



# ***2015 - 2020*** **Investment** **Options Disclosures**





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### OPERS Target Date Funds Overview

#### Summary

OPERS Target Date Funds offer a solution to those who do not want to pick their own mix of individual funds or actively manage the allocation over time. They are easy to use because they automatically select the asset allocation of funds that is suitable based on a "target" payout date, which is the date for taking distributions from an account. They are convenient because they are asset allocation funds that offer a mix among stocks, bonds and other investments that generate returns from youth to middle age, then preserve principal, and become more conservative as retirement approaches. Please review the information regarding each of the funds found on the following pages in this document.

OPERS Stable Value Fund	OPERS Long Duration Index Fund	OPERS Small Cap Index Fund
OPERS Bond Index Fund	OPERS Large Cap Index Fund	OPERS Non-U.S. Stock Index Fund
OPERS TIPS Fund	OPERS Stock Index Fund	OPERS Short-Term Govt. Bond Fnd.

OPERS Target Date Funds provide a one-decision investment option for long-term retirement planning. Simply pick the fund with the date in the name that is closest to the expected year to start taking distributions from the individual account. They are professionally managed and use glide paths to ensure the allocation to different asset classes is automatically adjusted during the course of a specified time period aimed at a target payout date.

A glide path is a formula that determines the asset allocation mix of a target date fund, based on the number of years until the target date. The further out the target date, the more aggressive the ratio of equities to fixed income. As the target date approaches, the ratio of equities to fixed income becomes more conservative.

#### Investment Risks

The OPERS Target Date Funds are diversified across several asset classes and include, but are not limited to, the following risks:

Equity Market	X	Derivatives	X
Fixed Income Market	X	Small Capitalization	X
Credit & Counterparty	X	Active Management	X
Foreign Country	X	Market Disruption & Geopolitical	X
Currency	X	Large Shareholder	X
Liquidity	X		

Please refer to the **Investment Risk Explanations** section for details about each type of risk.



### OPERS Target Date Funds Overview *(continued)*

#### **Performance Information and Fees**

Please see the Morningstar Fund Profiles at [www.opers.org](http://www.opers.org) for related performance information and fees.

The option's inception date for funds ranging from the OPERS Payout Fund to the OPERS Target 2050 Fund was October 1, 2008. The OPERS Target 2055 Fund began on December 1, 2010. 'Since Inception' performance, as noted in the Morningstar Fund Profiles, references December 27, 2002. Performance prior to the options inception dates are hypothetical and represents how the option would have performed if invested in the same target allocations of funds and underlying investment managers, rebalanced monthly and reduced for the expected expense ratios since December 27, 2002.

The option's benchmark represents the returns derived from applying the glidepath allocations to indexes of each of the underlying funds



## OPERS Investment Options

### OPERS Target Payout Fund

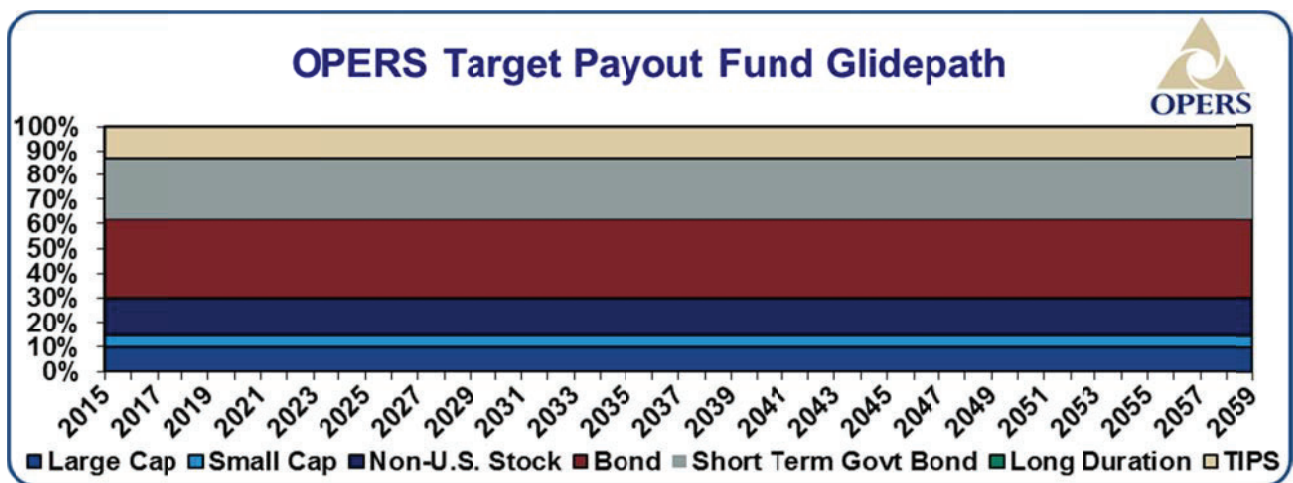
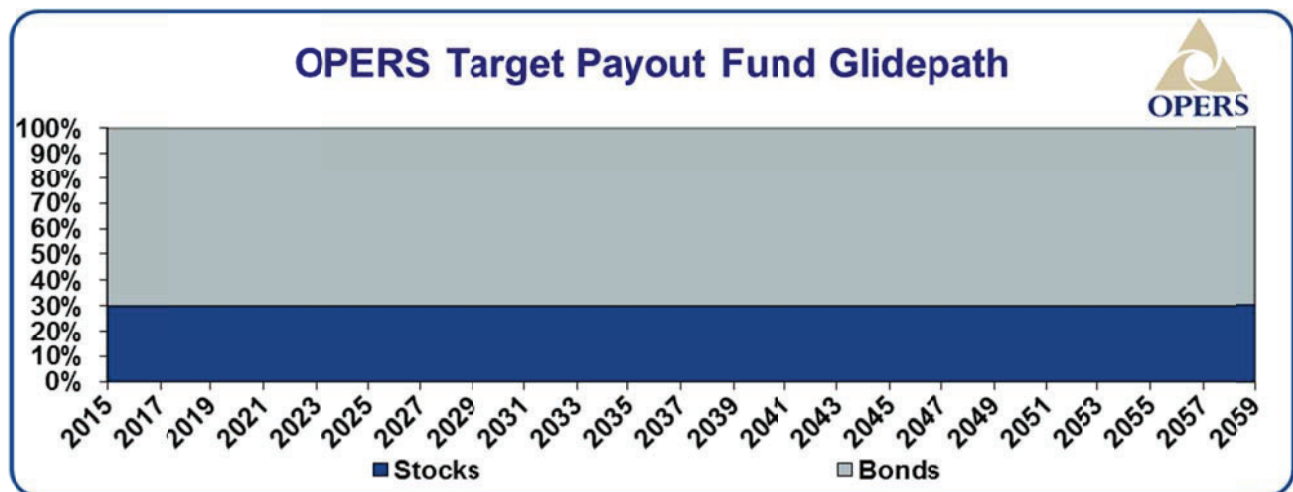
#### Investment Objective

The option seeks to provide current income with some capital appreciation. Its asset allocation is the most conservative of the OPERS Target Date Funds.

#### Investment Strategy

The OPERS Target Payout Fund should provide a diversified investment that is appropriate for an investor whose Target Date Fund has reached its maturity. This fund is for members who have begun taking distributions from their account.

This option is comprised of the following funds and asset allocations as shown below. It aims to minimize the accounts exposure to fluctuation of returns.





## OPERS Investment Options

### OPERS Target 2020 Fund

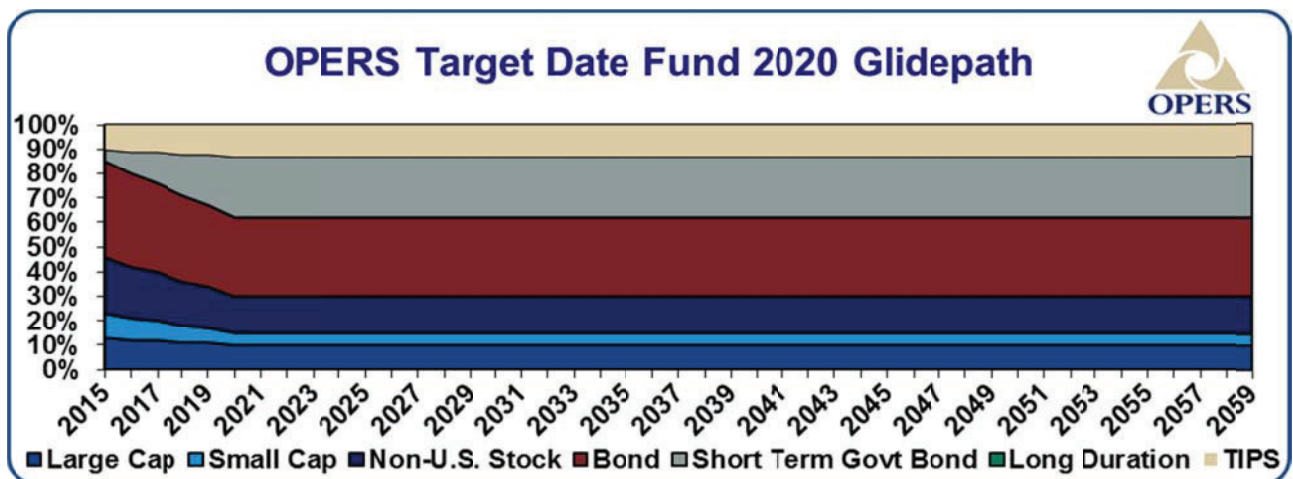
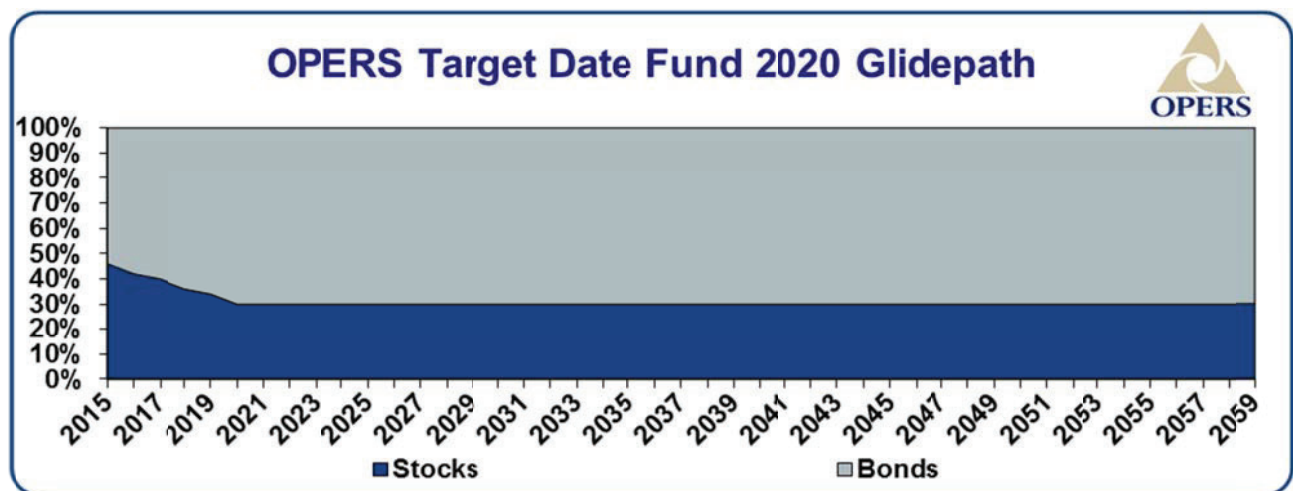
#### Investment Objective

The option seeks to provide capital appreciation with current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2020 Fund should provide a diversified investment that is appropriate for an investor who has an intermediate (retiring between 2018 and 2022) investment period and is comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below\*. It will become more conservative as the target date approaches.



\*The asset allocation from 2020 and beyond represents the allocation of the Payout Fund.





## OPERS Investment Options

### OPERS Target 2025 Fund

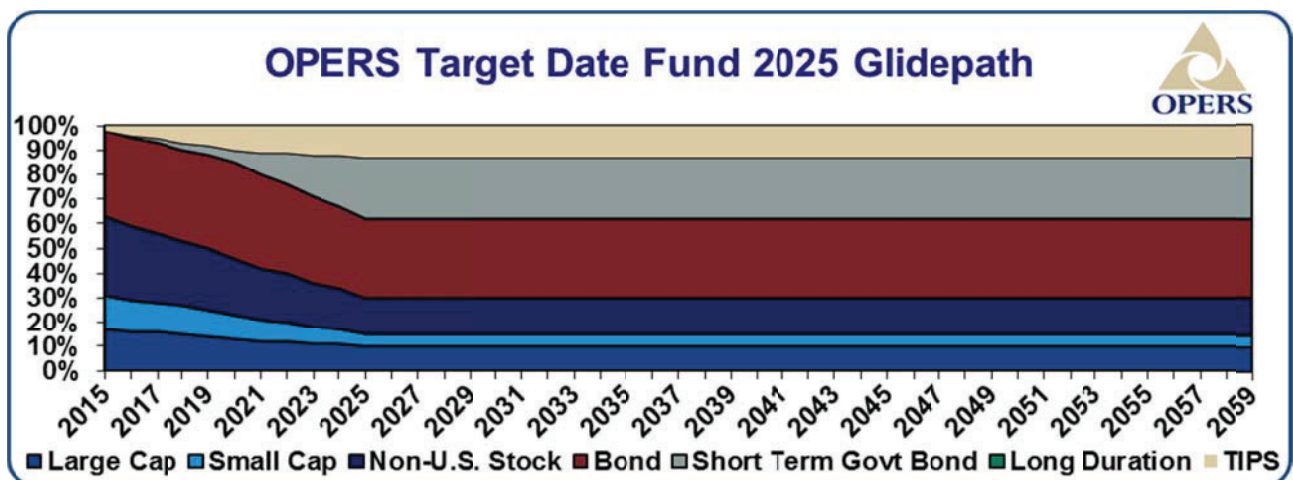
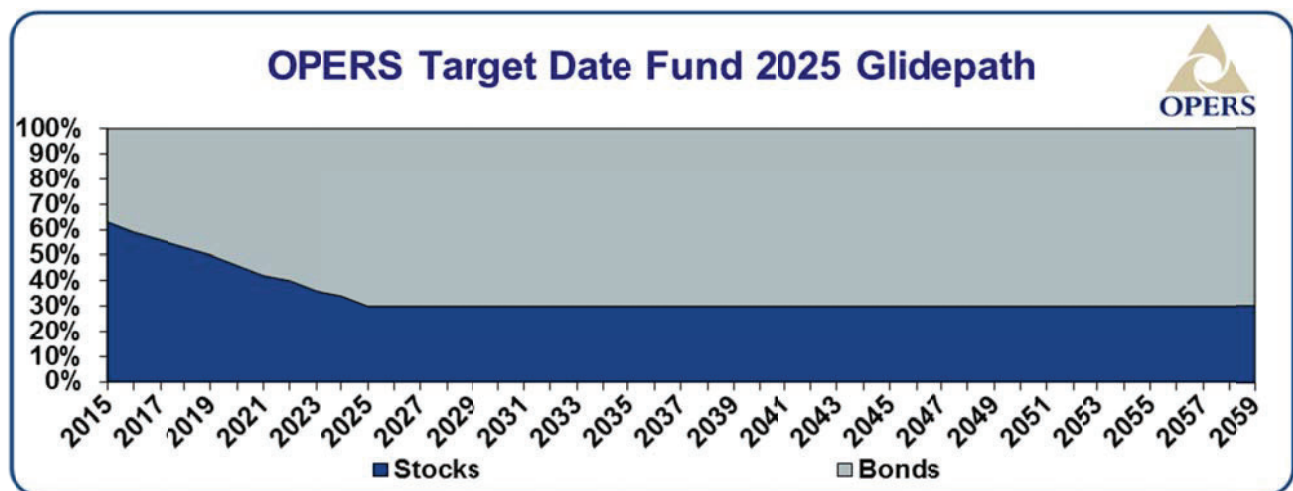
#### Investment Objective

The option seeks to provide capital appreciation with current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2025 Fund should provide a diversified investment that is appropriate for an investor who has an intermediate (retiring between 2023 and 2027) investment period and is very comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below\*. It will become more conservative as the target date approaches.



\*The asset allocation from 2025 and beyond represents the allocation of the Payout Fund.



## OPERS Investment Options

### OPERS Target 2030 Fund

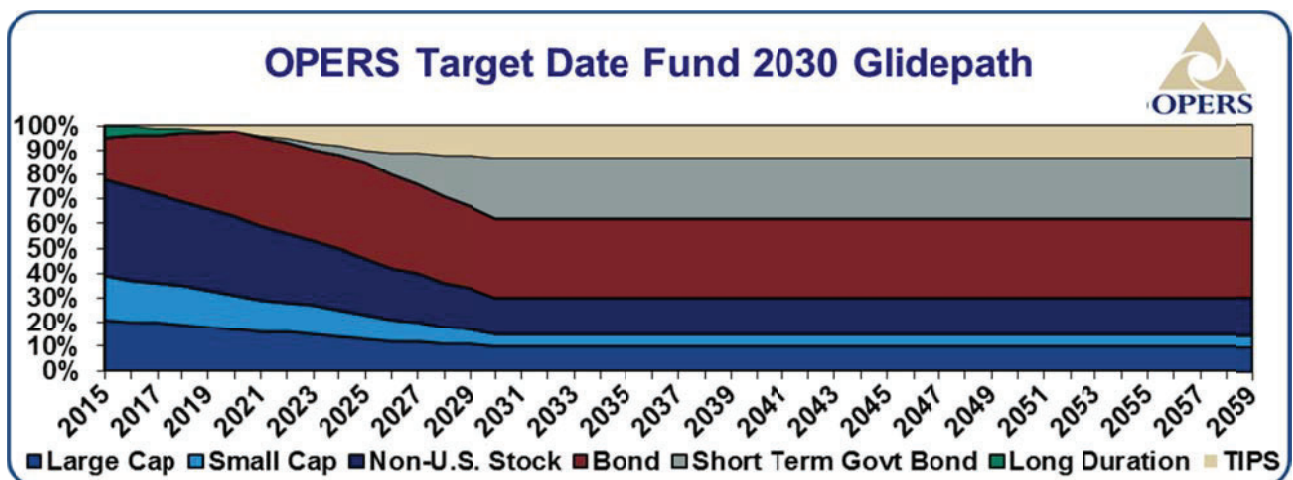
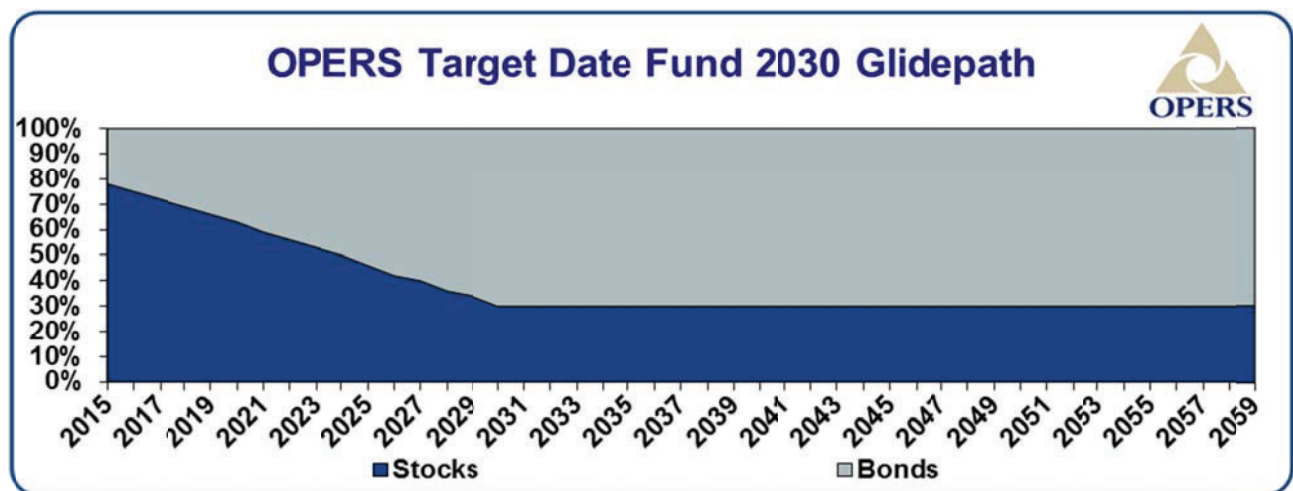
#### Investment Objective

The option seeks long-term growth of capital with some current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2030 Fund should provide a diversified investment that is appropriate for an investor who has an intermediate (retiring between 2028 and 2032) investment period and is very comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below\*. It will become more conservative as the target date approaches.



\*The asset allocation from 2030 and beyond represents the allocation of the Payout Fund.





## OPERS Investment Options

### OPERS Target 2035 Fund

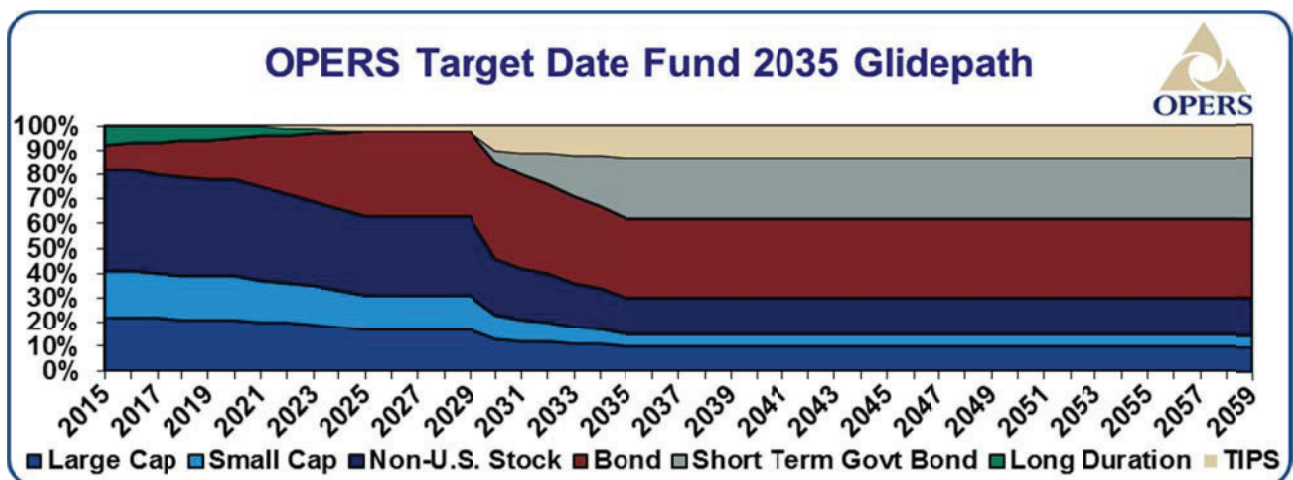
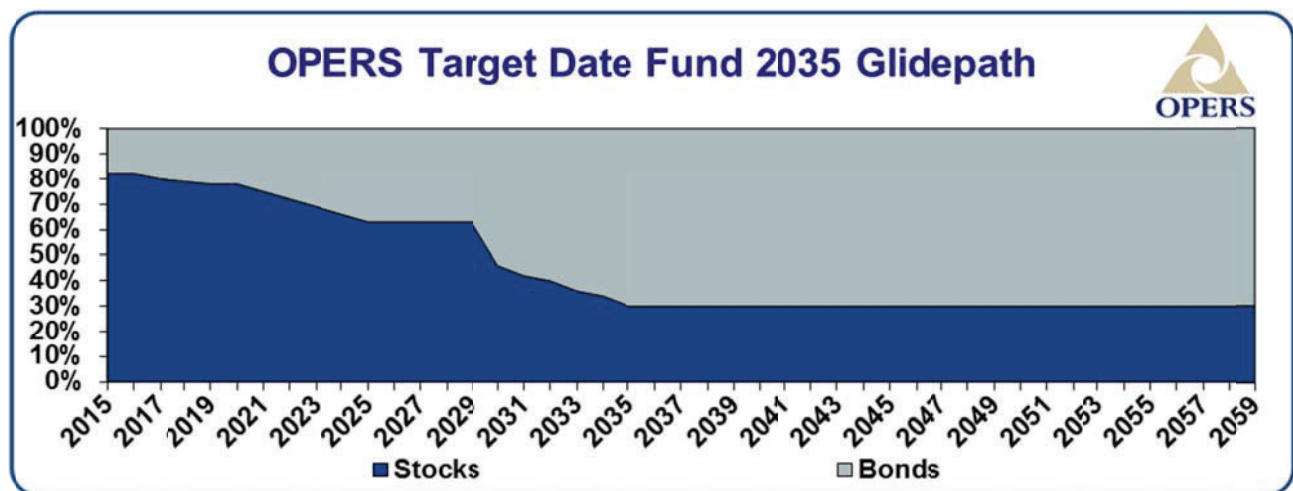
#### Investment Objective

The option seeks long-term growth of capital with some current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2035 Fund should provide a diversified investment that is appropriate for an investor who has an intermediate (retiring between 2033 and 2037) investment period and is very comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below\*. It will become more conservative as the target date approaches.



\*The asset allocation from 2035 and beyond represents the allocation of the Payout Fund.



## OPERS Investment Options

### OPERS Target 2040 Fund

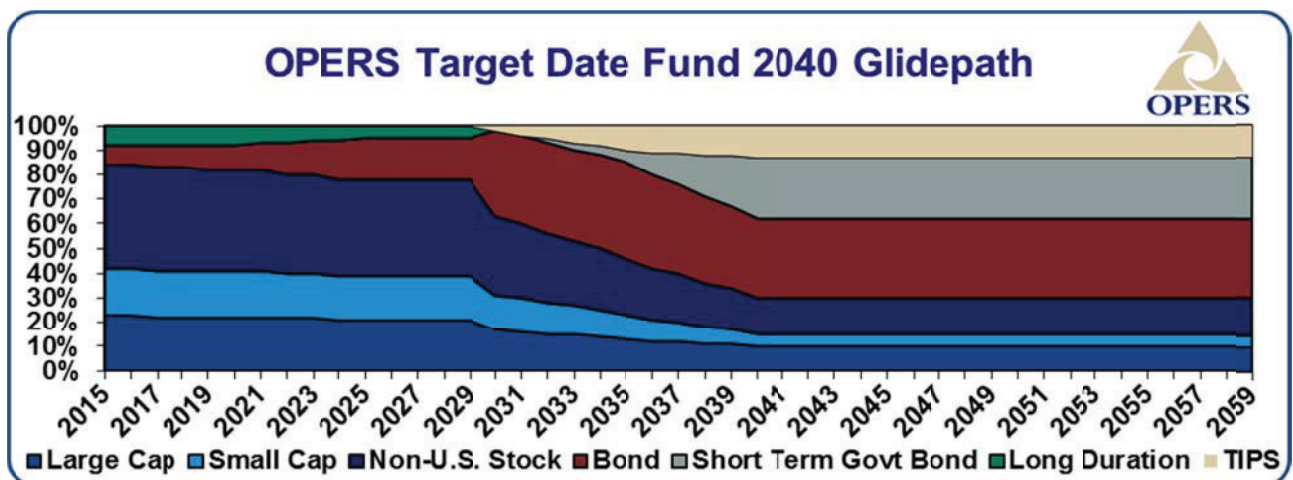
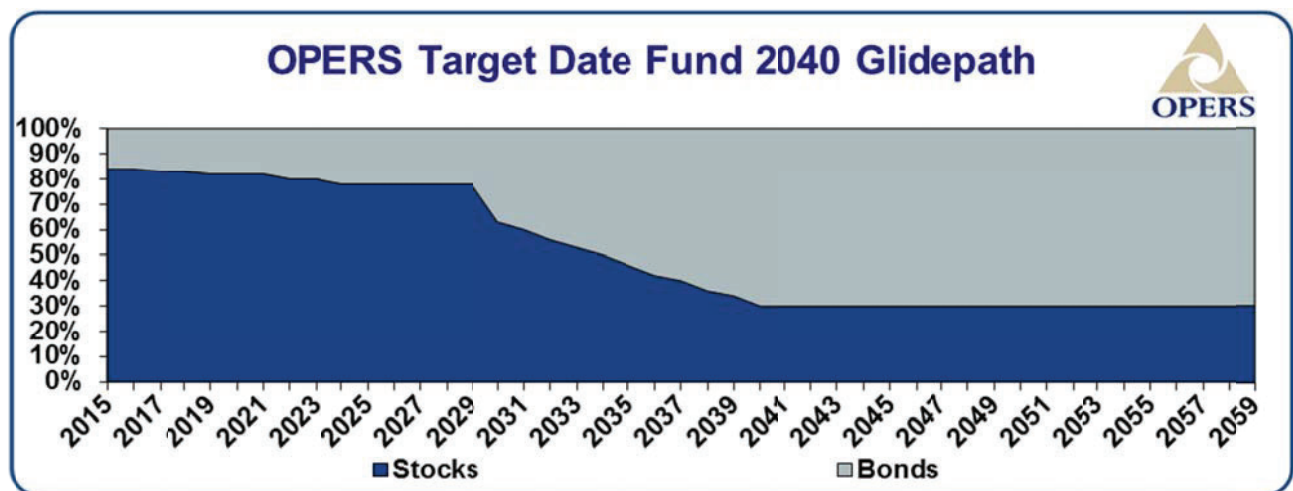
#### Investment Objective

The option seeks long-term growth of capital with some current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2040 Fund should provide a diversified investment that is appropriate for an investor who has a long (retiring between 2038 and 2042) investment period and is very comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below\*. It will become more conservative as the target date approaches.



\*The asset allocation from 2040 and beyond represents the allocation of the Payout Fund.



## OPERS Investment Options

### OPERS Target 2045 Fund

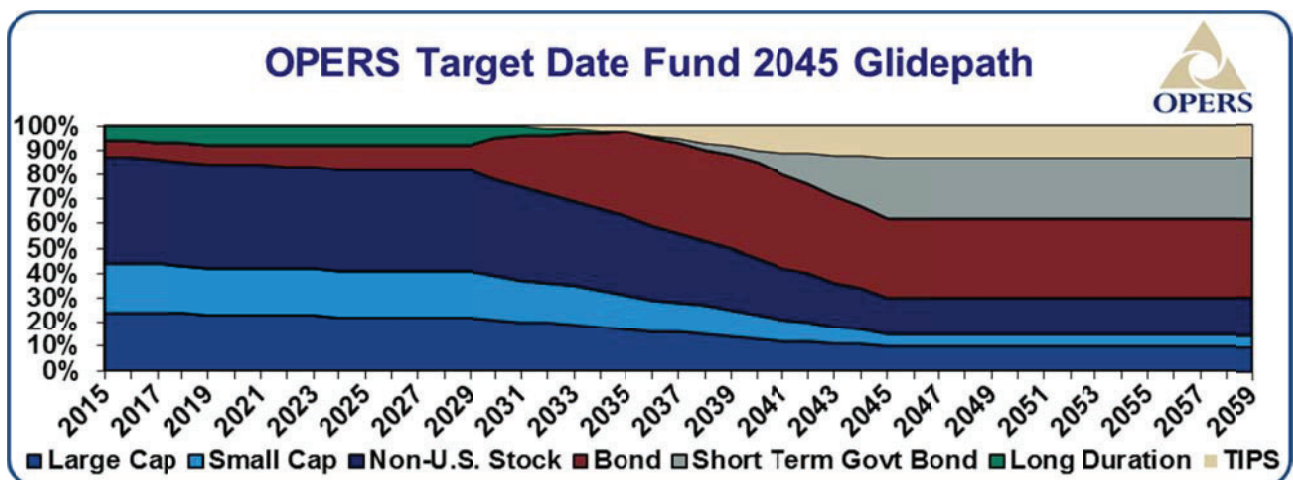
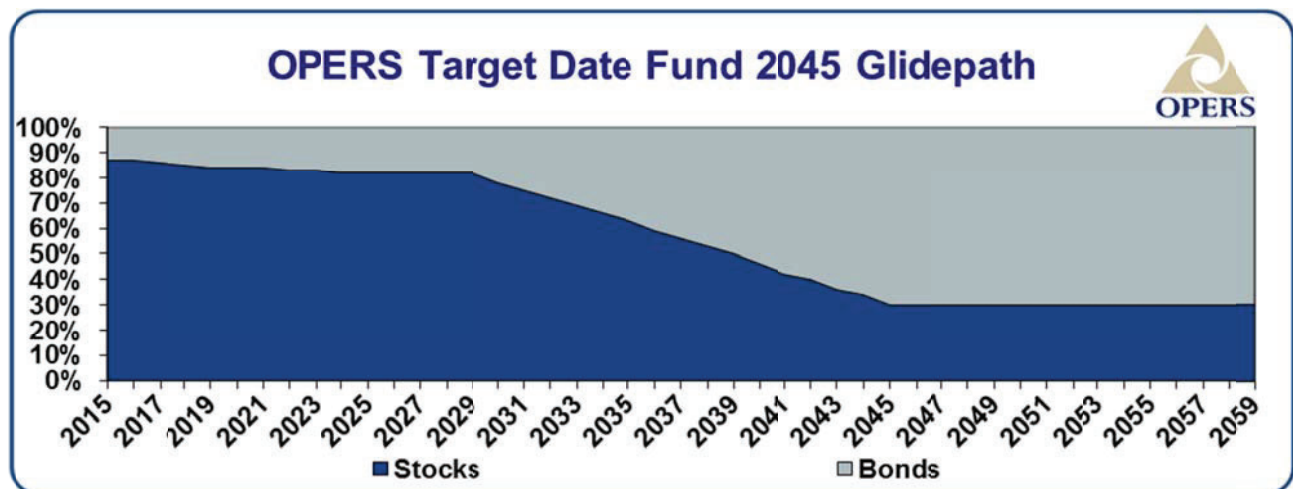
#### Investment Objective

The option seeks long-term growth of capital with some current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2045 Fund should provide a diversified investment that is appropriate for an investor who has a long (retiring between 2043 and 2047) investment period and is very comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below\*. It will become more conservative as the target date approaches.



\*The asset allocation from 2045 and beyond represents the allocation of the Payout Fund.



## OPERS Investment Options

### OPERS Target 2050 Fund

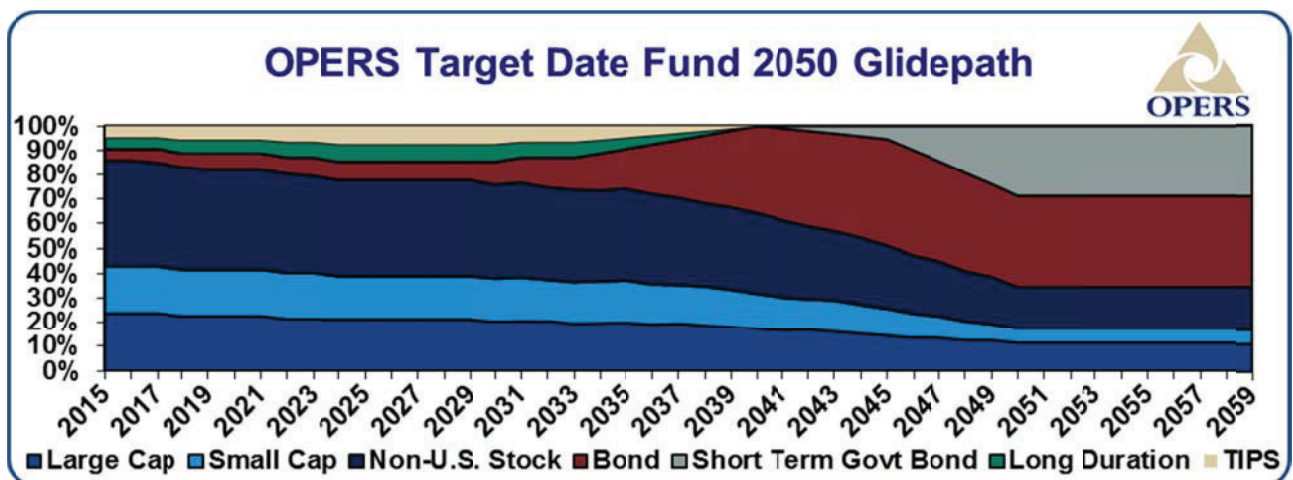
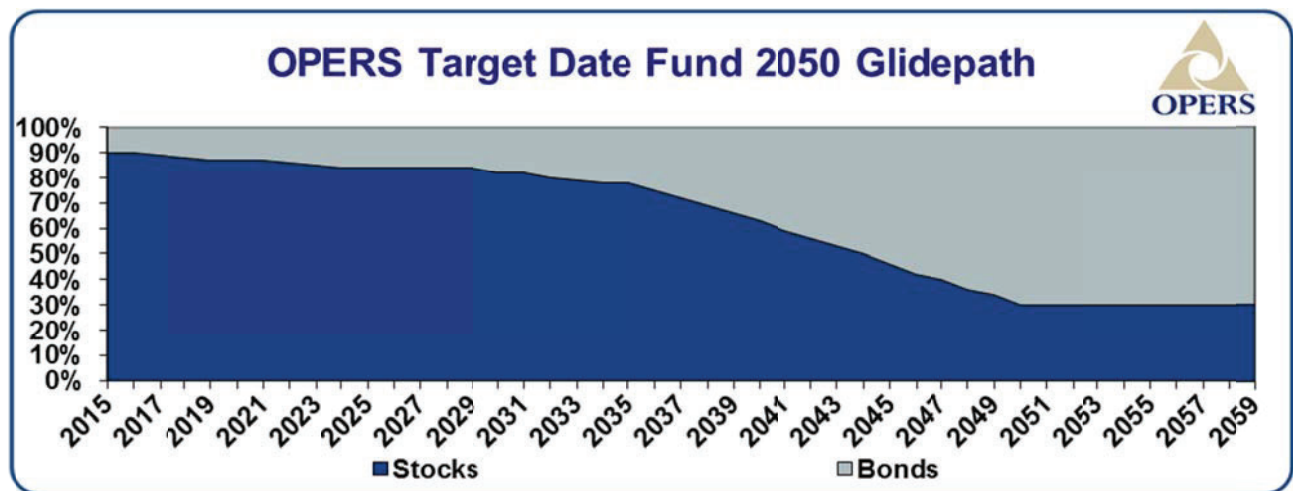
#### Investment Objective

The option seeks long-term growth of capital with some current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2050 Fund should provide a diversified investment that is appropriate for an investor who has a long (retiring between 2048 and 2052) investment period and is very comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below\*. It will become more conservative as the target date approaches.



\*The asset allocation from 2050 and beyond represents the allocation of the Payout Fund.





### OPERS Target 2055 Fund

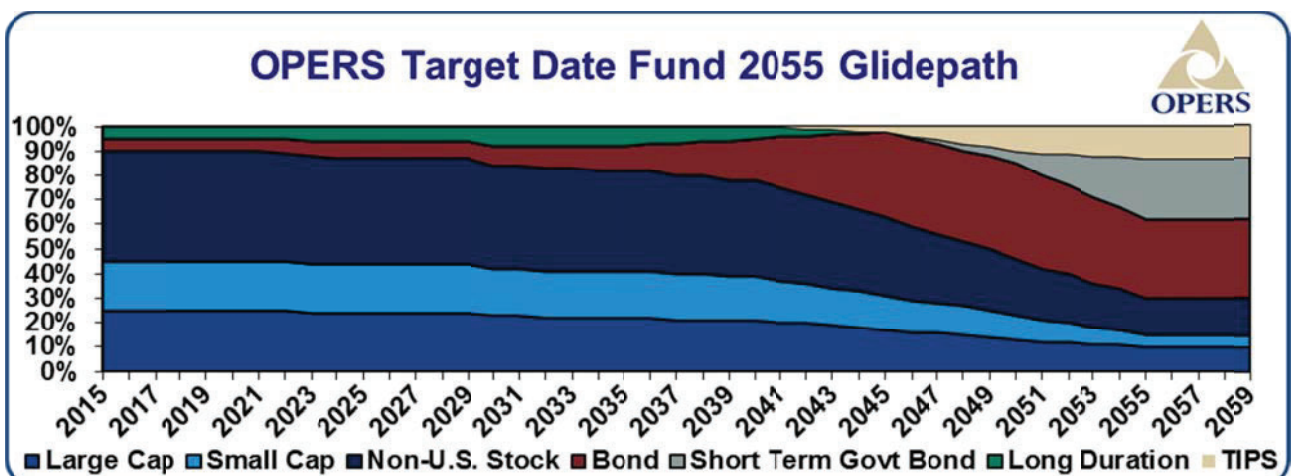
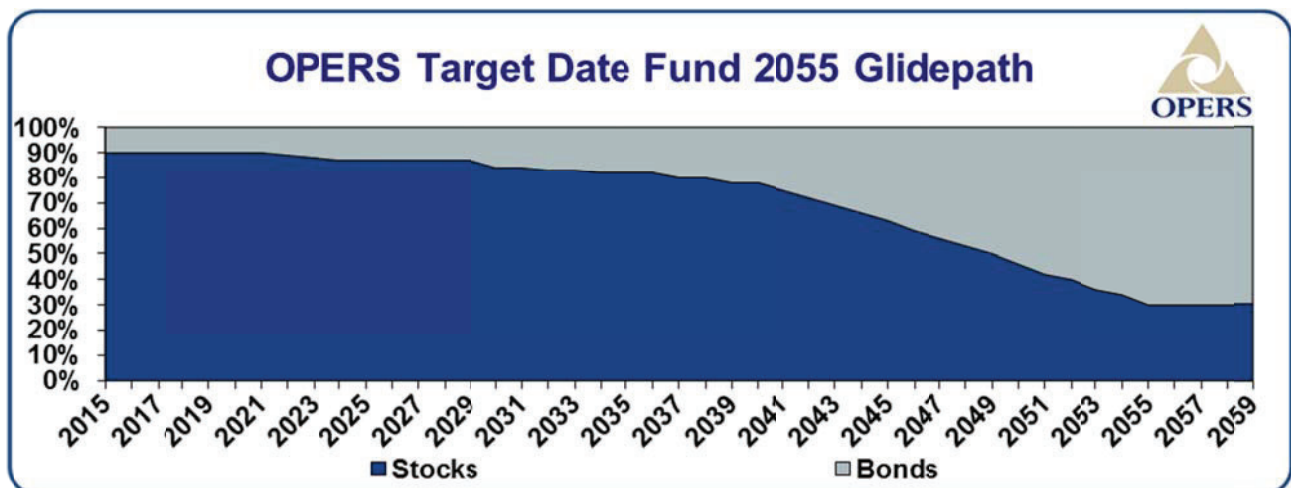
#### Investment Objective

The option seeks long-term growth of capital with some current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2055 Fund should provide a diversified investment that is appropriate for an investor who has a long (retiring between 2053 and 2057) investment period and is very comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below. It will become more conservative as the target date approaches.



\*The asset allocation from 2055 and beyond represents the allocation of the Payout Fund.





### OPERS Target 2060 Fund

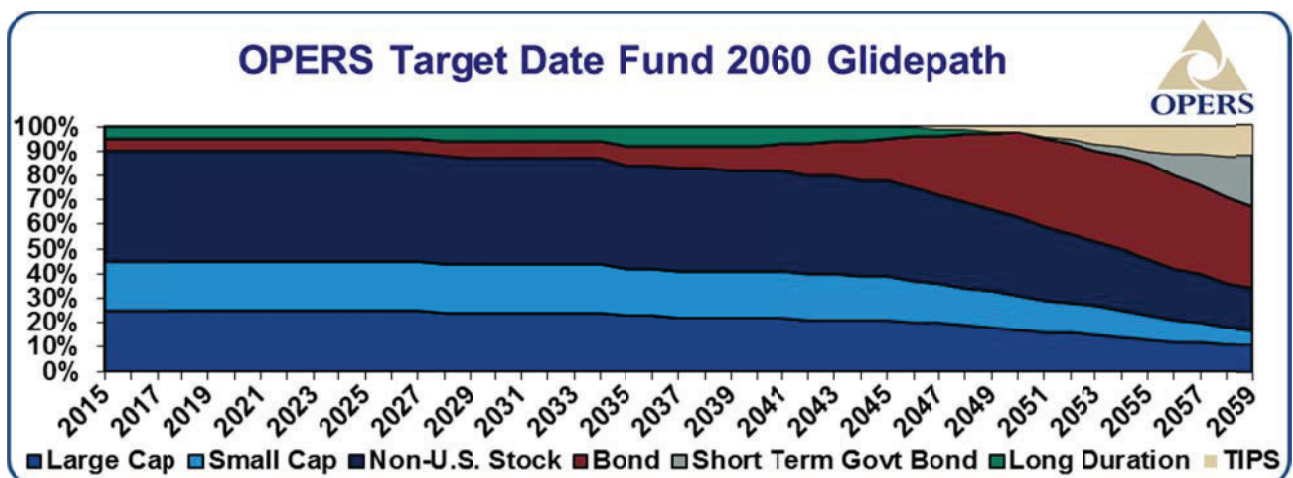
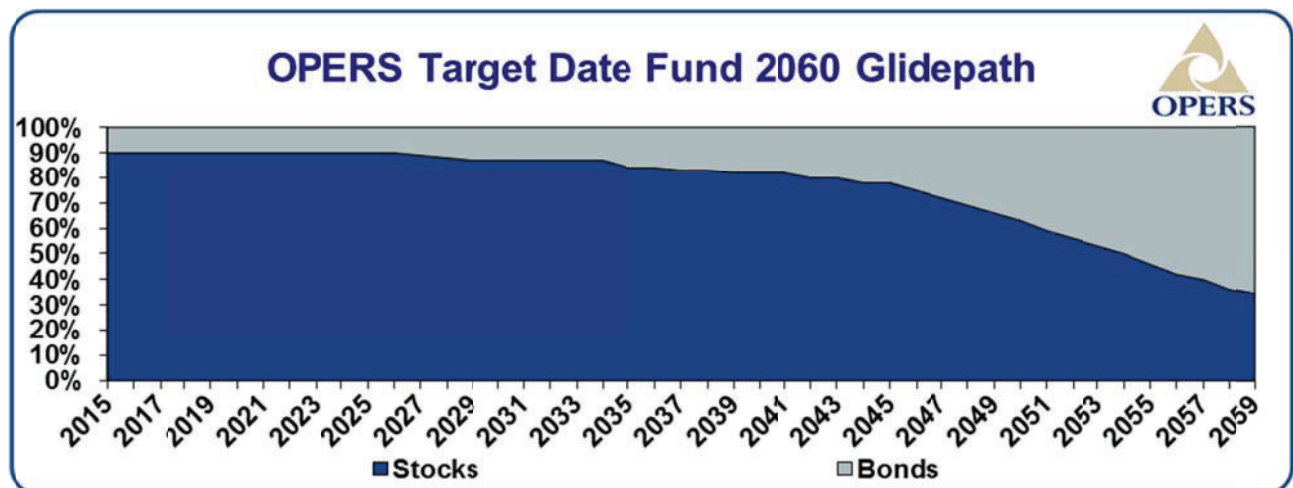
#### Investment Objective

The option seeks long-term growth of capital with some current income and provides a true 'one decision' diversified investment option for members throughout their working careers. It is automatically adjusted during the course of a specified time period aimed at a target retirement date.

#### Investment Strategy

The OPERS Target 2055 Fund should provide a diversified investment that is appropriate for an investor who has a long (retiring between 2058 and 2062) investment period and is very comfortable with fluctuations in the value of their investment.

This option is comprised of the following funds and asset allocations as shown below. It will become more conservative as the target date approaches.



\*The asset allocation from 2060 and beyond represents the allocation of the Payout Fund.



## OPERS Investment Options

### OPERS Stable Value Fund

#### Investment Objective

The option seeks the preservation of principal and interest income, while anticipating the need for liquidity requirements.

#### Investment Strategy

The option normally invests in a portfolio of investment contracts from banks and insurance companies, which may be backed by high-quality, fixed income assets and diversified across a variety of security types and issuers. The investment contracts include, but are not limited to, traditional guaranteed investment contracts backed by a single issuer, money market instruments, buy-and-hold synthetic contracts of single fixed-income securities protected by an investment contract and actively managed synthetic contracts of portfolios of fixed-income securities protected by an investment contract. Investment contracts are purchased to spread the impact of shareholder cash flows and capital gains and losses over several years. The option attempts to reduce risk by only purchasing contracts from financially strong companies.

#### Investment Risks

The option includes, but is not limited to, the following risks:

Equity Market		Derivatives	
Fixed Income Market	X	Small Capitalization	
Credit & Counterparty	X	Active Management	X
Foreign Country		Market Disruption & Geopolitical	X
Currency		Large Shareholder	
Liquidity			

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### Performance Information and Fees

The fee structure for the OPERS Stable Value Fund is 18 bps or 0.18%. Please see the Morningstar Fund Profiles at [www.opers.org](http://www.opers.org) for related performance information.

The option's inception date was December 27, 2002. 'Since Inception' performance, as noted in the Morningstar Fund Profiles, began December 31, 1997. Performance prior to December 27, 2002 is hypothetical and represents how the option would have performed if invested in the same target allocations of funds and underlying investment managers, rebalanced monthly and reduced for the expected expense ratios since December 31, 1997.

The option's benchmark is 5% Merrill Lynch 3-Month Treasury Bills, 45% Lehman 1-5 Year Government/Corporate Bond, 35% Lehman Intermediate Government/Corporate and 15% Lehman Aggregate smoothed over three year periods.



## OPERS Investment Options

### OPERS Bond Index Fund

#### Investment Objective

The option is intended for intermediate-term investors seeking moderate returns by investing in a diversified portfolio of high-quality, fixed income securities. As with any security, an investment in bonds is subject to risk.

#### Investment Strategy

The option seeks to match the performance of the Barclays Capital Aggregate Bond Index by investing in a diversified sample of the bonds that make up the index. The index is the broadest measure of the U.S. investment-grade bond market and is comprised of U.S. Treasury and federal agency bonds, corporate bonds, residential and commercial mortgage-backed securities and asset-backed securities.

#### Investment Risks

The option includes, but is not limited to, the following risks:

Equity Market		Derivatives	X
Fixed Income Market	X	Small Capitalization	
Credit & Counterparty	X	Active Management	
Foreign Country	X	Market Disruption & Geopolitical	X
Currency	X	Large Shareholder	
Liquidity			

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### Performance Information and Fees

The fee structure for the OPERS Bond Index Fund is 4 bps or 0.04%. Please see the Morningstar Fund Profiles at [www.opers.org](http://www.opers.org) for related performance information.

The option's inception date was December 27, 2002. 'Since Inception' performance, as noted in the Morningstar Fund Profiles, began December 31, 1997. Performance prior to December 27, 2002 is hypothetical and represents how the option would have performed if invested in the same target allocations of funds and underlying investment managers, rebalanced monthly and reduced for the expected expense ratios since December 31, 1997.

The option's benchmark is the Barclays Capital Aggregate Index. Prior to December 2010, the option's benchmark was Barclays Capital Universal Index.



### OPERS Stock Index Fund

#### ***Investment Objective***

The option is intended for long-term investors seeking high returns by investing in a broad range of U.S. companies.

#### ***Investment Strategy***

The option seeks to match the performance of the Russell 3000<sup>®</sup> Index by investing in a diversified sample of the stocks that make up the index. The Russell 3000<sup>®</sup> Index is a market-weighted index of the common stocks of the 3,000 largest companies in the U.S. as defined by their market capitalization. Larger companies will have more impact on this option's performance than smaller companies.

Frank Russell Company reconstitutes the Russell 3000<sup>®</sup> Index for issue changes annually, where all eligible securities are ranked by their total market capitalization and quarterly, where eligible initial public offerings (IPOs) are added. New securities are also added throughout the year as a result of spinoffs. When a spinoff occurs, the new company will be retained in the index for as long as its market capitalization is larger than the smallest issue in the Russell 3000<sup>®</sup> Index. The option will experience higher portfolio turnover during these periods. The Russell 3000<sup>®</sup> Index represents approximately 98% of the total U.S. equity market capitalization.

#### ***Investment Risks***

The option includes, but is not limited to, the following risks:

Equity Market	X	Derivatives	X
Fixed Income Market		Small Capitalization	X
Credit & Counterparty	X	Active Management	
Foreign Country		Market Disruption & Geopolitical	X
Currency		Large Shareholder	
Liquidity			

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### ***Performance Information and Fees***

The fee structure for the OPERS Stock Index Fund is 3 bps or 0.03%. Please see the Morningstar Fund Profiles at [www.opers.org](http://www.opers.org) for related performance information.

The option's inception date was December 27, 2002. 'Since Inception' performance, as noted in the Morningstar Fund Profiles, began December 31, 1997. Performance prior to December 27, 2002 is hypothetical and represents how the option would have performed if invested in the same target allocations of funds and underlying investment managers, rebalanced monthly and reduced for the expected expense ratios since December 31, 1997.

The option's benchmark is the Russell 3000<sup>®</sup> Index.



### OPERS Large Cap Index Fund

#### Investment Objective

The option is intended for long-term investors seeking to capture the earnings and growth potential of large U.S. companies.

#### Investment Strategy

The option seeks to match the performance of the Russell 1000<sup>®</sup> Index by investing in stocks that make up the index. The Russell 1000<sup>®</sup> Index is comprised of the 1000 largest companies within the Russell 3000<sup>®</sup> Index and represents approximately 92% of the total market capitalization of the Russell 3000<sup>®</sup> Index. The Russell 3000<sup>®</sup> Index represents approximately 98% of the total U.S. equity market capitalization.

Frank Russell Company reconstitutes the Russell 1000<sup>®</sup> Index for issue changes annually, where all eligible securities are ranked by their total market capitalization and quarterly, where eligible initial public offerings (IPOs) are added. New securities are also added throughout the year as a result of spinoffs. When a spinoff occurs, the new company will be retained in the index for as long as its market capitalization is larger than the smallest issue in the Russell 1000<sup>®</sup> Index. The option will experience higher portfolio turnover during these periods.

#### Investment Risks

The option includes, but is not limited to, the following risks:

Equity Market	X	Derivatives	X
Fixed Income Market		Small Capitalization	
Credit & Counterparty	X	Active Management	
Foreign Country		Market Disruption & Geopolitical	X
Currency		Large Shareholder	
Liquidity			

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### Performance Information and Fees

The fee structure for the OPERS Large Cap Index Fund is 5 bps or 0.05%. Please see the Morningstar Fund Profiles at [www.opers.org](http://www.opers.org) for related performance information.

The option's inception date was December 27, 2002. 'Since Inception' performance, as noted in the Morningstar Fund Profiles, began December 31, 1997. Performance prior to December 27, 2002 is hypothetical and represents how the option would have performed if invested in the same target allocations of funds and underlying investment managers, rebalanced monthly and reduced for the expected expense ratios since December 31, 1997.

The option's benchmark is the Russell 1000<sup>®</sup> Index.





### OPERS Small Cap Index Fund

#### Investment Objective

The option is intended for long-term investors seeking capital appreciation from investing in smaller U.S. companies. The risk level for this fund is high, as small-capitalization stocks tend to exhibit more volatility than larger capitalization stocks.

#### Investment Strategy

The option seeks to match the performance of the Russell 2000<sup>®</sup> Index by investing in a diversified sample of the stocks that make up the index. The Russell 2000<sup>®</sup> Index is comprised of the 2000 smallest companies within the Russell 3000<sup>®</sup> index and represents approximately 8% of the total market capitalization of the Russell 3000<sup>®</sup> Index. The Russell 3000<sup>®</sup> Index represents approximately 98% of the total U.S. equity market capitalization.

Frank Russell Company reconstitutes the Russell 2000<sup>®</sup> Index for issue changes annually, where all eligible securities are ranked by their total market capitalization and quarterly, where eligible initial public offerings (IPOs) are added. New securities are also added throughout the year as a result of spinoffs. When a spinoff occurs, the new company will be retained in the index for as long as its market capitalization is larger than the smallest issue in the Russell 2000<sup>®</sup> Index. The option will experience higher portfolio turnover during these periods.

#### Investment Risks

The option includes, but is not limited to, the following risks:

Equity Market	X	Derivatives	X
Fixed Income Market		Small Capitalization	X
Credit & Counterparty	X	Active Management	
Foreign Country		Market Disruption & Geopolitical	X
Currency		Large Shareholder	
Liquidity	X		

Please refer to the *Investment Risk Explanations* section for details about each type of risk.

#### Performance Information and Fees

The fee structure for the OPERS Small Cap Index Fund is 8 bps or 0.08%. Please see the Morningstar Fund Profiles at [www.opers.org](http://www.opers.org) for related performance information.

The option's inception date was December 27, 2002. 'Since Inception' performance, as noted in the Morningstar Fund Profiles, began December 31, 1997. Performance prior to December 27, 2002 is hypothetical and represents how the option would have performed if invested in the same target allocations of funds and underlying investment managers, rebalanced monthly and reduced for the expected expense ratios since December 31, 1997.

The option's benchmark is the Russell 2000<sup>®</sup> Index.



### OPERS Non-U.S. Stock Index Fund

#### Investment Objective

The option is intended for long-term investors seeking to capture the earnings and growth potential of foreign companies in both developed and emerging countries throughout the world.

#### Investment Strategy

The option seeks to match the performance of the Morgan Stanley Capital International All Country World Index (MSCI ACWI) ex-U.S. Index by investing in stocks that make up the index. The MSCI ACWI ex-U.S. Index is comprised of foreign stocks representing companies in 22 developed markets and 22 emerging markets as of January 2010. The MSCI ACWI ex-U.S. Index represents approximately 60% of the world's total market capitalization.

#### Investment Risks

The option includes, but is not limited to, the following risks:

Equity Market	X	Derivatives	X
Fixed Income Market		Small Capitalization	X
Credit & Counterparty	X	Active Management	
Foreign Country	X	Market Disruption & Geopolitical	X
Currency	X	Large Shareholder	
Liquidity	X		

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### Performance Information and Fees

The fee structure for the OPERS Non-U.S. Stock Index Fund is 10 bps or 0.10%. Please see the Morningstar Fund Profiles at [www.opers.org](http://www.opers.org) for related performance information.

The option's inception date was December 27, 2002. 'Since Inception' performance, as noted in the Morningstar Fund Profiles, began December 31, 1997. Performance prior to December 27, 2002 is hypothetical and represents how the option would have performed if invested in the same target allocations of funds and underlying investment managers, rebalanced monthly and reduced for the expected expense ratios since December 31, 1997.

The option's benchmark is the Morgan Stanley Capital International All Country World Index (MSCI ACWI) ex-U.S. Index.



## OPERS Investment Options

### OPERS Short Term Government Bond Fund (Only available during specific years of OPERS Target Date Funds)

#### Investment Objective

The option is intended for short-term investors seeking current income consistent with liquidity and preservation of capital. The option is invested and reinvested primarily in a portfolio of Debt Securities with the objective of approximating as closely as practicable the returns of the short-term sector of the United States fixed income market as defined by the Barclays Capital 1-3 Year Government Bond Index. As with any security, an investment in bonds is subject to risk.

#### Investment Strategy

The option seeks to match the performance of the Barclays Capital 1-3 Year Government Bond Index by investing in a diversified sample of the bonds that make up the index. The index is comprised of U.S. Treasury bills, direct obligations of the U.S. Treasury, including securities fully guaranteed by the U.S. Treasury.

#### Investment Risks

The option includes, but is not limited to, the following risks:

Equity Market		Derivatives	X
Fixed Income Market	X	Small Capitalization	
Credit & Counterparty	X	Active Management	
Foreign Country	X	Market Disruption & Geopolitical	X
Currency	X	Large Shareholder	
Liquidity			

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### Performance Information and Fees

The fee structure for the OPERS Short Term Government Bond Fund is 4 bps or 0.04%. Morningstar Fund Profiles are not produced for this option because it is not available as a direct investment.

The option's inception date was March 31, 1997.

The option's benchmark is the Barclays Capital 1-3 Year Government Bond Index.



### OPERS TIPS Fund

(Only available during specific years of OPERS Target Date Funds)

#### Investment Objective

The option is intended for long-term investors seeking portfolio returns that provide protection against inflation. The fund is likely to experience lower return volatility than conventional bond investments.

#### Investment Strategy

The option seeks to match the performance of the Barclays Capital U.S. Treasury Inflation Protected Securities (TIPS) Index by investing in a diversified sample of the bonds that make up the index. Unlike conventional bonds, the principal and interest payments from TIPS are regularly adjusted to reflect changes in inflation, as measured by the changes in the Consumer Price Index for Urban Consumers. Since the principal keeps pace with inflation, investors' real purchasing power will be preserved.

#### Investment Risks

The option includes, but is not limited to, the following risks:

Equity Market		Derivatives	X
Fixed Income Market	X	Small Capitalization	
Credit & Counterparty	X	Active Management	
Foreign Country	X	Market Disruption & Geopolitical	X
Currency	X	Large Shareholder	
Liquidity			

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### Performance Information and Fees

The fee structure for the OPERS TIPS Fund is 3 bps or 0.03%. Morningstar Fund Profiles are not produced for this option because it is not available as a direct investment.

The option's inception date was December 1, 2010.

The option's benchmark is the Barclays Capital U.S. Treasury Inflation Protected Securities (TIPS) Index.



## OPERS Investment Options

### OPERS Long Duration Fund

(Only available during specific years of OPERS Target Date Funds)

#### Investment Objective

The option is intended for intermediate-term investors seeking moderate returns by investing in a diversified portfolio of high-quality fixed income securities. As with any security, an investment in bonds is subject to risk.

#### Investment Strategy

The option seeks to match the performance of the Barclays Capital Government Credit Bond Index by investing in a diversified sample of the bonds that make up the index. The index is comprised of U.S. Treasury and Federal agency bonds and investment grade corporate bonds.

#### Investment Risks

The option includes, but is not limited to, the following risks:

Equity Market		Derivatives	X
Fixed Income Market	X	Small Capitalization	
Credit & Counterparty	X	Active Management	
Foreign Country	X	Market Disruption & Geopolitical	X
Currency	X	Large Shareholder	
Liquidity			

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### Performance Information and Fees

The fee structure for the OPERS Long Duration Fund is 4 bps or 0.04%. Morningstar Fund Profiles are not produced for this option because it is not available as a direct investment.

The option's inception date was December 1, 2010.

The option's benchmark is the Barclays Capital Government Credit Bond Index.





### Self-Directed Brokerage Account

#### Investment Objective

As a compliment to the OPERS core investment philosophy, the option is intended to provide participants more flexibility, access to varying mutual fund management techniques, increased diversification and a more responsible role in their retirement account.

#### Investment Strategy

The option will offer a mutual fund-only Self-Directed Brokerage Account through Schwab's Personal Choice Retirement Account® (PCRA). The option allows experienced investors the ability to choose mutual funds outside of the core OPERS investment options. OPERS does not select, manage or oversee the mutual funds offered through the Schwab PCRA. The self-directed brokerage account option provides Member-Directed and Combined Plan participants more flexibility in choosing their own retirement savings investments by allowing them to invest in a variety of active and passive mutual funds. The program parameters are the following:

- Account minimum of \$5,000 is required before a participant can use the window.
- Maximum of 50% of a member's portfolio is allowed to be invested through the brokerage window, though the Plan will not rebalance the brokerage investments should they grow to exceed 50% of participant's assets.
- Only designated mutual funds can be purchased through the window.

#### Investment Risks

Depending on your mutual fund selection, the option can include, but is not limited to, the following risks:

Equity Market	X	Derivatives	X
Fixed Income Market	X	Small Capitalization	X
Credit & Counterparty	X	Active Management	X
Foreign Country	X	Market Disruption & Geopolitical	X
Currency	X	Large Shareholder	X
Liquidity	X		

Please refer to the **Investment Risk Explanations** section for details about each type of risk.

#### Information and Fees

For general information related to the Schwab PCRA, visit the OPERS website, [www.opers.org](http://www.opers.org), or call the OPERS Help Line at (866) 673-7748.

Note: Before investing in mutual funds through Schwab's PCRA, you should carefully consider information contained in the prospectus, including investment objectives, risks, trading policies, charges and expenses. You can request a prospectus by calling Schwab's dedicated PCRA Call Center at (888) 393-PCRA (7272). You may also request a prospectus online, at [www.schwab.com/prospectus](http://www.schwab.com/prospectus). Please read the prospectus carefully before investing.



## Investment Risk Explanations

Each investment option is subject to different types of risk. These risks result from the efforts of the investment managers to provide above-average returns for the investment options. Risks cannot be eliminated, but can be mitigated to some extent, by close oversight and diversification. You should understand the risk each investment option is exposed to, and be sure you are comfortable with the risks before you select the investment options. The following tables identify several of the more important, but not the only, risks of each of the OPERS Investment Options.

	Equity Market Risk	Fixed Income Market Risk	Credit & Counterparty Risk	Foreign Country Risk	Currency Risk	Liquidity Risk	Derivatives Risk	Small Capitalization Risk	Active Management Risk	Market Disruption & Geopolitical Risk	Large Shareholder Risk
<b>OPERS Funds</b>											
OPERS Target Payout Fund	X	X	X	X	X	X	X	X	X	X	X
OPERS Target 2015 Fund	X	X	X	X	X	X	X	X	X	X	X
OPERS Target 2020 Fund	X	X	X	X	X	X	X	X	X	X	X
OPERS Target 2025 Fund	X	X	X	X	X	X	X	X		X	X
OPERS Target 2030 Fund	X	X	X	X	X	X	X	X		X	X
OPERS Target 2035 Fund	X	X	X	X	X	X	X	X		X	X
OPERS Target 2040 Fund	X	X	X	X	X	X	X	X		X	X
OPERS Target 2045 Fund	X	X	X	X	X	X	X	X		X	X
OPERS Target 2050 Fund	X	X	X	X	X	X	X	X		X	X
OPERS Target 2055 Fund	X	X	X	X	X	X	X	X		X	X
Stable Value		X	X						X	X	
Bond Index		X	X	X	X		X			X	
Stock Index	X		X				X	X		X	
Large Cap Index	X		X				X			X	
Small Cap Index	X		X			X	X	X		X	
Non-U.S. Stock Index	X		X	X	X	X	X	X		X	
TIPS		X	X	X	X		X		X	X	
Long Duration		X	X	X	X		X			X	
Short-Term Government Bond Fund		X	X	X	X		X			X	
Self-Directed Brokerage Account	X	X	X	X	X	X	X	X	X	X	X



## Investment Risk Explanations

**Equity Market Risk** – Stock prices can fall because of weakness in the broad market, a particular industry or specific holdings. The market as a whole can decline for many reasons, such as adverse political or economic developments here or abroad, changes in interest rates, the outlook for corporate profits, changes in investor psychology or heavy institutional selling. The prospects for an industry or company may deteriorate because of a variety of factors, such as disappointing earnings or changes in the competitive environment. In addition, the assessment of companies held in the fund may prove to be incorrect, resulting in losses or poor performance – even in a rising market. Finally, a fund's investment approach could fall out of favor with the investing public, resulting in lagging performance versus other types of funds.

**Fixed Income Market Risk** – Fixed-rate debt instruments (including bonds, notes and asset-backed securities) will typically decline in value during periods of rising interest rates and increase in value during periods of falling interest rates. Asset-backed securities may be backed by assets such as residential and commercial mortgages or automobile loans. A decline in interest rates will prompt a debtor to prepay a debt obligation, forcing the investor to reinvest the unanticipated proceeds at lower rates, resulting in a decline in investment income.

**Credit & Counterparty Risk** – The chance that any fund holding could have its credit downgraded, or that a bond issuer will default (fail to make timely payments of interest or principal), potentially reducing the fund's income level and share price.

**Foreign Country Risk** – The value of foreign securities may fluctuate more than U.S. investments and may be subject to additional risks. Foreign companies may not be subject to the regulations and standards that apply in the U.S. and foreign markets may not be as well-regulated as U.S. markets. Political instability and social unrest may develop in foreign countries and changes in foreign government controls may hinder the ability to take money out of the foreign country. Additionally, there are generally fewer investors in foreign markets and a smaller number of securities traded each day, which could make it more difficult for a fund to buy and sell certain securities.

**Currency Risk** – Investments are valued in U.S. dollars, but foreign securities are purchased with foreign currency. Unfavorable moves in an exchange rate may reduce or eliminate any return on a foreign investment. Further, fund investments in U.S. based companies with foreign operations or sales may be subject to currency risk.

**Liquidity Risk** – Liquidity is the ability to buy or sell securities quickly and in large volume without substantially affecting the asset's price. Some companies are not well known, have few shares outstanding or can be significantly affected by political and economic events. Securities issued by these companies may be difficult to buy or sell and their value may rise or fall substantially.

**Derivatives Risk** – Derivatives may be used to limit potential losses associated with currencies, stock markets and interest rates. This process is called hedging. Derivatives may also be used for non-hedging purposes to reduce transaction costs, achieve greater liquidity, create effective exposure to international financial markets or increase speed and flexibility in making portfolio changes. The use of derivatives has risks, including: the hedging strategy may be ineffective, there is no guarantee a market will exist when selling or buying the contract, the other party to the contract may not be able to meet its obligations, and the price of a derivative may not accurately reflect the value of the underlying security or index.

**Small Capitalization Risk** – Historically, the securities of small capitalization companies have been more volatile in price than larger company securities, especially over the short term. Among the reasons for the greater price volatility are the less certain growth prospects of small companies, the lower degree of liquidity in the markets for such securities, the greater impact caused by changes in the investor perception of value, and the greater sensitivity of small capitalization companies to changing economic conditions. In addition, small capitalization companies may lack depth of management and a proven track record and they may be unable to generate funds necessary for growth or development. They also may be developing or marketing new products or services for which markets are not yet established and may never become established, or may be marketing products or services, which may become quickly obsolete. While small capitalization companies may offer greater opportunities for capital growth than larger, more established companies, they also involve greater risks and should be considered speculative.

**Active Management Risk** – The chance that the fund manager in an actively managed portfolio will do a poor job of selecting the securities or countries in which the fund invests. The ability of a manager is often best measured by comparing the fund's return with a relevant benchmark.

**Market Disruption & Geopolitical Risk** – A situation where markets cease to function in a regular manner, typically characterized by rapid and large market declines. War, terrorism and other changes in foreign and domestic economic and political conditions may create widespread panic and result in poor market conditions.

**Large Shareholder Risk** – An event where large shareholders, such as institutional investors, sell a substantial amount of securities held within the fund, which negatively affects the pricing and increases transaction costs.



## Underlying Investment Managers

Each OPERS Fund is managed by one underlying investment manager. The OPERS Stable Value Fund is managed by Invesco, the Self-Directed Brokerage Account is managed by The Charles Schwab Corporation and all other Funds are managed by Blackrock Institutional Trust Company, N.A. (BTC). Below are brief descriptions of each underlying investment manager and a summary of their responsibilities.

### **Invesco**

Invesco, a wholly owned subsidiary of AMVESCAP, has been a market leader since 1985 and offers overall portfolio management and risk controls. Invesco's philosophy is to draw upon the applicable parts of the fixed income process - primarily the high quality sectors of the financial marketplace – to build portfolios that provide attractive yields and preserve principle.

The investment process combines top-down research and analysis with bottom-up security selection. Top-down research focuses on return drivers like changes in the yield curve, spread, credit and interest rate volatility. The bottom-up sector specialists, credit research analysts and portfolio managers confer on strategy and execution. Risk management adds control and measurement to each step of the process. A proprietary risk management system aligns investment tactics with investment strategy.

### **The Charles Schwab Corporation (Schwab)**

The Charles Schwab Corporation (NYSE: SCHW) has been a leader in financial services for more than three decades. Launched in 1973, the company began offering discount brokerage in 1975. Through advocacy and innovation, the company has worked to make investing more affordable, more accessible and more understandable.

Schwab introduced the Schwab Personal Choice Retirement Account® (PCRA), a self-directed brokerage option designed specifically for defined contribution plans, in 1994. Schwab's proven stability as an industry leader in the self-directed brokerage account arena is evident with the many years of experience and expertise.

Schwab used its expertise in the retail brokerage business and well-known technological prowess to develop the PCRA self-directed brokerage option, making a large investment of time and resources in order to create the PCRA infrastructure. Schwab intends to maintain the competitive advantages in the SDBA marketplace by continuing to reinvest in product and service enhancements for PCRA.



### **Blackrock Institutional Trust Company, N.A. (BTC)**

In 1988, through predecessor firm Barclay's Global Investors (BGI), BTC developed their investment philosophy based on Total Performance Management, the conscious and structured balancing of risk, return and cost in the delivery of investment results to our clients. While seeking to achieve the benchmark return or better, BTC believes risks must be understood and adequately compensated, and transaction costs must be considered in all investment decisions.

BTC systematically analyzes index composition, changes and transaction costs through their Index Research and Trading Research groups and integrate those ideas into the portfolio construction process. BTC's investment in research on these two fronts focuses on delivering a high quality and cost-effective index-based portfolio that tracks the performance of the benchmarks.

BTC's broad and diverse asset and client base produces significant economies of scale for minimizing transaction costs to clients. A particular benefit is BTC's ability to 'cross' trades among funds in order to minimize investment costs.

Securities that are typically purchased by the investment managers of the OPERS Investment Options are described below, and have been grouped by the major security types.

**Stable Value** – These securities are noted for their high quality, conservative nature, and for their reliability in providing liquidity in all market environments. They typically draw upon parts of the fixed income process in order to provide attractive yields, preserve principle and provide liquidity.

**Guaranteed Investment Contracts (GICs)** are contracts between an insurance company and a pension plan that guarantee a specific rate of return on the invested capital over the life of the contract. The insurance company backs the guarantee taking all market, credit and interest rate risk.

**Wraps** are agreements whereby a financial institution, such as a bank or insurance company, assumes the market risk of cash flows into and out of a portfolio of fixed income securities.

**Certificates of Deposit (CDs)** are debt instruments issued by a bank that pay interest. Maturities range from a few weeks to several years. Interest rates are set by the marketplace.

**Eurodollar Deposits** are certificates of deposit issued by banks outside the U.S, primarily in Europe, with interest and principal paid in dollars.

**Commercial Paper** is a short-term obligation issued by banks, corporations, and other borrowers, matures from two to 270 days. Such instruments are unsecured and usually discounted, although some are interest bearing. Usually these securities are only issued by top-rated companies and are backed by a bank line of credit.

**Bankers Acceptances** are time drafts drawn on and accepted by a bank, and are the customary means of payment for merchandise sold in import-export transactions. In addition, they are a source of financing used extensively in international trade. With the strength of the bank behind it, it usually qualifies as a money market instrument.

**Repurchase Agreements** are between a seller and a buyer, usually of U.S. government securities, pursuant to which the seller agrees to repurchase the securities at an agreed upon price and, usually, at a stated time.

**Bonds** – These securities are typically interest-bearing or discounted notes where the issuer must pay the bondholder a specified sum of money, usually at specific intervals, and to repay the principal amount of the loan at maturity. Bondholders have an IOU from the issuer, but receive no corporate ownership privileges as stockholders do.

**U.S. Government and Agency bonds** represent loans by investors to the U.S. Treasury Department or to a wide variety of governmental agencies and instrumentalities. Timely payment of principal and interest on U.S. Treasury bonds is always guaranteed by the full faith and credit of the U.S. government; many agency bonds have the same guarantee.

**Corporate bonds** are IOUs issued by businesses that want to borrow money for some purpose. As with other types of bonds, the issuer promises to repay the principal on a specific date and make interest payments in the meantime. The amount of interest depends on market conditions and the financial health of the company.

**International dollar-denominated bonds** are bonds denominated in U.S. dollars and issued by foreign companies and governments.

**Mortgage-backed securities** represent interest in underlying pools of mortgages. Unlike ordinary bonds, which generally pay a fixed rate of interest at regular intervals and then repay principal upon maturity, mortgage-backed securities pay both interest and principal as part of their security. Such securities are issued and guaranteed by the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association and the Government National Mortgage Association. Sometimes banks issue securities backed by conventional mortgages, selling them to large institutional investors.

**Asset-backed securities** are bonds that represent partial ownership in pools of consumer or commercial loans, most often credit card, automobile, or trade receivables. Because the institution that originated the underlying loans or receivables is neither the obligor nor the guarantor, their value ultimately depends on repayments by underlying borrowers.

**High-Yield bonds** are issued by debtors with a low credit rating and pay a higher yield to compensate for the additional risk.

**Treasury Inflation Protected Securities (TIPS)** are indexed to inflation in order to protect investors from the negative effects of inflation. The par value rises with inflation as measured by the Consumer Price Index, while their interest rate remains fixed.

**Long Duration bonds** are bonds with a maturity date greater than 10 years that usually pay investors a higher yield due to the long holding period.

**Stocks** – These securities constitute ownership of a corporation represented by shares that are a claim on the corporation's earnings and assets.

**Common Stock** usually entitles the shareholder to vote in the election of directors and other matters taken up at shareholder meetings. After other claims are satisfied, common stockholders participate in company profits on a pro-rata basis; profits may be paid out in dividends or reinvested in the company to help it grow. Increases and decreases in earnings are usually reflected in a company's stock price, so common stock generally has the greatest appreciation and depreciation potential of all corporate securities.

**Preferred Stock** has a specified dividend and ranks after bonds and before common stocks in its claim on income for dividend payments and on assets. While most preferred stocks pay a dividend, preferred stock may be purchased where the issuer has omitted, or is in danger of omitting, payment of its dividend. If that happens, such investments would be made primarily for their capital appreciation potential.

**Convertible Securities** may be made in debt or preferred equity securities convertible into, or exchangeable for, common stock. Traditionally, convertible securities have paid dividends or interest at rates higher than common stocks but lower than nonconvertible securities. They generally participate in the appreciation or depreciation of the underlying stock into which they are convertible, but to a lesser degree. In recent years, convertibles have been developed which combine higher or lower current income with options and other features.

**Warrants** are options to buy a stated number of shares of common stock at a specified price anytime during the life of the warrants (generally, two or more years). Warrants can be highly volatile, have no voting rights and pay no dividends.

**Small Company Stocks** are classified by the companies' market value, or market capitalization. Market capitalization is equal to the market price of the stock multiplied by the number of shares outstanding. Market capitalization changes over time, and there is no official definition of the boundaries of large, small or mid-capitalization stocks. The OPERS funds generally define large-capitalization stocks as those that are included in the Russell 1000® Index and small capitalization stocks as those that are in the Russell 2000® Index.

**Foreign Securities** – These securities include non-dollar denominated securities traded outside of the U.S. and dollar denominated securities of foreign issuers traded in the U.S., but are similar in structure to the investment types above. Such investments increase a portfolio's diversification and may enhance return, but they also involve some special risks, such as exposure to potentially adverse local, political, and economic developments; nationalization and exchange controls; potentially lower liquidity and higher volatility; possible problems arising from accounting, disclosure, settlement, and regulatory practices that differ from U.S. standards; and the chance that fluctuations in foreign exchange rates will decrease the investment's value (favorable changes can increase its value). These risks are heightened for investments in developing countries, and there is no limit on the amount of fund foreign investments that may be made in such countries.

**American Depositary Receipts (ADRs)** are receipts for the shares of a foreign-based corporation held in the vault of a U.S. bank and entitling the shareholder to all dividends and capital gains. Instead of buying shares of foreign-based companies in overseas markets, investors can buy shares in the U.S. in the form of an ADR.

**American Depositary Shares (ADSs)** are shares issued under a deposit agreement representing the underlying ordinary share, which trades in the issuer's home market. The terms ADR and ADS tend to be used interchangeably.

**Emerging Market Debt** is the fixed-income securities issued by emerging market countries as defined by a number of factors, including whether the country has a low-to-middle-income economy according to the International Bank for Reconstruction and Development (the World Bank), the country's foreign currency debt rating, its political and economic stability and the development of its financial and capital markets.

**Derivatives** – These securities are typically contracts whose value is based on the performance of an underlying financial asset, index or other investment. For example, an option is a derivative because its value changes in relation to the performance of an underlying stock. Derivatives afford leverage and can enhance returns and be useful in hedging portfolios.

**Interest Rate Futures Contracts** are based on a debt security or inter-bank deposit. In theory, the buyer of a bond futures contract agrees to take delivery of the underlying bonds when the contract expires, and the contract's seller agrees to deliver the debt instrument. However, most contracts are not settled by delivery, but traded out before expiration. The value of the contract rises and falls inversely to changes in interest rates.

**Interest Rate Options Contracts** are based on an underlying debt security. Options, unlike futures, give their buyers the right, but not the obligation, to buy the underlying bond at a fixed price before a specific date in the future. Option sellers promise to sell the bonds at a set price anytime until the contract expires, and in return, the buyer pays a premium to the seller.

**Interest Rate Swaps** are arrangements where two parties enter into an agreement to exchange periodic interest payments. The dollar amount the two parties pay each other is an agreed upon periodic interest rate multiplied by some predetermined dollar principal. Only interest is exchanged between the parties. The benefit of interest rate swaps, which can be used to synthetically extend or shorten the duration characteristics of an asset or liability, is that direct changes in the contractual characteristics of the assets or liabilities become matters only affecting administrative costs.

**Currency Swaps** are arrangements where two parties sell each other a currency with a commitment to re-exchange the principal amount at the maturity of the deal.

**Stock Index Futures** are securities that combine features of traditional futures trading with securities trading using composite stock indices. Investors can use stock index futures to speculate on general market performance or to hedge a position against a decline in value.

**Forward Exchange Transactions** are the purchase or sale of foreign currency at an exchange rate established now but with payment and delivery at a specified future time.

**Managing Foreign Currency** may be accomplished through the use of forwards, or contracts to exchange one currency for another on some future date at a specified exchange rate. However, futures, swaps and options may also be used. If any of the funds were engaged in any of these foreign currency transactions, it would be primarily to protect the fund's foreign securities from adverse currency movements. Such transactions involve the risk that anticipated currency movements will not occur, which would reduce total returns.

**Lending of Portfolio Securities** to broker-dealers, institutions or other persons to earn additional income brings additional value to the investment options. Risks include the potential insolvency of the broker-dealer or other borrower that could result in delays in recovering securities and capital losses. Additionally, losses could result from the reinvestment of collateral received on loaned securities.



**When-Issued Securities and Forward Commitment Contracts** are securities purchased on a when-issued or delayed delivery basis or contracts to purchase or sell securities on a forward commitment basis. The price of these securities is fixed at the time of the commitment to buy, but delivery and payment can take place a month or more later. During the interim period, the market value of the securities can fluctuate, and no interest accrues to the purchaser. At the time of delivery, the value of the securities may be more or less than the purchase or sale price. To the extent the fund remains fully or almost fully invested at the same time it purchases these securities, there will be greater fluctuations in that fund's net asset value than if the fund did not purchase them.



### **Ultimate Responsibility**

The OPERS Board of Trustees (Board) authority includes asset allocation, asset management, risk control and administration and monitoring and evaluation. The current Board members can be found at [www.opers.org](http://www.opers.org).

### **Investment Committee**

The Investment Committee (Committee) monitors investment activity, evaluates proposals requiring Board action and makes recommendations for consideration by the Board. Through its actions, the Committee represents the interests of the Board in all investment-related matters.

### **Investment Staff**

Staff manages the investment and reports to the Committee. The Board expects staff to take a leadership role in investment management. Recognizing that OPERS operates with a very high standard of care, the Board expects staff to discharge its fiduciary responsibilities in managing OPERS' investments. Furthermore, the Board expects staff to advise the Board when staff believes action relative to investment policies or implementation is required of the Board, establish and conduct an appropriate process for monitoring OPERS' investments and implement the Board's decisions, inform the Board on any and all matters staff believes to be of sufficient materiality as to warrant the Board's attention and operate at all times in the best and exclusive interest of OPERS and in compliance with all applicable laws.

All members of staff are accountable to the Chief Investment Officer (CIO). The CIO is responsible for all staff actions relative to the management of OPERS' investments. In this regard, it is the responsibility of the CIO to satisfy himself/herself that all policies and directives of the Board are in compliance.

### **Investment Managers**

Each investment manager invests assets in accordance with their written guidelines, determines the best method for implementing an investment strategy and communicates with staff and the investment advisor, in writing, regarding all significant changes pertaining to the portfolio it manages or the firm itself in a timely manner.

The Board expects the investment managers to use the same care, skill, prudence and due diligence under the circumstances then prevailing that experienced investment professionals acting in like capacity and fully familiar with such matters would use in like activities for like aims in accordance and compliance with all applicable laws, rules and regulations.

### **Benefits Staff**

The Benefits (DC) staff oversees the day-to-day administration and coordination of the fund's service providers. The Benefits staff will establish and conduct appropriate processes for monitoring the OPERS Member-Directed and Combined Plans' service providers, annually monitor total plan costs to ensure fees are commensurate with services received, inform the Board on any and all matters of sufficient materiality, coordinate research and recommendations with the investment division on issues that impact the fund's investment structure, investment options, or investment-related products and services, conduct member focus groups, surveys or other research relating to services offered under the OPERS Member-Directed and Combined Plans and operate with the exclusive interest of members and beneficiaries.

The Benefits staff is accountable to the OPERS Director of Benefits. The OPERS Director of Benefits is responsible for all DC staff actions relative to the administration and services of the OPERS Member-Directed and Combined Plans. In this regard, it is the responsibility of the OPERS Director of Benefits to satisfy himself/herself that all policies and directives of the Board are carried out faithfully.

To administer the Plan, OPERS may enlist outside service providers for custody, record keeping, investment accounting, and communication and education. These providers can bring extensive industry experience and expertise to enhance internal OPERS staff resources.

### **Custodian**

Ohio's Treasurer of State (Treasurer) acts as custodian of OPERS as specified in Section 145.26 of the Ohio Revised Code (ORC). The Treasurer may employ sub custodians to perform certain functions.

### **Third-Party Record Keeping**

The Board approves the selection of a single, independent entity to serve as the third-party record keeper for the OPERS Member-Directed and Combined Plans. The defined contribution department reserves the right to define within the record keeper service agreement the specific services to be provided to the fund. Certain administrative functions may be handled internally by the defined contribution department. The fund accountant will compute the unit value both categorically, on a monthly basis, and in total, on a daily basis. (See Unit Values and Shares, below for details on unit values.)

**Members**

OPERS members are responsible for determining which OPERS retirement plan in which to participate. If members choose either the OPERS Member-Directed or Combined Plan, the members are responsible for selecting their investment options, monitoring their asset allocation strategy and making adjustments as appropriate for their personal situations and utilizing the educational resources available on the investment options.

**Investment Advisors**

The Board may appoint Investment advisors (Advisors) unaffiliated with OPERS to assist with the investment program. The Advisors will be appointed by the Board and shall be responsible to the Board. Such Advisors shall perform functions established through contractual agreements that may include advising the Board in the management of OPERS' investments, monitoring and reporting independently to the Board on the performance of OPERS' investments, conducting periodic and special studies on behalf of the Board and assisting and supporting staff in various projects.

**Actuary**

The Board may appoint an actuary to assist in the administration of the DC fund. The duties of such actuary shall be established by contract.



## Unit Value and Shares

### How are shares valued?

The unit value (UV) of each investment option is determined by dividing the total value of the fund's portfolio investments and other assets attributable to the fund, less any liabilities (accrued expenses), by the total number of outstanding participant units.

For purposes of calculating the UV, portfolio securities and other assets for which market quotes are available are stated at market value. Market value is determined on the basis of last reported sales prices, or if no sales are reported, based on quotes obtained from a quotation reporting system, established market makers, or pricing services. Certain securities or investments for which daily market quotes are not readily available may be valued, by procedures established by the board of trustees, with reference to other securities or indices. Short-term investments having a maturity of 60 days or less are generally valued at amortized cost. Exchange traded options, futures and options on futures are valued at the settlement price determined by the exchange. Other securities for which market quotes are not readily available are valued at fair value as determined in good faith by the board of trustees or persons acting at their direction.

Investments initially valued in currencies other than the U.S. dollar are converted to U.S. dollars using exchange rates obtained from pricing services. As a result, the UV of a Fund's shares may be affected by changes in the value of currencies in relation to the U.S. dollar. The value of securities traded in markets outside the United States or denominated in currencies other than the U.S. dollar may be affected significantly on a day that the New York Stock Exchange is closed and an investor is not able to purchase, redeem or exchange shares.

Fund shares are valued at the close of regular trading (normally 4 p.m., Eastern Standard Time) on the New York Stock Exchange (the NYSE Close) on each day that the New York Stock Exchange is open. For purposes of calculating the UV, the Funds normally use pricing data for domestic equity securities received shortly after the NYSE Close and do not normally take into account trading, clearances or settlements that take place after the NYSE Close. Domestic fixed income and foreign securities are normally priced using data reflecting the earlier closing of the principal markets for those securities.

Information that becomes known to the Funds or their agents after the UV has been calculated on a particular day will not generally be used to retroactively adjust the price of a security or the UV determined earlier that day.

The OPERS Target Date Funds only own shares of the OPERS Funds and third market values are determined by their share ownership and the unit value of the OPERS Funds.



## Unit Value and Shares

### **How are shares valued? (continued)**

The fund accountant performs a daily rate of return review in which current day unit value performance is compared to that fund's associated index. Funds varying from the benchmark by more than 20 basis points are reviewed to verify income, expenses, and participant activity are properly reflected. Market value fluctuations on separately managed accounts are reviewed to identify specific securities or industries that had significant impacts and that could account for the variations.

$$\frac{\text{Current Day Unit Value} - \text{Prior Day Unit Value}}{\text{Prior Day Unit value}} = \text{Unit Value Return}$$

$$\frac{\text{Current Day Index Value} - \text{Prior Day Index Value}}{\text{Prior Day Index}} = \text{Index Return}$$

Unit Value Return VS Index Return

The fund accountant will perform a final review of the current day's valuation. A manager or senior accountant will review the unit value calculations and rates of return before the final prices are delivered. The fund accountant will provide final prices via electronic feed to the record keeper by 7:30 p.m. EST. When prices may be delivered after 7:30 p.m. EST, the fund accountant will notify the record keeper via telephone and continue to provide updates until prices are delivered. Upon receipt of the prices, the record keeper will call the fund accountant with any questions and confirm receipt.





## Transfers, Allocations and Rebalancing

### How do Transactions Work?

Shareholders initiate transactions with the record keeper via phone, mail or the Internet. The record keeper sends trade instructions to the investment liquidity managers (see details below) by 9 p.m. EST that night and the fund accountant receives transactions from the record keeper by 8 a.m. EST the following day. The fund accountant processes the activity and verifies accuracy of the transactions by comparing the trade instructions to amounts actually transferred.

### Transfers between Funds

Transfers are available to all shareholders with a balance. Shareholders can transfer a percent out of a fund and a percent into a fund or transfer a dollar amount out of a fund and a dollar amount into a fund. Also for reallocation purposes, a participant can transfer a percent of their balance into selected funds. Transfers can be made daily. Percentage transfers must be made in increments of 1%. Additional transfer information is:

- Participant cannot transfer “out of” and “into” the same fund in the same transaction.
- Transactions completed before 4 p.m. EST will be processed the same day with current end-of-day price. Transactions completed after 4 p.m. EST on any business day or on a weekend or holiday will be processed the next day with the next business day’s price.
- Transaction cutoff times will correspond to any early closing of the New York Stock Exchange.
- Participants have the ability to change or cancel transactions made that day prior to 4 p.m. EST of the same business day.
- Completed participant transactions will generate a confirmation statement that will be mailed within two business days to the participant’s address on record.



## Transfers, Allocations and Rebalancing

### Liquidity Managers

The following liquidity managers will manage daily cash flows.

<b><u>OPERS Fund</u></b>	<b><u>Liquidity Manager</u></b>
Stable Value Fund	Invesco Stable Value
Short-Term Gov. Bond Fund	Blackrock Institutional Trust Company, N.A. ("BTC")
Bond Index Fund	Blackrock Institutional Trust Company, N.A. ("BTC")
TIPS Fund	Blackrock Institutional Trust Company, N.A. ("BTC")
Long Duration Index Fund	Blackrock Institutional Trust Company, N.A. ("BTC")
Stock Index Fund	Blackrock Institutional Trust Company, N.A. ("BTC")
Large Cap Index Fund	Blackrock Institutional Trust Company, N.A. ("BTC")
Small Cap Index Fund	Blackrock Institutional Trust Company, N.A. ("BTC")
Non-U.S. Stock Index Fund	Blackrock Institutional Trust Company, N.A. ("BTC")

The liquidity managers are commingled collective trusts that are capable of handling daily cash flows without market impact or excessive trading costs. The funds may be rebalanced quarterly to maintain the allocation targets described below.

### OPERS Target Date Funds Rebalancing

#### ***Years with conversion to the Payout Fund***

When a Target Date Fund reaches its specified calendar year, its assets and associated DC Plan members will be transitioned to the OPERS Payout Fund. All other existing Target Date Funds will have their targets and ranges reset to those of the preceding Target Date Fund and rebalanced as necessary. A new Target Date Fund, with a calendar year target of five years greater than the existing latest Target Date Fund, will be added with the previous targets and ranges of the existing latest Target Date Fund.

#### ***Years without conversion to the Payout Fund***

At the end of each calendar quarter, the Target Date Funds' asset allocations are compared to the Targets and Ranges set by the Defined Contribution Policy. If their allocations are outside their Ranges, they are rebalanced to their Targets within 10 business days.

These changes will be formalized by updates to the Investment Objectives and Asset Allocation Policy, Defined Contribution Fund.