

#### City and County of San Francisco Employees' Retirement System

#### Office of the Executive Director

# RETIREMENT BOARD CALENDAR SHEET Deferred Compensation Committee Meeting of March 16, 2016

**To:** Retirement Board

**Through:** Jay Huish

**Executive Director** 

From: Diane Chui Justen

**Deferred Compensation Plan Manager** 

**Date:** March 16, 2016

#### **Agenda Item**

Review and approve recommendation to retain Russell Investments as SFDCP's Target Date Fund Investment Manager

#### **Background**

Russell Investments is the current Target Date Fund Investment Manager for San Francisco's 457(b) Deferred Compensation Plan. The Target Date Funds are the SFDCP's qualified default investment alternative. The contractual agreement between SFDCP and Russell Investments will expire on June 30, 2016.

Upon Retirement Board approval, Staff and Angeles Investment Advisors LLC, ("Consultant") issued a Request For Proposal (RFP) on October 19, 2015 to solicit bids for Target Date Fund Investment Management Services for the City and County of San Francisco Deferred Compensation Plan. The Retirement System received seven (7) bid responses to the RFP.

Review panelists evaluated and ranked all bid responses based on the following criteria categories, which were weighted as follows:

1. Respondent Qualifications 60%

- Organization and Staff
- Product Background
- Investment Philosophy and Process

2. Fees 30%3. Performance 10%

To conduct the evaluation, each question within the RFP was assigned to one of the evaluation criteria categories. The responses for each firm were considered relative to each of the other respondents, as well as against industry best practices.

As a result of the initial evaluation, four (4) semi-finalists (AllianceBernstein, JP Morgan, State Street Global Advisors and Russell Investments) were invited to deliver a presentation to the Target Date Fund RFP Review Panel on March 1, 2016. The review panel consisted of SFDCP/SFERS Staff (Diane Chui Justen, Mhalou Villamejor, and Robert Shaw) and SFDCP Consultant, Angeles Investment Advisors (Leslie Kautz and Anna McGibbons). Each firm was allotted 90 minutes for its presentation.

The review panel considered each of the semi-finalists experience, capabilities, ability to construct a custom glide path based on participant demographics, quality/flexibility of the investment strategy, options against costs to the plan, and implementation timing/requirements for transition.

Based upon our analysis of the responses to the proposal, the semi-finalist presentations, reference checks, and follow-up with the semi-finalists, Staff and Consultant agree unanimously to recommend retaining Russell Investments as Target Date Fund Investment Manager for the following reasons:

- Experienced and consistent team.
- Competitive fees.
- Dynamic Asset Allocation capabilities (with no additional costs).
- Ability to "look through" the underlying portfolios to assess exposures/characteristics.
- Zero interruption to current TDF experience.

Details on the evaluation process and scoring are provided in the Recommendation from Angeles Investment Advisors, which is attached for review. Leslie Kautz will present this recommendation and answer questions.

Russell Investments will also be available to provide a presentation on their custom target date fund services and answer questions.

#### Recommendation

Approve recommendation to retain Russell Investments as SFDCP's Target Date Fund Investment Manager and forward to the full Retirement Board with a recommendation for approval.

#### **Attachments**

Recommendation from Angeles Investment Advisors, LLC Russell Investments Custom Target Date Fund Services Presentation



**TO:** SFDCP Deferred Compensation Committee

FROM: Leslie B. Kautz, CFA

Anna L. McGibbons, CFA

**DATE:** March 16, 2016

**SUBJECT: RECOMMENDATION** – Retain Russell Investments as Target Date

Fund Investment Manager

M E M O R A N D U M

**Recommendation**: This memorandum recommends that the San Francisco Deferred Compensation Plan (SFDCP) approve retention of Russell Investments as the Plan's Target Date Fund Investment Manager. In this role, Russell acts as a fiduciary to the Plan within the meaning of 3(21) of ERISA and serves as an investment manager to the Plan within the meaning of section 3(38) of ERISA for construction and maintenance of the glide path for the custom target date funds. Angeles and Staff recommend maintaining the same scope of services as currently in place with Russell (see Appendix).

In our evaluation process, Russell Investments distinguished itself among the other candidates based on the experience and strength of the team, including its stability despite organizational changes over the past 2 years, the research-based approach to glide path construction, the robust quantitative modeling capabilities that utilize Planspecific data to customize a glide path for SFDCP participants, the strong risk management and reporting capabilities, including the ability to "look through" the constituent portfolios to assess the underlying exposures/characteristics of each portfolio so that non-benchmark exposures are appropriately accounted for, and its competitive fees.

Russell Investments' contract for this assignment expires on June 30, 2016, which is the reason this search was conducted. This recommendation is subject to successful contract negotiations.

**Background**: SFDCP retained Russell Investments in 2011 to develop a **customized** "glide path" for SFDCP's custom target date funds (TDFs). Versus an off-the-shelf TDF,



a custom TDF<sup>1</sup> allows SFDCP to incorporate specific plan information to take into account plan demographics and other benefits when establishing an asset allocation path that will provide sufficient income replacement in retirement, including:

- **Participant demographics**: including age, income, wage increases, life expectancy, etc.;
- Participant behavior: participant contributions, withdrawals, retirement age, etc.;
- Characteristics of different employee groups and benefit levels;
- Other benefits: SFERS defined benefit plan and social security benefits (as applicable to different participant populations);
- Plan sponsor preferences: ability to customize the asset and sub-asset classes
  to bolster diversification and improve retirement outcomes, allows for
  incorporation of plan's existing core funds as well as additional non-core funds
  selected by SFDCP. This structure allows for open architecture funds with "best
  in class" managers (not limited to proprietary funds of a given off-the-shelf
  TDF provider), ability to blend active and passive management, ability
  customize glide path to be "to" or "through" as appropriate (SFDCP is "to"
  currently), ability to structure portfolio to access low cost funds and to benefit
  from the Plan's scale.

As in the past, the asset allocation for the glide path will continue to be reviewed by the Deferred Compensation Committee on an annual basis and any recommended changes will be proposed to the Deferred Compensation Committee and Board for approval. Responsibility for selecting and monitoring the underlying managers will remain with SFDCP, with the assistance of the investment consultant, currently Angeles Investment Advisors.

SFDCP had \$2.77 billion in assets as of December 31, 2015, including \$547 million in 9 custom target date funds that were funded in April 2012; 42% of Plan participants were invested in a target date fund as of 12/31/15. <sup>2</sup>

<sup>&</sup>lt;sup>1</sup> In the Department of Labor's Target Retirement Funds- TIPS for ERISA Plan Fiduciaries from February 2013, the DOL noted potential benefits of custom target funds versus off-the-shelf target date funds. The DOL stated: "...a "custom" TDF may offer advantages to your plan participants by giving you the ability to incorporate the plan's existing core funds in the TDF. Nonproprietary TDFs could also offer advantages by including component funds that are managed by fund managers other than the TDF provider itself, thus diversifying participants' exposure to one investment provider."

<sup>&</sup>lt;sup>2</sup> SFDCP also offers Prudential's GoalMaker to participants; GoalMaker is an optional asset allocation program managed by Morningstar Associates that is offered by Prudential at no additional cost to



**Search Process**: In October 2015, SFDCP advertised and issued a Request for Proposal (RFP) for this search with responses required by January 6, 2016. Seven RFP responses<sup>3</sup> were received, evaluated, scored, and discussed by SFDCP Staff and Angeles Investment Advisors according to the evaluation criteria stated in the RFP, which included an evaluation of the organization, team, investment process, fees, and performance of an illustrative set of hypothetical, passive target date funds.

**Scoring:** As noted in the RFP, proposals were evaluated as follows:

o Respondent Qualifications (qualitative factors): 60 points

o Fees: 30 points

o Performance: 10 Points<sup>4</sup>

These weightings of 60% qualitative, 30% fees, and 10% performance were the same weights used in the target date fund investment manager search in 2010. Due to the hypothetical nature of the glide path returns and the fact that performance is less representative of a candidate's success in designing a "custom" glide path, compared to a traditional asset management assignment (e.g., large cap growth equity), the performance weighting was lower than in other searches (for example, the stable value/stable income search in 2013 had a performance weight of 25%). Fees, on the other hand, at 30% of the total score, made up a larger percentage of the overall score compared to prior searches for traditional asset management assignments (fees made up 5% of the total score for the stable value/stable income search).

Four firms were invited for semi-finalist interviews on March 1, 2016: (1) AllianceBernstein, (2) JP Morgan Investment Management, (3) Russell Investments, and (4) State Street Global Advisors. These interviews were held at SFERS' offices and attended by SFDCP/SFERS Staff (Diane Chui Justen, Deferred Compensation Division Manager, Mhalou Villamejor, Senior Benefits Analyst, and Robert Shaw, Managing

participants. GoalMaker uses 7 of SFDCP's core fund options: SFDCP Stable Value, SFDCP Core Bond, SFDCP Large Cap Growth, SFDCP Large Cap Value, SFDCP Small Cap Growth, SFDCP Small Cap Value, and SFDCP International Equity.

p

<sup>&</sup>lt;sup>3</sup> RFPs were received from AllianceBernstein, JP Morgan, Manulife, Morningstar, Russell, State Street Global Advisors, and Voya.

<sup>&</sup>lt;sup>4</sup> Due to the "custom" nature of this assignment, scoring performance for the asset allocation services was challenging. To get the analysis as "apples-to-apples" as possible, we scored **hypothetical**, **passive** returns (meaning benchmark returns were used for each category so as not to include the impact of any active management) for Retirement, 2020, 2030, 2040, and 2050 over the past 10 years, including calendar year returns (2007 to YTD 9/2015), annualized returns (3-, 5-, 7-, and 10-years) and Sharpe ratios (3-, 5-, 7-, and 10-years) for the periods ending 9/30/15.



Director – Public Markets, SFERS) and Angeles Investment Advisors (Leslie Kautz and Anna McGibbons). Each firm was allotted 90 minutes for its presentation.

Following the interviews, Staff and Angeles discussed the strengths and weaknesses of each candidate, and evaluated each firm on the stated criteria and their suitability for SFDCP. References for Russell were contacted, including a contact from a firm that recently terminated its relationship with Russell.

Ultimately the group determined that retaining Russell as the custom TDF manager was in the best interests of the Plan. The analysis and factors that went into that conclusion are presented below.

#### **Overview of Russell Investments:**

Ownership: Founded in 1936 and based in Seattle, WA, Russell is going through an ownership transition currently. In 2014, Russell Investments was sold to London Stock Exchange Group (LSEG) from insurer Northwestern Mutual Life. In October 2015, LSEG announced it had entered into an agreement to sell the non-index business of Russell to TA Associates for \$1.15 billion in cash. According to Russell, TA's focus will be on growing the business, rather than breaking it up. Russell will be in TA Associate Fund XII (of which SFERS' is an investor), which just closed and has a 10 year life with 3-one year extensions. (Russell Investments is the first investment in Fund XII). Reverence Capital Partners has partnered with TA Associates on the purchase of Russell, and will be a significant minority investor. At closing, which is expected in April or May 2016, Russell Investments' management team will continue to lead and manage the day-today business of Russell Investments. Len Brennan will continue to lead the firm as CEO and will remain a member of the Board; Vernon Barback was hired in January 2016 as President to support Brennan with legal, finance and operations. Key senior people at TA Associates and Reverence Capital have known Russell and some of its senior management for over 20 years. We believe this familiarity with the firm is a positive, along with the fact that this is an early investment.

Despite the ownership changes over the past 2 years, personnel turnover has remained low and there have been no material changes to the team that directly services SFDCP, with the exception of Rod Bare's (client service) departure in 2014<sup>5</sup>.

-

<sup>&</sup>lt;sup>5</sup> Rod Bare left Russell in 2014, but had transitioned off the SFDCP relationship in 2011, shortly after the initial transition. Keith Lennon has been involved since the beginning of the SFDCP relationship and took over primary client relationship responsibilities from Bare in 2011.



**Team**: Russell's target date fund practice comprises three distinct groups: portfolio management, asset allocation/model strategies, and the defined contribution product teams. The US institutional DC practice is led by Managing Director Josh Cohen who has nearly 20 years of experience advising DC plan sponsors and is a member of the DOL ERISA Advisory Council; Cohen joined Russell in 2005 and was appointed to head the practice in 2013. Portfolio Manager John Greves manages Russell's target date funds and Russell's Retirement Income Model Strategies. Greves joined Russell in 2003 and has been the lead portfolio manager for SFDCP since Russell was retained by SFDCP in 2011.

Russell's most senior professionals responsible for target date funds are:

Name & Location	Title & Responsibility	Total Years Experience w/ TDFs	Total Years Investment Experience	Years with Firm	School	Most Advanced Degree
Josh Cohen, CFA, Chicago	Managing Director, Defined Contribution	19	19	10	University of Chicago Graduate School of Business	МВА
Keith Lennon, Seattle	Director, DC Solutions	12	26	26	Pacific Lutheran University	ВА
John Greves, CFA, Seattle	Portfolio Manager	9	13	12	University of Puget Sound	BS
Brian Meath, CFA, New York	Managing Director and Backup PM	5	26	10	University of South Carolina	Masters
Steve Murray, PhD, CFA, Seattle	Head of Strategic Asset Allocation	10	24	24	Stanford University	PhD
Yuan-An Fan, PhD, Seattle	Senior Research Analyst, Asset Allocation	10	24	24	University of Texas at Austin	PhD

Since 2008 there has been one change among key decision makers: Managing Director Dick Davies left Russell in 2013; he had only been at Russell for 2 years and was not directly involved in the SFDCP relationship.

**Target Date Fund Business**: Russell is one of the oldest managers of multi-asset portfolios and has managed custom TDFs since 2007 and off-the-shelf TDFs since 2004. As of September 2015 (the reference date requested in the RFP), Russell had 4 custom TDF clients with assets of \$9.6 billion in assets. In early 2016, one of their custom TDF clients terminated its relationship with Russell. According to a reference check with this client, the client was not dissatisfied with Russell, but found another



provider more attractive, including its communications capabilities. Prior to this termination, there was only 1 other client termination since 2008, which was as a result of a plan merger (in 2014). In addition to the custom TDF relationships, Russell also manages a series of off-the-shelf TDF commingled funds (\$1.1 billion in assets) and a series of TDF mutual funds (\$350 million).

**Process/Philosophy**: Russell structures the glide path to provide the optimal tradeoff between risk and reward at each point on the glide path, where both risk and reward are measured in terms of providing sufficient wealth to fund retirement spending. The glide path is determined through a holistic investment process that combines optimization using multi-period and mean-variance techniques, risk models that indicate the overall risk regime and behavior of asset classes in different environments, and insights from Russell's Investment Strategy Team based on quantitative and qualitative assessments of the business cycle, valuation, and sentiment. Russell uses a multi-period optimization engine with 20,000 market scenarios to build an efficient glide path to achieve the objectives.

On an annual basis, Russell reassesses the glide path to incorporate their latest research and capital market insights. Every 2 to 3 years, Russell will update the participant-level data (salary, salary growth, contribution rates, pension, and health care benefits) to ensure that the glide path is tailored to SFDCP participant behavior and benefits. Russell's most recent review of plan demographics and participant behavior led Russell to determine a minimum income replacement target of 17% for Miscellaneous participants and 24% for Safety participants, once Social Security and Pension benefits were factored in.

Russell currently works with the SFDCP recordkeeper (Prudential) to rebalance the underlying funds in the target date funds back to the policy weights on a quarterly basis. Angeles and Staff are exploring whether Prudential can accommodate a more frequent rebalancing process (if Russell is retained).

**Alternatives**: The general consensus from the firms that submitted RFPs was that adding private equity to the glide path is premature as there remain concerns with liquidity, lack of providers, and high fees. Some of the providers allocated to liquid (daily-valued) hedge funds in their TDFs, but noted that it is critical to source top-quartile managers for such an allocation to be successful. One of the candidates, JP Morgan, allocates to private core real estate within the glide path, primarily using a proprietary fund (this lowers the return and risk versus REITs). As of now, Russell has not recommended less liquid alternatives due to the potential liquidity mismatch. Russell has also not recommended daily-valued hedge funds be in the glide path due



to high fees. Russell can continue discussions with SFDCP on these asset classes in the future if retained.

**Dynamic Asset Allocation (DAA)**: The search process included a review of each candidate's history and success with DAA. The other semi-finalist candidates proposed a significantly higher fee (additional 3 to 5 basis points) to incorporate DAA, whereas Russell will not charge any incremental fee if SFDCP decides to allow modest asset and sub-asset class tilts. Russell started implementing DAA in their off-the-shelf TDFs in March 2014, and also started implementing DAA with one of their new custom TDF clients in 2015. Over this time period, Russell has modestly added value. Russell's goal with DAA is not to make large tactical bets that dominate active management risks, but to make measured adjustments to portfolio positions given their short or medium-term view of asset class return differences and health of the overall economy. Russell generally seeks to add 20-30 basis points (annualized) of excess return over a full market cycle and generally maintains bands of +/- 3 to 5% for each broad asset class and sub-asset class. If Russell is approved for retention, Angeles believes its DAA capabilities should be reviewed by the Deferred Compensation Committee in 2016.

**Fee**: Russell's original fee proposal was unchanged versus the existing fee in place. However, as part of the evaluation process, Angeles was successful in negotiating the fee lowered by 0.75 basis points assuming assets of \$600 million (an annual dollar savings of \$45,000). Russell's proposed fee is 3.5 basis points on the first \$300 million, 2.5 bps on the next \$450 million, and 1.5 bps on the balance. **At \$600 million in assets, Russell's fee is 3.00 basis points (versus the existing fee schedule of 3.75 bps).** At \$800 million in assets, Russell's fee is 2.875 basis points (versus the existing fee schedule of 3.4 bps). If DAA is allowed, there would be no change in the fee schedule. **Russell's fee is the lowest among all 7 proposers.** Assuming no DAA, the range of fees for the 6 other proposers ranged from 3.0 bps to 9.7 bps assuming TDF assets of \$600mm and 3.0 bps to 9.1 bps if assets were \$800mm. Assuming DAA is included, the range of fees for the 6 other proposers ranged from 5.8 bps to 12.7 bps assuming TDF assets of \$600mm and 5.6 bps to 12.1 bps if assets were \$800mm.

#### **Advantages:**

 Russell's TDF team is deep and there have been no material changes to the team that is directly involved in the SFDCP TDF portfolio. The lead portfolio manager, John Greves, has been at Russell for 12 years. Russell has been highly responsive to SFDCP during the relationship.



- Russell's fee is highly competitive relative to competitors and is lower than what
  is currently in place with Russell by 0.75 bps (\$45,000 per year in dollar savings)
  at \$600mm in TDF assets.
- In our opinion, none of the other candidates seem better equipped as it relates to modeling the specific data of SFDCP's participants, designing a custom glide path, and overall risk management including the "look through" analysis of the underlying portfolios to maximize diversification and optimize portfolio structure. As part of the search process, we asked the other candidates what changes they would suggest to SFDCP. There were no material changes to the asset- and sub-asset classes represented in SFDCP's current glide path suggested by the other candidates. Taking this into consideration and given the significant fee increases of the other providers (excluding SSGA) as well as the extensive transition that would be involved (estimated to be 4 to 6 months or longer), we do not believe there is a more compelling alternative to Russell given its strengths.

#### **Considerations:**

- Performance in SFDCP's target date funds has struggled relative to off-the-shelf TDFs since the inception in April 2012. This is primarily due to Russell's global orientation of the equity portfolio (~55% US equity for SFDCP versus ~67% for peers, which have a home country bias in equity exposure that has helped performance during a period in which US equities have dominated non-US markets). In addition, Russell's exposure to commodities has been a drag on results amid a particularly difficult period for commodities. The TDFs have underperformed their "simple" benchmarks (blend of MSCI ACWIMI and Barclays Aggregate Index according to respective weights of each TDF) over most time periods due to the impact of specialty asset classes such as commodities, emerging markets equity, and emerging debt.
- <u>Mitigating Factor</u>: As it relates to global equity, Angeles concurs with a global framework for multiple reasons: the US share of the world economy is diminishing, country factors are less important attributes in equity performance than in prior years, the correlation of US and non-US equities has increased steadily since the late 1990s (hovering around 0.9 in recent years), portfolios are more efficient with a broader opportunity set due to the benefits of diversification, and valuations are more attractive on a relative basis outside the US following several years of non-US underperformance. We believe the global equity framework will be beneficial over a full market cycle. Regarding commodities, Russell's current glide path (see Appendix for detail) has



commodities ranging from 3.5% (for 2055 fund) to 2.2% for the Retirement Fund. This is generally in-line with the other semi-finalists candidates.

- While Russell is experienced versus other custom glide path managers, the firm now only has 2 other custom target date relationships in addition to SFDCP, for three in total.
- <u>Mitigating factor</u>: The firm has a long history in asset allocation research, which spans over 20 years, and significant assets in other off-the-shelf TDF and multi-asset class products. Russell noted that the changes in ownership, and the uncertainty this created, resulted in them not being included in recent search opportunities. However, since their new ownership was announced with TA/Reverence, Russell reports that search activity has increased and they are expecting to see growth in custom TDF assignments, which should continue to support Russell's capacity in custom target date fund management.
- While the new ownership structure with TA/Reverence clears up an unknown and provides stability for the near to intermediate term, it does leave some uncertainty in 5-10 years as Russell's new private equity fund owners will seek an exit to monetize their investment at some point. Russell states that TA believes an IPO is the most likely exit for Russell, which is preferred among Russell employees, according to Russell.
- **Mitigating factor**: The new private equity owners are reputable firms with a history of successful investing in asset management firms, which increases the likelihood that their sponsorship will be successful in growing Russell. Russell has stated that the defined contribution market remains a priority for them.

Overall, we believe the advantages of Russell outweigh the concerns and that Russell is the best fit for SFDCP due to the experience and depth of the team, the firm's focus on the defined contribution landscape, research based approach, and competitive fee.

The remainder of this memo provides additional background information in the Appendix.

Leslie Kautz will be present at the Deferred Compensation Committee's March 16, 2016 meeting to discuss this recommendation. Please let Leslie or Anna know if you have any questions or comments. Leslie can be reached at her direct line at 310-857-5825 or by contacting her by email at <a href="mailto:lkautz@angelesadvisors.com">lkautz@angelesadvisors.com</a> and Anna can be reached at 310-857-5823 or at anna@angelesadvisors.com.



#### **Appendix:**

Information Sourced from RFP

#### RUSSELL'S TARGET DATE FUND BUSINESS & ASSETS AS OF 9/30/15

	# of clients and total assets in all TDFs		# of clients and total assets in Custom TDFs
\$237.3 Billion	15 clients with \$10.7 billion	11 OTS clients with \$1.12 billion in Trust Company Funds, \$350 MM in RIC Mutual	4 clients with \$9.6 billion
		Funds.	

#### **GLOBALIZATION OF EQUITY PORTFOLIO:**

Is equity portfolio globally structured?	US as % of Total equity 2025	US as % of Total equity 2055
Russell's glide path is allocated more globally, using the global market cap weights as the starting point for U.S./non-U.S. asset allocation decision. Russell believes that the "market portfolio" for equities is defined by a capitalization-weighted global equity index similar to MSCI AC World IMI, and that it reflects investors' aggregate value of equity securities around the globe. As such, Russell uses it as a starting point for their analysis. Their rationale for a more global orientation over time is based on their history of managing multi-asset portfolios in addition to their analysis on capital markets and portfolio diversification. The increasingly globalized economy and higher growth rates of developing countries relative to the U.S. caused the U.S. weight in the global index to shrink over time from 66% in 1970 to 52% today, while non-U.S. equities has increased from 34% to 48% including emerging markets. This globalization trend is expected to continue into the future, yet most target date fund managers concentrate exposures in their domestic economy. Russell maintains the belief that that globalization of the equity portfolio will lead to more stable performance because regional returns have tended to be cyclical and the outperformance of the U.S. vs. non-U.S. markets alternates over time in a fairly steady pattern. A more globally-oriented equity allocation also lessens country-specific event risk. Finally, concentrating exposures in home market increases dependence on the domestic economy. With working income and retirement contributions both already exposed to your domestic economy, during isolated U.S. downturns, participants could suffer a job loss and a large loss to retirement savings at the same time if they are over exposed to the home country in their investment portfolio. To hedge against that, Russell feels it is prudent to construct the glide path to be more globally invested.	56% for SFDCP	56% for SFDCP



#### "To" Vs "Through"

Recommend "to," but can do either.

In the post-retirement phase (i.e., when the fund reaches the target date), Russell's glide path is flat and conservative. Their research shows that retirees face their greatest risk exposure on the day of retirement because they have the longest time horizon to fund that retirement and no more contributions to make up for losses. Russell's modeling reinforces their belief that downward sloping glide paths in retirement are less optimal than flat glide paths in retirement due the significant impact of negative returns near retirement when asset balances are large and participants have the longest time horizon to fund their retirement spending. They reject the notion that a "to" glide path is only designed to get participants to retirement and that participants leave the plan upon retirement. Conversely, their belief is that a flat glide path that manages risk near retirement is the preferred strategy for retirees given their need to fund withdrawals. Russell is flexible to incorporating client preferences and would be happy to discuss their research and broader implications of either approach with the SFDCP.

#### **REBALANCING PROCESS:**

Russell is responsible for establishing the rebalancing policy/guidelines based on the recordkeeper/custodian capabilities, directing the recordkeeper/custodian (who is responsible for implementation) and then monitoring the recordkeeper/custodian. There are three primary levels of rebalancing outlined below.

- 1. Strategic Predetermined Glide Path Rebalancing Russell will direct the recordkeeper/custodian to rebalance the funds at the end of each year. Quarterly rebalancing can also be selected.
- 2. Standard Rebalancing Currently, Russell works with the SFDCP recordkeeper to implement a quarterly rebalance back to policy weights. As recordkeeper capabilities evolve, we have experience with other implementation strategies such as rebalancing based on portfolio drift and bands.
- 3. Ad Hoc Off-Cycle Rebalancing Russell's Portfolio Management team will take discretion, based on current market conditions, timing, and other factors on whether or not the rebalance instructions should be executed or wait until the next scheduled roll down date according to the glide path. Russell's Portfolio Management team will also determine the appropriate rebalance amounts (e.g. back to the strategic allocations or back to some percentage within the tolerance bands).

# Angeles

#### **ASSET ALLOCATION GLIDE PATH COMPARISON VS SEMI-FINALISTS**

			122010	Russell Off-	
				the-Shelf	Russell
	AB	JPM	SSGA	Inst.	SFDCP
RETI REMENT					
US Equity	_	21%	16%	17%	16%
Intl Equity		11%	10%	11%	13%
USas %of Total Equity	not	66%	62%	61%	56%
Fixed Income	provided	49%	65%	66%	64%
Cash, SV, & ShDur Bonds		10%	0%	0%	0%
Other		10%	9%	7%	7%
2025					
US Equity	43%	38%	39%	27%	25%
Intl Equity	19%	18%	26%	18%	20%
USas %of Total Equity	69%	67%	60%	59%	56%
Fixed Income	28%	34%	32%	48%	48%
Cash, SV, & ShDur Bonds	0%	0%	0%	0%	0%
Other	10%	10%	4%	7%	8%
2035					
US Equity	54%	48%	47%	41%	46%
Intl Equity	29%	24%	32%	29%	35%
US as % of Total Equity	65%	67%	60%	58%	56%
Fixed Income	10%	18%	18%	21%	9%
Cash, SV, & ShDur Bonds	0%	0%	0%	0%	0%
Other	8%	10%	4%	9%	10%
2055					
US Equity	57%	52%	52%	48%	47%
Intl Equity	34%	26%	35%	35%	36%
USas %of Total Equity	63%	67%	60%	58%	56%
Fixed Income	5%	12%	10%	7%	7%
Cash, SV, & ShDur Bonds	0%	0%	0%	0%	0%
Other	5%	11%	4%	11%	11%



#### **PERFORMANCE:**

TARGET DATE FUNDS:			Hi	storical Pe		Results (%	6) as of	12/31	15		
	_		Annualized			% Ran	k in Ca	tegory			
	Exp Ratio	3 Month Return	6 Month Return	1 Year Return	3 Year Return	5 Year Return	3 Mos.	6 Mos.	1 Yr	3 Yr	5 Yr
SFDCP Retirement Fund	0.39	0.6%	-2.3%	-1.0%	2.3%		94	55	96	80	
Momingstar TDF2000-2010 Median		1.7%	-2.2%	-0.8%	4.5%						
Simple Retirement Benchmark		1.6%	-1.5%	-0.3%	3.7%		58	23	24	73	
Composite Retirement Benchmark		1.0%	-1.6%	-0.7%	2.9%		91	23	37	92	-
SFDCP Target Date 2020	0.39	0.9%	-2.6%	-1.2%	3.1%		94	42	54	92	
Momingstar TDF2016-2020 Median		2.2%	-2.7%	-1.0%	5.6%						
Simple 2020 Benchmark		1.9%	-1.8%	-0.5%	4.5%		68	21	28	75	
Composite 2020 Benchmark		1.4%	-1.8%	-0.8%	3.7%		81	21	42	83	-
SFDCP Target Date 2025	0.40	1.4%	-3.2%	-1.4%	4.2%		98	63	59	95	
Momingstar TDF2021-2025 Median		2.7%	-3.0%	-1.3%	6.7%						
Simple 2025 Benchmark		2.5%	-2.5%	-0.7%	5.3%		63	28	33	80	
Composite 2025 Benchmark		1.9%	-2.3%	-1.0%	4.8%		86	20	39	90	
SFDCP Target Date 2030	0.40	2.0%	-4.2%	-2.0%	5.1%		92	75	70	87	
Momingstar TDF2026-2030 Median		3.2%	-3.4%	-1.2%	7.6%						
Simple 2030 Benchmark		3.4%	-3.4%	-1.2%	6.3%		40	52	50	<i>75</i>	
Composite 2030 Benchmark		2.8%	-3.2%	-1.4%	6.0%		73	39	52	78	
SFDCP Target Date 2035	0.40	3.0%	-5.5%	-2.7%	5.8%		82	96	85	92	
Momingstar TDF2031-2035 Median		3.6%	-3.8%	-1.5%	8.1%						
Simple 2035 Benchmark		4.5%	-4.6%	-1.9%	7.2%		14	82	65	72	_
Composite 2035 Benchmark		4.0%	-4.3%	-1.9%	7.1%		33	72	65	75	



#### **PERFORMANCE (CONT'D):**

TARGET DATE FUNDS:	Historical Performance Results (%) as of 12/31/15										
					Annu	alized		% Ran	k in Ca	tegory	
		3	6								
	Exp	Month	Month	1 Year	3 Year	5 Year	3	6			
	Ratio	Return	Return	Return	Return	Return	Mos.	Mos.	1 Yr	3 Yr	5 Yr
SFDCP Target Date 2040	0.40	3.1%	-5.6%	-2.8%	5.8%		88	94	86	92	
Momingstar TDF2036-2040 Median		4.1%	-4.0%	-1.5%	8.5%						
Simple 2040 Benchmark		4.5%	-4.7%	-1.9%	7.2%		19	80	66	78	
Composite 2040 Benchmark		4.1%	-4.4%	-2.0%	7.1%		51	69	66	78	
SFDCP Target Date 2045	0.40	3.1%	-5.6%	-2.8%	5.8%		96	90	87	94	
Momingstar TDF2041-2045 Median		4.3%	-4.1%	-1.7%	8.5%						
Simple 2045 Benchmark		4.5%	-4.7%	-1.9%	7.2%		25	74	65	87	
Composite 2045 Benchmark		4.1%	-4.4%	-2.0%	7.1%		58	67	65	87	
SFDCP Target Date 2050	0.40	3.1%	-5.6%	-2.8%	5.8%		94	90	86	92	
Momingstar TDF2046-2050 Median		4.3%	-4.0%	-1.5%	8.8%						
Simple 2050 Benchmark		4.5%	-4.7%	-1.9%	7.2%		34	73	64	85	
Composite 2050 Benchmark		4.1%	-4.4%	-2.0%	7.1%		60	65	64	85	
SFDCP Target Date 2055	0.40	3.1%	-5.6%	-2.8%	5.8%		96	91	88	96	
Momingstar TDF2051+ Median		4.3%	-4.1%	-1.6%	8.9%						
Simple 2055 Benchmark		4.5%	-4.7%	-1.9%	7.2%		36	80	68	90	
Composite 2055 Benchmark		4.1%	-4.4%	-2.0%	7.1%		65	68	69	90	



#### SFDCP'S CURRENT GLIDE PATH AS OF 2/1/2016:

		2055	2050	2045	2040	2035	2030	2025	2020	Retirement
Growth Category										
U.S. Large Cap	SFDCP Large Cap Core Equity-S&P 500	26.50%	26.50%	26.50%	26.50%	24.27%	18.43%	14.58%	11.88%	10.56%
U.S. Mid Cap	SFDCP Mid Cap Core	4.00%	4.00%	4.00%	4.00%	3.78%	2.89%	2.06%	1.45%	1.22%
U.S. Small Cap	SFDCP Small Cap Core	9.00%	9.00%	9.00%	9.00%	8.00%	5.06%	3.30%	2.32%	1.92%
Non-U.S. Equity	SFDCP International Equity	21.50%	21.50%	21.50%	21.50%	20.16%	15.73%	12.26%	9.80%	8.67%
Global Equity_	DFA Global Equity	14.50%	14.50%	14.50%	14.50%	13.83%	10.54%	7.43%	5.22%	4.35%
EM Equity_	DFA Emerging Markets Equity	7.50%	7.50%	7.50%	7.50%	6.83%	4.31%	2.71%	1.95%	1.63%
Global Real Estate	Morgan Stanley Global Real Estate	2.50%	2.50%	2.50%	2.50%	2.39%	2.10%	1.83%	1.58%	1.45%
Commodities	PIMCO Commodity Real Return	3.50%	3.50%	3.50%	3.50%	3.39%	2.94%	2.58%	2.33%	2.19%
Global Infrastructure	Nuveen Global Infrastructure	3.00%	3.00%	3.00%	3.00%	2.89%	2.47%	2.20%	2.05%	1.94%
High Yield/EMD	PIMCO High Yield	1.00%	1.00%	1.00%	1.00%	1.31%	2.19%	2.74%	3.09%	3.23%
High Held/EMD	MFS EM Debt	0.00%	0.00%	0.00%	0.00%	0.36%	1.05%	1.34%	1.54%	1.62%
	Total Growth Category	93.00%	93.00%	93.00%	93.00%	87.20%	67.71%	53.03%	43.19%	38.79%
Capital Preservation Ca	tegory									
Core Fixed Income	SFDCP Core Bond	7.00%	7.00%	7.00%	7.00%	12.80%	32.29%	42.09%	45.04%	45.79%
Short Duration Bonds	WF Advantage Short Duration	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.13%	7.57%	9.67%
	DFA Inflation-Protected Securities	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.74%	4.20%	5.76%
	Total Capital Preservation Category	7.00%	7.00%	7.00%	7.00%	12.80%	32.29%	46.97%	56.81%	61.21%
	Target Excess Return	0.79%	0.79%	0.79%	0.79%	0.78%	0.73%	0.67%	0.62%	0.60%
	Target Tracking Error	0.98%	0.98%	0.98%	0.98%	0.95%	0.94%	0.94%	0.91%	0.89%
	Target Portfolio Return	8.39%	8.39%	8.39%	8.39%	8.12%	7.25%	6.56%	6.08%	5.86%
	Target Portfolio Volatility	16.60%	16.60%	16.60%	16.60%	15.45%	11.76%	9.13%	7.46%	6.76%
	Sharpe Ratio	0.51	0.51	0.51	0.51	0.53	0.62	0.72	0.82	0.87
-	Estimated Target Date Fund Fees	0.39	0.39	0.39	0.39	0.39	0.40	0.39	0.39	0.39



# SUMMARY OF RFP RESPONSE FROM SEMI-FINALISTS ON SCOPE OF SERVICES (RFP QUESTION 1):

QUESTION 1):				l
	AllianceBernstein	JP Morgan	Russell	SSGA
Act as a fiduciary to the Plan within the meaning of 3(21) of ERISA.	No†	Yes	Yes	Yes
Serve as an investment manager to the Plan within the meaning of section 3(38) of ERISA.	Yes	Yes*	Yes	Yes
Meet with SFDCP as needed, including working with SFDCP Staff, SFDCP's Investment Consultant, the SFERS Deferred Compensation Committee, and the SFERS Retirement Board.	Yes	Yes	Yes	Yes
Make recommendations as to the asset class and investment strategies to be included in the TDFs.	Yes	Yes**	Yes	Yes
Recommend a "glide path" for the funds and review that glide path on a regular basis and recommend changes thereto as needed.	Yes	Yes	Yes	Yes
Coordination with the Plan's Third Party Administrator (TPA) and Custodian to supervise the implementation of the custom TDFs.	Yes	Yes	Yes	Yes
Work with SFDCP and the TPA on implementation of the glide path allocation and rebalancing strategy.	Yes	Yes	Yes	Yes
Supervise the automatic rebalancing of the funds (currently undertaken quarterly) and make recommendations regarding ad hoc rebalancing.	Yes	Yes	Yes	Yes
Coordinate with the TPA to reconcile within three days after the receipt of rebalancing activity to confirm correct implementation of rebalancing.	Yes	Yes	Yes	Yes±
Contribute content to, review, correct and update participant documents relating to the custom TDFs, including "fund fact sheets," summary prospectuses or Fund Profiles, as well as other participant communications relevant to the TDFs.	Yes	Yes	Yes	Yes
Recommend benchmarks for the TDFs for use in participant communications and performance reporting.	Yes	Yes	Yes	Yes
Confirm the calculation of performance of each custom TDF as performed by the TPA.	Yes	Yes	Yes	Yes±±
Provide quarterly performance reports for Staff and the Plan on the TDFs relative to benchmarks, peers, and other criteria.	Yes	Yes***	Yes	Yes



Attend Plan Committee and other Board	Yes	Yes	Yes	Yes
meetings to report on performance,				
benchmarking, methodology updates, and				
capital market assumptions as well as any				
recommended changes in the glide path, as				
well as other meetings reasonably requested.				

† **AB** performs custom target-date design and asset allocation services under an investment management agreement wherein AB is appointed by the plan's named fiduciaries as a fiduciary investment manager under Section 3(38) of the Employee Retirement Income Security Act (ERISA). AB does not provide non-discretionary services and therefore, does not act as a fiduciary under Section 3(21) of ERISA.

In a follow-up email clarifying AB's fiduciary status, AB stated "We are happy to make recommendations on glide path and asset allocations to the board for their approval before implementing any changes if that is the board's desired governance process."

\*J.P. Morgan Investment Management Inc.("JPMIM") qualifies as an investment manager pursuant to ERISA Section 3(21)(a)(ii) for the SFDCP's custom glide path. We meet the definition of an investment advisor receiving a fee for the design and recommendation of that glide path, and will acknowledge in writing our fiduciary obligation as an advisor to the glide path. Should the Plan decide to give JPMIM complete discretion as to the ongoing management of and changes to the allocations of the custom glide path, JPMIM would additionally qualify as a 3(38) fiduciary for the glide path. If the Plan chooses to maintain the right to approve or veto in advance the execution of any recommended changes we might make over time to the glide path, preventing JPMIM from managing, acquiring and/or disposing of assets with complete discretion, then we will qualify as a 3(21) fiduciary for the glide path.

We are happy to discuss our fiduciary designation with you further and in more detail to help ensure clarity with regard to this important topic should we be selected as a partner to the SFDCP in the development of your custom glide path

\*\*JPMIM will act as a fiduciary to the customized glide path, and will make recommendations as to the asset classes to be included in the TDFs. When working with the Plan to construct the glide path, we will discuss the asset classes that we have most confidence in from a target date and core line up perspective. Within the target date, we will run various simulations to compare glide paths that may have differing asset class exposure. We will implement the glide path that the SFDCP and J.P. Morgan together decide is the most appropriate for the Plan.

In a custom glide path mandate, the plan sponsor retains responsibility for manager selection. Our involvement in the manager selection process is limited to avoid any conflicts of interest. However we do need to understand the risk and return characteristics of the underlying managers as it relates to glide path construction.

\*\*\*Since we will not be the rebalance provider or custodian of the assets for San Francisco's custom target date solution, we will not warehouse the required information to create fact sheets or custom performance reports. The majority of our custom clients choose to use third party providers, such as Morningstar and Lipper, to create factsheets. However, we are happy to have a conversation to see how we can be helpful in developing a solution for you. For example, for some of our custom clients, we



receive detailed NAV files on a daily basis from the clients' custodian. We help in the fact sheet creation process by sending standard templates of the net asset information to the third party fact sheet provider, which allows the custom fact sheets to be created.

- ± In order to confirm correct implementation of rebalancing, **SSGA** would require a daily feed of transactions and holdings from the TPA.
- ±± In order to confirm performance calculations in accordance with the stated "change factor methodology", SSGA would require a daily feed from the TPA in order to set up shadow accounts to perform our own daily calculations.



# Custom Target Date Fund Services

# City & County of San Francisco

John Greves, CFA, Portfolio Manager, Multi-Asset Solutions Keith Lennon, Director, Defined Contribution Solutions

MARCH 16, 2016

# Agenda

- What differentiates Russell
- Asset allocation methodology
- Philosophy and objective of target date fund glide path
- Potential enhancements
- Participant communications



# Russell Investments

# What differentiates Russell in custom target date

#### Our business model and core capabilities

- Global multi-asset investing is Russell's core business
- A firm built on fiduciary partnerships
  - Historical experience with some of the largest DC plans in the United States
  - Global leaders in DB investment outsourcing

#### Our investment approach

- An institutional allocation framework with a focus on outcomes and funding objectives
- Portfolio construction that emphasizes a global, market-based orientation and prudent diversification
- A heritage of multi-manager investing with proprietary tools that assess exposures and risks throughout portfolios

#### Our understanding of the DC marketplace

 DC industry presence and thought leadership to support SFDCP's plan design enhancements and participant communication needs going forward

#### Our ability to implement

A team with a proven track record with SFDCP that is experienced with managing a variety of asset classes, including private assets, in addition to managing complexities embedded in custom solutions

# Russell and SFDCP Relationship History

Consistent Team and Approach / Continued Enhancement of Solution

## Russell Glide Path Support

- Initial launch in April 2012
- Methodology based on income replacement
- Institutional asset allocation mindset
- John Greves Portfolio Manager
- Keith Lennon Client Support

## **On-going Enhancements**

- Demographic update for SFDCP
- Updated Russell glide path research
- Capital market updates
- Updated allocation based on medium term views of the market

#### Potential Enhancements

- Demographic update
- Dynamic management
- Review Private assets

# Russell's target date investment team



John Greves, CFA Portfolio Manager



Brian Meath, CFA Senior Portfolio Manager



Andrew Pease Global Head of Investment Strategy



Steve Murray, Ph.D., CFA Director, Asset Allocation Strategies



Yuan-An Fan, Ph.D. Sr. Research Analyst

- 13 years of investment experience
- · Joined Russell in 2003
- Lead portfolio manager responsible for target date positioning and performance
- Ensures the overall positioning is consistent with Russell's preferred positioning

- 25 years of investment experience
- Re-joined Russell in 2010
- Originally joined Russell in 1995
- Back-up portfolio manager responsible for positioning and performance
- Heads U.S. Multi-Asset Team

- 25 years of investment experience
- Joined Russell in 2006
- Heads global investment strategy team
- Provides qualitative and quantitative signals to portfolio managers for dynamic management
- 24 years of investment experience
- Joined Russell in 1992
- Responsible for asset allocation and modeling for Russell's global multiasset business
- 24 years of investment experience
- Joined Russell in 1992
- Responsible for multiperiod optimization and shortfall analysis
- Co-author on original glide path methodology paper

Russell's team manages mutual fund, collective trust fund, and custom target date solutions for large plan sponsors

# Russell's DC strategic advice and client service team



Josh Cohen, CFA
Managing Director,
Defined Contribution



Keith Lennon
Director, Defined
Contribution Solutions



Steve Cauble Regional Director



Holly Verdeyen
Director, Defined
Contribution
Investments

- 20 years of investment experience
- Joined Russell in 2005
- Head of Institutional Defined Contribution for Russell Investments
- Responsible for the leadership, strategic direction, and growth of Russell's U.S. institutional defined contribution (DC) business.

- 26 years of investment experience
- Joined Russell in 1990
- Responsible for developing the solutions Russell provides for institutional defined contribution plan investors
- Managing Russell's custom target date clients

- 25 years of investment experience
- Joined Russell in 2001
- Responsible for coordinating Russell's advice, asset management, and implementation resources for clients
- Leads business relationships with major corporate and public pension plan clients in the western U.S.

- 15 years of investment experience
- Joined Russell in 2013
- Responsible promoting Russell's DC investment services with a focus on default investments
- Shares Russell's perspective on trends in the defined contribution market while offering advice on best practices in institutional plan design

Russell's team manages custom solutions for large plan sponsors

# Russell custom target date services

# Glide Path Design

- Demographic analysis
- Glide path design
- Asset class allocation

# Fund Structure Design

- Evaluate underlying fund structure options (mutual funds, collect funds and separate accounts)
- Custody and total fund fee scenario analysis based on various fund structures
- Determine participant cash flow and rebalancing options based on fund structures
- Evaluate fee accrual options based on record keeper and custodian system capabilities

## Implementation

- Establish and lead project management team
- Confirm key roles and responsibilities with record keeper, custodian and the underlying fund managers
- Record keeper interface
- Custodian linkages
- Asset manager linkages
- Participant communications strategy advice
- Re-enrollment planning

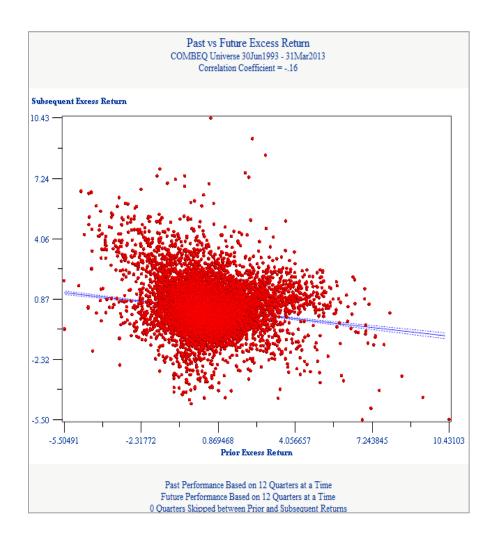
# Ongoing Management

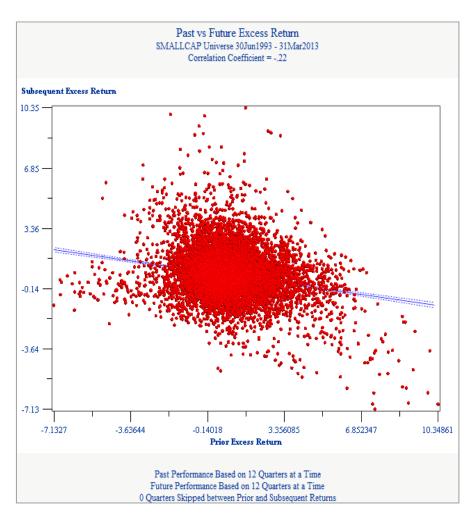
- Direct and oversee the rebalancing and rolldowns
- Monitor and resolve all investment or operational issues
- Calculation of total fund fees for fact sheets
- Provide quarterly performance and operations reviews
- Incorporate new investment concepts as developed
- Participant communications material review



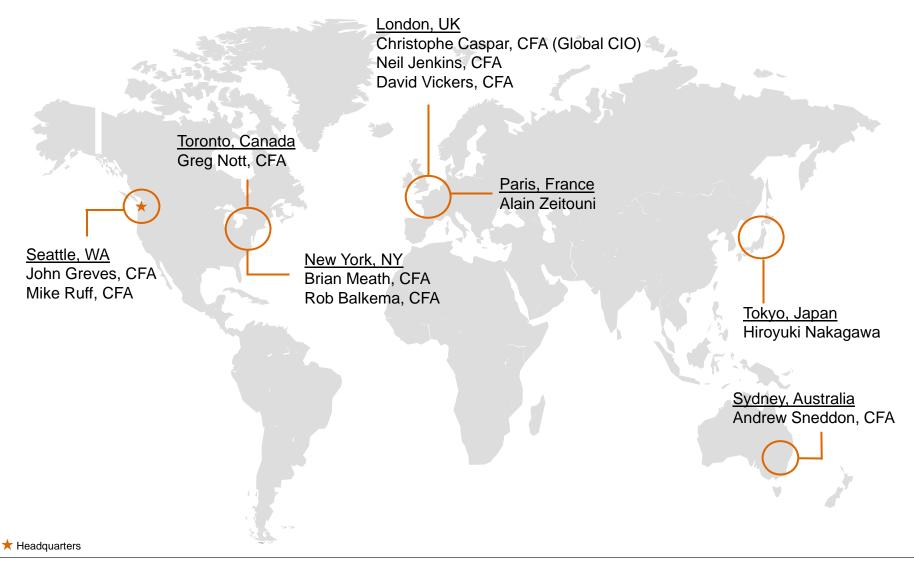
# Asset allocation methodology

# The (perverse) Power of Past Performance





# Russell's global multi-asset portfolio management team



# People: investment strategy team

#### **AMERICAS**



Paul Eitelman **Investment Strategist** 



**Abraham Robison** Quant Investment Strategist



Hirotaka Yoshida Implementation Portfolio Manager

**Doug Gordon** 

Sr. Portfolio Manager



Kara Ng Investment Strategy



Analyst

#### **EMEA**



**Andrew Pease** Global Head of Investment Strategy



Wouter Sturkenboom Sr. Investment Strategist



Van Luu Head of Currency and Fixed Income Strategy

#### **ASIA PACIFIC**



**Graham Harman** Sr. Investment Strategist Asia Pacific



**Robert Wilson Investment Strategy Analyst** 

# Asset allocation process and capabilities

 Holistic investment process blends quantitative modeling with qualitative insights

## Quantitative

- Long-term capital markets forecasts with globally integrated factor & currency models
- Sensitivity analysis with mean-variance optimization
- Multi-period optimization with 20,000 market scenarios
- Equity and currency quant models
- Risk model simulations of market environments.

## Qualitative

- Short-term insights on economic and market cycle from Russell's Strategist team
- Absolute and relative value metrics on asset classes
- Market capitalization-based starting perspective
- External strategists and money manager insights

# Asset class performance over time

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
29.6 Infrastructure	34.0 Emerging Markets	38.6 Infrastructure	39.4 Emerging Markets	11.4 Treasury Bonds	78.5 Emerging Markets	28.7 Gold	9.6 Gold	18.2 Emerging Markets	38.8 Small Cap US	13.7 Large Cap US
25.6 Emerging Markets	25.6 Commodities	32.2 Emerging Markets	32.7 Commodities	5.2 Aggregate Bonds	57.5 High Yield Bonds	26.9 Small Cap US	8.9 TIPS	17.3 Int'l Developed Stocks	33.6 US Equity	12.6 US Equity
20.2 Int'l Developed Stocks	17.5 Gold	26.3 Int'l Developed Stocks	29.9 Gold	3.9 Gold	34.6 World stocks	18.9 Emerging Markets	8.4 Corp. Bonds	16.4 US Equity	32.4 Large Cap US	12.1 Infrastructure
18.3 Small Cap US	14.2 Infrastructure	21.7 Gold	22.4 Infrastructure	-2.4 TIPS	31.8 Int'l Developed Stocks	16.9 US Equity	7.8 Aggregate Bonds	16.4 Small Cap US	22.8 World stocks	7.5 Corp. Bonds
17.3 Commodities	13.5 Int'l Developed Stocks	21.0 World stocks	11.7 World stocks	-3.1 Corp. Bonds	28.3 US Equity	15.2 High Yield Bonds	6.6 Treasury Bonds	16.1 World stocks	22.8 Int'l Developed Stocks	6.0 Aggregate Bonds
15.2 World stocks	10.8 World stocks	18.4 Small Cap US	11.5 TIPS	-26.4 High Yield Bonds	27.2 Small Cap US	15.1 Large Cap US	4.4 High Yield Bonds	16.0 Large Cap US	14.0 Infrastructure	4.9 Small Cap US
11.9 US Equity	6.1 US Equity	15.8 Large Cap US	11.2 Int'l Developed Stocks	-33.8 Small Cap US	26.5 Large Cap US	12.7 World stocks	2.1 Large Cap US	15.6 High Yield Bonds	7.4 High Yield Bonds	4.2 World stocks
10.9 Large Cap US	4.9 Large Cap US	15.7 US Equity	8.8 Treasury Bonds	-37.0 Large Cap US	24.0 Infrastructure	9.0 Commodities	1.0 US Equity	10.9 Infrastructure	-1.2 Commodities	2.6 Treasury Bonds
10.9 High Yield Bonds	4.6 Small Cap US	11.8 High Yield Bonds	7.0 Aggregate Bonds	-37.3 US Equity	22.9 Gold	8.5 Corp. Bonds	-1.2 Commodities	9.4 Corp. Bonds	-1.3 Treasury Bonds	2.5 High Yield Bonds
7.1 TIPS	2.7 High Yield Bonds	4.3 Aggregate Bonds	5.5 Large Cap US	-39.5 Infrastructure	16.0 Corp. Bonds	7.8 Int'l Developed Stocks	-1.3 Infrastructure	6.1 Gold	-2.0 Corp. Bonds	0.9 TIPS
5.2 Corp. Bonds	2.4 Aggregate Bonds	4.3 Corp. Bonds	5.1 US Equity	-42.2 World stocks	13.5 Commodities	6.5 Aggregate Bonds	-4.2 Small Cap US	5.0 TIPS	-2.0 Aggregate Bonds	-1.8 Gold
4.8 Gold	2.0 Corp. Bonds	3.5 Treasury Bonds	5.1 Corp. Bonds	-43.4 Int'l Developed Stocks	12.0 TIPS	5.3 Treasury Bonds	-7.3 World stocks	4.2 Aggregate Bonds	-2.6 Emerging Markets	-2.2 Emerging Markets
4.3 Aggregate Bonds	1.9 TIPS	1.6 TIPS	2.2 High Yield Bonds	-46.5 Commodities	5.9 Aggregate Bonds	5.2 TIPS	-12.1 Int'l Developed Stocks	1.7 Treasury Bonds	-5.6 TIPS	-4.9 Int'l Developed Stocks
2.0 Treasury Bonds	1.6 Treasury Bonds	-15.1 Commodities	-1.6 Small Cap US	-53.3 Emerging Markets	-1.4 Treasury Bonds	4.8 Infrastructure	-18.4 Emerging Markets	0.1 Commodities	-28.7 Gold	-33.1 Commodities

# Russell's Capital Markets Assumptions

20-Year annualized forecasts as of December 31, 2015

# > Equity + currency assumptions

	<u>Total</u>	<u>Total</u>
	Return	Volatility
Emerging Markets	8.56%	24.19%
U.S. Small Cap	8.56%	23.01%
International Developed	8.00%	19.15%
Global Equity	7.83%	18.77%
U.S. Large Cap	7.46%	18.93%

Non-U.S. equities expected to outperform U.S. equities

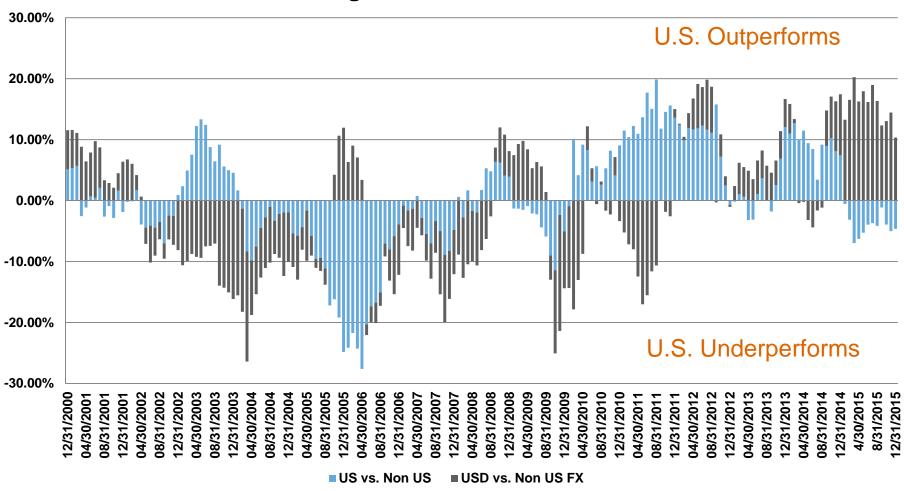
# > Equity only non-U.S. assumptions

	<u>Total</u>	<u>Total</u>
	Return	Volatility
International Developed_Local	7.76%	18.98%
Global Equity_Local	7.74%	18.83%

Local currency non-U.S. equity returns modestly lower than total return, implying a weaker USD

# U.S. outperformance driven by currency

## **Rolling 12 Month Performance**



Non-U.S. returns represented by 75% MSCI EAFE Index + 25% MSCI Emerging Markets Index. FX = Currency Impact. Data as of 12/31/2015.

#### RiskMetrics: holdings-based ex-ante analysis

Asset Class / Account		Portfolio Weights		Component-Level Statistics				Risk Decomposition				Associ	ation
		weights	Volatility VaR 95%		CVaR 95% CVaR	CVaR 99%	Volatility		CVaR 99%			ρ tail*	0
		%	(annual)	1M	1M	1M	\$MM	%total	\$MM	%total	ρ	ρ tall·	β
Growth Assets	39.0	39.0%	12.0%	5.5%	6.8%	9.0%	4.30	78.1%	3.19	76.9%	0.92	0.91	2.00
Equities	30.4	30.4%	13.1%	6.0%	7.5%	9.8%	3.59	65.2%	2.65	63.9%	0.90	0.89	2.14
Global Equity	5.8	5.8%	13.1%	6.0%	7.5%	9.7%	0.66	12.0%	0.49	11.8%	0.87	0.87	2.08
RTCCEBFT Russell World Equity Fund	5.8	5.8%	13.1%	6.0%	7.5%	9.7%	0.66	12.0%	0.49	11.8%	0.87	0.87	2.08
U.S. Large Cap	9.8	9.8%	12.7%	5.8%	7.2%	9.3%	1.03	18.7%	0.76	18.3%	0.83	0.83	1.91
Russell 1000	9.8	9.8%	12.7%	5.8%	7.2%	9.3%	1.03	18.7%	0.76	18.3%	0.83	0.83	1.91
U.S. Small Cap	3.3	3.3%	15.4%	7.1%	8.8%	11.3%	0.39	7.1%	0.28	6.9%	0.76	0.76	2.14
RTCCEBFT Russell Small Cap Fund	3.3	3.3%	15.4%	7.1%	8.8%	11.3%	0.39	7.1%	0.28	6.9%	0.76	0.76	2.14
International Equity	8.0	8.0%	14.8%	6.7%	8.5%	10.9%	1.04	19.0%	0.78	18.8%	0.88	0.89	2.37
MSCI EAFE	8.0	8.0%	14.8%	6.7%	8.5%	10.9%	1.04	19.0%	0.78	18.8%	0.88	0.89	2.37
Emerging Markets Equity	3.5	3.5%	16.3%	7.6%	9.3%	11.9%	0.46	8.4%	0.34	8.2%	0.81	0.81	2.40
RTCCEBFT Russell Emerging Markets Fund	3.5	3.5%	16.3%	7.6%	9.3%	11.9%	0.46	8.4%	0.34	8.2%	0.81	0.81	2.40
Real Assets	8.6	8.6%	9.4%	4.3%	5.4%	7.1%	0.71	12.9%	0.54	13.0%	0.88	0.88	1.50
RTCCEBFT Russell Global Listed Infrastructure Fund	2.4	2.4%	11.7%	5.4%	6.7%	8.6%	0.26	4.7%	0.19	4.7%	0.92	0.94	1.95
RTCCEBFT Russell Global Real Estate Securities Fund	2.4	2.4%	14.4%	6.5%	8.2%	10.8%	0.31	5.7%	0.24	5.9%	0.90	0.95	2.35
RTCCEBFT Russell Commodities Fund	3.8	3.8%	9.9%	4.5%	5.7%	7.4%	0.14	2.6%	0.10	2.4%	0.38	0.35	0.68
Capital Preservation	61.0	61.0%	3.6%	1.7%	2.1%	2.8%	1.20	21.9%	0.96	23.1%	0.54	0.57	0.36
Fixed Income - Intermediate	57.0	57.0%	3.8%	1.8%	2.2%	2.9%	1.17	21.2%	0.93	22.4%	0.54	0.56	0.37
RTCCEBFT Russell Multi-Manager Bond Fund	15.8	15.8%	3.4%	1.6%	2.0%	2.6%	0.29	5.3%	0.23	5.6%	0.55	0.57	0.34
RTCCEBFT Russell Quantitative Bond Fund	28.4	28.4%	3.1%	1.5%	1.9%	2.4%	0.43	7.7%	0.34	8.1%	0.48	0.50	0.27
RTCCEBFT Russell Inflation-Protected Securities Fund	12.8	12.8%	6.4%	2.9%	3.7%	4.8%	0.45	8.1%	0.36	8.7%	0.55	0.59	0.63
Fixed Income - Short Duration	4.0	4.0%	1.2%	0.6%	0.7%	0.9%	0.04	0.7%	0.03	0.7%	0.78	0.80	0.17
RTCCEBFT Russell Fixed Income II Fund	4.0	4.0%	1.2%	0.6%	0.7%	0.9%	0.04	0.7%	0.03	0.7%	0.78	0.80	0.17
Total	100.0	100.0%	5.5%	2.5%	3.2%	4.1%	5.51	100.0%	4.15	100.0%	1.00	1.00	1.00

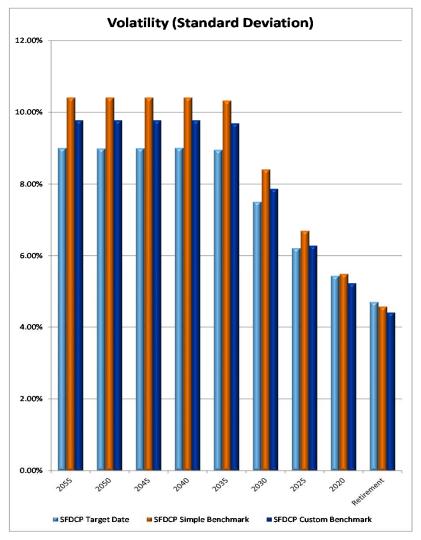
For illustrative purposes only.

Source: Russell, RiskMetrics. Based on holdings and model data

Indexes are unmanaged and cannot be invested in directly. Data is historical and is not indicative of future results.

The funds shown above are investment funds of the Russell Trust Company Commingled Employee Benefit Funds Trust; they are not mutual funds.

#### Risk Comparison – Annualized Volatility (Standard **Deviation) & Sharpe Ratios** SFDCP Fund versus Benchmarks - Since Inception-December 31, 2015



	Sharpe Ratios								
		Simple	Composite						
Fund	SFDCP	Benchmark	Benchmark						
2055	0.69	0.68	0.64						
2050	0.69	0.68	0.64						
2045	0.70	0.68	0.64						
2040	0.69	0.68	0.64						
2035	0.70	0.69	0.65						
2030	0.76	0.75	0.72						
2025	0.80	0.80	0.77						
2020	0.74	0.85	0.75						
Retirement	0.69	0.87	0.71						

<sup>\*</sup>Sharpe Ratio is calculated as the one-year excess return over the risk free rate (Citigroup 3-month T-Bill) divided by the standard deviation over the period using monthly returns.

Simple and composite benchmark constituents and allocations shown in the Appendix

Past performance is not indicative of future results

Indices and benchmarks are unmanaged and cannot be invested in directly. Performance is net of fees.





# Target Date Fund Philosophy and Objective

## Russell beliefs in building institutional quality target date solutions

- 1) Flat glide paths are prudent to success in retirement
- 2) Equity exposures should be globally oriented
- 3) Real assets provide important diversification benefits
- 4) There is a place for both active and passive management for different glide paths
- 5) Dynamic management can improve risk control
- 6) Open architecture is superior to proprietary management

#### Portfolio construction philosophy

Helping participants reach their goals



Design
a strategy targeted
to meet your goals



a real world portfolio using an open architecture approach

Construct



Manage adapting responsibly to the markets

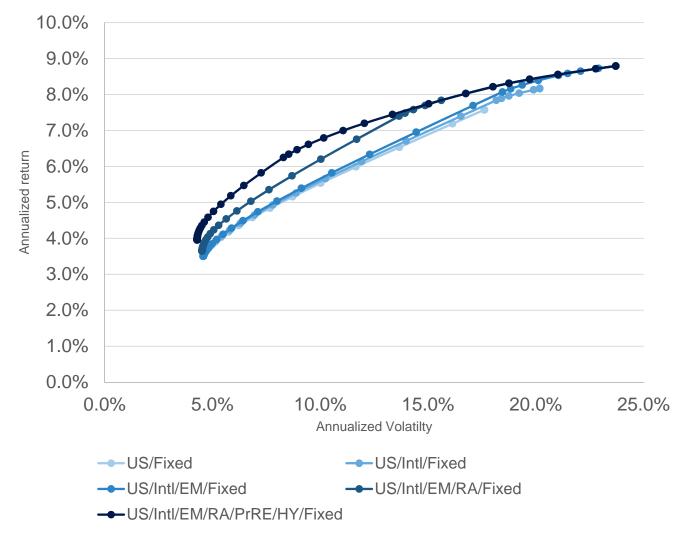
#### Russell's custom target date modeling process

**Evaluate** Review data and benefits – distinct groups segmented **Demographics Create Income** Create replacement ratio based on demographics for modeling Replacement assumptions Ratio Construct Construct efficient portfolio structure using **Portfolios** targeted asset classes Utilize savings rates, salaries, salary growth rates, retirement **Optimize** benefits, income replacement targets and Russell capital markets **Glide Path** assumptions Test For effectiveness across different groups **Glide Path** 

#### Institutional asset allocation framework

- > Emphasis on outcomes and funding objectives
- Global focus: market portfolio defines starting point for analysis
  - > U.S. represents roughly 50% of world market cap
- Assets responsive to liabilities
  - Real assets provide diversification, inflation sensitivity, and liability matching
- Alternatives improve portfolio efficiency and have historically helped smooth returns throughout market cycle

### Diversifying risk, improving returns through uncorrelated assets Mean-variance optimization with multiple asset classes



- Expanding the opportunity set of asset classes improves return per unit of risk
- Less improvement at aggressive end of risk spectrum as few asset classes deliver highest returns
- Notable improvement at conservative end of risk spectrum, especially with real assets and high yield

US = U.S. Large Cap Equities, Fixed = U.S. Aggregate Fixed Income, Intl = International Developed ex-U.S. Equities, EM = Emerging Market Equities, RA = Commodities, Infrastructure, and Global Real Estate, HY = High Yield Fixed Income, PrRE = Private Real Estate





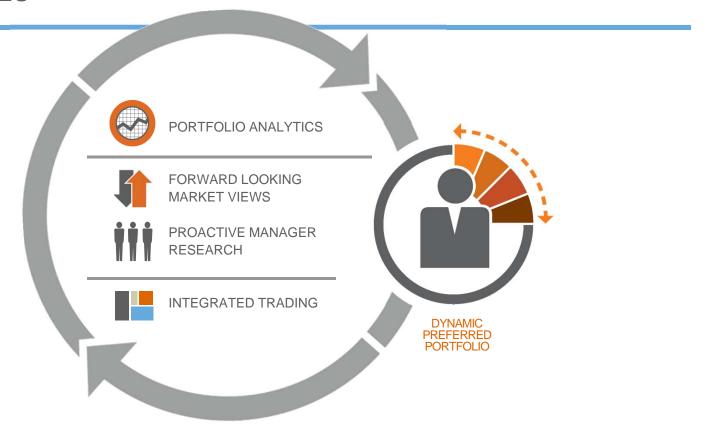
## Potential Enhancements

#### Discussion of potential future enhancements

- 1) Refreshed demographics review
- 2) Proposal to add dynamic management
- 3) Evaluation of private assets

#### Dynamic management process

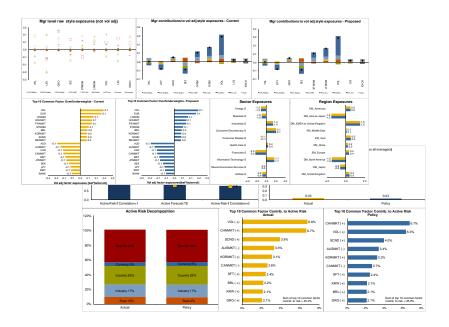
- 1 UNDERSTAND CURRENT PORTFOLIO EXPOSURES
- 2 EVOLVE DYNAMIC PREFERRED POSITIONING
- 3 ADAPT PORTFOLIO AND IMPLEMENT CHANGES



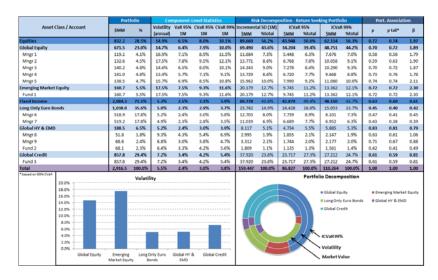
#### Managing a responsive portfolio

Know what you own: ability to monitor security-level exposures

#### View concentration risk of total portfolio



#### Real-time risk monitoring tools & process



Information shown for illustrative purposes only.

#### Managing a responsive portfolio

Know where you want to go: determine desired positioning of portfolio

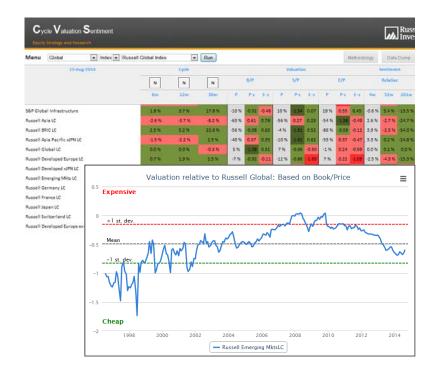
#### **Strategist views and PM interaction**

US Macro Forecasts	Current				ast Month	Blue Chip Consensus		
	Value	Forecast		Value	Forecast		Forecast	
	9/8/2014	2014 2015		8/7/2014	2014	2015	2014	2015
Real GDP (Yo Y)	4.2%	2.1%	3.0%	4.0%	2.1%	3.2%	2.1%	3.0%
Core CPI Inflation (YoY)	0.1	1.8%	1.9%	0.1	1.9%	2.1%	1.9%	2.1%
Nonfarm Payrolls (K)	142	215	215	209	240	245	222.5	216

Finar	Tactical: up to 12 months		Qualitative Sc	ores	Q	ualitative total		
rınar	September 2014	Value (20%)	Cycle (40%)	Sentiment (40%)	Total	with forced ranking	Models	Combined
	Equities				0.5		0.5	0.5
	United States	-1.5	1	1	0.5	0	0	0
	Europe	-0.5	1	1	0.5	1.5	0.5 👚	0.5
	Japan	0	1	0	0.5	-0.5	-0.5 👢	0
	Emerging Markets	1	0	0.5 👚	0.5	-0.5	0.5	0
	Fixed Income Agg				0		-0.5	-0.5
	US Treasuries	-1	-1	0.5	-0.5	-1	-1	-1
	Investment Grade	-1	0.5	1	0.5	0.5	0.5	0.5
	High Yield	-1	1	1	0.5	1	0.5	0.5

- Weekly global portfolio management calls
- Monthly strategists outlook calls and signals
- Multi-Asset Advisory Team (MAAT)
- Asset Class Strategy Forum (ACSF)
- > Stand-up meetings in open office environment

#### **Russell Proprietary Toolkit: CVS**

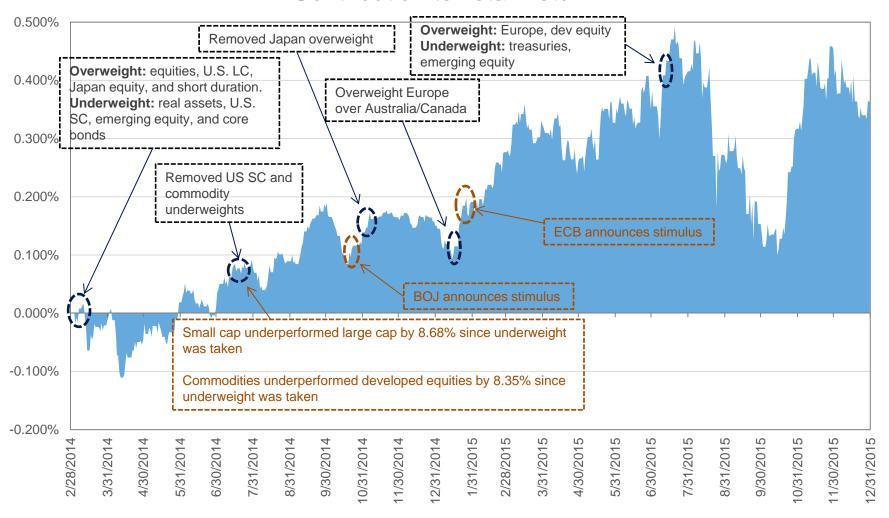


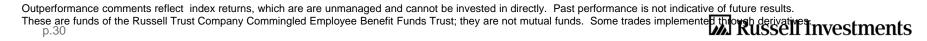
Information shown for illustrative purposes only.

#### RTC 2040 Target Date Fund

Dynamic positioning contribution to total return (March 1, 2014 to Dec. 31, 2015)

#### Contribution to Total Return





#### Broad range of alternative solutions

#### Hedge Funds

#### Marketable Real Assets

#### Private Real Estate

#### **Private Markets**

- Strategies:
  - Event Driven
  - Equity Hedge
  - Relative Value
  - Tactical Trading

- Strategies:
  - Listed Real Estate
  - Listed Infrastructure
  - Commodities

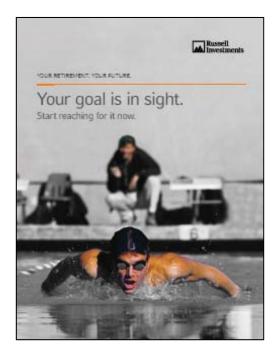
- Strategies:
  - Core
  - Value add
  - Opportunistic

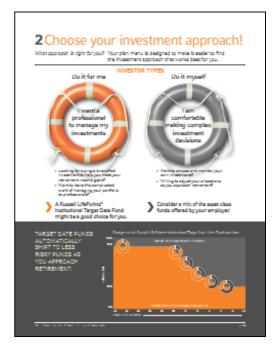
- Strategies:
  - Private Equity
  - Venture Capital
  - Niche Strategies
  - Secondary Funds
  - International, Europe, Asia
  - Private Infrastructure



## Participant engagement

## Russell communications guidance and support Helping employees make smart decisions







Examples provided for discussion purposes only.

#### Communications tailored for different groups







## Summary: Why Russell?

#### What differentiates Russell in custom target date

#### Our business model and core capabilities

- Global multi-asset investing is Russell's core business
- A firm built on fiduciary partnerships
  - Historical experience with some of the largest DC plans in the United States
  - Global leaders in DB investment outsourcing

#### Our investment approach

- An institutional allocation framework with a focus on outcomes and funding objectives
- Portfolio construction that emphasizes a global focus and prudent diversification
- A heritage of multi-manager investing with proprietary tools that assess exposures and risks throughout portfolios

#### Our understanding of the DC marketplace

 DC industry presence and thought leadership to support SFDCP's plan design enhancements and participant communication needs going forward

#### Our ability to implement

A team with a proven track record with SFDCP that is experienced with managing a variety of asset classes, including private assets, in addition to managing complexities embedded in custom solutions



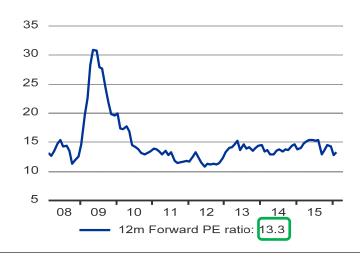
## Appendix

#### U.S. equity valuations remain expensive

#### MSCI U.S. Index



#### MSCI Japan Index



#### MSCI Europe ex-U.K. Index

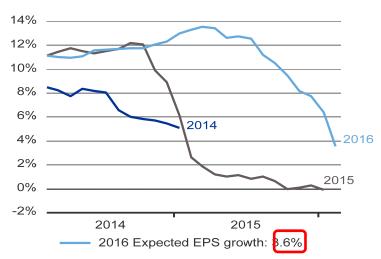


#### MSCI Emerging Markets Index

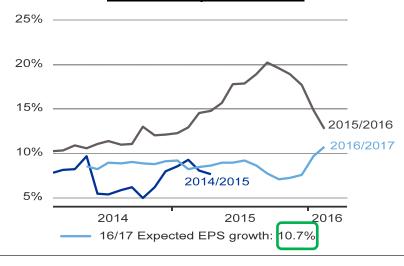


## Forward earnings estimates higher for non-U.S. companies

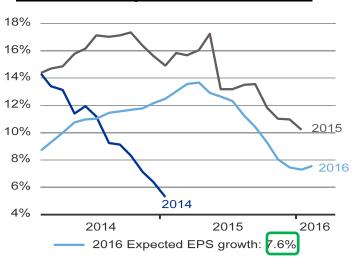
#### MSCI U.S. Index



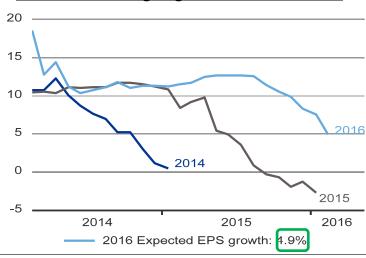
#### MSCI Japan Index



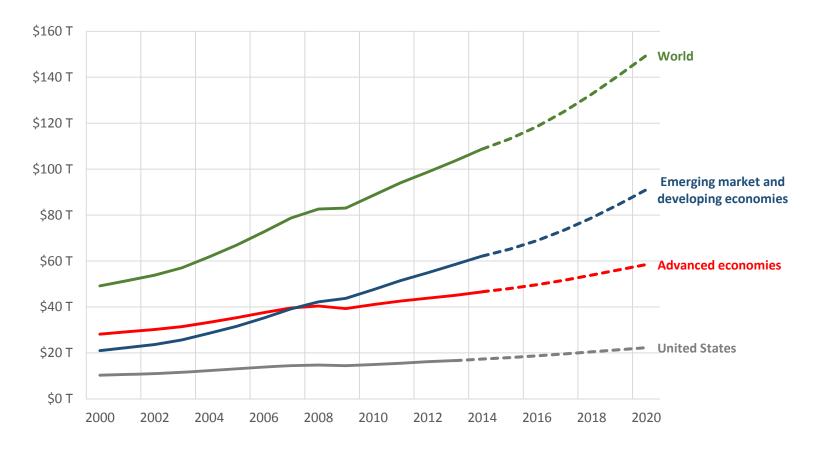
#### MSCI Europe ex-U.K. Index



#### MSCI Emerging Markets Index



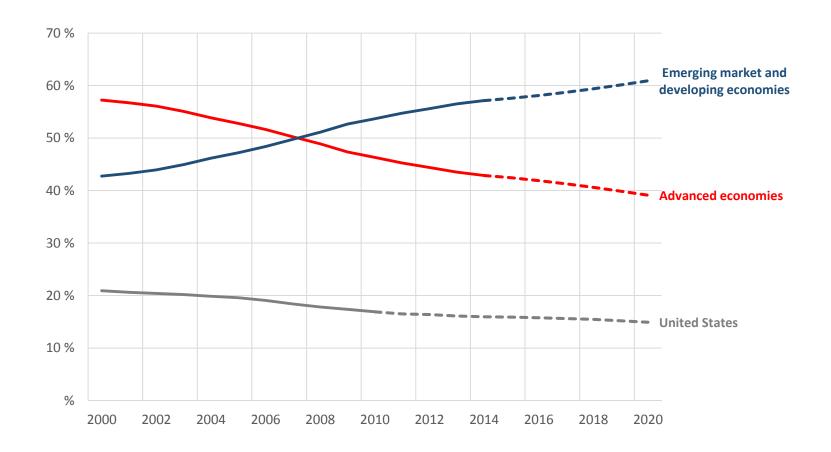
## IMF global growth projections GDP based on PPP valuation of country GDP



Emerging markets expected to drive global economic growth into the future

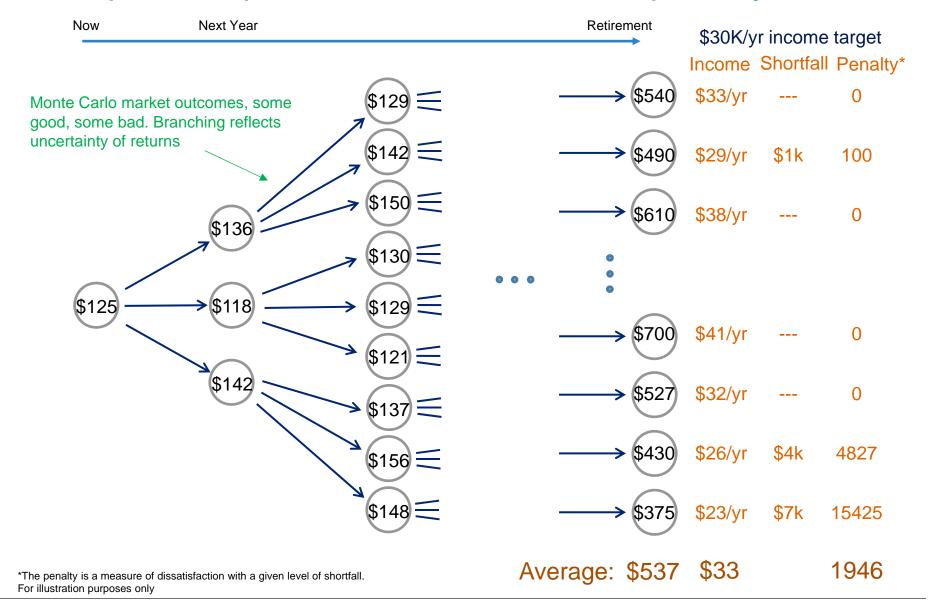
#### IMF global growth projections

GDP based on PPP share of world total (%)



Share of world GDP shifting toward developing countries

#### Multi-period optimization with shortfall penalty



#### Historical asset class returns, annualized

Data from January 1997 to December 2015

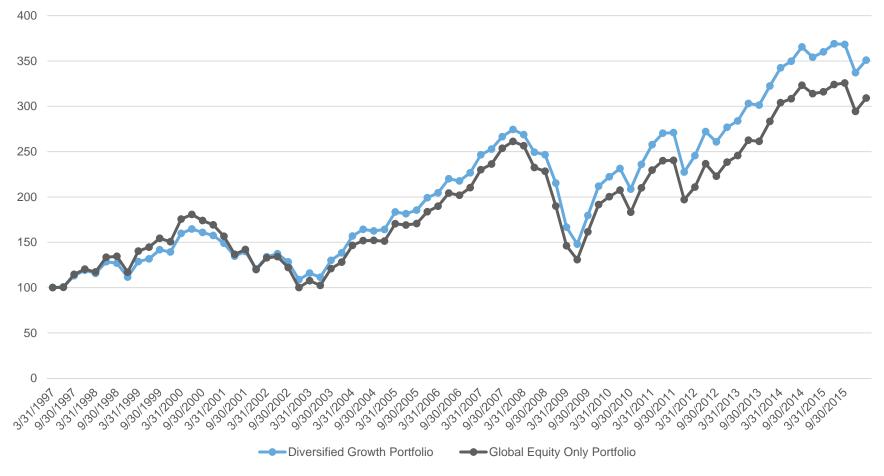
- > U.S. REITs = 9.7%
- > U.S. Equities = 7.6%
- Global Equities = 6.1%
- Core Fixed Income = 5.4%
- > Emerging Markets = 5.0%
- Commodities = -0.1%

Does investing in pure equities lead to the best outcome after 18 years?

U.S. REITs = FTSE/NAREIT All Equity REITs Index, U.S. Equities = Russell 3000 Index, Global Equities = Russell Global Index Net, Emerging Markets = Russell Emerging Markets Index Net, Core Fixed Income = Barclays U.S. Aggregate Index, Commodities = Bloomberg Commodity TR Index

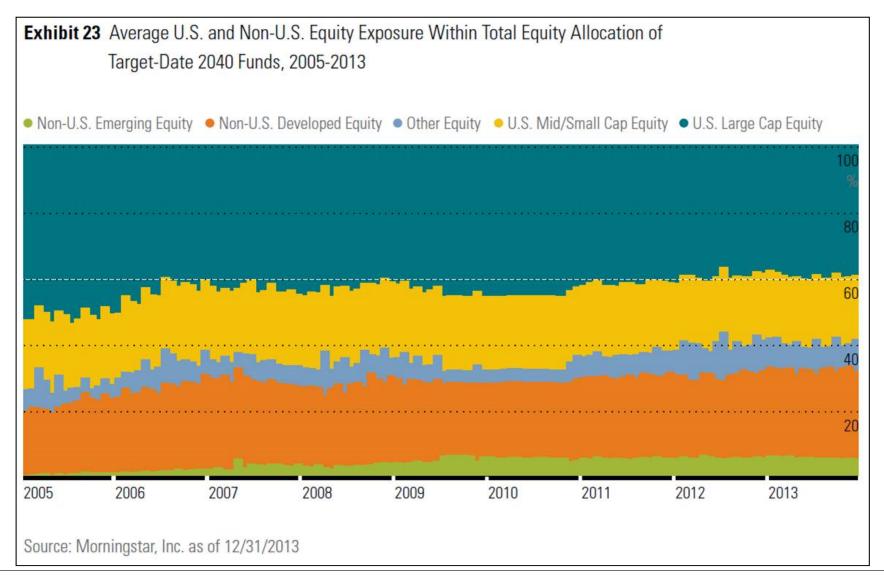
#### Diversified, rebalanced portfolio more efficient over time

Portfolio comparison versus global equities from January 1, 1997 to December 31, 2015

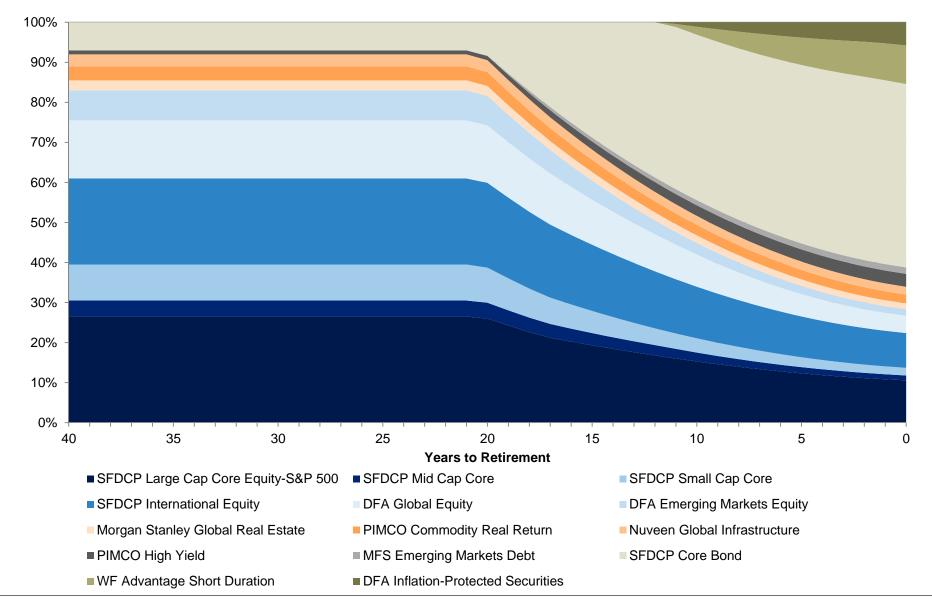


- Diversified Growth Portfolio = 34% Russell 1000 Index, 9% Russell 2000 Index, 31% Russell Developed ex-U.S. Large Cap Index Net, 8% Russell Emerging Markets Index Net, 3.5% Bloomberg Commodity TR Index, 7% FTSE/NAREIT All Equity REITs Index, 7% Barclays U.S. Aggregate Index
- > Global Equity Only Portfolio = Russell Global Index Net

#### Peer allocations continue trend toward more non-U.S.



#### Asset allocation along the glide path - 2016



#### SDFCP allocations & portfolio statistics - 2016

		2055	2050	2045	2040	2035	2030	2025	2020	Retirement
Growth Category										
U.S. Large Cap	SFDCP Large Cap Core Equity-S&P 500	26.50%	26.50%	26.50%	26.50%	24.27%	18.43%	14.58%	11.88%	10.56%
	SFDCP Mid Cap Core	4.00%	4.00%	4.00%	4.00%	3.78%	2.89%	2.06%	1.45%	1.22%
U.S. Small Cap	SFDCP Small Cap Core	9.00%	9.00%	9.00%	9.00%	8.00%	5.06%	3.30%	2.32%	1.92%
Non-U.S. Equity	SFDCP International Equity	21.50%	21.50%	21.50%	21.50%	20.16%	15.73%	12.26%	9.80%	8.67%
Global Equity	DFA Global Equity	14.50%	14.50%	14.50%	14.50%	13.83%	10.54%	7.43%	5.22%	4.35%
EM Equity	DFA Emerging Markets Equity	7.50%	7.50%	7.50%	7.50%	6.83%	4.31%	2.71%	1.95%	1.63%
Global Real Estate	Morgan Stanley Global Real Estate	2.50%	2.50%	2.50%	2.50%	2.39%	2.10%	1.83%	1.58%	1.45%
Commodities	PIMCO Commodity Real Return	3.50%	3.50%	3.50%	3.50%	3.39%	2.94%	2.58%	2.33%	2.19%
Global Infrastructure	Nuveen Global Infrastructure	3.00%	3.00%	3.00%	3.00%	2.89%	2.47%	2.20%	2.05%	1.94%
High Yield/EMD	PIMCO High Yield	1.00%	1.00%	1.00%	1.00%	1.31%	2.19%	2.74%	3.09%	3.23%
nigii field/EMD	MFS EM Debt	0.00%	0.00%	0.00%	0.00%	0.36%	1.05%	1.34%	1.54%	1.62%
_	Total Growth Category	93.00%	93.00%	93.00%	93.00%	87.20%	67.71%	53.03%	43.19%	38.79%
Capital Preservation Ca	tegory									
Core Fixed Income	SFDCP Core Bond	7.00%	7.00%	7.00%	7.00%	12.80%	32.29%	42.09%	45.04%	45.79%
Short Duration Bonds	WF Advantage Short Duration	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.13%	7.57%	9.67%
TIPS	DFA Inflation-Protected Securities	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.74%	4.20%	5.76%
	Total Capital Preservation Category	7.00%	7.00%	7.00%	7.00%	12.80%	32.29%	46.97%	56.81%	61.21%
	Target Excess Return	0.79%	0.79%	0.79%	0.79%	0.78%	0.73%	0.67%	0.62%	0.60%
	Target Tracking Error	0.98%	0.98%	0.98%	0.98%	0.95%	0.94%	0.94%	0.91%	0.89%
	Target Portfolio Return	8.39%	8.39%	8.39%	8.39%	8.12%	7.25%	6.56%	6.08%	5.86%
	Target Portfolio Volatility	16.60%	16.60%	16.60%	16.60%	15.45%	11.76%	9.13%	7.46%	6.76%
	Sharpe Ratio	0.51	0.51	0.51	0.51	0.53	0.62	0.72	0.82	0.87
	Estimated Target Date Fund Fees	0.39	0.39	0.39	0.39	0.39	0.40	0.39	0.39	0.39

Source: Russell. Statistics from June 2015, 20-Year forecasts. Assumptions do not take fees into consideration and all returns are assumed gross of fees. Please note all information shown is based on assumptions for generic asset classes, and the numbers provided are not intended to represent specific forecasts for funds or managers.

#### Typical target date fund metrics

#### Simple benchmark

Two-component benchmark with global equity/U.S. fixed income indexes weighted to the forecast volatility of each portfolio

#### Composite benchmark

 Underlying asset class benchmarks weighted at the policy weight of the strategic allocation in each portfolio

#### > Peer categories

Morningstar Target Date categories for each target date portfolio

#### Volatility comparison/Sharpe ratios

- Standard deviation of monthly returns for portfolios and indexes
- Sharpe ratios of portfolios and indexes

#### Portfolio investment performance drivers



- Plan sponsor/ TDF manager decision
- Based on plan demographics and expected risk tolerance
- Strategic asset class exposures that are intended to diversify broad market equity and fixed income
- Active management includes security selection and dynamic/tactical asset allocation
- Important services to evaluate, if utilized inside the TDF series

#### RTC Target Date Performance Attribution

#### Contribution to Excess return versus Composite Benchmarks

Since inception of dynamic management (3/1/2014 – 12/31/2015)



#### 1 Year (12/31/2014 - 12/31/2015)



Construct = measures impact of underlying Russell funds

Manage = measures impact of dynamic positioning and market drift

Cumulative excess return over one year shown for actual fund performance vs. strategic policy portfolio. Performance is gross of fees. Fees will reduce the overall performance of the fund.



#### John H. W. Greves, CFA

## Portfolio Manager, Investment Division Russell Investments



John Greves is a portfolio manager on the U.S. Multi-Asset Solutions team at Russell Investments. John manages Russell's RTC LifePoints Institutional Target Date Funds, RIC LifePoints Target Date Funds, RIF LifePoints Variable Target Portfolio Funds, and custom target date solutions for large institutional clients in the United States. In his role, John works with both retail and institutional clients to help them achieve their investment objectives. His responsibilities include constructing outcome-oriented portfolios, evaluating risk exposures, integrating capital markets research into the investment process, and researching underlying asset classes. John also interacts closely with Russell's Investment Strategists and chairs the Multi-Asset Advisory Team, a team of portfolio managers and strategists that provides insight into portfolio positioning throughout the market cycle.

John joined Russell in 2003 as a sales analyst with institutional investment services. His worked closely with the managing director and other institutional sales directors to analyze financial performance and metrics of the major business lines. John's analysis covered implementation services, commingled funds, and alternative investments.

Prior to joining Russell, John worked as a multi-family loan analyst with Washington Federal Savings, where he analyzed the projected performance of investment properties for the apartment lending division.

B.S., Computer Science and Business, University of Puget Sound CFA Charterholder, CFA Institute

#### Keith Lennon

#### Director, Defined Contribution Client Solutions Americas Institutional



Keith Lennon is director of defined contribution client solutions for Russell Investments' Americas institutional business. Keith is responsible for developing the solutions Russell provides for institutional defined contribution plan investors and managing Russell's defined contribution client service team. He assumed this role in 2011.

Joining Russell in 1990, Keith has a long history with Russell in a number of client service, analytical and managerial positions. Previous to this role, Keith was director of product for Americas institutional leading the team responsible for all aspects of product development and management across the defined benefit, defined contribution and non-profit market segments.

Keith has been involved with the Americas institutional business in a number of roles during his career at Russell. He served as director, business solutions and client service from 2005 to 2009, client executive in Winston-Salem, North Carolina from 2002 to 2004 and client service analyst/associate client executive from 1997 to 2001.

Previously, Keith held several positions in the private client services business working with Russell's distribution partners.

B.B.A., Finance, Minor in Economics, Pacific Lutheran University, 1991 Licensed Registered Representative, FINRA Series 7, 24 and 63 Russell Financial Services, Inc., member FINRA)

## Russell Investments