older share class that shares the same portfolio of holdings. Compounded trailing extended performance returns are based on both pre-inception adjusted monthly returns and post-inception actual monthly returns. The fee adjustment for open-end funds is based on management and distribution fees.

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**SHARPE RATIO:** Measures a manager's excess return over the risk-free rate of return (normally the cash return), divided by the standard deviation. It is a statistical measure that incorporates return and risk into a single number. The ratio describes how much excess return you are receiving for the extra volatility that you endure for holding a riskier asset. The higher the Sharpe ratio, the better the portfolio's historical risk-adjusted performance.

**INFORMATION RATIO:** A risk-adjusted performance measure defined as excess return divided by tracking error. Information ratio is a special version of the Sharpe ratio where the benchmark does not have to be the risk-free rate. Since this ratio considers the annualized standard deviation of both series (measures of risks inherent in owning either a portfolio or the benchmark), the ratio shows the risk-adjusted excess return of the portfolio over the benchmark. The higher the Information ratio, the higher the excess return of a portfolio given the amount of risk involved.

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U.S. Patents No. 8,255,308; 8,386,361 and patent(s) pending for Target Date Compass