

Third Quarter 2017

Quarterly Commentary

Ticker	Inv Manager or Sub-Advisor	Benchmark	Morningstar Category	Investment Objective
PLVPX	Principal Global Investors	Russell 1000 Value Index	Large Value	Growth and Income

Economic Overview

The global economic recovery that began in early 2016 appears to have reached self-sustaining velocity. The consensus now recognizes the evidence: strong industrial production, robust growth, and improved capital spending. Plus, business and consumer confidence is surging to high or record levels. Bank indices had better returns than the overall market. Mildly rising interest rates also suggest that investors appreciate some of the more recent worries (i.e., risks of deflation, political turmoil in Europe, or a China hard landing) have fallen significantly.

Economic sentiment in the Eurozone is within a whisker of a 17-year high. Confidence improved in every sector and country. Even Italian CEOs have the most optimistic outlook in a decade. The final survey of manufacturing purchasing managers was the highest in over six and a half years. The flash composite of service and manufacturing indices rose. Private demand is driving growth in both consumer spending and investment. In September, inflation stayed modest. Unemployment is falling and job gains are healthy. The 5.6% jobless rate in Germany is the lowest it's been since reunification in the early 1990s. Even Brexit fears can't keep the UK economy from expanding, or household spending from growing. Purchasing manager indices from the National Bureau of Statistics suggest that both manufacturing and service businesses are improving in China. The private-sector gauge from Caixin/Markit slipped a bit, but still shows growth. The People's Bank of China revealed a targeted cut in required reserves for banks that increase lending to small and very small enterprises, so while fiscal stimulus has faded some, there will be plenty of liquidity. Growth is not accelerating, but no near-term hard landing seems anywhere in sight. The U.S. economy has been strong and steady. Real economic growth averaged 2.2%, matching the rate over the entire expansion. Confidence is high, job growth is robust, and inflation is subdued. Profit growth is rebounding, and capital spending is picking up. We expect third-quarter growth to be cut a few tenths by the tragedies that came with Hurricanes Harvey, Irma, and Maria. Rebuilding efforts could add a bit to growth in following quarters.

As the synchronized global economic expansion continues robust and unabated, central banks are re-evaluating the extraordinary policies put in place after the financial crisis. Robust world growth, higher oil prices, and rising investor confidence in the self-sustaining expansion, pushed government bond yields higher, reversing their July-August dip.

Large U.S. Equity

U.S. equities again reached new highs. The S&P 500 was up during the quarter with a 4.48% total return. The information technology sector was the top performer, while the consumer staples sector lagged. U.S. large-cap stocks underperformed small-caps. From a style perspective, growth outperformed value - a continuation of the first half of 2017.¹

Not FDIC or NCUA insured

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:

Overweight to Valero Energy Corporation, an independent refinery that produces gasolines, distillates (various low-sulfur diesels), petrochemicals, and lubricants, contributed as it is experiencing multiple expansion as a function of their capital allocation strategy. Overweight to Gilead Sciences, Inc., a leading biotech company focused on infectious diseases, including HIV/AIDS, and Hepatitis C (HCV), contributed in part due to the announced agreement to acquire Kite Pharma. Underweight to General Electric Company (GE), a highly diversified, global industrial corporation, contributed.

During last 12 months:

Overweight position in JPMorgan Chase & Co, the second largest U.S. bank, contributed as it has successfully emerged from a multi-year period of regulatory/legal challenges, depressed intermediation performance due to low interest rates, challenging FICC conditions driven by depressed volatility levels driven by Quantitative Easing policies, and an organizational adjustment period to reposition the company for compliance with new regulatory restrictions to optimize capital allocation and operational efficiency. Overweight to Anthem, Inc., the second largest health benefits company in the U.S., leveraging the strength of the Blue Cross/Blue Shield brand in its health insurance products, contributed. Overweight position to SunTrust Banks, Inc., a super-regional bank focused in the Southeastern United States markets, contributed as it is benefitting from superior economic growth trends in its footprint as the southeastern real estate markets continues to improve relative to other geographies.

Negative Contributors

During last quarter:

Overweight to Everest Re Group, Ltd., a global property & casualty reinsurance and diversified insurance company based in Bermuda, detracted as investors struggled to dimension potential economic losses related to large catastrophe events during the period. Overweight position in Kimberly-Clark Corporation, a defensive stock, detracted. Underweight to Intel Corporation, which designs, manufactures, and sells computer components and related products, detracted.

During last 12 months:

Underweight to Intel Corporation detracted. Overweight to Target Corporation, one of the largest North American retailers offering customers both everyday essentials and fashionable, differentiated merchandise at discounted prices, detracted. Overweight to CVS Health Corporation, the combination of CVS Pharmacies and the Caremark pharmacy benefit manager, detracted as questions remain on the sustainability of its position in the retail drug industry as Amazon announced interests in entering the market.

Changes to the investment option's structure or portfolio:

No material changes occurred in the portfolio structure.

LargeCap Value R5 Fund

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 fund 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 fund. The gross fund expense figure does not reflect any waivers or caps on the mutual fund. Performance shown reflects the application of net expenses of the fund.

Average Annual Total Returns (%) as of 09/30/2017	QTR	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date	12/06/2000
LargeCap Value R5 Fund	4.35	8.92	15.07	6.61	11.22	5.00	5.75	Ext. Perf. Inc. Date	12/06/2000
Russell 1000 Value Index	3.11	7.92	15.12	8.53	13.20	5.92	-	Total Inv. Exp Gross	0.68
Large Value Category	3.80	9.41	16.17	7.99	12.23	5.72	-	Total Inv Exp Net	0.68
Morningstar Percentile Ranking	-	-	65	82	78	71	-	Waiver Date	-
Total Funds in Category	1353	1292	1269	1108	962	689	-	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.

LargeCap Value R5 Fund

Statistics Summary as of 09/30/2017

	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					
LargeCap Value R5 Fund	-1.20	0.92	93.71	0.67	-0.74	9.84	22	14	2.11	-1.83	85.74	91.94
Russell 1000 Value Index	N/A	N/A	N/A	N/A	N/A	N/A	22	14	2.46	-1.99	100.00	100.00
	5 Year						5 Year					
LargeCap Value R5 Fund	-1.24	0.96	94.01	1.12	-0.81	9.80	39	21	2.42	-1.84	89.83	95.60
Russell 1000 Value Index	N/A	N/A	N/A	N/A	N/A	N/A	39	21	2.70	-1.93	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 08/31/2017

Security	Net Assets (%)
JPMorgan Chase & Co	4.66
Johnson & Johnson	3.51
Oracle Corp	3.43
Bank of America Corporation	3.35
Chevron Corp	3.26
Cisco Systems Inc	3.15
Wal-Mart Stores Inc	3.15
Time Warner Inc	2.65
Berkshire Hathaway Inc B	2.60
Gilead Sciences Inc	2.55
Total % in Top 10	32.31

LargeCap Value R5 Fund

Manager(s)	Start Date	Degree	Alma Mater
Joel B. Fortney	12/31/2014	M.B.A.	University of Chicago
Christopher Ibach	12/18/2015	M.B.A.	University of Iowa

Investment Strategy

The investment seeks long-term growth of capital. Under normal circumstances, the fund invests at least 80% of its net assets, plus any borrowings for investment purposes, in equity securities of companies with large market capitalizations at the time of purchase. For this fund, companies with large market capitalizations are those with market capitalizations within the range of companies comprising the Russell 1000 (R) Value Index (which as of December 31, 2016 ranged between approximately \$394.9 million and \$634.4 billion). It invests in value equity securities, an investment strategy that emphasizes buying equity securities that appear to be undervalued.

About Principal Global Investors

Principal Global Investors - a member of the Principal Financial Group® - uses a unified investment philosophy and process that emphasize independent fundamental research and superior stock selection. The firm's capabilities encompass large-, mid-, and small-cap stocks in developed and emerging markets worldwide.

Important Notes

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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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Russell 1000 Value Index is a market-capitalization weighted index of those firms in the Russell 1000 with lower price-to-book ratios and lower forecasted growth values.

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.

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

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.

*Unless otherwise stated, all data from Bloomberg

¹U.S. large-cap equities: Russell 1000 Index; U.S. mid-cap equities: Russell Midcap Index; U.S. small-cap equities: Russell 2000 Index; international emerging markets: MSCI Emerging Markets Index; international developed markets: MSCI EAFE Index

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



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