

Third Quarter 2017

# Quarterly Commentary

Inv Manager or Sub-Advisor	Benchmark	Morningstar Category	Investment Objective
Principal Global Investors	Bloomberg Barclays Treasury Bellwethers 3 Month Index	Money Market	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.

## Fixed Income

Spreads continued their nearly uninterrupted tightening trend due to the combination of an improved macroeconomic backdrop and strong corporate fundamentals. In addition, reduced-expectations of monetary tightening helped risk assets outperform because central banks took a more-dovish tone due to weak inflation data. Despite escalating tension with North Korea, volatility remained exceptionally low. The Treasury curve flattened during the quarter with short-term interest rates rising faster than longer-term rates. The two-year U.S. Treasury rate rose 0.10% while the five-year U.S. Treasury rate rose 0.05%. The ten-year and thirty-year rates each increased 0.03%. The slope of the two-to-ten-year Treasury curve fell from 0.92% to 0.85%.<sup>1</sup>

The Bloomberg Barclays U.S. Aggregate Index, a proxy for the overall fixed income market, had an excess return of 0.41% for the quarter when compared to similar-duration U.S. Treasury securities. The best-performing sectors were emerging market debt, below investment-grade corporate bonds, and investment-grade corporate bonds with excess returns of 1.86%, 1.60%, and 0.87%, respectively. Mortgage-backed securities (MBS) also outperformed with an excess return of 0.47%. Commercial mortgage-backed securities (CMBS), asset-backed securities (ABS), and U.S. agencies outperformed similar duration U.S. Treasury securities but underperformed the Bloomberg Barclays U.S. Aggregate Index with excess returns of 0.34%, 0.14%, and 0.05%, respectively.<sup>2</sup>

**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:

Principal Liquid Assets performed in line with the peer group. The portfolio continues to have a core holding of variable rate demand note (VRDN's) that meet the need for seven day liquidity at a higher yield than other options. The weighted average days to maturity for the peer group has come down from 41 to 33.

##### During last 12 months:

Principal Liquid Assets performed in line with the peer group. The portfolio continues to have a core holding of variable rate demand note (VRDN's) that meet the need for seven day liquidity at a higher yield than other options. The weighted average days to maturity for the peer group has come down from 41 to 33.

#### Negative Contributors

##### During last quarter:

The portfolio's weighted average maturity was in line with, or slightly shorter than the peer group during the quarter.

##### During last 12 months:

The portfolio's weighted average maturity was in line with, or slightly shorter than the peer group during the quarter.

##### Changes to the investment option's structure or portfolio:

No material changes occurred in the portfolio structure.

# Liquid Assets Separate Account-R3

## 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](http://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 09/30/2017	QTR	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date	12/10/1980
Liquid Assets Separate Account-R3	0.06	0.05	-0.01	-0.44	-0.57	-0.02	4.08	Ext. Perf. Inc. Date	11/30/1980
Bloomberg Barclays Treasury Bellwethers 3 Month Index	0.27	0.58	0.67	0.33	0.24	0.51	-	Total Inv. Exp Gross	0.97
Money Market Category	0.17	0.33	0.37	0.16	0.09	0.35	-	Total Inv Exp Net	0.97
Morningstar Percentile Ranking	-	-	-	-	-	-	-	Waiver Date	-
Total Funds in Category	544	538	533	460	438	357	-	Contractual Cap Date	-

SEC 7-Day Yield: 0.26%

**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.

## Liquid Assets Separate Account-R3

### Top Ten Holdings as of 08/31/2017

Security	Net Assets (%)
J.P. Morgan Securities	2.50
Gotham Funding Corp	2.48
Nissan Motor	2.47
Sheffield Receivables Corp.	2.47
Thunder Bay Funding LLC	2.47
DCAT LLC	2.46
Standard Charter	2.45
Brown-Forman Corporation	2.44
Philip Morris International	2.44
Sumitomo Mitsui Banking	2.44
<b>Total % in Top 10</b>	<b>24.62</b>

Information is current as of the date noted. Keep in mind that all current and future portfolio holdings are subject to risk.

## Liquid Assets Separate Account-R3

Manager(s)	Start Date	Degree	Alma Mater
Tracy Reeg	08/31/2004	B.S.	University of Northern Iowa
Erika Isley	09/30/2017	M.B.A.	Drake University

### Investment Strategy

The investment seeks as high a level of current income as is considered consistent with preservation of principal and maintenance of liquidity. It invests in a portfolio of high quality, short-term money market instruments. The investments are U.S. dollar denominated securities which the sub-advisor believes present minimal credit risks. The sub-advisor maintains a dollar weighted average portfolio maturity of 60 days or less.

### About Principal Global Investors

Principal Global Investors' fixed income capabilities span multiple economic and credit market cycles and encompass all major fixed income sectors and security types. Its global fixed income research efforts cover sovereign and corporate debt markets worldwide and draw from the firm's experienced team of fixed income professionals - including global credit analysts, structured debt specialists, economists, portfolio managers, traders and risk management specialists.

## 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.

© 2017 Morningstar, Inc. All Rights Reserved. Part of the mutual fund data contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete, or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

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.

The net return experienced may be negative if the costs to maintain and operate the Liquid Assets Separate Account exceed returns. Participants may also see negative returns if plan expenses, if applicable, are netted or deducted from their accounts.

Prior to January 1, 2017, the name of this investment option was Principal Money Market 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

Liquid asset investment options are not insured or guaranteed by the Federal Deposit Insurance Corporation (FDIC), or any other government agency. Although the investment option may seek to preserve the value of an investment, it is possible to lose money by investing in the portfolio.

Bloomberg Barclays Treasury Bellwethers 3 Month Index is composed of public obligations of the U. S. Treasury with a maturity of three months.

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.

\*Unless otherwise stated, all data from Bloomberg

<sup>1</sup>U.S. Treasury Constant Maturity 30-year, 10-year and 2-year yields

<sup>2</sup>Components of Bloomberg Barclays U.S. Aggregate Bond Index, via Barclays Live. Duration-adjusted excess return is a measure the relative performance to that of U.S. Treasuries with a similar duration profile.

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



Principal Life Insurance Company, Des Moines, Iowa 50392-0001, [principal.com](http://principal.com) 09/2017  
#t17092109bj