Retirement Plan Review

June 3, 2019

South Dakota Department of Labor

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Today's Focus

- Economy & Market Update
- Investment Advisory Report
- Liability Driven Investment Strategy
- Principal Acquires Wells Fargo







Economic and market review

First quarter 2019

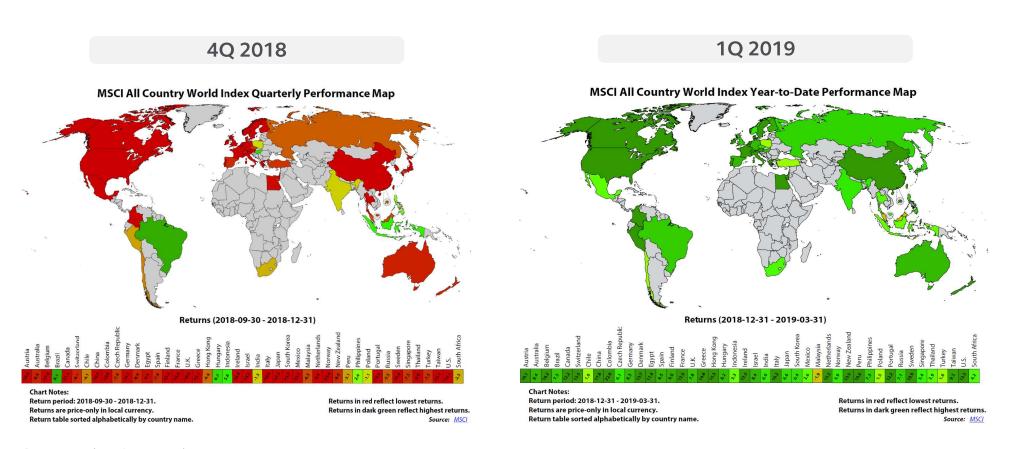
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What's driving the market?

As of March 31, 2019

Reversal of fortune

- Many asset classes, including most world equity markets, recouped much of their 4Q 2018 losses this past quarter.
- Primary drivers of this reversal included:
 - A more dovish U.S. Federal Reserve
 - Better equity valuations at the start of 1Q 2019
 - More positive outlook on the trade/tariff negotiations during 1Q 2019

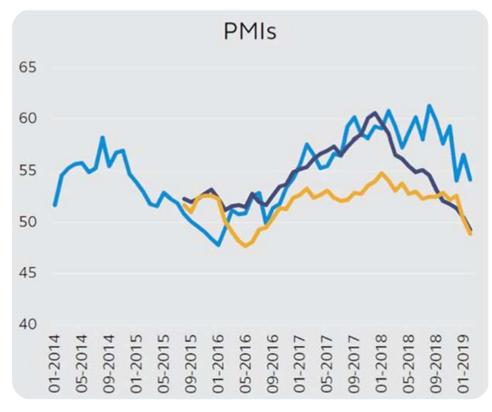


What's driving the market?

As of March 31, 2019

> Around the world - a global slowdown

- **Europe:** Manufacturing activity down. Export demand from China softer. Fear of a hard Brexit. Political tensions bubbling in places like UK, Italy and France. All contributing to downward revisions to growth expectations.
- **Japan**: Industrial and manufacturing activity is weaker given the general slowdown in global growth and international trade.
- China: Growth in China is in the midst of a long, slow structural deceleration. Contributing factors, now and in the future, include: a shrinking labor force from the "one child" policy, the expense of dealing with a significant pollution problem, and U.S. tariffs on Chinese imports. It remains to be seen whether China's debt-funded stimulus can grow the economy to levels that investors have become accustomed to seeing.
- United States: Combine the partial government shutdown with some seasonal adjustments and the first quarter GDP number may come in below 2% - a positive number but below recent trend.
- PMIs in major economic regions have been falling in recent surveys. A reading below 50 is generally thought of an economy in contraction.



Source: Macrobond

- ISM Manufacturing PMI SA
- Markit Eurozone Manufacturing PMI SA
- Nikkei Japan Manufacturing PMI SA

Source: These are current views and opinions of Principal Global Investors.

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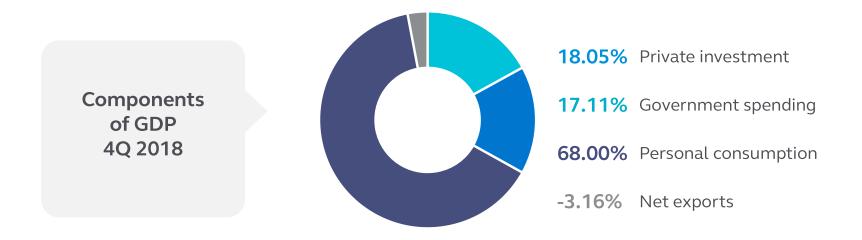
What's driving the market?

As of March 31, 2019

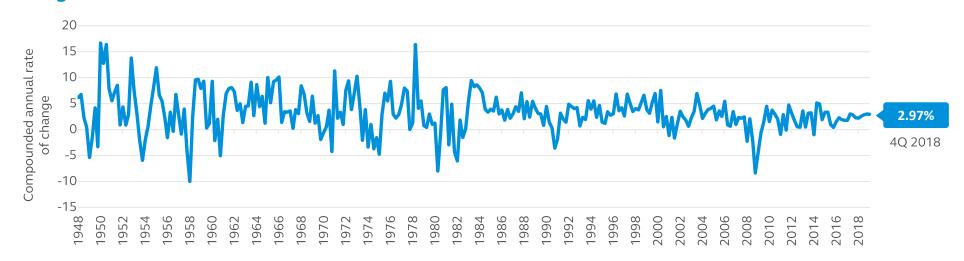
Did the Fed go too far?

- Since the Fed started the rate raising cycle in December 2015 there have been a total of nine 0.25% Fed Funds Rate hikes. The current Fed Funds Rate range is 2.25 2.50%.
- Much of the recent monetary tightening is yet to fully flow through the economy. Historical relationships show that credit spreads tend to start widening around two years after the Fed begins raising interest rates. On that basis, the first 100 basis points of rate hikes should be fully integrated into credit markets. However, there is an additional 125 basis points of Fed tightening still to make an impact.
- Higher interest rates mean consumers pay more for credit card debt, mortgages, vehicle purchases and student loan debt. For businesses, loans become more difficult to get and the higher cost of capital may cause businesses to not finance projects to expand their operation. These factors are a drag on economic growth.
- Markets have been very sensitive to the Fed's interest rate decisions. In December, equity markets sold off sharply after the market was surprised with the Fed's decision to raise rates. A subsequent "pause" by the Fed helped equity markets snap back quickly.

Composition and growth of Gross Domestic Product (GDP)



Change in real GDP over time

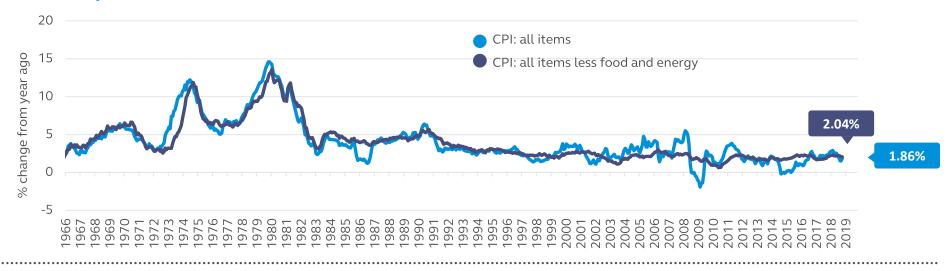


Source: Bureau of Economic Analysis, U.S. Department of Commerce.

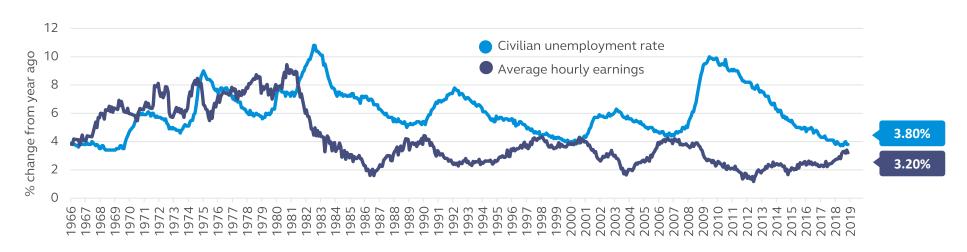
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Inflation and the labor market

Consumer price index (CPI) and core CPI



Unemployment and wages



As of March 1, 2019. Source: U.S. Bureau of Labor Statistics.

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Inflation and capital market yields

As of March 31, 2019

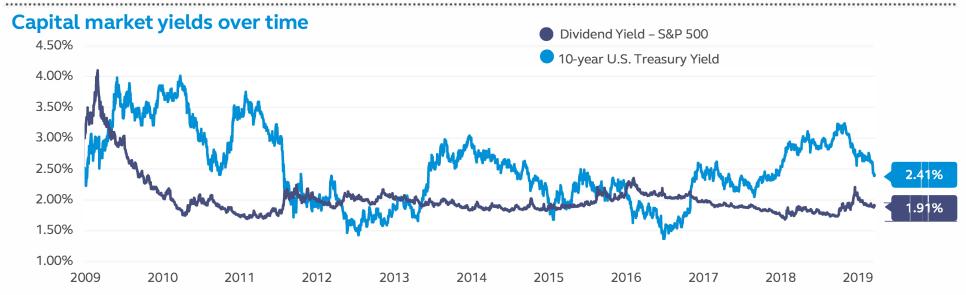
	10-year Treasury nominal yield	Inflation expectation
10-year average	2.51%	2.00%
March 2019	2.57%	1.91%



Real Treasury yield:

10-year average: **0.52%**

March 2019: 0.66%



Source: FactSet. Past performance does not guarantee future results. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index. See Important Information for indices.

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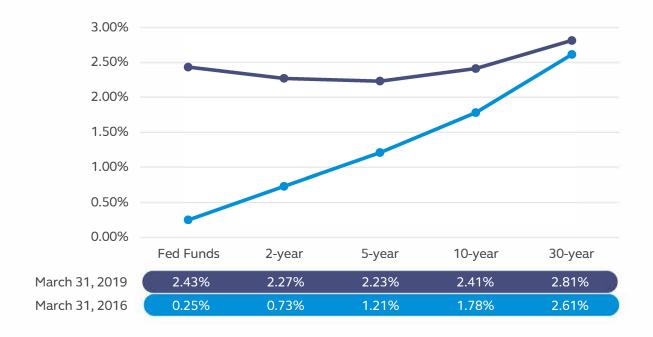
The history of interest rates

As of March 31, 2019



How have interest rates changed in recent years?

	March 2016	March 2017	March 2018	March 2019
2-year	0.73%	1.27%	2.27%	2.27%
5-year	1.21%	1.93%	2.56%	2.23%
10-year	1.78%	2.40%	2.74%	2.41%
2 to 10-year spread	1.05%	1.13%	0.47%	0.14%
30-year	2.61%	3.02%	2.97%	2.81%



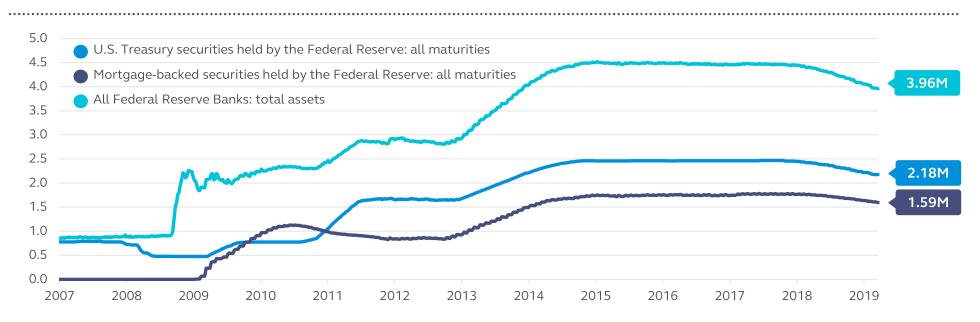
Source: FactSet.

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Balance sheet normalization

As of March 31, 2019

- > Starting in October 2017, the Fed has laid out a plan to slowly reduce their balance sheet by limiting the repurchases of maturing Treasurys and mortgage backed securities. Below are the communicated amounts they plan to not reinvest:
 - Treasurys \$6 billion per month and will increase in steps of \$6 billion at three-month intervals over 12-months until it reaches \$30 billion per month
 - Mortgage backed securities \$4 billion per month and will increase in steps of \$4 billion at three-month intervals over 12-months until it reaches \$20 billion per month

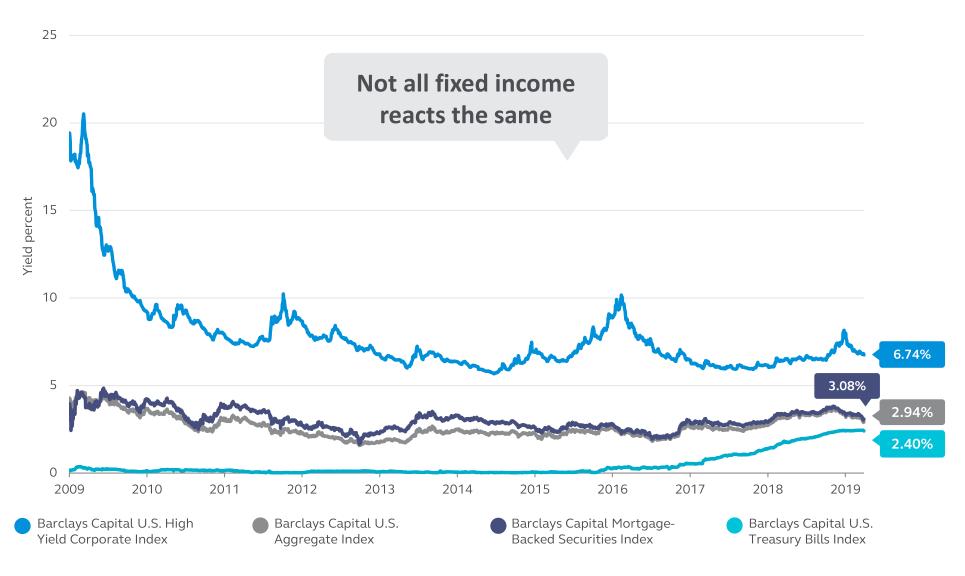


Source: Investors Board of Governors of the Federal Reserve System (U.S.).

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The history of fixed income and market shifts

As of March 31, 2019



Source: FactSet. Past performance does not guarantee future results. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index. See Important Information for indices.

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Index performance As of March 31, 2019

	3-months	YTD	1-year	3-year	5-year	10-year
	U.S. Equities					
S&P 500 Index	13.65%	13.65%	9.50%	13.51%	10.91%	15.92%
Russell Midcap Index	16.03%	16.03%	4.61%	9.89%	6.97%	14.93%
Russell 2000 Index	14.58%	14.58%	2.05%	12.92%	7.05%	15.36%
			Non-U.S	. Equities		
MSCI EAFE NTR Index	9.98%	9.98%	-3.71%	7.27%	2.33%	8.96%
MSCI Emerging Markets Index	9.97%	9.97%	-7.06%	11.09%	4.06%	9.31%
			Fixed I	ncome		
B of A ML U.S. Treasury Bill 3-Month Index	0.60%	0.60%	2.12%	1.19%	0.74%	0.43%
Bloomberg Barclays Aggregate Bond Index	2.94%	2.94%	4.48%	2.03%	2.74%	3.77%
Bloomberg Barclays U.S. Corp High Yld 2% Issuer Capped Index	7.26%	7.26%	5.93%	8.56%	4.69%	11.21%
Bloomberg Barclays Long-Term Govt/Credit Index	6.45%	6.45%	5.24%	3.75%	5.35%	7.23%
	Other					
MSCI U.S. REIT Index	16.27%	16.27%	20.72%	6.00%	9.00%	18.48%
S&P GSCI® Index	15.97%	15.97%	-4.15%	10.31%	-7.72%	1.93%
U.S. Dollar Index	1.16%	1.16%	7.91%	0.93%	3.96%	1.31%

Source: FactSet. Returns are annualized. Past performance does not guarantee future results. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index. See Important Information for index descriptions.

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Equity performance by investment style

As of March 31, 2019

1Q 2019

	Value	Blend	Growth
Large	11.93%	14.00%	16.10%
Mid	13.70%	16.03%	19.35%
Small	13.70%	14.58%	17.14%

EAFE	9.98%
Asia	11.43%
Europe	10.84%
Emerging Markets	9.97%

Last 12-months

	Value	Blend	Growth
Large	5.67%	9.30%	12.75%
Mid	0.51%	4.61%	10.46%
Small	0.51%	2.05%	3.85%

EAFE	-3.71%
Asia	-5.22%
Europe	-3.72%
Emerging Markets	-7.06%

Source: FactSet. Returns are annualized. Data does not reflect the performance of any investment product. Index performance information reflects no deduction for fees, expenses, or taxes. See Important Information for indices.

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Price earning ratio (P/E ratio) by investment style As of March 31, 2019

	Value	Blend	Growth
Large	13.9/13.2	16.6/14.7	20.5/16.7
Mid	14.2/14.2	16.8/15.8	22.1/18.0
Small	14.5/16.6	21.2/20.1	36.0/25.8

EAFE	13.4/13.2
Asia	13.2/12.1
Europe	13.4/12.6
Emerging Markets	12.1/11.2

- Current NTP P/E ratio
- 15-year average P/E ratio estimates

Source: FactSet. Data reflects index characteristics and is not representative of any investment product. See important information for indices.

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Asset class performance

Investment styles go in and out of favor over time

15-year return 2018 12/31/2018 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 9 8 4 LargeCap 4 4 Growth 6.30% 5.26% 9.07% 11.81% -38.44% 37.21% 16.71% 2.64% 15.26% 33.48% 5.67% 7.08% 30.21% -1.51% 8.68% 5 8 6 5 9 10 6 4 8 6 LargeCap Value 16.49% 7.05% 22.25% -0.17% -36.85% 0.39% 32.53% 13.45% 17.34% -8.27% 17.51% 13.66% 7.04% 3 6 4 6 6 MidCap Growth 14.83% 11.30% 10.49% -44.94% 44.48% -2.59% 34.31% 10.71% -1.27% 23.93% 5 6 6 10 9 9 6 10 12 10 4 4 MidCap Value 20.99% 12.42% 10.25% 17.63% -40.17% 30.50% 22.13% -3.57% 15.77% 30.70% 17.22% 10.86% 9 10 8 5 8 9 8 5 **SmallCap** 6 6 6 8 Growth 14.31% 13.35% -38.54% 34.47% 29.09% 14.59% 43.30% -1.38% 11.32% 22.17% -9.31% 7.96% 11 4 9 4 10 9 9 9 SmallCap Value 4.71% 23.48% -9.78% 20.58% 24.50% 18.05% 34.52% 4.22% -28.92% -7.47% 31.74% 7.84% -12.86% 6.91% 5 11 11 11 10 6 10 International 20.84% 14.96% 26.23% 12.92% 34.39% 9.43% -11.78% 21.57% 17.02% -2.60% 3.29% 24.81% 5.28% 6 11 3 Emerging Markets 25.95% 34.54% 32.55% 39.82% 79.02% 19.20% 18.63% -1.82% 11.60% 8.26% 37.75% -14.25% 12 4 2 12 Core **Bonds** 5.24% -2.02% 0.55% 6.97% 5.93% 7.84% 5.97% 0.01% 10 11 9 8 3 2 9 6 9 9 9 8 4 4 4 High Yield Bonds **-26.16%** 58.21% 2.74% 11.85% 1.87% 15.12% 4.98% 15.81% -4.47% 7.44% 17.13% 7.50% -2.08% 2 3 8 2 10 11 Real Estate 4 6 8 4

Annualized

As of December 31, 2018. Source: Bloomberg.

12.13%

35.92%

37.97%

-8.00%

2

15.84%

28.61%

12

Past performance does not guarantee future results. Asset allocation and diversification do not ensure a profit or protect against a loss. Index performance information reflects no deduction for fees, expenses, or taxes. Indices are unmanaged and individuals cannot invest directly in an index.

28.48%

10

31.49%

Securities

Property

Direct

8.69%

17.77%

11

10.63%

8

30.38%

5

2.52%

5.07%

10

-4.57%

8.20%

10.10%

Economic and market review

Our forecast for the future

The global economic growth rate slowed over 2018, mainly driven by China and the Eurozone, as the U.S. continued to grow at a respectable pace. With strong global employment data and low inflation, we expect economic output to continue to grow, albeit at a slower pace. Markets will continue to grapple with higher rates, tougher monetary policies, and political uncertainties. We do not expect the Fed to raise rates in 2019 as the current rate of 2.25% - 2.50% is near what the market views as the neutral rate. See the chart with our interest rate outlook for 2019 and 2020.

- **U.S.:** The U.S. continues to benefit from a very healthy labor market with good wage gains and job growth. With strong capital spending and increased productivity, and rising household incomes, U.S. growth should be stable. Even with the first quarter GDP expected below 2% we expect GDP growth for the year to be around 2.6% driven by continued business investment and strong consumer gains.
- Europe: Europe's immediate growth prospects, while negative, will likely pick up in the second half. The European Central Bank responded to the downshift in growth by extending its no-hike guidance through the year and they announced new liquidity provisions which should stimulate spending. Stabilization in China's import demand should provide a meaningful boost to European exports. We expect positive, but slow growth of around 1% to 1.5% for the year.
- Japan: Japan has one of the world's strongest labor markets. The jobless rate is only 2.5% and there are 1.63 job openings for every job applicant. Japan's household consumption will continue to be their economic driver. We expect growth to be around 1% for the year.
- China: Coming off of a quicker than expected slowdown in growth last year, Chinese official began to energize the economy with several rounds of stimulus by: cutting income and value-added taxes, improving liquidity by lowering banking reserve requirements, and easing lending standards. Reports have indicated that lending is up and the latest business surveys suggest that growth has stabilized. We expect growth to be around 6% for the year.

Interest rate outlook	Year-end 2019	Year-end 2020
Federal funds rate	2.38%	2.88%
2-year UST yield	2.50% - 3.00%	2.75%-3.25%
10-year UST yield	2.50% - 3.00%	3.25% - 3.75%
10-2-year spread	0.00% - 0.50%	0.00% - 0.50%

U.S. forecast table	2017 (A)	2018 (E)	2019 (E)	2020 (E)
Real GDP	2.20%	2.90%	2.60%	2.50%
Personal consumption expenditures	2.50%	2.60%	3.10%	2.70%
Durable goods	6.80%	5.70%	4.50%	3.30%
Non-durable goods	2.10%	2.80%	3.60%	3.10%
Services	2.00%	2.10%	2.50%	2.40%
Gross private domestic investments	4.80%	6.00%	3.10%	3.50%
Government purchases of goods and services	-0.10%	1.50%	1.30%	1.00%
Net exports	-858.7	-914.1	-975.3	-1014.7

A – Actual E – Estimated Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; Principal Global Investors

Forecast as of March 31, 2019. Source: These are current views and opinions of Principal Global Investors.

Important information

Related to slide 10:

Barclays Capital U.S. High Yield Index covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, and 144-As are also included. The index includes both corporate and non-corporate sectors. Information regarding the comparison to the Barclays Capital U.S. High Yield Index is available upon request.

Barclays Capital Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. The lower limit of par outstanding is \$250 million. Information regarding the comparison to the Barclays Capital Aggregate Index is available upon request.

Barclays Capital Mortgage-Backed Securities (MBS) Index covers agency mortgage-backed pass-through securities (both fixed-rate and hybrid ARM) issued by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). Introduced in 1986, the GNMA, FHLMC, and FNMA fixed-rate indices for 30- and 15-year securities were backdated to January 1976, May 1977, and November 1982, respectively. Balloon securities were added in 1992 and removed on January 1, 2008. 20-year securities were added in July 2000. On April 1, 2007, agency hybrid adjustable-rate mortgage (ARM) pass-through securities were added to the Barclays Capital MBS Index. Hybrid ARMs are eligible until one-year prior to their floating coupon date. Information regarding the comparison to the Barclays Capital MBS Index is available upon request.

Barclays Treasury Bill Index includes U.S. Treasury bills with a remaining maturity from one up to (but not including) 12-months. It excludes zero coupon strips.

Related to slide 11:

S&P 500 Index includes 500 leading companies in industries of the U.S. economy. It was first published in 1957. Information regarding the comparison to the S&P 500 Index is available upon request.

Russell Midcap Index measures the performance of the 800 smallest companies in the Russell 1000 Index. Information regarding the comparison to the Russell Midcap Index is available upon request.

Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index. Information regarding the comparison to the Russell 2000 Index is available upon request.

MSCI EAFE Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The index covers approximately 85% of the free float-adjusted market capitalization in each country. Information regarding the comparison to the MSCI EAFE Index is available upon request.

MSCI Emerging Markets Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of emerging markets. The index covers approximately 85% of the free float-adjusted market capitalization in each country. Information regarding the comparison to the MSCI Emerging Markets Index is available upon request.

BofA Merrill Lynch U.S. three-month Treasury Bill Index is comprised of a single issue purchased at the beginning of the month and held for a full month. At the end of the month that issue is sold and rolled into a newly selected issue. The issue selected at each month-end rebalancing is the outstanding Treasury Bill that matures closest to, but not beyond, three months from the rebalancing date. To qualify for selection, an issue must have settled on or before the month-end rebalancing date.

Related to slide 11 (continued):

Barclays Capital Global Aggregate Index provides a broad-based measure of the global investment-grade fixed-rate debt markets. The three major components are the U.S. Aggregate Index, the Pan-European Aggregate Index, and the Asian-Pacific Aggregate Index. The index also includes Global Treasury, Eurodollar, Euro-Yen, Canadian, and Investment-Grade 144A index-eligible securities not already in the three regional aggregate indices. Information regarding the comparison to the Barclays Capital Global Aggregate Index is available upon request.

Barclays Capital U.S High Yield 2% Issuer Constrained Index is a component of the Barclays Capital U.S. Corporate High Yield Bond Index with a maximum exposure of 2% per issuer. The index includes all fixed income securities having a maximum quality rating of Ba1, a minimum amount outstanding of \$150 million, and at least one-year to maturity. The Barclays Capital U.S. Corporate High Yield 2% Issuer Constrained Index covers fixed rate, non-investment grade securities rated BB+ through C by S&P. No single issuer can comprise more than 2% of the Index. Information regarding the comparison to the Barclays Capital High Yield 2% Issuer Constrained Index is available upon request.

Barclays Capital U.S. Long Government/Credit Index is the long component of the Barclays Capital U.S. Government/Credit index, which is the U.S. Government/Credit component of the Barclays Capital U.S. Aggregate index and includes securities in the Government and Credit Indices. The Government Index includes Tresurys (i.e., public obligations of the U.S. Treasury that have remaining maturities of more than one year) and agencies (i.e., publicly issued debt of U.S. Government agencies, guasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government). The Credit Index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements. Information regarding the comparison to the Barclays Capital Long U.S. Government Credit Index is available upon request.

MSCI U.S. REIT Index is a free float-adjusted market capitalization weighted index that is comprised of equity REITs that are included in the MSCI U.S. Investable Market 2500 Index, with the exception of specialty equity REITs that do not generate a majority of their revenue and income from real estate rental and leasing operations. The index represents about 99% of the U.S. REIT universe. Information regarding the comparison to the MSCI U.S. REIT Index is available upon request.

S&P GSCI® is a composite index of commodity sector returns representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities. The returns are calculated on a fully collateralized basis with full reinvestment. The combination of these attributes provides investors with a representative and realistic picture of realizable returns attainable in the commodities markets.

U.S. dollar index is a measure of the value of the U.S. dollar relative to the value of a basket of currencies of the majority of the U.S.'s most significant trading partners. This index is similar to other trade-weighted indexes, which also use the exchange rates from the same major currencies.

Related to slide 12 and 13:

Style/Proxy:

LARGE CAP VALUE / RUSSELL 1000 VALUE USD SMALL CAP VALUE / RUSSELL 2000 VALUE USD LARGE CAP BLEND / RUSSELL 1000 INDEX USD MID CAP BLEND / RUSSELL MID CAP USD

SMALL CAP BLEND / RUSSELL 2000USD MID CAP VALUE / RUSSELL MID-CAP VALUE USD LARGE CAP GROWTH / RUSSELL 1000 GROWTH USD MID CAP GROWTH / RUSSELL MID-CAP GROWTH USD SMALL CAP GROWTH / RUSSELL 2000 GROWTH USD

EAFE / MSCI EAFE NTR USD ASIA / MSCI AC ASIA EX-JAPAN NTR USD EUROPE / MSCI EUROPE NTR USD EM / MSCI EMERGING MARKETS INDEX USD

Related to slide 12 and 13 (continued):

Russell 1000 Value Index measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values. Information regarding the comparison to the Russell 1000 Value Index is available upon request.

Russell Midcap Index measures the performance of the 800 smallest companies in the Russell 1000 Index. Information regarding the comparison to the Russell Midcap Index is available upon request.

Russell Midcap Value Index measures the performance of the mid-cap value segment of the U.S. equity universe. It includes those Russell Midcap Index companies with lower price-to-book ratios and lower forecasted growth values. The index is constructed to provide a comprehensive and unbiased barometer of the mid-cap value market. The index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true mid-cap value market. Information regarding the comparison to the Russell Midcap Value Index is available upon request.

Russell 2000 Value Index measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values. Information regarding the comparison to the Russell 2000 Value Index is available upon request.

Russell 1000 Index measures the performance of the 1,000 largest companies in the Russell 3000 Index. Information regarding the comparison to the Russell 1000 Index is available upon request.

Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index. Information regarding the comparison to the Russell 2000 Index is available upon request.

Russell 1000 Growth Index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. Information regarding the comparison to the Russell 1000 Growth Index is available upon request.

Russell Midcap Growth Index measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes those Russell Mid-Cap Index companies with higher price-to-book ratios and higher forecasted growth values. Information regarding the comparison to the Russell Midcap Growth Index is available upon request.

Russell 2000 Growth Index measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values. Information regarding the comparison to the Russell 2000 Growth Index is available upon request.

MSCI EAFE Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The index covers approximately 85% of the free float-adjusted market capitalization in each country. Information regarding the comparison to the MSCI EAFE Index is available upon request.

MSCI AC Asia ex-Japan Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of Asia, excluding Japan. The MSCI AC Asia ex-Japan Index consists of developed and emerging market country indices and covers approximately 85% of the free float-adjusted market capitalization in each country. Information regarding the comparison to the MSCI AC Asia ex-Japan Index is available upon request.

MSCI Europe Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets in Europe. The index covers approximately 85% of the free float-adjusted market capitalization of each country. Information regarding the comparison to the MSCI Europe Index is available upon request.

MSCI Emerging Markets Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of emerging markets. The index covers approximately 85% of the free float-adjusted market capitalization in each country. Information regarding the comparison to the MSCI Emerging Markets Index is available upon request.

Related to slide 14:

Large-Cap Growth stocks are represented by the annual total returns of the Russell 1000 Growth Index, which is a market-capitalization weighted index of those firms in the Russell 1000 with higher price-to-book ratios and higher forecasted growth values.

Large-Cap Value stocks are represented by the annual total returns of the Russell 1000 Value Index, which is a market-capitalization weighted index of those firms in the Russell 1000 with lower price-to-book ratios and lower forecasted growth values.

Mid-Cap Growth stocks are represented by the annual total returns of the Russell Mid Cap Growth Index, which is a market-weighted total return index that measures the performance of companies within the Russell Mid Cap Index having higher price-to-book ratios and higher forecasted growth values.

Mid-Cap Value stocks are represented by the annual total returns of the Russell Mid Cap Value Index, which is a market-weighted total return index that measures the performance of companies within the Russell Mid Cap Index having lower price-to-book ratios and lower forecasted growth values.

Small-Cap Growth stocks are represented by the annual total returns of the Russell 2000 Growth Index, which is a market-weighted total return index that measures the performance of companies within the Russell 2000 Index having higher price-to-book ratios and higher forecasted growth values.

Small-Cap Value stocks are represented by the annual total returns of the Russell 2000 Value Index, which is a market-weighted total return index that measures the performance of companies within the Russell 2000 Index having lower price-to-book ratios and lower forecasted growth values.

International stocks are represented by the annual total returns of the MSCI EAFE Index, which is listed for foreign stock funds (EAFE refers to Europe, Australasia, and Far East) and is widely accepted as a benchmark for international stock performance, the EAFE Index is an aggregate of 21 individual company indexes.

Emerging Markets stocks are represented by the annual total returns of the MSCI EMF Index, which is an index composed of companies representative of the market structure of 25 emerging market countries in Europe, Latin America, and the Pacific Basin.

Core Bonds are represented by the annual total returns of the Barclays Aggregate Index, which covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

High yield bonds are represented by the annual total returns of the Barclays High Yield Index, which is an unmanaged index constructed to mirror the characteristics of the high yield bond market.

Real Estate Securities are represented by the annual total returns of the NAREIT Index, which is a capitalization-weighted benchmark index of most actively traded Real Estate Investment Trusts (REITs), designed to measure real estate performance.

Real Estate Direct Property is represented by the annual total returns of the NCREIF Fund Index – Open End Diversified Core Equity (NFI-ODCE) Equal Weight Index, which is a fund-level, gross of fee, time-weighted return index. Funds contributing data to the NFI-ODCE are generally "core" and must market themselves as an open-end commingled fund pursuing a diversified core investment strategy, primarily investing in private equity real estate with at least 80% of the market value of real estate net assets invested in operating properties. As of December 31, 2016 there were 24 data-contributing funds in the NFI-ODCE.

Important information

Unless otherwise noted, the information in this document has been derived from sources believed to be accurate as of April 2019. Information derived from sources other than Principal Global Investors or its affiliates is believed to be reliable; however, we do not independently verify or guarantee its accuracy or validity. This material contains general information only and does not take account of any investor's investment objectives or financial situation and should not be construed as specific investment advice, recommendation or be relied on in any way as a guarantee, promise, forecast or prediction of future events regarding an investment or the markets in general. The opinions and predictions expressed are subject to change without prior notice. Any reference to a specific investment or security does not constitute a recommendation to buy, sell, or hold such investment or security, nor an indication that Principal Global Investors or its affiliates has recommended a specific security for any client account

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Past performance is no guarantee of future results and should not be relied upon to make an investment decision. Investing involves risk, including possible loss of principal.

All figures shown in this document are in U.S. dollars unless otherwise noted. Indices are unmanaged and do not take into account fees, expenses and transaction costs.

This material may contain 'forward looking' information that is not purely historical in nature. Such information may include, among other things, projections and forecasts which are based on current expectations and market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.. There is no guarantee that any forecasts made will come to pass. Reliance upon information in this material is at the sole discretion of the reader.

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Principal Financial Advisors, Inc.

April 2019

Personal & Confidential
Emily Ward
Director of Administrative Services
South Dakota Dept. of Labor & Regulation
700 Governors Drive
Pierre, SD 57501-2291

RE: South Dakota Department of Labor Retirement Plan

Contract No: 4-15193

Dear Ms. Ward,

Thank you for being a continuing client of Principal Financial Advisors. Enclosed is a copy of your Investment Advisory Report. We are pleased to continue working with you and hope that you find this summary helpful.

Principal Financial Advisors, Inc., is a registered investment adviser and wholly owned subsidiary of the Principal Financial Group®. Federal securities laws require us to offer you a copy of Principal Financial Advisors ADV Part 2. This filing provides information about Principal Financial Advisors and the services we offer. Please let me know if you would like a copy of the ADV Part 2.

Please contact me at the number below if you have any questions regarding this report.

Best regards,

(A1 1. 1 1.11

Mark Crandall
Advisory Associate
Principal Financial Advisors, Inc.
Ph. (800) 543-4015 Ext. 22361
E-mail: crandall.mark@principal.com

Senior Investment Consultant Advisory Associate Principal Financial Advisors, Inc. Ph. (800) 543-4015 Ext. 56277 E-mail: fee.david@principal.com

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Principal Financial Advisors, Inc.



Investment Advisory Report
South Dakota Department of Labor Retirement Plan
Contract No. 4-15193
July 01, 2018 - March 31, 2019

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Portfolio and Strategic Asset Allocation Review
 Portfolio Performance Review

11 Investment Option Performance

Principal Financial Advisors, Inc. Overview

As a retirement plan sponsor, you face significant challenges in managing the plan on behalf of participants – fiduciary responsibility, risk management and plan investment decisions, just to name a few. When you appoint Principal Financial Advisors, Inc. as the plan's ERISA Section 3(38) investment manager, we team with you to address these challenges.

For more than 30 years, Principal Financial Advisors (a member company of the Principal Financial Group) has been managing investment strategies. As of December 31, 2018, we manage more than \$7.6 billion in assets and have more than 300 clients using our advisory services for retirement plans.

Our mission is to provide high-quality investment advisory and consulting services to help clients meet their goals and objectives by offering access to premier investment managers and customized investment strategies.

The investment advisory services of Principal Financial Advisors are consistent with the following core beliefs:

- 1) Strategic asset allocation selection and implementation play key roles in a retirement plan's ability to successfully meet its obligations over the long term.
- 2) Careful analysis of a retirement plan's assets, liabilities and unique attributes guides asset allocation decisions.
- 3) Diversifying by asset class, style and investment manager is one of the most effective ways to control investment risk.
- 4) A portfolio's long-term success depends substantially on selecting appropriate managers and carefully monitoring their performance over time.

Principal Financial Advisors provides:

- 1) A customized investment strategy based on the plan's unique situation.
- 2) Assumption of fiduciary responsibility for asset allocation decisions. 1
- 3) Benefits of the due diligence process of Principal Life Insurance Company.²
- 4) Experienced investment personnel, comprehensive reporting and top-tier client service.

¹The plan sponsor remains the plan's named fiduciary, but Principal Financial Advisors, Inc. has been appointed as the plan's ERISA Section 3(38) investment manager.

²Principal Life Insurance Company is responsible for the hiring and monitoring of investment managers made available to you through the due diligence process. Principal Financial Advisors selects from these investment options for retirement portfolios.

Portfolio and Strategic Asset Allocation Review

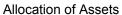
Investment Review - Allocation 07/01/2018 through 03/31	/2019				
Inv Manager or Sub-Advisor	Beginning		Ending		
Investment Option	Balance	Breakdown %	Balance	Breakdown %	
Large U.S. Equity					
Large Value					
Principal Global Investors	\$7,048,567	12.20%	\$6,826,469	12.16%	
Equity Income Separate Account-Z 3, 11, 34	\$7,040,507	12.20%	\$0,020,409	12.10%	
Large Blend					
Principal Global Investors					
LargeCap S&P 500 Index Separate Account-Z 2, 8, 22, 32,	\$3,009,455	5.21%	\$2,937,858	5.23%	
41					
Large Growth				I	
T. Rowe Price/Brown Advisory	\$7,233,274	12.52%	\$7,073,924	12.60%	
LargeCap Growth I Separate Account-Z 3, 16, 33	Ψ1,200,211	12.0270	Ψ1,010,021	12.0070	
Small/Mid U.S. Equity					
Mid Cap Value					
LA Capital Mgmt/Victory	\$0	0.00%	\$989,064	1.76%	
MidCap Value I Separate Account-Z 1, 3, 16, 29, 33	ΨΟ	0.0070	Ψ303,004	1.7070	
Principal Global/Barrow Hanley	\$1,000,868	1.73%	\$0	0.00%	
MidCap Value III Separate Account-Z 1, 32	φ1,000,000	1.7370	φυ	0.0076	
Mid Cap Growth					
Robert Baird/Eagle Asset Mgmt	\$1,014,383	1.76%	\$1,028,762	1.83%	
MidCap Growth III Separate Account-Z 1, 3, 16, 33, 35	φ1,014,363	1.7076	\$1,020,702	1.03 /6	
Small Value					
Vaughan Nelson/LA Capital/H&W	\$557,313	0.96%	\$510,352	0.91%	
SmallCap Value II Separate Account-Z 1, 3, 16, 33, 39	Ψ557,515	0.9070	ψ510,332	0.9170	
Small Growth					
AB/Brown/Emerald	\$564,963	0.98%	\$544,381	0.97%	
SmallCap Growth I Separate Account-Z 1, 3, 16, 30, 33	ΨΟΟ-1,ΟΟΟ	0.5070	ΨΟ-τ-τ,ΟΟ Ι	0.57 /0	
International Equity					
Diversified Emerging Markets					
Principal Global Investors					
International Emerging Markets Separate Account-Z ⁴ ,	\$1,938,521	3.36%	\$2,106,383	3.75%	
32					
Foreign Large Value					
Causeway / Barrow Hanley	\$6,775,281	11.73%	\$6,668,010	11.88%	
Overseas Separate Account-Z 3, 4, 16, 33	ΨΟ,773,201	11.73/0	ψο,σσο,στο	11.00 /0	

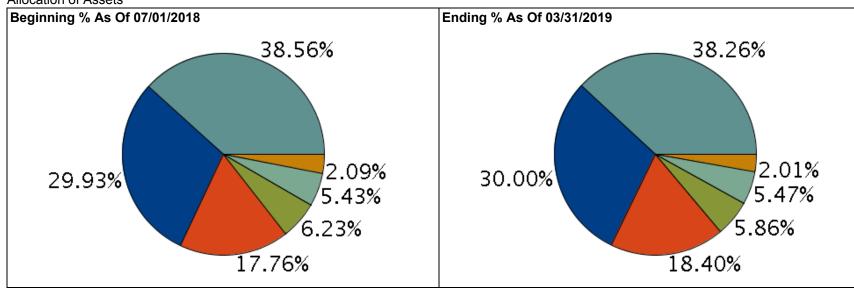
Portfolio and Strategic Asset Allocation Review

Investment Review - Allocation 07/01/2018 through 03/31					
Inv Manager or Sub-Advisor	Beginning Balance	Breakdown %	Ending Balance	Breakdown %	
oreign Small/Mid Blend					
Principal Global Investors	\$1,544,933	2.67%	¢1 554 020	2.77%	
International SmallCap Separate Account-Z 1, 4, 32, 40	φ1,544,955	2.07%	\$1,554,039	2.11%	
Real Estate					
Owned Real Estate					
Principal Real Estate Inv	¢2 507 504	6 220/	#2 200 G24	E 960/	
U.S. Property Separate Account-Z 19, 32	\$3,597,584	6.23%	\$3,290,634	5.86%	
Balanced/Asset Allocation					
World Allocation					
Multiple Sub-Advisors	£1 204 024	2.000/	¢1 107 614	2.049/	
Diversified Real Asset Separate Account-Z 3, 11, 18, 22, 33	\$1,204,934	2.09%	\$1,127,614	2.01%	
Fixed Income					
High Yield Bond					
Neuberger Berman/Mellon/DDJ	#0.050.040	4.070/	Φ4 44 4 4CF	4.000/	
High Yield I Separate Account-Z 3, 5, 13, 14, 33, 36	\$2,352,012	4.07%	\$1,114,465	1.99%	
Intermediate-Term Bond					
Mellon Investments Corp.	¢4 000 250	8.64%	\$8,407,246	14.98%	
Bond Market Index Separate Account-Z 2, 13, 14, 33	\$4,988,250	0.04%	φο,4υ1,240	14.90%	
Principal Global Investors	¢44.007.004	25.000/	#44.0F0.F00	24 200/	
Core Plus Bond Separate Account-Z 13, 14, 22, 28, 32	\$14,937,394	25.86%	\$11,952,592	21.29%	
TOTAL	\$57,767,732	100%	\$56,131,793	100%	

Please see important information at the end of this presentation.

Portfolio and Strategic Asset Allocation Review







The table below illustrates the plan's target allocation at the beginning and end of the reporting period.

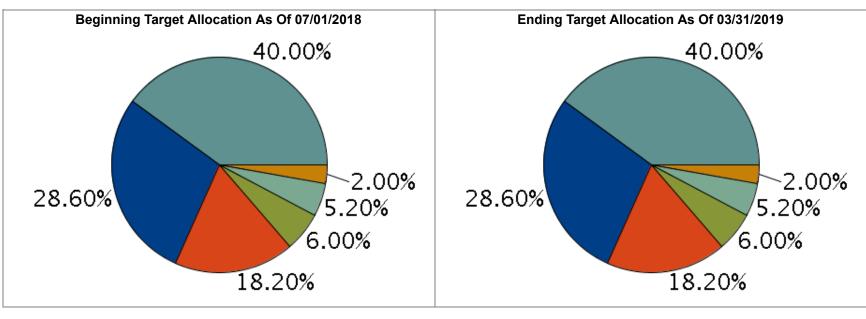
Your plan's assets and liabilities are reviewed periodically during the year and we make changes as needed. We will continue to monitor your plan and adjust its allocation as necessary.

	Target Allocation 07/01/2018 through 03/31/2019		
Investment Advisor	Investment Option	Beginning Allocation	Ending Allocation
	Large U.S. Equity	28.60%	28.60%
	Large Value		
Principal Global Investors	Equity Income Separate Account-Z 3, 11, 34	11.80%	11.80%
	Large Blend		
Principal Global Investors	LargeCap S&P 500 Index Separate Account-Z 2, 8, 22, 32, 41	5.00%	5.00%
	Large Growth		
T. Rowe Price/Brown Advisory	LargeCap Growth I Separate Account-Z 3, 16, 33	11.80%	11.80%
	Small/Mid U.S. Equity	5.20%	5.20%
	Mid Cap Value	·	
LA Capital Mgmt/Victory	MidCap Value I Separate Account-Z 1, 3, 16, 29, 33	0.00%	1.70%
Principal Global/Barrow Hanley	MidCap Value III Separate Account-Z 1, 32	1.70%	0.00%
	Mid Cap Growth		
Robert Baird/Eagle Asset Mgmt	MidCap Growth III Separate Account-Z 1, 3, 16, 33, 35	1.70%	1.70%
	Small Value		
Vaughan Nelson/LA Capital/H&W	SmallCap Value II Separate Account-Z 1, 3, 16, 33, 39	0.90%	0.90%
	Small Growth		
AB/Brown/Emerald	SmallCap Growth I Separate Account-Z 1, 3, 16, 30, 33	0.90%	0.90%
	International Equity	18.20%	18.20%
	Diversified Emerging Markets		
Principal Global Investors	International Emerging Markets Separate Account-Z 4,32	3.70%	3.70%
	Foreign Large Value		
Causeway / Barrow Hanley	Overseas Separate Account-Z 3, 4, 16, 33	11.80%	11.80%
	Foreign Small/Mid Blend		
Principal Global Investors	International SmallCap Separate Account-Z 1, 4, 32, 40	2.70%	2.70%
	Real Estate	6.00%	6.00%
	Owned Real Estate		
Principal Real Estate Inv	U.S. Property Separate Account-Z 19, 32	6.00%	6.00%

	Target Allocation 07/01/2018 through 03/31/2019		
Investment Advisor	Investment Option	Beginning Allocation	Ending Allocation
	Balanced/Asset Allocation	2.00%	2.00%
	World Allocation		
Multiple Sub-Advisors	Diversified Real Asset Separate Account-Z 3, 11, 18, 22, 33	2.00%	2.00%
	Fixed Income	40.00%	40.00%
	High Yield Bond		
Neuberger Berman/Mellon/DDJ	High Yield I Separate Account-Z 3, 5, 13, 14, 33, 36	4.00%	2.00%
	Intermediate-Term Bond		
Mellon Investments Corp.	Bond Market Index Separate Account-Z ^{2, 13, 14, 33}	9.00%	15.50%
Principal Global Investors	Core Plus Bond Separate Account-Z 13, 14, 22, 28, 32	27.00%	22.50%

Please see important information at the end of this presentation.

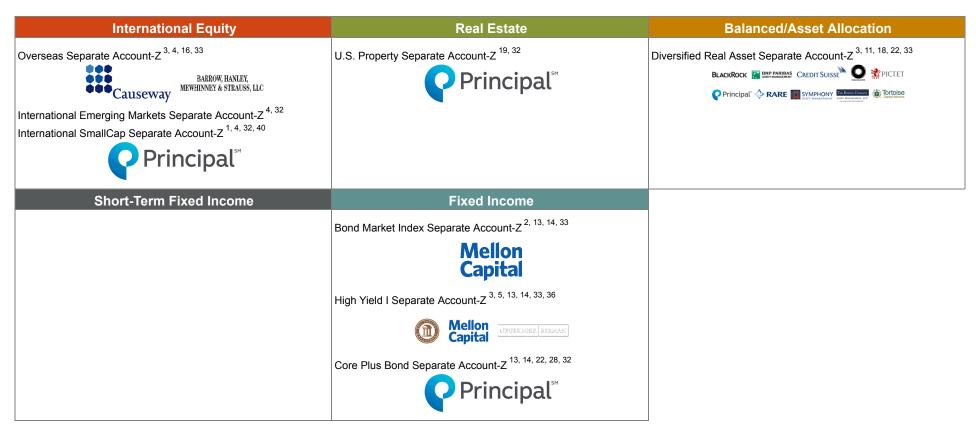
Please note that a slight variance between your plan's target allocation displayed in this report and its weightings is normal. This variance is due to changes in your account values caused by fluctuations in the market. We periodically initiate rebalancing transfers to bring the plan's assets back to its target allocation.





This section of your report includes all investment options with plan assets as of the end of the reporting period.

	Large U.S. Equity	
Large Value	Large Blend	Large Growth
Equity Income Separate Account-Z 3, 11, 34	LargeCap S&P 500 Index Separate Account-Z 2, 8, 22, 32, 41 ++	LargeCap Growth I Separate Account-Z 3, 16, 33
Principal [™]		TROWE PICE TO THE TROUBLE TO THOUGHT Investing.
	Small/Mid U.S. Equity	
Mid Cap Value	Mid Cap Blend	Mid Cap Growth
MidCap Value I Separate Account-Z 1, 3, 16, 29, 33		MidCap Growth III Separate Account-Z 1, 3, 16, 33, 35
LOS ANGELES Victory Capital*		BAIRD EAGLE Asset Management An Affiliate of Carillon Tower Advisers
Small Value	Small Blend	Small Growth
SmallCap Value II Separate Account-Z ^{1, 3, 16, 33, 39}		SmallCap Growth I Separate Account-Z 1, 3, 16, 30, 33
Hotchkis & Wiley VALCHAN LOS ANGELES		Brown ADVISORY Thoughtful Investing.



Please see important information at the end of this presentation.

Portfolio Performance Review

Time & Dollar Weighted Rates of Return March 31, 2019

Time & Dollar Weighted Returns	QTR	YTD*	1 Year	3 Year	5 Year	10 Year
Total Portfolio Return	8.40	3.20	3.99	8.41	5.48	11.35
Weighted Index	7.86	3.67	4.49	7.22	5.66	9.37
Excess Return	0.54	-0.47	-0.50	1.19	-0.18	1.98

Asset Class Return Information	QTR	YTD*	1 Year	3 Year	5 Year	10 Year
Your Plan's U.S. Equity Return	14.31	6.74	11.19	15.28	9.94	18.45
Standard & Poor's 1500 Total Market Stock Index	13.64	4.95	8.79	13.34	10.64	16.01
Your Plan's International Equity Return	10.18	-5.61	-9.03	5.72	0.70	9.02
MSCI ACWI Ex USA Index	10.31	-1.64	-4.22	8.09	2.57	8.85
Your Plan's Real Asset Return	3.40	4.02	6.49	7.62	5.21	7.96
Blended Real Asset Index	2.89	2.08	3.36	4.32	1.93	4.65
Your Plan's Fixed Income Return	3.79	4.20	3.81	3.12	2.82	5.66
Bloomberg Barclays Aggregate Bond Index	2.94	4.65	4.48	2.03	2.74	3.77



We calculated performance of your plan assets with information provided to us by Principal Life Insurance Company from your March 31, 2019 Contractholder Fund Statement.

Your portfolio's returns are net of investment management expenses and are based on your plan's specific activity. The returns take into consideration contributions, benefit payments, transfers and other withdrawals. The index returns do not include any expenses or cash flows.

Please see important information at the end of this presentation.

^{*}Represents plan year to date from 7/1/2018 through 3/31/2019.

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.

In situations where the net and gross total investment expense figures are different, the mutual fund or underlying fund in which a Separate Account invests has waived/capped a portion of its management fees through the date displayed in the Waiver Expiration Date or Contractual Cap Expiration Date column. Differences may also be shown due to the fund family choosing to pay certain expenses that would normally be payable by the fund. Returns displayed are always based on net total investment expense.

For more performance information, including most recent month-end performance, visit www.principal.com, contact your representative of the Principal Financial Group® (The Principal®), or call our participant contact center at 1-800-547-7754.

	Average Annual Total Returns through 03/31/2019 P							Percen	tile Ran	kings as	of 03/3	31/2019		
Inv Manager or Sub-Advisor Investment Option Large U.S. Equity	Last 3 mos	1 yr.	3 yr.	5 yr.	10 yr.	Since Inception	Inception Date	Last 3 mos	1 yr.	3 yr.	5 yr.	10 yr.		Contractual Cap/Waiver Expire Date
Large Value														
Principal Global Investors Equity Income Separate Account-Z ^{3, 11, 34}	11.04	8.02	13.05	9.32	14.82	9.01	06/30/2009	-	20	6	12	23	0.30 / 0.31	02/29/2020
Russell 1000 Value Index	11.93	5.67	10.45	7.72	14.52	-	-		-	-	-	-	-	
Morningstar Category Average - Large Value	11.29	4.48	10.01	7.20	13.68	Total Funds	in Category	1249	1229	1096	939	691	-	-
Large Blend														
Principal Global Investors LargeCap S&P 500 Index Separate Account-Z ^{2,} 8, 22, 32, 41	13.62	9.45	13.43	10.83	15.83	9.59	01/01/1990	-	23	19	13	17	0.05 / 0.05	-
Standard & Poor's 500 Index	13.65	9.50	13.51	10.91	15.92	-	-		-	-	-	-	-	
Morningstar Category Average - Large Blend	12.94	6.90	11.84	8.91	14.54	Total Funds	in Category	1481	1412	1218	1081	810	_	-
Large Growth														
T. Rowe Price/Brown Advisory LargeCap Growth I Separate Account-Z 3, 16, 33	17.23	15.73	19.58	14.24	18.91	7.23	12/29/2000	-	11	10	11	7	0.38 / 0.40	02/29/2020
Russell 1000 Growth Index	16.10	12.75	16.53	13.50	17.52	-	-		-	-	-	-	-	
Morningstar Category Average - Large Growth	15.67	10.71	15.35	11.26	15.94	Total Funds	in Category	1432	1397	1256	1114	805	_	-
Small/Mid U.S. Equity														
Mid Cap Value														
LA Capital Mgmt/Victory MidCap Value I Separate Account-Z ^{1, 3, 16, 29, 33}	13.65	3.33	9.98	6.55	15.21	8.25	07/01/1999	-	24	28	36	38	0.61 / 0.73	- 02/29/2020
Russell Midcap Value Index	14.37	2.89	9.50	7.22	16.39	-	-		-	-	-	-	-	
Principal Global/Barrow Hanley MidCap Value III Separate Account-Z 1, 32	14.77	-2.82	6.47	4.65	14.57	10.13	01/01/1991	-	83	83	76	53	0.40 / 0.40	-
Russell Midcap Value Index	14.37	2.89	9.50	7.22	16.39	-	-		-	-	-	-	-	
Morningstar Category Average - Mid Cap Value	12.94	0.66	8.55	5.87	14.46	Total Funds	in Category	424	417	368	318	225	_	-

	Α	verage A	Annual T	otal Ret	urns thr	ough 03/31	/2019	Percen	itile Ran	kings as	of 03/3	31/2019		
Inv Manager or Sub-Advisor Investment Option	Last 3 mos	1 yr.	3 yr.	5 yr.	10 yr.	Since Inception	Inception Date	Last 3 mos	1 yr.	3 yr.	5 yr.	10 yr.		Contractual Cap/Waiver Expire Date
Mid Cap Growth							1							
Robert Baird/Eagle Asset Mgmt MidCap Growth III Separate Account-Z ^{1, 3, 16, 33, 35}	18.22	8.98	14.04	9.23	15.91	7.01	10/28/1999	-	46	52	51	49	0.64 / 0.72	- 02/29/2020
Russell Midcap Growth Index	19.62	11.51	15.06	10.89	17.60	-	-		-	-	_	_	-	
Morningstar Category Average - Mid Cap Growth Small Value	18.19	8.04	14.18	8.99	15.70	Total Funds	in Category	626	615	555	495	352	_	-
Vaughan Nelson/LA Capital/H&W SmallCap Value II Separate Account-Z ^{1, 3, 16, 33, 39}	13.31	-0.59	9.02	5.69	15.51	7.93	06/01/2004	-	28	33	20	23	0.73 / 0.77	02/29/2020 02/29/2020
Russell 2000 Value Index	11.93	0.17	10.86	5.59	14.12	-	-		-	-	-	-	-	
Morningstar Category Average - Small Value Small Growth	12.13	-2.55	8.30	3.94	14.12	Total Funds	in Category	453	440	393	346	238	-	-
AB/Brown/Emerald SmallCap Growth I Separate Account-Z 1, 3, 16, 30, 33	21.38	12.30	19.37	10.42	18.61	7.01	12/29/2000	-	22	22	20	12	0.74 / 0.83	02/29/2020
Russell 2000 Growth Index	17.14	3.85	14.87	8.41	16.52	-	-		-	-	-	-	-	
Morningstar Category Average - Small Growth	17.01	7.70	15.88	8.45	16.24	Total Funds	in Category	696	679	588	522	392	-	-
International Equity		'				`					<u>'</u>	<u>'</u>		
Diversified Emerging Markets		ı												
Principal Global Investors International Emerging Markets Separate Account-Z 4, 32	9.28	-15.41	8.92	2.89	8.53	8.15	01/01/1995	-	94	58	52	56	0.72 / 0.72	-
MSCI Emerging Markets NR Index	9.91	-7.41	10.68	3.68	8.94	-	-		-	-	-	-	-	
Morningstar Category Average - Diversified Emerging Markets	10.27	-9.31	9.11	2.61	8.92	Total Funds	in Category	889	833	707	553	238	-	-
Foreign Large Value														
Causeway / Barrow Hanley Overseas Separate Account-Z ^{3, 4, 16, 33}	10.18	-7.23	6.36	0.91	8.63	5.22	09/30/2008	-	55	46	42	29	0.66 / 0.73	- 02/29/2020
MSCI EAFE Value Index	7.92	-6.13	6.90	0.67	8.12	-	-		-	-	-	-	-	
Morningstar Category Average - Foreign Large Value	8.71	-6.27	5.92	0.62	8.08	Total Funds	in Category	331	314	275	225	148	-	-

	Α	verage A	Annual 1	otal Ret	urns thr	ough 03/31	/2019	Percen	tile Ran	kings as	of 03/3	31/2019		
Inv Manager or Sub-Advisor Investment Option Foreign Small/Mid Blend	Last 3 mos	1 yr.	3 yr.	5 yr.	10 yr.	Since Inception	Inception Date	Last 3 mos	1 yr.	3 yr.	5 yr.	10 yr.		Contractual Cap/Waiver Expire Date
Principal Global Investors														
International SmallCap Separate Account-Z ^{1, 4,} 32, 40	12.41	-10.32	7.65	4.63	13.56	11.00	01/01/1995	-	40	26	10	7	0.73 / 0.73	-
MSCI World Ex US Small Cap Index	10.93	-8.66	7.28	3.69	12.25	-	-		-	-	-	-	-	
Morningstar Category Average - Foreign Small/Mid Blend	10.46	-10.58	6.70	2.88	11.52	Total Funds	in Category	115	110	90	67	50	-	-
Real Estate														
Owned Real Estate	ı	ı												
Principal Real Estate Inv U.S. Property Separate Account-Z ^{19, 32}	1.71	8.06	8.54	10.42	8.44	7.24	01/01/1982	-	-	-	-	-	0.79 / 0.79	-
NFI-ODCE Equal-Weight	-	-	-	-	-	-	-		-	-	-	-	-	
Balanced/Asset Allocation														
World Allocation														
Multiple Sub-Advisors Diversified Real Asset Separate Account-Z 3, 11, 18, 22, 33	8.75	1.80	5.38	0.47	-	4.04	12/31/2010	-	29	75	91	-	0.56 / 0.59	12/30/2019
Diversified Real Asset Strategic Index	8.71	3.12	5.74	1.34	-	-	-		-	-	-	-	-	
Morningstar Category Average - World Allocation	7.81	0.09	6.14	3.01	8.38	Total Funds	in Category	505	469	397	321	161	_	-
Fixed Income														
High Yield Bond														
Neuberger Berman/Mellon/DDJ High Yield I Separate Account-Z ^{3, 5, 13, 14, 33, 36}	6.62	4.15	6.91	3.65	10.04	6.93	12/31/2004	-	63	54	44	35	0.51 / 0.51	-
Bloomberg Barclays US Corp High Yld 2% Issuer Capped Index	7.26	5.93	8.56	4.69	11.21	-	-		-	_	-	-	-	
Morningstar Category Average - High Yield Bond	6.35	4.33	6.97	3.45	9.49	Total Funds	in Category	731	700	610	519	332	-	-

Average Annual Total Returns through 03/31/2019 F								Percentile Rankings as of 03/31/2019						
Inv Manager or Sub-Advisor Investment Option Intermediate-Term Bond	Last 3 mos	1 yr.	3 yr.	5 yr.	10 yr.	Since Inception	Inception Date	Last 3 mos	1 yr.	3 yr.	5 yr.	10 yr.	Exp. Net /	Contractual Cap/Waiver Expire Date
Mellon Investments Corp. Bond Market Index Separate Account-Z ^{2, 13, 14, 33}	2.91	4.30	1.79	2.51	-	3.14	12/30/2009	-	37	76	54	-	0.16 / 0.16	-
Bloomberg Barclays Aggregate Bond Index	2.94	4.48	2.03	2.74	3.77	-	-		-	-	-	-	-	
Principal Global Investors Core Plus Bond Separate Account-Z ^{13, 14, 22, 28,} 32	3.77	4.00	3.01	3.00	6.49	7.50	02/01/1983	-	54	20	21	7	0.26 / 0.26	-
Bloomberg Barclays Aggregate Bond Index	2.94	4.48	2.03	2.74	3.77	-	-		-	-	-	-	-	
Morningstar Category Average - Intermediate-Term Bond	3.13	3.98	2.37	2.51	4.56	Total Funds	in Category	1087	1024	901	769	564	-	-

This section of your report includes all investment options with plan assets as of the end of the reporting period.

Please see important information at the end of this presentation.

Important Information

Separate Accounts are available through a group annuity contract with Principal Life Insurance Company. Insurance products and plan administrative, if applicable, services 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 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.

- + This is not a sub-advised investment option. Guarantees are backed by all the assets in the Principal Life general account.
- ++ Investment options sub-advised by Principal Global Investors.

Investment Advisory Services are provided by Principal Financial Advisors, Inc., a registered investment advisor and wholly owned subsidiary of the Principal Financial Group.

No investment strategy, such as diversification or asset allocation, can guarantee a profit or protect against loss in periods of declining value.

Asset allocation strategies are developed using Separate Accounts available through a group annuity contract of Principal Life Insurance Company.

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.

Investment options are subject to investment risk. Shares or unit values will fluctuate and investments, when redeemed, may be worth more or less than their original cost. This does not apply, however, to the guaranteed portions of group annuity contracts issued by Principal Life that constitute guaranteed benefit policies as defined in ERISA $\S401(b)(2)(B)$.

This report includes investment options that contain information from a variety of sources. A primary source is Morningstar which provides holdings information, operations data, and rankings or statistics proprietary to Morningstar. Morningstar is generally the source of information on mutual funds unaffiliated with the Principal.

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Compliance number: t14092601zk

- 1. Small-cap and mid-cap investment options are subject to more fluctuation in value and may have additional risks than other investment options with stocks of larger, more stable companies.
- 2. Each index based investment option is invested in the stocks or bonds of the index it tracks. Performance of indexes reflects the unmanaged results for the market segment the selected stocks or bonds represent. There is no assurance an index based investment option will match the performance of the index tracked.

- 3. This Separate Account invests solely in the least expensive share class of the Principal Funds. 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.
- 4. International and global investment options are subject to additional risk due to fluctuating exchange rates, foreign accounting and financial policies, and other economic and political environments.
- 5. High yield investment options are subject to greater credit risk and volatility that is associated with high yield bonds.
- 6. 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.
- 8. S&P 500 is a trademark of S&P Global and is used under license. The product is not sponsored, endorsed, sold or promoted by Standard & Poor's and Standard & Poor's makes no representation regarding the advisability of investing in the product.
- 11. These calculated returns reflect the historical performance of the oldest share class of the fund, adjusted to reflect a portion of the fees and expenses of this share class. For time periods prior to inception date of the fund, predecessor performance is reflected. Please see the fund's prospectus for more information on specific expenses, and the fund's most recent shareholder report for actual date of first sale. Expenses are deducted from income earned by the fund. As a result, dividends and investment results will differ for each share class.
- 13. Fixed-income investment options are subject to interest rate risk, and their value will decline as interest rates rise. Neither the principal of bond investment options nor their yields are guaranteed by the U.S. government.
- 14. Fixed-income and asset allocation investment options that invest in mortgage securities are subject to increased risk due to real estate exposure.
- 16. This Separate Account invests solely in the least expensive share class of a mutual fund (Fund) from Principal Funds, Inc. The investment manager of the Fund, Principal Global Investors, invests between 10% and 40% of the Fund's assets in common stocks in an attempt to match or exceed the performance of the Fund's benchmark index for performance.
- 18. Fixed-income investment options are subject to interest rate risk, and their value will decline as interest rates rise. Neither the principal of bond investment options nor their yields are guaranteed by the U.S. or any other government entity. Concentrating investments in natural resources industries can be affected significantly by events relating to those industries, such as variations in the commodities markets, weather, disease, embargoes, international, political and economic developments, the success of exploration projects, tax and other government regulations and other factors. Investment in derivatives entails specific risks relating to liquidity, leverage and credit that may reduce returns and/or increase volatility. REIT securities are subject to risk factors associated with the real estate industry and tax factors of REIT registration. An MLP that invests in a particular industry (e.g., oil and gas) may be harmed by detrimental economic events within that industry. As partnerships, MLPs may be subject to less regulation (and less protection for investors) under state laws than corporations. In addition, MLPs may be subject to state taxation in certain jurisdictions, which may reduce the amount of income paid by an MLP to its investors.
- 19. This investment option is subject to investment and liquidity risk and other risks inherent in real estate such as those associated with general and local economic conditions. If you elect to contribute funds into the U.S. Property Separate Account, withdrawals may be delayed for up to 3 years.
- 21. 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.

- 22. The risks associated with derivative investments include that the underlying security, interest rate, market index, or other financial asset will not move in the direction the Investment Adviser and/or Sub-Advisor anticipated, the possibility that there may be no liquid secondary market, the risk that adverse price movements in an instrument can result in a loss substantially greater than a fund's initial investment, the possibility that the counterparty may fail to perform its obligations; and the inability to close out certain hedged positions to avoid adverse tax consequences.
- 28. Formerly known as Bond and Mortgage Separate Account.
- 29. Effective June 30, 2016, this portfolio is sub-advised by LA Capital and Victory Capital. Prior to June 30, 2016, the portfolio was sub-advised by Goldman Sachs and LA Capital. The portfolio has had various sub-advisors since its inception. Performance results displayed reflect all sub-advisors managing this portfolio during the time periods displayed.
- 30. Effective September 30, 2016, this portfolio is sub-advised by AB LP, Brown Advisory and Emerald Advisors, LLC. Prior to September 30, 2016, the portfolio was sub-advised by AB LP, Brown Advisory, Emerald Advisors, LLC. and Columbus Circle Investors. The portfolio has had various sub-advisors since its inception. Performance results displayed reflect all sub-advisors managing this portfolio during the time periods displayed.
- 31. Prior to January 1, 2017, the name of this investment option was Principal Money Market Separate Account.
- 32. 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.
- 33. Investment manager/sub-advisor means either the Investment Advisor or Sub-Advisor to the investment option or the underlying asset(s).
- 34. 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. Edge Asset Management is an internal investment boutique of Principal Global Investors.
- 35. Effective June 30, 2017, this portfolio is sub-advised by Robert Baird and Eagle Asset Management. Prior to June 30, 2017, the portfolio was sub-advised by Robert Baird and William Blair. The portfolio has had various sub-advisors since its inception. Performance results displayed reflect all sub-advisors managing this portfolio during the time periods displayed.
- 36. Effective October 2, 2017, this portfolio is sub-advised by Neuberger Berman, Mellon and DDJ. Prior to October 2, 2017, the portfolio was sub-advised by JP Morgan and Neuberger Berman. The portfolio has had various sub-advisors since its inception. Performance results displayed reflect all sub-advisors managing this portfolio during the time periods displayed.
- 39. Effective June 29, 2018, this portfolio is sub-advised by Vaughn Nelson, LA Capital and Hotchkis & Wiley. Prior to June 29, 2018, the portfolio was sub-advised by DFA, Vaughn Nelson and LA Capital. The portfolio has had various sub-advisors since its inception. Performance results displayed reflect all sub-advisors managing this portfolio during the time periods displayed.
- 40. Effective September 21, 2018, this portfolio is sub-advised by Principal Global Investors. Prior to September 21, 2018, the portfolio was sub-advised by DFA and Principal Global Investors. The portfolio has had various sub-advisors since its inception. Performance results displayed reflect all sub-advisors managing this portfolio during the time periods displayed.

41. For the NE Rate level, Principal Life Insurance Company (Principal Life) 1. pays the Sub-Adviser the management fee and compensation for services provided to the separate account, and 2. pays the separate account the expected operating expenses proportionally attributable to the NE Rate level in the maintenance of the Separate Account. Operating expenses may be greater or less than expected in any given period. The NE Rate level is only available to Contract holders who meet certain requirements and select certain additional products and services made available by Principal Life or an affiliate. Ask your Principal representative for additional details.

Benchmark Descriptions

Balanced Strategy Composite Index is composed of 30% Russell 1000 Index, 4% Russell 2500 Index, 14% MSCI EAFE Index, 3% MSCI Emerging Markets Index, 4% MSCI World Index, 5% NAREIT Equity Index, and 40% Barclays Capital Aggregate Bond Index.

Blended Real Asset Index through September 30, 2011, is as follows: 75% NFI-ODCE Equal-Weight and 25% MSCI US REIT Index. The NFI-ODCEEqual-Weight is the NCREIF Fund Index-Open End Diversified Core Equity. It is a fund-level equal-weighted, time-weighted return index and includesproperty investments at ownership share, cash balances and Leverage. The return series is net of the average fee charged by accounts that make up the index. The MSCI US REIT Index is a capitalization-weighted benchmark index of most actively traded Real Estate Investment Trusts (REITs), designed to measure real estate performance. Effective October 1, 2011, the Blended Real Asset Index is comprised of 60% Consumer Price Index (CPI) plus 1.5% and 40% Diversified Real Asset Strategic Index. Consumer Price Index is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. The CPI is calculated by taking price changes for each item in the predetermined basket of goods and averaging them; the goods are weighted according to their importance. Changes in CPI are used to assess price changes associated with the cost of living. The Diversified Real Asset Strategic Index is composed of 35% Bloomberg Barclays U.S. Treasury TIPS Index, 20% S&P Global Infrastructure Index, 20% S&P Global Natural Resources Index, 15% Bloomberg Commodity Index, and 10% FTSE EPRA/NAREIT Developed Markets Index. Effective July 1, 2012, the Blended Real Asset Index is comprised of 50% Consumer Price Index (CPI) plus 1.5% and 50% Diversified Real Asset Strategic Index.

Bloomberg Barclays Aggregate Bond Index represents securities that are domestic, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

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

Bloomberg Barclays U.S. Corporate High Yield Index is an unmanaged index constructed to mirror the characteristics of the high yield bond market.

Bloomberg Barclays US Corp High Yld 2% Issuer Capped Index is an unmanaged index comprised of fixed rate, non-investment grade debt securities that are dollar denominated. The index limits the maximum exposure to any one issuer to 2%.

Conservative Strategy Composite Index is composed of 11% Russell 1000 Index, 4% MSCI EAFE Index, 2% MSCI World Index, 3% NAREIT Equity Index, 60% Barclays Capital Aggregate Bond Index, and 20% Merrill Lynch US Treasury 1-3 year Index.

Diversified Real Asset Strategic Index is composed of 35% Bloomberg Barclays U.S. Treasury TIPS Index, 20% S&P Global Infrastructure Index, 20% S&P Global Natural Resources Index, 15% Bloomberg Commodity Index, and 10% FTSE EPRA/NAREIT Developed Markets Index.

FTSE EPRA/NAREIT Developed Index is designed to represent general trends in eligible real estate equities worldwide.

FTSE EPRA/NAREIT Developed Index NR is designed to represent general trends in eligible real estate equities worldwide.

Growth Strategy Composite Index is composed of 41% Russell 1000 Index, 6% Russell 2500 Index, 17% MSCI EAFE Index, 4% MSCI Emerging Markets Index, 6% MSCI World Index, 6% NAREIT Equity Index, and 20% Barclays Capital Aggregate Bond Index.

Moderate Strategy Composite Index is composed of 20% Russell 1000 Index, 3% Russell 2500 Index, 9% MSCI EAFE Index, 2% MSCI Emerging Markets Index, 3% MSCI World Index, 3% NAREIT Equity Index, and 60% Barclays Capital Aggregate Bond Index.

MSCI EAFE NR Index is listed for foreign stock funds (EAFE refers to Europe, Australia, and Far East). Widely accepted as a benchmark for international stock performance, the EAFE Index is an aggregate of 21 individual country indexes.

MSCI EAFE Value Index is a subset of the MSCI EAFE Index, which is an unmanaged index that measures the stock returns of companies in developed economies outside of North America. The MSCI EAFE Value Index consists of securities classified by MSCI as most representing the value style.

MSCI Emerging Markets NR Index measures equity market performance in the global emerging markets. It consists of 26 emerging market countries in Europe, Latin America and the Pacific Basin.

MSCI US REIT Index is a capitalization-weighted benchmark index of most actively traded Real Estate Investment Trusts (REITs), designed to measure real estate performance.

MSCI World Ex US Small Cap Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. It offers an exhaustive representation of the Small Cap segment by targeting companies that are in the Investable Market Index but not in the Standard Index in a particular market.

NFI-ODCE Equal-Weight is the NCREIF Fund Index - Open End Diversified Core Equity. It is a fund-level equal-weighted, time-weighted return index and includes property investments at ownership share, cash balances and leverage. The return series is net of the average fee charged by accounts that make up the index.

Real Asset Index through September 30, 2011, is as follows: 75% NFI-ODCE Equal-Weight and 25% MSCI US REIT Index. The NFI-ODCE Equal-Weight is the NCREIF Fund Index-Open End Diversified Core Equity. It is a fund-level equal-weighted, time-weighted return index and includesproperty investments at ownership share, cash balances and Leverage. The return series is net of the average fee charged by accounts that make up the index. The MSCI US REIT Index is a capitalization-weighted benchmark index of most actively traded Real Estate Investment Trusts (REITs), designed to measure real estate performance. Effective October 1, 2011, the Real Asset Index is comprised of 60% Consumer Price Index (CPI) plus 1.5% and 40% Diversified Real Asset Strategic Index. Consumer Price Index is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. The CPI is calculated by taking price changes for each item in the predetermined basket of goods and averaging them; the goods are weighted according to their importance. Changes in CPI are used to assess price changes associated with the cost of living. The Diversified Real Asset Strategic Index is composed of 35% Bloomberg Barclays U.S. Treasury TIPS Index, 20% S&P Global Infrastructure Index, 20% S&P Global Natural Resources Index, 15% Bloomberg Commodity Index, and 10% FTSE EPRA/NAREIT Developed Markets Index. Effective July 1, 2012, the Real Asset Index is comprised of 50% Consumer Price Index (CPI) plus 1.5% and 50% Diversified Real Asset Strategic Index. Effective April 1, 2016, the Real Asset Index is comprised of 100% Consumer Price Index (CPI) plus 1.5%.

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

Russell 1000 Index consists of the 1000 largest companies within the Russell 3000 index. Also known as the Market-Oriented Index, because it represents the group of stocks from which most active money managers choose.

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.

Russell 2000 Growth Index is a market-weighted total return index that measures the performance of companies within the Russell 2000 Index having higher price-to-book ratio and higher forecasted growth values.

Russell 2000 Index consists of the smallest 2000 companies in the Russell 3000 Index, representing approximately 10% of the Russell 3000 total market capitalization.

Russell 2000 Value Index is a market-weighted total return index that measures the performance of companies within the Russell 2000 Index having lower price-to-book ratios and lower forecasted growth values.

Russell Midcap Growth Index is a market-weighted total return index that measures the performance of companies within the Russell Midcap Index having higher price-to-book ratios and higher forecasted growth values.

Russell Midcap Index includes firms 201 through 1000, based on market capitalization, from the Russell 3000 Index.

Russell Midcap Value Index is a market-weighted total return index that measures the performance of companies within the Russell Midcap index having lower price-to-book ratios and lower forecasted growth values.

Standard & Poor's 1500 Total Market Stock Index is an index of small, medium and large stocks. It is comprised of stocks from the Standard & Poor's 500, 400 and 600 stock indices.

Standard & Poor's 500 Index is a market capitalization-weighted index of 500 widely held stocks often used as a proxy for the stock market.

The Russell 3000 Index is constructed to provide a comprehensive barometer of the broad market and accounts for nearly 98% of the total value of all equity traded on the U.S. exchanges. It measures the stocks that are also members of either the Russell 1000 or the Russell 2000 indexes.

Weighted Index is composed of:

04/01/2009 - 12/31/2010: 34% BBgBarc Aggregate Bond Index, 44% S&P 1500 Index, 13.90% MSCI ACWI Ex USA Index, 6% NFI-ODCE Equal Weight Index and 2.10% MSCI US REIT Index.

01/01/2011 - 09/30/2011: 34% BBgBarc Aggregate Bond Index, 43.40% S&P 1500 Index, 14.50% MSCI ACWI Ex USA Index, 6% NFI-ODCE Equal Weight Index and 2.10% MSCI US REIT Index.

10/01/2011 - 03/31/2016: 40% BBgBarc Aggregate Bond Index, 37.50% S&P 1500 Index, 12.50% MSCI ACWI Ex USA Index and 10% Blended Real Asset Index. 04/01/2016 - 07/31/2017: 40% BBgBarc Aggregate Bond Index, 39% S&P 1500 Index, 13% MSCI ACWI Ex USA Index and 8% Blended Real Asset Index. 08/01/2017 - 03/31/2018: 40% BBgBarc Aggregate Bond Index, 36.40% S&P 1500 Index, 15.60% MSCI ACWI Ex USA Index and 8% Blended Real Asset Index. 04/01/2018 - 03/31/2019: 40% BBgBarc Aggregate Bond Index, 33.80% S&P 1500 Index, 18.20% MSCI ACWI Ex USA Index and 8% Blended Real Asset Index.



Why Use a Liability Driven Investment Strategy?

Efficiently Managing Risks as You Approach Plan Termination



Two approaches to defined benefit investing

Approach is defined by focus on different risks

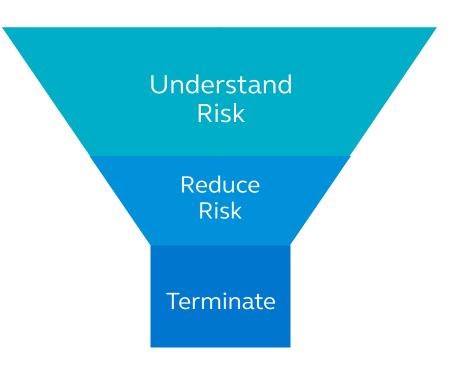
Traditional Total-Return	Liability-Driven Investing (LDI)
Focus on asset side and related risk	Focus on asset/liability mismatch risk and therefore on liability risks
Risk is typically quantified by dispersion around expected asset returns	Risk quantified by "tracking error" to liabilities
Typical benchmark of asset performance is market index-driven	"Benchmark" for asset performance is liabilities



Benefits of LDI for frozen plans

LDI can help reduce volatility

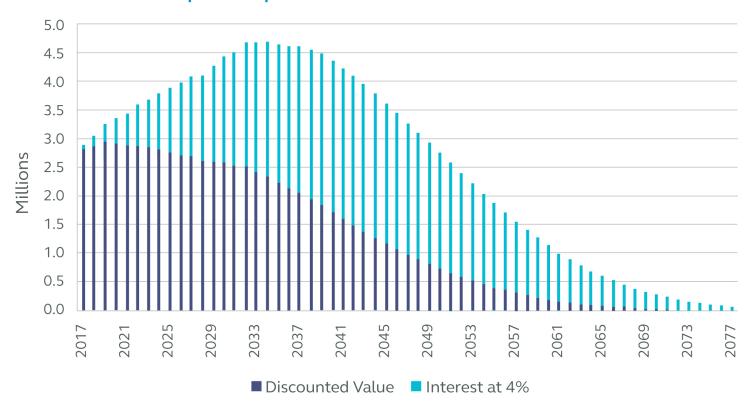
- Longer-duration bonds historically have behaved like liabilities
- Chance of sudden loss from asset/liability mismatch reduced
- Relationships between assets and liabilities potentially more stable
- Stability of funded status is key as plan approaches termination date





Defined Benefit Services

Expected benefit payments for sample plan

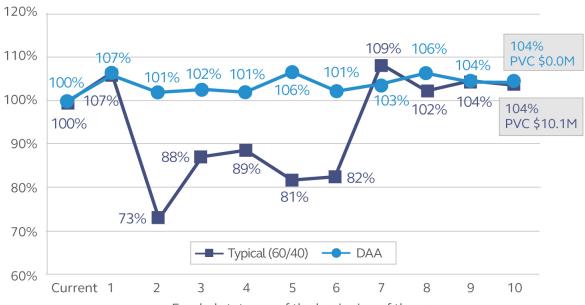


Average Plan assumptions: Liability of \$78M, duration of 14.9 years, interest rate levels of 4%.



Defined Benefit Services

LDI vs. total-return: hypothetical example 1



Funded status as of the beginning of the year

Definitions and assumptions:

Funded status = Market value of assets as a percent of funding liabilities under Pension Protection Act (PPA)

rules (pre-stabilization rules) with the modified IRS 3-segment curve with a 4-month look back.

Total Cost = Present value of annual contributions (PVC) discounted at 5.5% over 10 years.

Historical Scenario above assumes actual asset returns (using broad market indices) from 2007 through 2016, Citigroup corporate bond yield curve to calculate modified IRS curve under PPA minimum required rules, (ignoring any rate stabilization rules); initial funded status of 100% and minimum funding policy under PPA. Total-return portfolio (Typical 60/40) uses 60% exposure to equities and 40% fixed income investment in core bond, and DAA is based on funded status.

Typical (60/40) allocation consists of 60% Equity (45% S&P 1500 and 15% MSCI ACWI Ex US Index) and 40% fixed income (Bloomberg Barclays Aggregate Bond Index). DAA is represented by an initial allocation of 40% equity and 60% fixed income and is shifted as the funded status changes over time according to the hypothetical DAA glide path on slide 7. Equity is represented by an allocation of 75% in US Equity (S&P 1500 Index) and 25% in non-US Equity (MSCI ACWI Ex US Index). Fixed income is represented by Bloomberg Barclays US Government/Credit Long Index.

This chart is for illustrative purposes only. It is hypothetical and does not guarantee any specific returns on any investment options. Results shown are not indicative of future results. Results will vary based on retirement plan characteristics.



Defined Benefit Services

Principal LDI separate accounts

The Principal LDI Separate Accounts can be used to implement an LDI strategy for any size DB plan.

Principal LDI Separate Account Suite											
Name	Investment Manager/ Sub-Advisor	Average Effective Duration	Average Effective Duration Band (Years)								
LDI Short Duration Separate Account	Principal Global Investors	Short	< 3								
LDI Intermediate Duration Separate Account	Principal Global Investors	Intermediate	3 – 10								
LDI Long Duration Separate Account	Principal Global Investors	Long	11 – 15								
LDI Extended Duration Separate Account	Barrow Hanley	Extended	15 +								

Average Effective Duration - A time measure of a bond portfolio's interest-rate sensitivity, based on the weighted average of the time periods over which the cash flows of all of the portfolio's bond holdings accrue to the portfolio. Time periods are weighted by multiplying by the present value of each bond's cash flow divided by that bond's price. (A bond's cash flows consist of coupon payments and repayment of capital).



Important Information

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.

Principal Financial Advisors, Inc. is a registered investment adviser and member company of the Principal Financial Group®.

Investing involves risk, including possible loss of principal.

Asset allocation and diversification do not ensure a profit or protect against a loss.

Fixed-income investment options are subject to interest rate risk, and their value will decline as interest rates rise.

Insurance products and plan administrative services are provided by Principal Life Insurance Company. Principal Funds, Inc. is distributed by Principal Funds Distributor, Inc. Securities are offered through Princor Financial Services Corporation, 800-547-7754, Member SIPC and/or independent broker/dealers. Securities sold by a Princor Registered Representative are offered through Princor®. Principal Funds Distributor, Princor and Principal Life are members of the Principal Financial Group®, Des Moines, IA 50392. Investment options may not be available in all states or U.S. commonwealths. Separate Accounts are available through a group annuity contract with Principal Life Insurance Company. See the group annuity contract for the full name of the Separate Account. Principal Life Insurance Company reserves the right to defer payments or transfers from Principal Life Separate Accounts as permitted by 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 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.

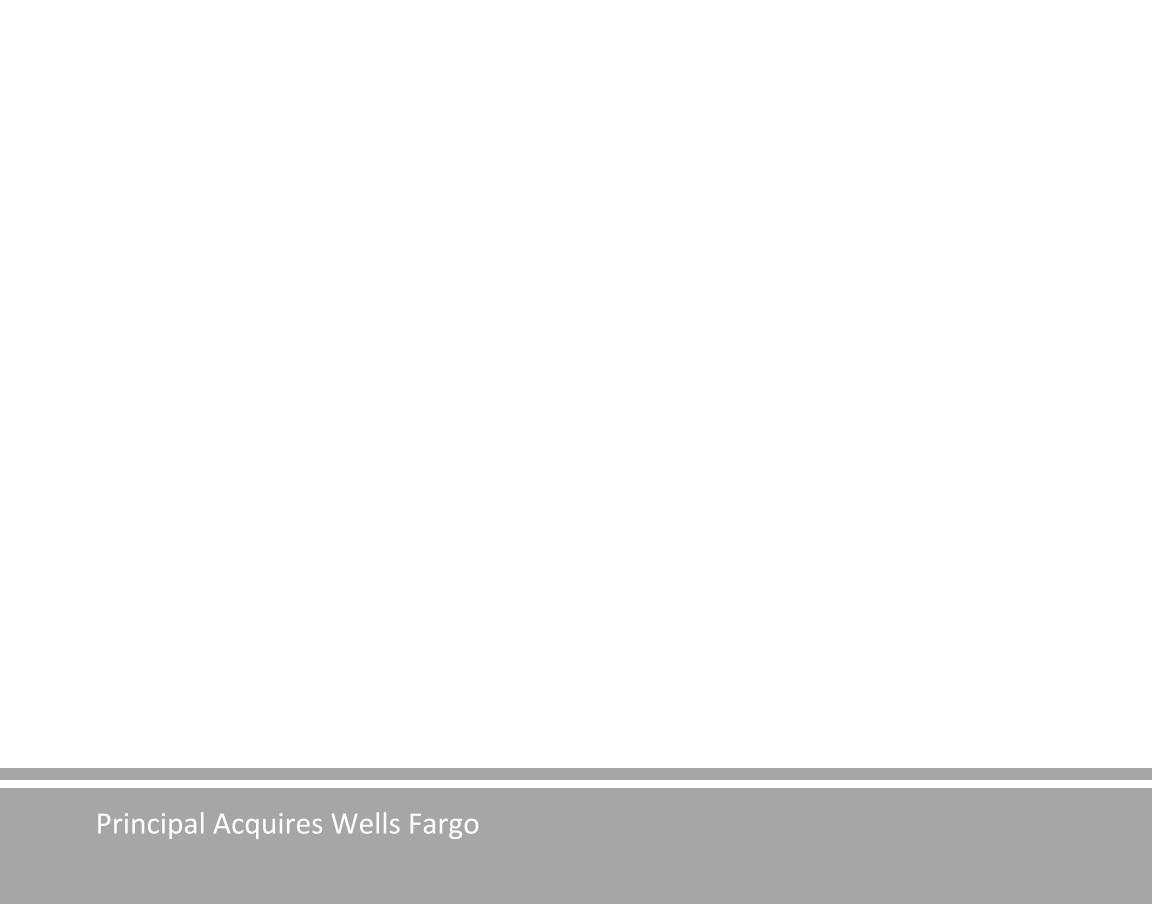


Important Information

Past index performance is not indicative of future return. Indices are unmanaged and do not take into account fees, expenses and transaction costs. Indices are not available for direct investment.

Model, back tested or simulated performance presented are for illustrative purposes and are provided solely for conceptual discussion only; therefore no fees are discussed or illustrated. Results from any live implementation of strategies discussed would in actuality be reduced by fees charged against an account deploying the strategy. Model, back tested or simulated performance is no guarantee of the future results in a live portfolio using the strategy. Potential for profit is accompanied by possibility of loss. Hypothetical or simulated performance results have certain inherent limitations. Unlike an actual performance record, simulated results do not represent actual trading. Simulated trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. Further, back testing allows the security selection methodology to be adjusted until past returns are maximized. No representation is being made that any account will or is likely to achieve profit or losses similar to those shown. Unless otherwise noted, performance returns for one year or longer are annualized. Performance returns for periods of less than one year are for the period reported. Reinvestment of earnings was assumed. The simulated performance used in this presentation may differ from live performance experienced using the same strategies for a variety of reasons such as: The simulation assumes that the strategy guidelines are constant through the life of the portfolio, whereas, the guidelines for live portfolios may change over the life of each portfolio; the simulation assumes zero transaction cost whereas live portfolio transaction costs will be variable; dependent on market conditions such as liquidity and portfolio size, the types of instruments traded within the simulation may not have been permissible in a live portfolio; etc.







A better retirement begins here

At Principal®, retirement is the heart of our business and will drive our future. We're excited to announce that we've reached an agreement with Wells Fargo to acquire its Institutional Retirement & Trust business. This acquisition will further strengthen our ability to help people save enough, have enough and protect enough throughout their lifetime.

Here's the deal.

At closing, Principal will gain control of Wells Fargo's defined contribution, defined benefit, executive deferred compensation, employee stock ownership plans, institutional trust and custody and institutional asset advisory businesses to serve a combined 7.5 million U.S. retirement customers. Together with our global retirement, asset management and risk protection offerings, Principal expects to be well-positioned to serve the retirement and workplace benefits market with lifetime investing, income and insurance solutions and support.

This acquisition doubles the size of our U.S. retirement business.¹

7.5M individuals

56,000 plans

\$500+B in assets

More choice, solutions and support

Together with the Wells Fargo Institutional Retirement & Trust business, our customers can expect a continued focus on developing and evolving differentiated investment, financial wellness and recordkeeping tools and solutions that empower them to reach their goals.

Retirement

#3 defined contribution recordkeeper¹

#1 defined benefit recordkeeper²

#1 ESOP plan provider3

Executive deferred compensation

#1 provider of nonqualified deferred compensation plans⁴

#1 in Rabbi Trusts serviced⁵

95% customer retention rate⁶

Trust & custody

More than 22,000 accounts⁷

\$173 billion assets under administration⁸

More than 300,000 monthly defined benefit annuity payments⁹

Asset management & allocation

\$393.5 billion in AUM across 13 specialist investment management organizations¹⁰

Largest provider of active, multi-managed target date funds in the U.S.¹¹

73% of rated fund AUM has a 4 or 5 star rating from Morningstar¹²

Retirement

- We share a focus on delivering superior service to our retirement customers. The Wells Fargo Institutional Retirement & Trust business and Principal retirement business have client retention scores above 90% and garner high marks for client satisfaction.
- We go beyond retirement savings and investing to offer customers retirement income products as well. Our "onestop shop" approach allows customers to access a variety of innovative retirement offerings through one provider.
- We continue to invest in and evolve our financial wellness, education and preparedness tools and solutions for our participants and employers to empower them to reach their retirement goals.
- Between the Principal and Wells Fargo Institutional Retirement & Trust footprint today, our customers will be well-served by a robust field service and sales model.

Trust & custody

- The trust and custody business at Wells Fargo complements the trust and custody work that Principal has done for nearly 75 years.
- Principal has been focused on retirement trust and custody clients, while Wells Fargo has served both retirement and non-retirement trust and custody clients (insurance companies, endowments, governments and other financial institutions).
- With this acquisition, Principal will be able to diversify and broaden the scope of trust and custody offerings we provide and give Wells Fargo clients access to our top-tier retirement solutions.

Executive deferred compensation

- Our deferred compensation plan offerings are part of a comprehensive suite of innovative solutions designed to help employers protect their businesses, employees and lifestyles:
 - **Businesses:** buy-sell and business transfer strategies, and key person protection
 - Employees: group benefits and key employee retirement benefits
 - Business owners: personal retirement analysis, income protection, life insurance and legacy and estate planning.
- We're focused on the unique needs of businesses. Our dedicated specialists ensure innovative plan designs meet each employer's unique objectives.
- Nonqualified deferred compensation plans are part of a suite of comprehensive workplace retirement offerings included in Principal Total Retirement SuiteSM in addition to defined benefit, defined contribution and employee stock ownership plans.

Asset management & allocation

- One of Principal Global Investors's 13 investment management organizations is Principal Portfolio Strategies (PPS). PPS manages multi-asset outcome-based solutions including target date, target risk and dynamic strategies.
- Within PPS is a dedicated business, Principal Financial Advisors (PFA), a franchise with similar business objectives as Wells Fargo's Institutional Asset Advisors (IAA).
- PFA is an institutional Registered Investment Advisor that manages \$8 billion for 311 small- to mid-sized defined benefit clients¹³ providing both risk seeking and risk mitigating—or liability driven investing (LDI)—strategies.
- With an institutional client-centric culture, Principal is deeply engrained and familiar with the defined benefit, endowment and foundation, and defined contribution advisory businesses.

- ¹Pro-Forma calculations based upon data as of Dec. 31, 2017 provided by PLANSPONSOR 2018 Recordkeeping Survey and inclusive of shock lapse and new sales assumptions.
- ² Based on number of plans, PLANSPONSOR Defined Benefit Administration survey, May 2018.
- ³ Based on number of plans, PLANSPONSOR Recordkeeping Survey, June 2017.
- ⁴ Based on total number of Section 409A plans, PLANSPONSOR 2018 NQDC Recordkeeping Survey, June 2018.
- ⁵ 2016 NQDC Buyer's Guide, PLANSPONSOR magazine.
- ⁶ Principal data, as of Dec. 31, 2018.
- ⁷ As of March 1, 2019, Principal Trust CompanySM February Status Report.
- ⁸ SAS RIS Block Management Report.
- ⁹ Principal data, as of Mar. 2019.
- ¹⁰ SEC report Principal data, as of Dec. 31, 2018.
- ¹¹ Based on data from the Morningstar 2018 Target-Date Fund Landscape report. "Active multi-managed target date funds" describes the underlying assets.
- ¹² Asset weighted--Includes only proprietary funds with ratings assigned by Morningstar; non-rated funds excluded (78 total funds with I-shares, 74 are ranked).
- ¹³ Principal data as of Feb. 28, 2019.

Principal Financial Advisors, Inc. is a registered investment adviser and member of Principal Global Investors. Principal Global Investors leads global asset management and is a member of the Principal Financial Group®.

The Morningstar Rating[™] for funds, or "star rating", is calculated for managed products (including mutual funds, variable annuity and variable life subaccounts, exchange-traded funds, closed-end funds, and separate accounts) with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. The weights are: 100% three-year rating for 36-59 months of total returns, 60% five-year rating/40% three-year rating for 60-119 months of total returns, and 50% 10-year rating/30% five-year rating/20% three-year rating for 120 or more months of total returns. While the 10-year overall star rating formula seems to give the most weight to the 10-year period, the most recent three-year period actually has the greatest impact because it is included in all three rating periods.

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