

Fourth Quarter 2018

Quarterly Commentary

Inv Manager or Sub-Advisor	Benchmark	Morningstar Category	Investment Objective
Multiple Sub-Advisors	S&P Target Date 2050 Index	Target-Date 2050	Asset Allocation

Economic Overview

What a turbulent year. From wild-eyed enthusiasm in January to morose gloom and recession worries in December; and after the post-Christmas stock surge, confidence enough to buy the dip. Financial returns were mainly ugly last year. Most global equity indices had losses for the year and the fourth quarter, double-digit losses in emerging markets and Europe. World bond indices were more mixed for the year, but with a minor retreat in corporate and emerging-market bond returns.

Pessimism about a global economic slowdown mounted through 2018 as data from China and the Eurozone worsened markedly. While worries about a US recession nearly became consensus, the US economy stayed robust with an excellent job market and accelerating wages. The downdraft in the stock market has taken a toll on business sentiment, so capital spending may fade somewhat and pull US growth down to the 2.5% range.

Geopolitical uncertainties plague the Eurozone and growth may only be lackluster in the 1.5% range, give or take, with some downside risk. The Chinese economy will likely continue its gradual, structural growth deceleration. Officials in Beijing are urgently trying to stimulate growth back to target, but with debt already high and pollution severe, the downside risk is significant. Japan's economy is rebounding from a third-quarter contraction. The strong labor market, rising wages, and robust corporate profits should keep growth in the 1% to 1.5% range. India may be a positive outlier in a slowing world economy; its economy could be a new world growth leader.

For stocks, the downdraft is likely not over yet, although a rally the next few weeks would provide a respite from the bear market and an opportunity to take some risk off the table. We envision a broad index decline of 25% to 30% from the highs of last year before investors reacquaint themselves with the new and tougher monetary environment. But, with no coincident recession, stock markets could rally sharply from mid-2019 into next year.

Yields on long-dated US treasury bonds may rise along with stocks if the equity rally persists into late-January. We'd guess yields of 2.8% to 2.9% would be a good place to extend maturity for the next six months. If sellers extinguish whatever stock market upturn that comes, US treasury bond yields would likely continue to fall with the stock market into mid-2019.

Balanced Asset Allocation/Lifecycle

US equities sold off sharply in the quarter as trade talks, Federal Reserve (Fed) tightening, and increased volatility took their toll on the markets. International developed and emerging markets were negative but fared a little better than US equities. The broad US equities market, as measured by the Russell 3000, returned -14.3%, while the international developed and emerging markets returned -13.2% and -5.9%, respectively. US large-caps returned -13.5% outperforming both US mid-caps -17.3% and US small-caps -20.1% return. From a style perspective, value outperformed growth within US large and mid-cap equities, while growth outperformed value within small-caps. Real estate investment trusts (REITs) posted negative mid-single digit returns for the quarter, outperforming broad US equities. Core fixed income led returns for the quarter at 1.4%. Treasury Inflation Protected Securities (TIPS) were slightly negative at -0.4%. High yield had a return of -2.4%.

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May lose value • Not a deposit • No bank or credit union guarantee
Not insured by any Federal government agency

Performance Contributors

Positive Contributors

During last quarter:

Underlying US equity investment option performance was mixed, but overall contributed to performance via positive manager selection. Contributors via index outperformance were Blue Chip, LargeCap Growth I, Equity Income, MidCap, and SmallCap Growth I. Overweight to real assets contributed across the series as the asset class outperformed US and international equities. Underweight to Treasury Inflation Protected Securities (TIPS) benefitted performance in the nearer dated vintages as the asset class performed relatively worse than the core and short-term fixed income asset classes.

During last 12 months:

The largest contributor to one-year returns was underlying investment option performance in US equities. Blue Chip, LargeCap Growth I, Equity Income, LargeCap Value III, MidCap and SmallCap Growth I as all outperformed their given benchmarks. Similar to the quarter, an overweight to real assets was a positive for performance as the asset class performed relatively well against US and international equities. A slight underweight to US mid-cap equities benefitted the later dated vintages throughout the year.

Negative Contributors

During last quarter:

The single largest detractor across the series was poor underlying investment option performance in the developed international and emerging markets sleeves. The inclusion of Global Multi-Strategy detracted as the liquid alternatives asset class performed relatively worse than core fixed income. Core Plus Bond detracted, as the investment option lagged its benchmark index. Overweight to high yield hindered performance in the nearer dated vintages as core and short-term fixed income fared better in the volatile quarter. Underweight to emerging markets detracted as the asset class performed relatively better than US and developed international equities.

During last 12 months:

As with the quarter, manager performance in the developed international and emerging markets sleeves was the single largest detractor as all the underlying investment options underperformed their benchmarks in the international equity sleeves. Core Plus Bond detracted from performance as the investment option lagged its benchmark. Like the quarter, the inclusion of Global Multi-Strategy hindered performance, as the core fixed income asset class provided better opportunities throughout the year. MidCap Value III detracted as it underperformed its benchmark by a relatively wide margin.

Changes to the investment option's structure or portfolio:

No material changes occurred in the portfolio structure.

Principal LifeTime 2050 Separate Account-R6

Performance

Investment results shown represent historical performance and do not guarantee future results. Investment returns and principal values fluctuate with changes in interest rates and other market conditions so the value, when redeemed, may be worth more or less than original costs. Current performance may be lower or higher than the performance data shown. For more performance information, including most recent month-end performance, visit www.principal.com, contact your representative of the Principal Financial Group®, or contact our participant contact center at 1-800-547-7754.

In situations where the net and gross expense figures are different, the investment manager has contractually agreed to limit the investment option's expense. Differences may also be shown due to the investment manager choosing to pay certain expenses that would normally be payable by the investment option. The gross total investment expense figure does not reflect any waivers or caps on the mutual fund or underlying mutual fund in which a Separate Account invests. Returns displayed are always based on net total investment expense.

Average Annual Total Returns (%) as of 12/31/2018	QTR	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date	03/30/2001
Principal LifeTime 2050 Separate Account-R6	-13.26	-8.83	-8.83	5.42	4.26	9.89	5.67	Ext. Perf. Inc. Date	03/30/2001
S&P Target Date 2050 Index	-12.05	-7.94	-7.94	6.68	5.01	10.02	-	Total Inv. Exp Gross	0.87
Target-Date 2050 Category	-11.91	-8.41	-8.41	6.11	4.33	9.60	-	Total Inv Exp Net	0.87
Morningstar Percentile Ranking	-	-	61	83	56	42	-	Waiver Date	-
Total Funds in Category	255	239	239	196	155	79	-	Contractual Cap Date	-

Past performance is no guarantee of future results. Market indices have been provided for comparison purposes only. They are unmanaged and do not reflect fees or expenses. Individuals cannot invest directly in an index.

Principal LifeTime 2050 Separate Account-R6

Statistics Summary as of 12/31/2018

	Risk and Return Statistics Summary						Upside/Downside Capture Ratio					
	Alpha	Beta	R2	Sharpe Ratio	Info Ratio	Std Dev	# of Months		Avg Returns %		Benchmark %	
							Up	Down	Up	Down	Up	Down
	3 Year						3 Year					
Principal LifeTime 2050 Separate Account-R6	-1.44	1.05	98.59	0.46	-0.97	10.04	27	9	1.66	-3.64	98.31	109.86
S&P Target Date 2050 Index	N/A	N/A	N/A	N/A	N/A	N/A	28	8	1.69	-3.31	100.00	100.00
	5 Year						5 Year					
Principal LifeTime 2050 Separate Account-R6	-0.77	1.01	98.36	0.41	-0.60	9.78	38	22	1.77	-2.85	96.37	101.42
S&P Target Date 2050 Index	N/A	N/A	N/A	N/A	N/A	N/A	42	18	1.84	-2.81	100.00	100.00

Risk and return statistical data is calculated by Morningstar, Inc. Please see Important Notes section for definitions of Risk and Return Statistics.

Top Ten Holdings as of 11/30/2018

Security	Net Assets (%)
Principal Large Cap S&P 500 Index Inst	14.72
Principal LargeCap Growth I R6	11.60
Principal Overseas Instl	10.89
Principal Large Cap Value III Inst	10.77
Principal Diversified Intl Inst	10.76
Principal MidCap Growth III Inst	5.99
Principal MidCap Value III R6	5.35
Principal Core Plus Bond Inst	4.81
Principal Blue Chip R-6	3.87
Principal Equity Income Inst	3.64
Total % in Top 10	82.39

Principal LifeTime 2050 Separate Account-R6

Manager(s)	Start Date	Degree	Alma Mater
James W. Fennessey	06/01/2007	B.S.	Truman State University
Randy L. Welch	06/01/2007	M.B.A.	Drake University
Scott W. Smith	05/02/2017	B.S.	Iowa State University

Investment Strategy

The investment seeks a total return consisting of long-term growth of capital and current income. The fund operates as a "target date fund" that invests according to an asset allocation strategy designed for investors having a retirement investment goal close to the year in 2050. It is a fund of funds and invests in underlying funds of Principal Funds, Inc. ("PFI"). Its underlying funds consist of domestic and foreign equity funds, fixed-income funds, real asset funds, and other funds that aim to offer diversification beyond traditional equity and fixed-income securities.

About Principal Global Investors

Principal Global Investors - the institutional asset management affiliate of the Principal Financial Group - the firm focuses on delivering consistently competitive investment performance and superior service on behalf of its clients. Principal Global Investors has expertise in equities, fixed income and real estate investments, as well as specialized overlay and advisory services. The firm upholds the highest standards of excellence in investment research, risk management, ethics, fiduciary responsibility and client service. (Principal Global Investors is the asset management arm of the Principal Financial Group® (The Principal®) and includes the asset management operations of the following subsidiaries of The Principal: Principal Global Investors, LLC; Principal Real Estate Investors, LLC; Spectrum Asset Management, Inc.; Post Advisory Group, LLC; Columbus Circle Investors; Edge Asset Management, Inc.; Principal Global Investors (Europe) Limited; Principal Global Investors (Singapore) Ltd.; Principal Global Investors (Australia) Ltd.; and the majority owned affiliates of Principal International, Inc.).

About Principal LifeTime

The Principal LifeTime portfolios, which are target date portfolios, invest in underlying Principal Funds. Each Principal LifeTime portfolio is managed toward a particular target (retirement) date, or the approximate date the participant or investor starts withdrawing money. As each Principal LifeTime portfolio approaches its target date, the investment mix becomes more conservative by increasing exposure to generally more conservative investment options and reducing exposure to typically more aggressive investment options. The asset allocation for each Principal LifeTime portfolio is regularly re-adjusted within a time frame that extends 10-15 years beyond the target date, at which point it reaches its most conservative allocation. Principal LifeTime portfolios assume the value of the investor's account will be withdrawn gradually during retirement.

Neither the principal nor the underlying assets of the Principal LifeTime portfolios are guaranteed at any time, including the target date. Investment risk remains at all times.

Important Notes

Separate Accounts are available through a group annuity contract with Principal Life Insurance Company. Insurance products and plan administrative services, if applicable, are provided by Principal Life Insurance Company, a member of the Principal Financial Group, Des Moines, IA 50392. See the fact sheet for the full name of the Separate Account. Certain investment options may not be available in all states or U.S. commonwealths. Principal Life Insurance Company reserves the right to defer payments or transfers from Principal Life Separate Accounts as described in the group annuity contracts providing access to the Separate Accounts or as required by applicable law. Such deferment will be based on factors that may include situations such as: unstable or disorderly financial markets; investment conditions which do not allow for an orderly investment transactions; or investment, liquidity, and other risks inherent in real estate (such as those associated with general and local economic conditions). If you elect to allocate funds to a Separate Account, you may not be able to immediately withdraw them.

Before directing retirement funds to a separate account, investors should carefully consider the investment objectives, risks, charges and expenses of the separate account as well as their individual risk tolerance, time horizon and goals. For additional information contact us at 1-800-547-7754 or by visiting principal.com.

The value of the investment options will fluctuate so that when redeemed, shares or units may be worth more or less than the original cost.

Returns shown for periods of less than one year are not annualized. All returns displayed here are after Total Investment Expense of the investment option. Any operating expenses of a mutual fund or underlying mutual fund that are part of net Total Investment Expense are obtained from the mutual fund's most recent prospectus. The operating expenses shown as part of the Total Investment Expense include voluntary expense limits and fee credit.

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The full name of this investment option is Principal LifeTime 2050 Separate Account-R6. Principal LifeTime 2050 investment option is available as a mutual fund and as a Separate Account that invests wholly in Institutional class shares of the Principal Funds, Inc. LifeTime 2050 Inst Fund. All voting rights associated with ownership of shares in the mutual fund are the rights of the Separate Account, not of contract holders investing in the Separate Account. For further information on the underlying mutual fund, see the prospectus of the fund (PPLIX) at <http://www.principal.com/retirement/prospectuses/prospect.htm>.

International and global investing involves greater risks such as currency fluctuations, political/social instability and differing accounting standards.

Equity investment options involve greater risk, including heightened volatility, than fixed-income investment options. Fixed-income investment options are subject to interest rate risk, and their value will decline as interest rates rise.

About Principal Financial Group



The Principal Financial Group® (The Principal®) is a leading global financial company offering businesses, individuals and institutional clients a wide range of financial products and services. Our range of products and services includes retirement solutions, life and health insurance, wellness programs, and investment and banking products through our diverse family of financial services companies and national network of financial professionals.

Important Notes

This Separate Account invests directly in the Institutional class shares of a Principal LifeTime Fund. The mutual fund operating expenses for each Principal LifeTime Fund are reflected in the Total Investment Expense of the Separate Accounts well as the operating expenses of the underlying funds in which the Principal LifeTime Fund invests. Based on the asset allocation of the Principal LifeTime Funds as in the prospectus dated March 1, 2018, the weighted average operating expenses of the underlying funds are: Principal LifeTime Strategic Income, 0.62%; Principal LifeTime 2010, 0.65%; Principal LifeTime 2015, 0.66%; Principal LifeTime 2020, 0.69%; Principal LifeTime 2025, 0.70%; Principal LifeTime 2030, 0.71%; Principal LifeTime 2035, 0.66%; Principal LifeTime 2040, 0.68%; Principal LifeTime 2045, 0.69%; Principal LifeTime 2050, 0.70%; Principal LifeTime 2055, 0.71%; Principal LifeTime 2060, 0.71%; Principal LifeTime 2065, 0.72%. For further information on all mutual fund expenses, see the prospectus of the underlying Principal LifeTime Fund. All voting rights associated with ownership of shares in the mutual fund are the rights of the Separate Account, not of contract holders investing in the Separate Account.

Asset allocation and diversification do not ensure a profit or protect against a loss. Additionally there is no guarantee this investment option will provide adequate income at or through retirement.

The Investment Advisor will display "Multiple Sub-Advisors" for certain target-date, target-risk and specialty investment options where the assets are directed by the Investment Manager to multiple underlying investment options. These underlying investment options may use multiple sub-advisors who are responsible for the day-to-day management responsibilities.

Investment manager/sub-advisor means either the Investment Advisor or Sub-Advisor to the investment option or the underlying asset(s). Principal Life Insurance Company is the Investment Manager as defined by ERISA, with regard to the assets of the Separate Accounts. Principal Global Investors is a member of the Principal Financial Group.

Fixed-income and asset allocation investment options that invest in mortgage securities are subject to increased risk due to real estate exposure.

S&P Target Date 2050 Index provides varying levels of exposure to equities and fixed income. Each target date allocation is created and retired according to a pre-determined schedule related to the respective target date.

Extended Performance Inception Date (Ext. Perf. Inc. Date) - Inception date of the oldest share class of the fund, or underlying fund of the Separate Account.



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Important Notes

Risk and Return Statistics:

Alpha - The difference between an investment's actual returns and its expected performance, given its level of risk (as measured by beta).

Beta - An investment's sensitivity to market movements.

R-squared - Ranges from 0 to 100 and reveals how closely an investment's returns track those of a benchmark index.

Standard Deviation - Measures how much an investment's returns are likely to fluctuate.

Sharpe Ratio - Measures how an investment balances risks and rewards. The higher the Sharpe ratio, the better the investment's historical risk-adjusted performance.

Information Ratio - A risk-adjusted measure commonly used to evaluate an active manager's involvement skill. It's defined as the manager's excess return divided by the variability or standard deviation of the excess return.

Up-Market Capture Ratio - A statistical measure of an investment option's performance relative to a comparative index in months in which that index has risen. An up-market capture ratio of greater than 100 would indicate that the investment option performed better than the comparative index during months in which the index had risen over a specified time period.

Down-Market Capture Ratio - A statistical measure of an investment option's performance relative to a comparative index in months in which that index has fallen. A down-market capture ratio of greater than 100 would indicate that the investment option performed worse than the comparative index during months in which the index had fallen over a specified time period.

The individual Principal LifeTime Funds may be combined with the Principal LifeTime Strategic Income Fund if the Board of Directors of Principal Funds, Inc., determines at the time that the combination is in the best interests of Fund shareholders.

*Unless otherwise stated, all data from Bloomberg. Commentary by Bob Baur and the Economic Committee

¹Large-cap growth stocks: S&P 500 Growth Index; U.S. large-cap value stocks: S&P 500 Value Index, U.S. mid-cap growth stocks: S&P MidCap 400 Growth Index; U.S. mid-cap value stocks: S&P MidCap 400 Value Index; U.S. small-cap growth stocks: S&P SmallCap 600 Growth Index; U.S. small-cap value stocks: S&P SmallCap 600 Value Index: U.S.

This report is not complete unless all pages, as noted below, are included.



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