Fi360

Theory in Action: Asset Manager Solutions to Address the Retirement Income Challenge

May 4, 2017

Moderator: John Faustino, AIF®, Chief Product and Strategy Officer at fi360

Panelists:

Will Collins-Dean, CFA®; Portfolio Manager; Dimensional Fund Advisors

Toni Brown, CFA®; Senior Vice President, Defined Contribution; Capital Group

Timothy J. Pitney; Managing Director, Institutional Investment and Endowment Distribution; TIAA

Dimensional Target Date Retirement Income Funds

Our Solution to the Retirement Problem

May 4, 2017

Will Collins-Dean, CFA®, Portfolio Manager
Dimensional Fund Advisors

Dimensional

Asset Allocation

Every asset allocation decision involves a tradeoff between growth assets and risk-hedging assets

Why does someone save?	Why does someone invest the savings?	How does someone manage the risks of the investments?
In almost every case, it is to support future consumption.	To benefit from the time value of money and to manage/hedge risks—in our case, the uncertainty in affordability of future consumption.	The key to managing the appropriate risks is identifying the assets that can best reduce uncertainty relative to investors' goals for future consumption.

#05676-0216

Managing Income Uncertainty Risk

Interest rates, inflation, and income

INTEREST RATES

$300,000
CD

3.5% = $10,500 in income per year

1.0% = $3,000 in income per year **(a 71% drop in income)**

INFLATION

$300,000

2% = $271,719 **(a drop of 9% in real value in wealth and income)**

4% = $246,578 **(a drop of 18% in real value in wealth and income)**

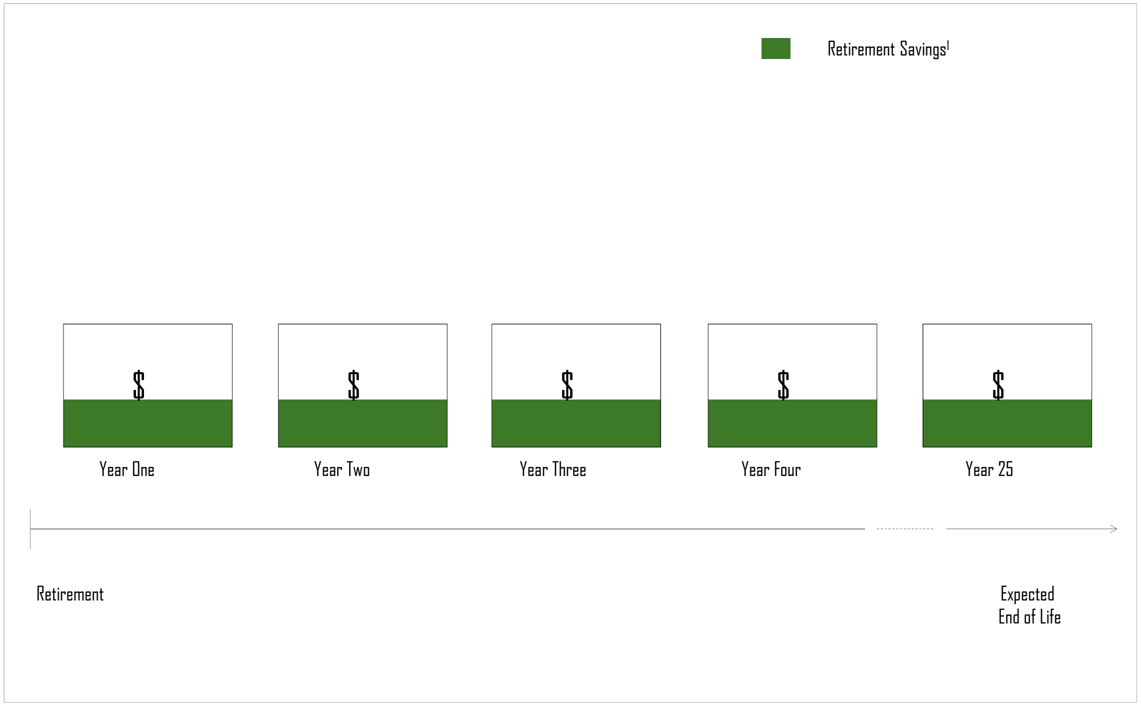
5 Years

Managing income uncertainty risk means protecting savings against changes in interest rates and inflation.

Notes: Hypothetical scenarios for illustration purposes only. Under the "Interest Rate" chart, interest income is calculated multiplying $300,000 times the interest rate shown. Under the "Inflation" chart, the value of wealth after five years of inflation at an the shown rate is calculated by dividing $300,000 by (1.0x)^5 (e.g., for 2% assumed inflation, dividing $300,000 by (1.02)^5).

A Building Block to Support Retirement Consumption

What are Income Slices®?

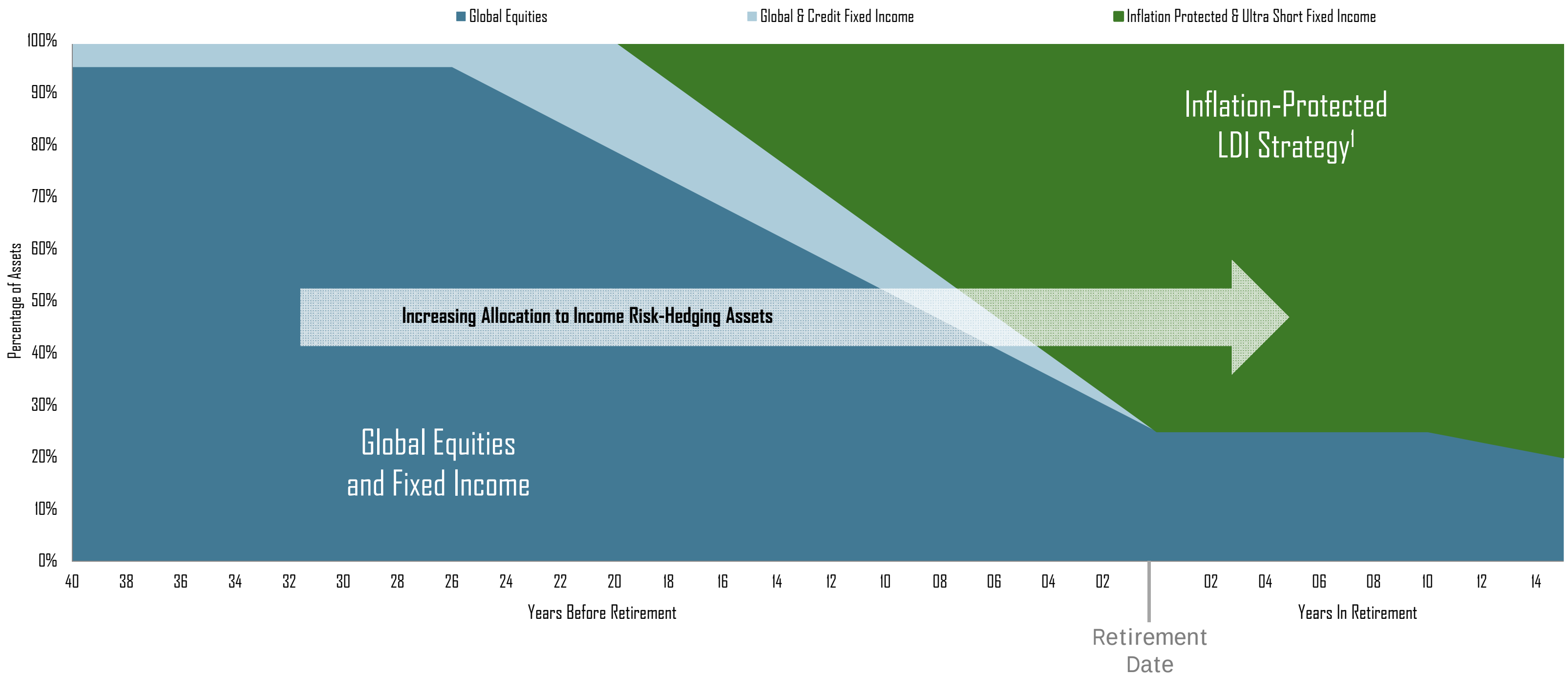


Income Slices® are a stream of $1 of inflation-adjusted income from retirement to expected end of life.

- Its current value is the present discounted value using real interest rates.
- What is the risk? How is that risk managed?

For illustrative purposes only.
1. Retirement savings is composed of pre-retirement contributions and investment performance.

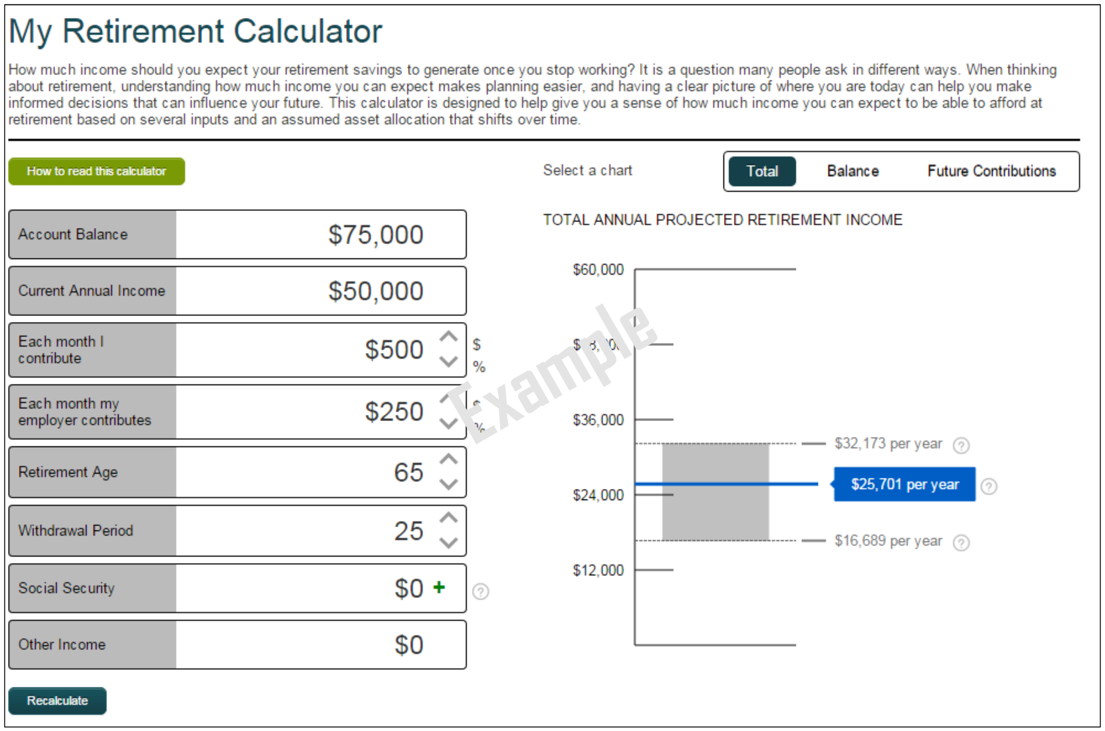
Income Growth vs. Income Risk Management

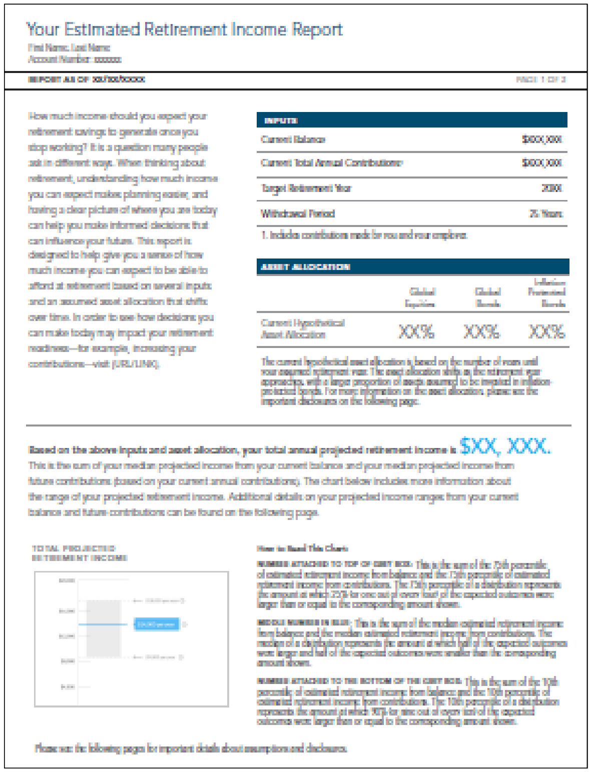


Glide path based on expectation of the Dimensional Target Date Retirement Income Funds' asset allocation changes over time. The actual asset allocations utilized by each fund may deviate from the allocations illustrated by this glide path. See "Disclosures and Risks" for more information.

1. Refers to Liability Driven Investment strategy. A Liability Driven Investment (LDI) strategy is designed to focus on assets that match future liabilities. LDI strategies contain certain risks that prospective investors should evaluate and understand prior to making a decision to invest. These risks may include, but are not limited to, interest rate risk, counterparty risk, liquidity risk and leverage risk. Inflation protected securities may react differently from other debt securities to changes in interest rates. There is no guarantee strategies will be successful. For illustrative purposes only.

Enabling Meaningful Engagement





For illustrative purposes only. The estimated retirement income projections of the calculator are hypothetical in nature and are not a guarantee of future results. Since past performance is not an accurate predictor of the future and reliance on historical and current data involves inherent limitations, it is important to understand that the estimates are only a tool to be used in evaluating your retirement portfolio. Actual results will vary.

Dimensional

Introducing a New Class of Target Date Funds

The Dimensional Target Date Retirement Income Funds

Target Date Funds

Designed to focus on wealth accumulation within risk constraints:

- ✓ Easy-to-use, comprehensive, and well-diversified investment solution
- ✗ Generally not designed to manage uncertainty of in-retirement income
- ✗ Most do not bridge the savings and consumption phases of retirement planning

Dimensional Target Date Income-Focused Funds®

Designed to help grow the value of investors' savings and manage income uncertainty as investors prepare for retirement by seeking to:

- ✓ Provide savings growth potential through value-added global equity and fixed income solutions
- ✓ Manage market, interest rates, and inflation risks during **both** the accumulation and decumulation phase
- ✓ Provide better estimates of expected retirement income
- ✓ Encourage better retirement decision making

There is no guarantee the strategy will be successful.

Disclosures and Risks

Investments in target date funds are subject to the risks of their underlying funds, and asset allocations are subject to change over time in accordance with each fund's prospectus. An investment in or retirement income from a target date portfolio is not guaranteed at any time, including on or after the target date. An investment in a target date portfolio does not eliminate the need for investors to decide—before investing and periodically thereafter—whether the portfolio fits their financial situation. Target Date Funds are designed to target a year in which an investor may withdraw funds for retirement or other purposes. For more information, please refer to the prospectus.

There is no guarantee this investment strategy will be successful, and it is possible to lose money with this investment. Investments in stocks and bonds are subject to risk of economic, political, and issuer-specific events that cause the value of these securities to fluctuate. International investments are subject to additional risks such as currency fluctuation, political instability and adverse economic conditions. Fixed income securities are subject to increased loss of principal during periods of rising interest rates and may be subject to various other risks, including changes in credit quality, liquidity, prepayments, and other factors. Inflation-protected securities may react differently from other debt securities to changes in interest rates. A liability-driven investment strategy is designed to focus on assets that match future liabilities. LDI strategies contain certain risks that prospective investors should evaluate and understand prior to making a decision to invest. These risks may include, but are not limited to, interest rate risk, counterparty risk, liquidity risk, and leverage risk.

The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status, or investment horizon. You should consult your tax and financial advisor. All material has been obtained from sources believed to be reliable. There is no representation or warranty as to the accuracy of the information and neither Dimensional Fund Advisors LP nor any of its affiliates shall have liability for decisions based on such information.

Defined Contribution…. a Retirement System

Toni Brown, CFA
Senior Vice President
Defined Contribution

Booming into Retirement

3.65 million

Number of people turning 65 each year*

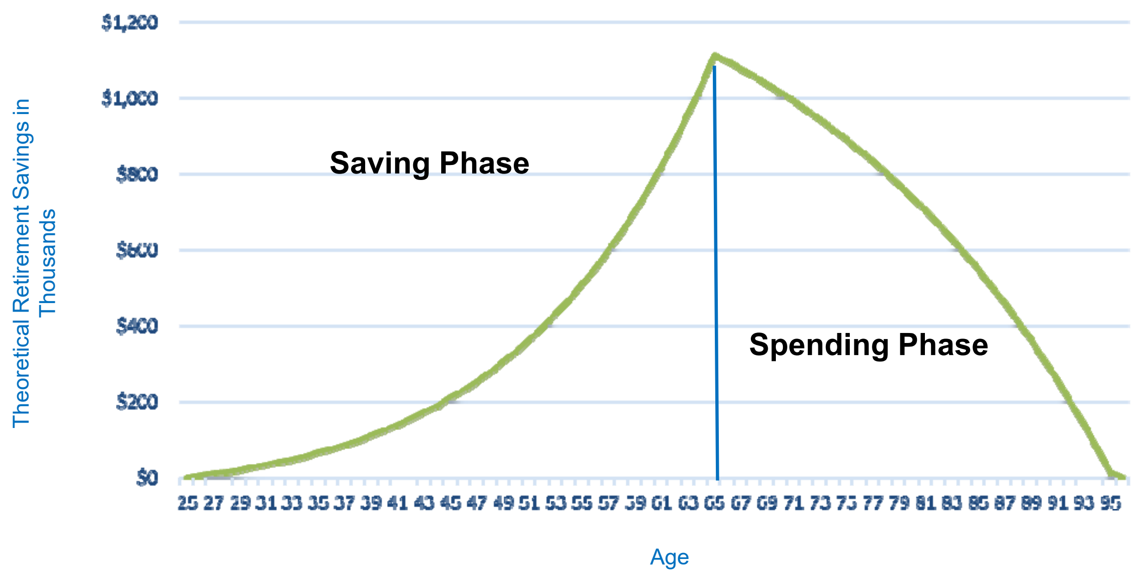
24%

Percent confident they'll have enough savings to last through retirement†

* Pew Charitable Trusts, "Baby Boomers Approach 65 - Glumly," December 2010.
† The Insured Retirement Institute, "Boomer Expectations for Retirement 2016," April 2016.

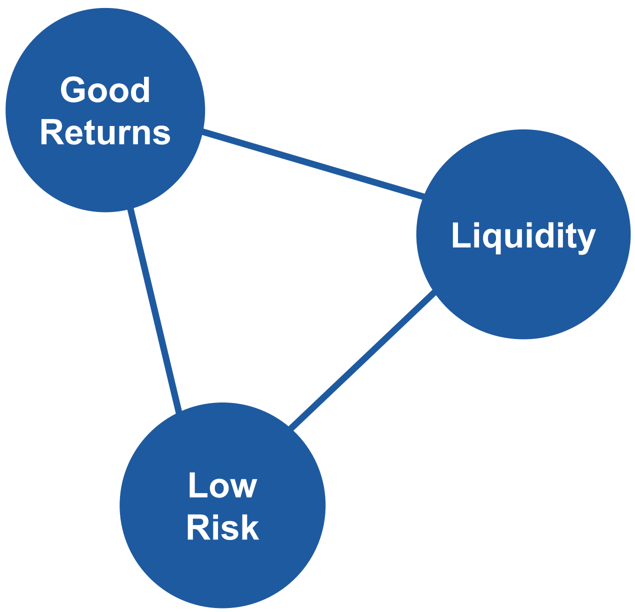
Life Cycle of a DC Retirement Plan

A Participant Experience



This is a hypothetical illustration.

Retirement Income Conundrum



Key points when evaluating a retirement income product

Retirement Income

Types of Options

Characteristics of options

Criteria	Systematic withdrawals: Self-managed	Systematic withdrawals: Advisory service or managed payout	Deferred fixed income annuity	Immediate fixed income annuity	Immediate variable-income annuity	Immediate inflation-adjusted income annuity	Guaranteed minimum withdrawal benefit annuity
Lifetime guarantee	No	No	Yes	Yes	Yes	Yes	Yes
Pre-retirement protection	No	No	Yes	No	No	No	Yes
Post-retirement increase potential	Yes[1]	Yes[1]	No	No	Yes[1]	Yes[3]	Yes[2]
Post-retirement protection	No[1]	No[1]	Yes	Yes	No[1]	Yes	Yes
Access to savings	Yes	Yes	No	No	No	No	Yes[4]
Inheritance potential	Yes	Yes	No	No	No	No	Yes[4]
Investment control	Yes	No[5]	No	No	Yes[6]	No	Yes[6]
Withdrawal control	Yes	No[5]	No	No	No	No	Yes[7]

[1]Depends on investment performance
[2]Depends on investment performance and contract rules
[3]Depends on measure of inflation used in annuity contract
[4]Subject to contract rules, subject to fees and adjustments in account value
[5]No control while participant transfers control to advisory service; participant can withdraw funds from service at any time
[6]Depends on contract provisions; for guaranteed minimum withdrawal benefit (GMWB) annuities, limits may exist for allocation to stocks. Annuities are subject to the claims-paying ability of the insurer.
[7]Amounts in excess of guaranteed amount may be withdrawn, but adjustments and penalties may apply
Source: "The next evolution in defined contribution retirement plan design," Stanford Center on Longevity and the Society of Actuaries Committee on Post-Retirement Needs and Risks, September 2013.

Retirement Solutions

- **Attributes**
  - **Managed for withdrawals**
  - **Understandable**
  - **Durable**
  - **Liquid**
  - **Reasonable Fee**
  - **Transferable**

- **Retirement Options:**
  Managed for a Targeted Withdrawal %
  - Conservative: 2%-3%
  - Moderate: 3%-4%
  - Aggressive: 4%-5%

Source: Capital Group. This illustration is hypothetical and does not reflect actual data from any plan.

An Investment Structure…..

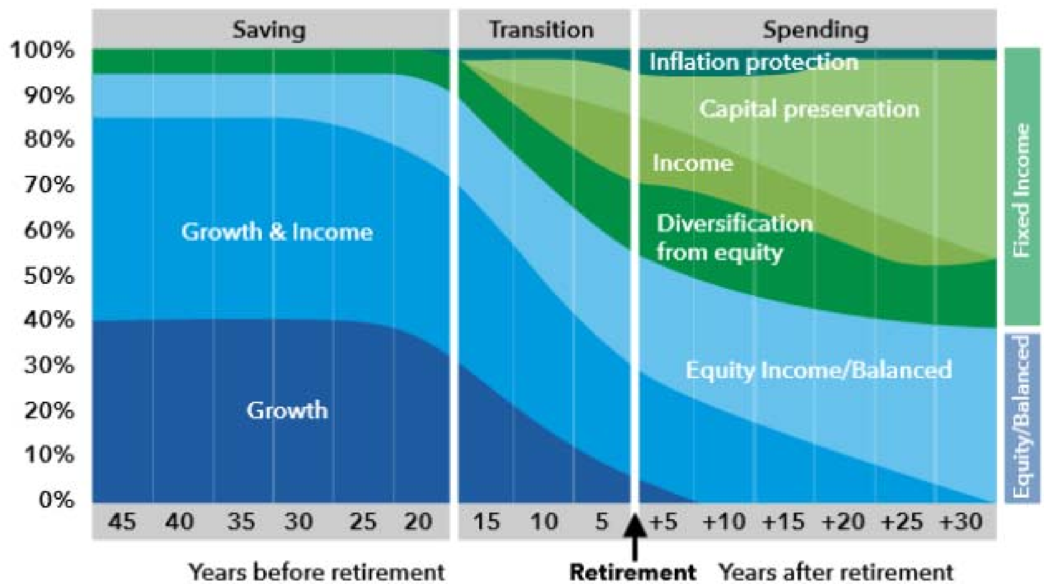
…Through Retirement

QDIA	Core Options	Retirement Options
Target date series	**Capital preservation**	**Conservative withdrawal**
	Global bond (hedged)	**Moderate withdrawal**
	Global equity	**Enhanced withdrawal**

Source: Capital Group. This illustration is hypothetical and does not reflect actual data from any plan.

American Funds Target Retirement Series

Equity Gradually Shifts to Higher Yielding Equity with a History of Lower Volatility



Fund allocations as of January 1, 2017.

American Funds Retirement Income Series

Conservative

American Funds Retirement Income Portfolio – Conservative℠

Designed for retirees needing additional income to cover higher expenses and who have other illiquid assets.

2.50%-3.00% Current suggested annual withdrawal rate range*

Seeks to provide three investment objectives: current income, long-term growth of capital and conservation of capital, with an emphasis on income and conservation of capital.

Moderate

American Funds Retirement Income Portfolio – Moderate℠

Seeks to provide a balance of withdrawal and longevity needs.

2.75%-3.50% Current suggested annual withdrawal rate range*

Seeks the balanced accomplishment of three investment objectives: current income, long-term growth of capital and conservation of capital.

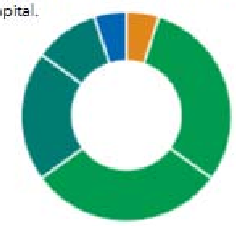
Enhanced

American Funds Retirement Income Portfolio – Enhanced℠

Designed for retirees with significant sources of income to cover most expenses or substantial retirement assets, or wanting to leave a legacy.

3.00%-4.00% Current suggested annual withdrawal rate range*

Seeks the accomplishment of three investment objectives: current income, long-term growth of capital and conservation of capital, with an emphasis on income and growth of capital.



Growth-and-income funds | Equity-income funds | Balanced funds | Taxable bond funds

30-40% **Equity Allocation**

35-55% **Equity Allocation**

50-70% **Equity Allocation**

*Percent of initial investment. May result in an investor receiving part of the principal to the extent the income earned by the portfolio is less than the withdrawal amount. Investors could be forced to reduce withdrawals during difficult periods.

An Investment Structure….Through Retirement

DC Dependent

Living longer

Staying in plan

Thank you.

Investors should carefully consider investment objectives, risks, charges and expenses. This and other important information is contained in the fund prospectuses and summary prospectuses, which can be obtained from a financial professional and should be read carefully before investing.

Allocation percentages and the underlying American Funds of the target date funds are subject to the Portfolio Oversight Committee's discretion and will evolve over time. Underlying funds may be added or removed during the year. For quarterly updates of the underlying fund allocations, visit **americanfundsretirement.com**.

Investment professionals continue to manage each fund for 30 years after it reaches its target date. Although the target date funds continue to be managed for investors on a projected retirement date time frame, the funds' allocation strategy does not guarantee that investors' retirement goals will be met.

Investing outside the United States involves risks such as currency fluctuations, periods of illiquidity and price volatility, as more fully described in the prospectus. These risks may be heightened in connection with investments in developing countries. Small-company stocks entail additional risks, and they can fluctuate in price more than larger company stocks. Lower rated bonds are subject to greater fluctuations in value and risk of loss of income and principal than higher rated bonds. The return of principal for bond funds and for funds with significant underlying bond holdings is not guaranteed. Fund shares are subject to the same interest rate, inflation and credit risks associated with underlying bond holdings. While not directly correlated to changes in interest rates, the values of inflation-linked bonds generally fluctuate in response to changes in real interest rates and may experience greater losses than other debt securities with similar durations.

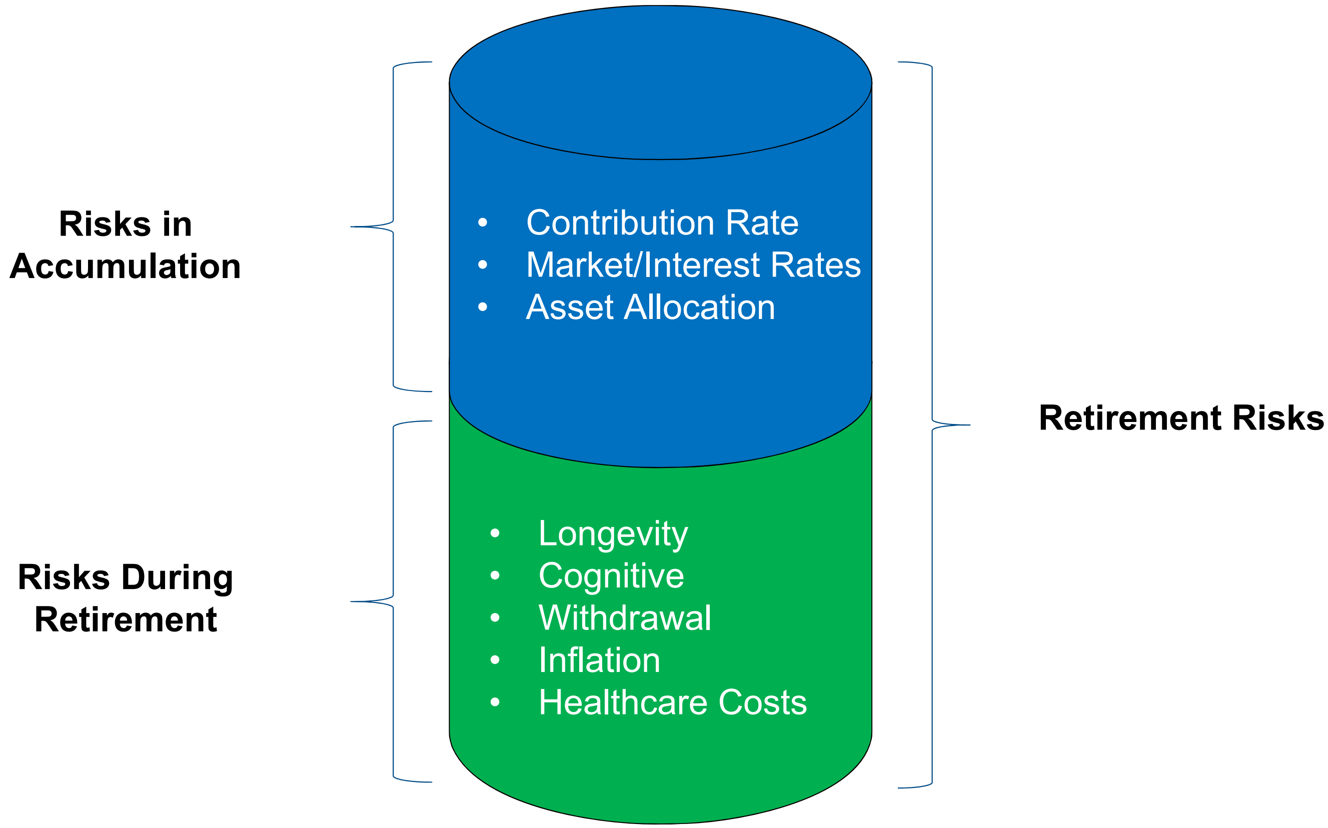
Investments in mortgage-related securities involve additional risks, such as prepayment risk, as more fully described in the prospectus. Bond prices and a bond fund's share price will generally move in the opposite direction of interest rates. Shares of U.S. Government Securities Fund are not guaranteed by the U.S. government.

Retirement Income Challenges

May 4, 2017

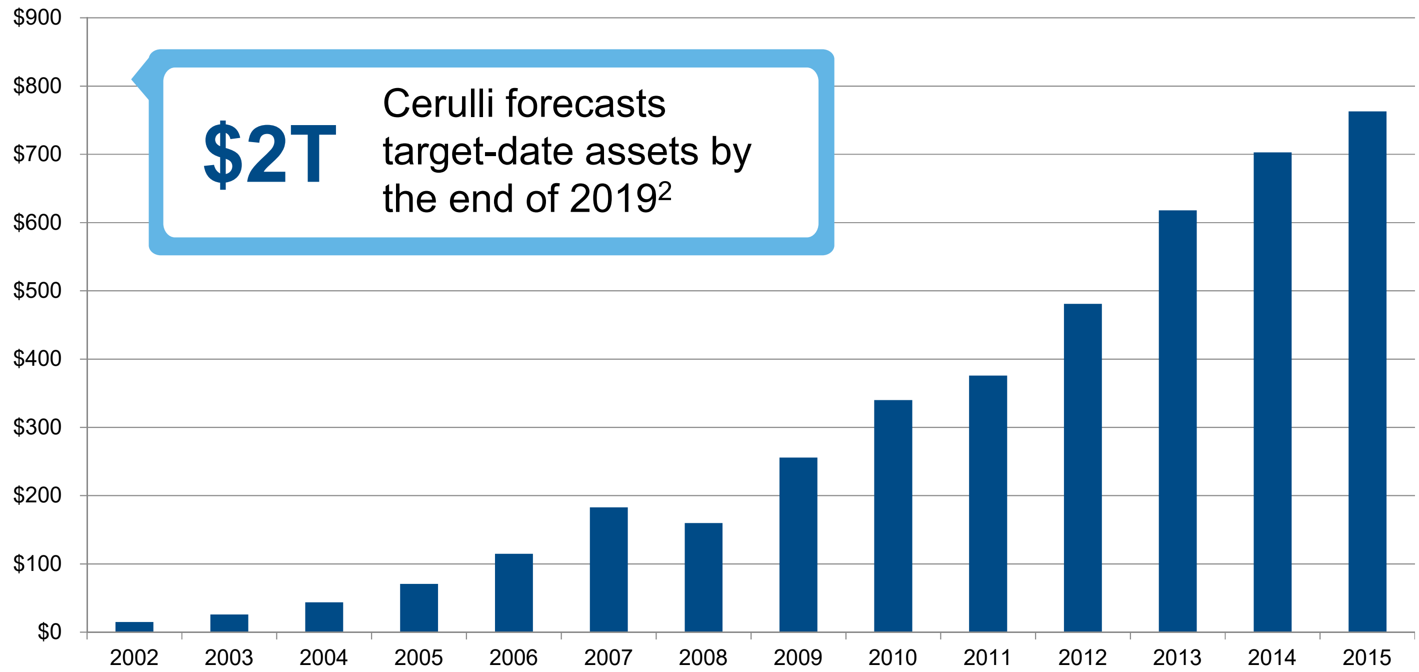
TIAA

Risks – how they stack up in retirement



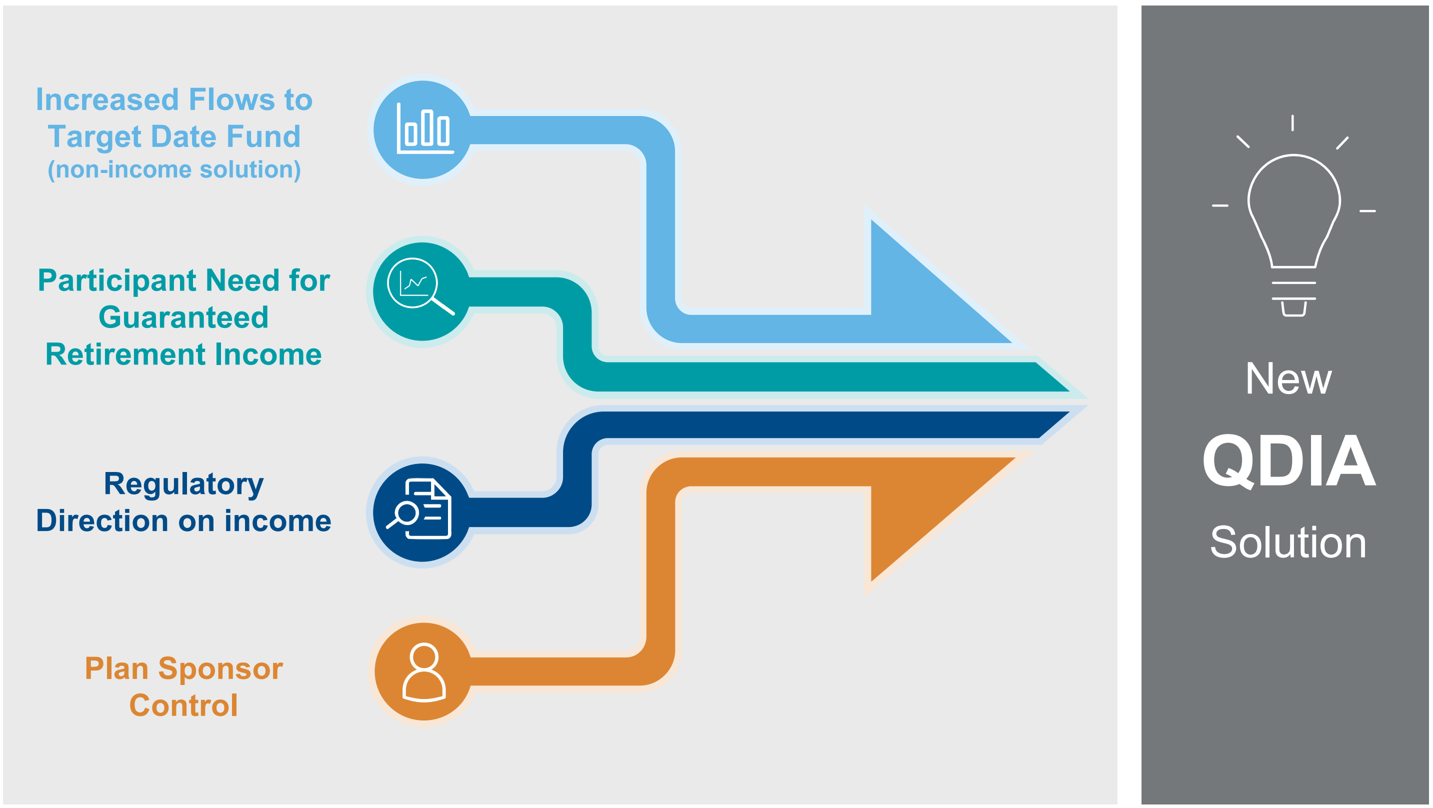
Increasing flows to target date funds

Target date fund assets in billions 2002 – 2015[1]



1. Source: Investment Company Institute. 2016. *2016 Investment Company Fact Book: A Review of Trends and Activity in the Investment Company Industry.* Washington, DC: Investment Company Institute. Available at http://www.icifactbook.org/.
2. The target-date research is part of a Cerulli report, "Retirement Markets 2014: Sizing Opportunities in Private and Public Retirement Plans

Impact on QDIAs



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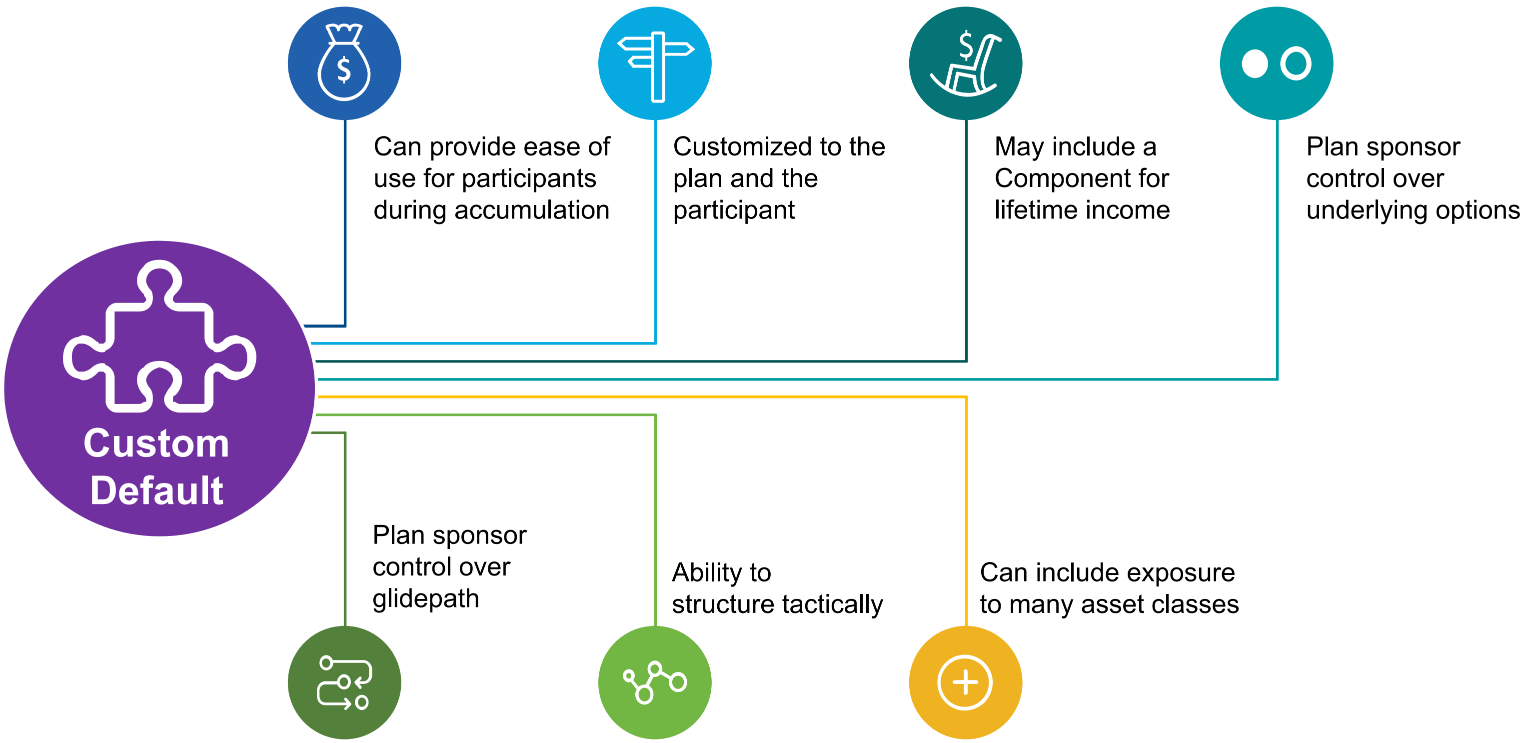
Intro to custom defaults



Custom QDIA solutions – overview

TIAA Custom Portfolios Model Service

- Not an investment product, but rather an asset allocation service
- Enables plan sponsors or consultants to develop custom models
- Open architecture to select best in class mutual funds or variable annuities including TIAA Traditional
- Opportunity to focus on income replacement for participants using annuities or a target income strategy
- QDIA eligible
- Opportunity to set glide path

Target Date Plus Models

- Age based models: 5 Models at 10-year intervals or 10 Models at 5-year intervals
- Can also have up to 3 risk based models per age interval for a max of 30 models
- Utilizes a Risk Tolerance Questionnaire (RTQ) to subscribe participants

Target Income Models

- Models are built on target income needs, use a Liability Driven Investing (LDI) strategy and DFA licensed software
- 30 Models: 10 age bands, each with 3 risk based versions
- Utilizes data provided by plan sponsor and participant (salary, age contribution, etc.) to complete model subscription process

These are investment concepts that can be implemented through the TIAA Custom Portfolio Model Service.

TIAA is the recordkeeper for the Model Service and does not build the models or recommend underlying investment options comprising the models. This is the responsibility of the client organization, who may likely work with a third-party fiduciary (such as an investment consultant or asset manager) to design the allocations and glide paths for the models used within the program. The plan sponsor, consultant or investment advisor responsible for managing the portfolio structure may choose to utilize a methodology different from the concepts portrayed in this material.

Important information

You should consider the investment objectives, principal risks, portfolio turnover rate, performance data, and fee and expense information of each underlying investment carefully before directing an investment based on the Model. For a free copy of the Program Description and the prospectus or other offering document for each of the underlying investments (containing this and other information), please call TIAA at 877 518-9161 or log on to tiaa.org. Please read the Program Description and the prospectuses or other offering documents for the underlying investments before investing.

The TIAA Custom Portfolio Program Model-Based Service (the "Program") is implemented by the Plan Sponsor to meet the unique retirement requirements of the plan. The Program is administered by Teachers Insurance and Annuity Association of America ("TIAA") as plan recordkeeper. The Target Income Model is an asset allocation recommendation developed by the Plan Sponsor in consultation with consultants and other investment advisors designated by the Plan Sponsor whereby assets are allocated to underlying mutual funds and annuities that are permissible investments under the plan. Model-based accounts will be managed on the basis of the plan participant's personal financial situation and investment objectives.

Certain Models may be developed by the Plan Sponsor and, if applicable, the Plan Advisor, using Dimensional Target Income Allocations, a series of allocations licensed to the Program Sponsor by DFA Securities LLC and authorized for use by the Plan Sponsor and, if applicable, the Plan Advisor. Neither TIAA, as the Program Sponsor, nor DFA Securities LLC plays a role in or is responsible for developing or selecting the Model. Additionally, the Plan Sponsor and, if applicable, the Plan Advisor may use a plan assessment tool to help identify and sort categories of plan participants. The Program Sponsor licenses the tool from Dimensional Fund Advisors LP and the tool is authorized for use by the Plan Sponsor and, if applicable, the Plan Advisor. Neither TIAA, as the Program Sponsor, nor Dimensional Fund Advisors LP plays a role in or is responsible for how the Plan Sponsor and/or the Plan Advisor identifies and groups plan participants. Neither DFA Securities LLC nor Dimensional Fund Advisors LP provides any investment, legal, accounting or tax advice in connection with the Program.

This material is for informational or educational purposes only and does not constitute a recommendation or investment advice in connection with a distribution, transfer or rollover, a purchase or sale of securities or other investment property, or the management of securities or other investments, including the development of an investment strategy or retention of an investment manager or advisor. This material does not take into account any specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made in consultation with an investor's personal advisor based on the investor's own objectives and circumstances

Important information

Established Restrictions: Each Plan Participant may, but need not, propose restrictions for his or her Model-Based Account, which will further customize such Plan Participant's own portfolio of Underlying Investments. The Plan Fiduciary is responsible for considering any restrictions proposed by a Plan Participant, and for determining (together with Plan Advisor(s)) whether the proposed restriction is "reasonable" in each case.

No Registration Under the Investment Company Act, the Securities Act or State Securities Laws - The Model is not a mutual fund or other type of security and will not be registered with the Securities and Exchange Commission as an investment company under the Investment Company Act of 1940, as amended, and no units or shares of the Model will be registered under the Securities Act of 1933, as amended, nor will they be registered with any state securities regulator. Accordingly, the Model is not subject to compliance with the requirements of such acts, nor may plan participants investing in underlying investments based on the Model avail themselves of the protections thereunder, except to the extent that one or more underlying investments or interests therein are registered under such acts. No Guarantee—Investments based on the Model are not deposits of, or obligations of, or guaranteed or endorsed by TIAA, the Investment Advisor, The Plan or their affiliates, and are not insured by the Federal Deposit Insurance Corporation, or any other agency. An investment based on the Model is not guaranteed, and you may experience losses, including losses near, at, or after the target date. There is no guarantee that investments based on the Model will provide adequate income at and through your retirement. Investors should not allocate their retirement savings based on the Model unless they can readily bear the consequences of such loss.

The information for this presentation was obtained from the most current sources; keep in mind trends can change at any time based on market conditions and consumer preferences.

TIAA-CREF Individual & Institutional Services, LLC, Teachers Personal Investors Services, Inc., and Nuveen Securities, LLC, Members FINRA and SIPC, distribute securities products. If offered under your plan, TIAA and CREF annuity contracts and certificates are issued by Teachers Insurance and Annuity Association of America (TIAA) and College Retirement Equities Fund (CREF), New York, NY, respectively. Each is solely responsible for its own financial condition and contractual obligations. Transactions in the underlying investments invested in based on the Model on behalf of the plan participants are executed through TIAA-CREF Individual & Institutional Services, LLC, member FINRA.

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Fi360

Questions, Answers, and Discussion

Additional information on fiduciary trends can be found at Fi360 Fiduciary Talk Podcast

www.fi360.com/fiduciarytalk (also available on iTunes)

and the Fi360 Blog www.fi360.com/blog