Taking a closer look at your pension plan

City of Hallandale Beach General Employee & Professional Plan



Actuarial update David A Stocklas, EA, MAAA | 04.17.2021



Contents



Funding & accounting results

Risk management Supporting information



General Plan - Capital market assumptions update

| Expected | Expected | |
|------------|--|---|
| arithmetic | geometric | Current |
| return | return | allocation % |
| 7.70% | 6.20% | 25.17% |
| 8.00% | 6.20% | 2.86% |
| 8.55% | 6.20% | 1.40% |
| 8.00% | 6.20% | 14.58% |
| 7.30% | 5.65% | 0.40% |
| 5.35% | 5.00% | 6.09% |
| 1.70% | 1.50% | 0.59% |
| 2.60% | 2.45% | 46.42% |
| 5.45% | 5.00% | 2.48% |
| | | 100.00% |
| | | 5.16% |
| | | 8.75% |
| | | 4.19% |
| | | 4.50% |
| | | 4.80% |
| | | 5.10% |
| | | 5.41% |
| | | 44% / 50% / 6% |
| | arithmetic return 7.70% 8.00% 8.55% 8.00% 7.30% 5.35% 1.70% 2.60% | arithmetic geometric return return 7.70% 6.20% 8.00% 6.20% 8.55% 6.20% 8.00% 6.20% 7.30% 5.65% 5.35% 5.00% 1.70% 1.50% 2.60% 2.45% |

An updated capital market assumptions (CMA) study was released May 2020. This study replaces the CMA study released October 2018.

- Equity, real estate, high yield fixed income approximately 0.25% lower to 0.05% lower
- Fixed income (except for high yield) approximately 1.40% to 1.80% lower

Interest assumption review uses:

- Target allocations
- Expected geometric returns
- Plan's asset allocation

\$120,000 increase in ADC for every 0.25% decrease in the assumed interest rate



Professional - Capital market assumptions update

| | Expected | Expected | |
|-------------------------------|------------|-----------|----------------|
| | arithmetic | geometric | Current |
| Asset class | return | return | allocation % |
| US Equity - Large Cap | 7.70% | 6.20% | 30.85% |
| US Equity - Mid Cap | 8.00% | 6.20% | 3.47% |
| US Equity - Small Cap | 8.55% | 6.20% | 1.79% |
| Non-US Equity | 8.00% | 6.20% | 17.99% |
| REITS | 7.30% | 5.65% | 0.39% |
| Real Estate (Direct Property) | 5.35% | 5.00% | 6.08% |
| TIPS | 1.70% | 1.50% | 0.59% |
| Core Bond | 2.60% | 2.45% | 36.85% |
| High Yield Bond | 5.45% | 5.00% | 1.98% |
| | | | 100.00% |
| Exp LTROA (arithmetic mean) | | | 5.68% |
| Portfolio Standard Deviation | | | 10.17% |
| 40th percentile | | | 4.38% |
| 45th percentile | | | 4.79% |
| Expected Compound Return | | | 5.19% |
| 55th percentile | | | 5.59% |
| 60th percentile | | | 6.00% |
| Equity/Fixed Income/Other | | | 54% / 39% / 6% |
| | (0) (4) | | |

An updated capital market assumptions (CMA) study was released May 2020. This study replaces the CMA study released October 2018.

- Equity, real estate, high yield fixed income approximately 0.25% lower to 0.05% lower
- Fixed income (except for high yield) approximately 1.40% to 1.80% lower

Interest assumption review uses:

- Target allocations
- Expected geometric returns
- Plan's asset allocation

\$40,000 increase in ADC for every 0.25% decrease in the assumed interest rate



Mortality

Small decrease in liabilities when new mortality adopted 2020

The Society of Actuaries (SOA) released new mortality tables and improvement scales.

For pre-retirees we changed to:

- SOA PubG Base table, below Median rate table Male setback 1 year
- Mortality improvement using MP-2018 scale

For retirees we changed to:

- SOA PubG Base table, below Median rate table Male setback 1 year
- Mortality improvement using MP-2018 scale



Funding results

Funding results

Actuarially determined contribution

| | | | In millions |
|-----|--------------------------------------|--------------|-------------|
| | Plan year ending 2020 | Professional | General |
| | Actuarial accrued liability | \$21.49 | \$72.42 |
| | Actuarial value of assets | <u>19.67</u> | 64.32 |
| | Unfunded Liability | \$1.82 | \$8.10 |
| | Funded ratio (AVA/AAL) | 92% | 89% |
| | | | |
| | Market value of assets | \$19.53 | \$63.94 |
| | Funded ratio (MVA/AAL) | 91% | 88% |
| | | | |
| ADC | Net Normal cost | \$160,459 | \$787,858 |
| | Amortization | 320,933 | 965,351 |
| | ADC ¹ (includes Interest) | \$513,886 | \$1,871,551 |

¹ City's fiscal year period from 10/01/2021 through 09/30/2022.



Funding results

Unfunded actuarial accrued liability

| | | In millions |
|--|--------------|-------------|
| | Professional | General |
| Actuarial accrued liability (before changes) | \$21.335 | \$71.777 |
| Less actuarial value of assets | 19.670 | 64.318 |
| Preliminary unfunded actuarial accrued liability | \$1.665 | \$7.459 |
| Change in unfunded actuarial accrued liability due to: | | |
| Assumption changes | 0.158 | 0.647 |
| Cost method change | 0.000 | 0.000 |
| Plan changes | 0.000 | 0.000 |
| Unfunded actuarial accrued liability after changes | \$1.823 | \$8.106 |

Information is as of 10/01/2020



Accounting results

Accounting results

Statement of pension expense

| Professional | General |
|--------------|--|
| \$110,196 | \$783,012 |
| 1,417,144 | 4,866,309 |
| (40,465) | (161,435) |
| (1,293,804) | (4,247,319) |
| 26,144 | 38,656 |
| 0 | 0 |
| 0 | 0 |
| 0 | 0 |
| 212,956 | (947,114) |
| 157,999 | 401,965 |
| (69,958) | (61,116) |
| \$520,212 | \$672,958 |
| 7.00% | 7.00% |
| 7.00% | 7.00% |
| | \$110,196 1,417,144 (40,465) (1,293,804) 26,144 0 0 0 0 212,956 157,999 (69,958) \$520,212 |



Risk management

Pension risk management

Manage pension risks to maintain long-term viability

Evaluate plan design



Adjust benefit accruals

Review covered group

Review investment allocation



Risk quantified by expected returns

Risk can be measured by worst outcomes

Risk transfer



Lump sums

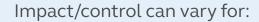
Annuities

Every choice has pros and cons - analyze carefully before implementing

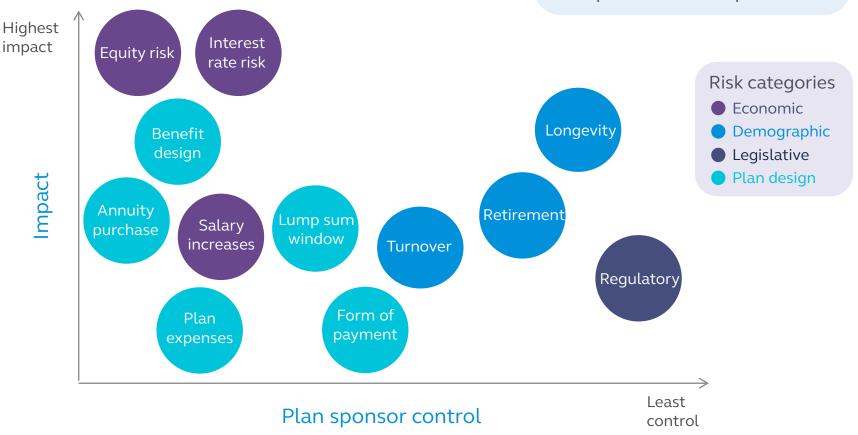


Risk management

Risks: impact vs. control¹



- Lump sum window depends on take-up rate
- Annuity purchase
 depends on size of purchase



¹Based on Session 001: Talking Risk from the 2018 Enrolled Actuary meeting



More than just a valuation

extras included in our base fees

- Benefit cash flows to assess future liquidity needs
- Pension risk management discussions
- Contribution consulting

- Auditor support for assumptions
- Standard deviation associated with investment allocation

Planning

- Annual consulting discussions
 - Discussion on understanding your plan's funded status
 - Assumptions and methods consulting

Support

- Risk-free basis results
- Historical results
- Proprietary mortality table¹

¹ Developed by Principal Life Insurance Company[®]

Helping plan sponsors achieve pension goals for over 65 years



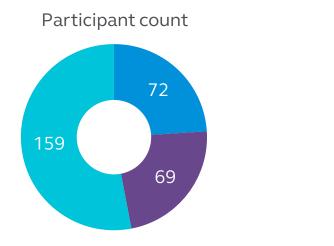
General Plan - Funding liability breakdown

Liability

\$38.37

\$24.24

\$9.81

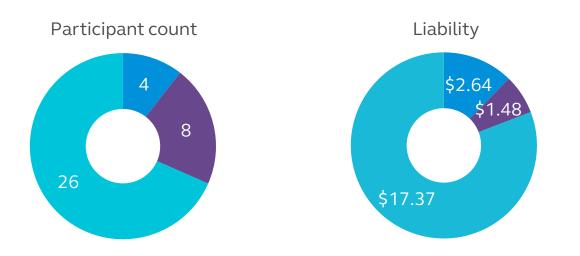


| | Participant count | Liability (in millions) | Average age |
|----------------------------|-------------------|----------------------------|-------------|
| Active participants | 72 | \$24.24 | 50.3 |
| Terminated vested | 69 | \$9.81 | 56.2 |
| Participants in pay status | 159 | \$38.37 | 72.7 |
| | 300 | \$72.42 | n/a |

Information is as of 10/01/2020



Professional Plan - Funding liability breakdown



| | Participant count | Liability (in millions) | Average age |
|----------------------------|-------------------|----------------------------|-------------|
| Active participants | 4 | \$2.64 | 47.1 |
| Terminated vested | 8 | \$1.48 | 54.1 |
| Participants in pay status | 26 | \$17.37 | 64.8 |
| | 38 | \$21.49 | n/a |

Information is as of 10/01/2020



Basis for results

The values shown in this document reflect census data, benefit provisions, methods, and assumptions utilized in the 10/01/2020 actuarial valuation report.

The information in this document is not intended to supplant funding results contained in the annual valuation report, accounting information contained in the annual disclosure report, or amounts that may be included on government forms or filings. If you need these documents or other related information, please contact me.

This document is for the defined benefit retirement plan named on the report cover and may only be provided to other parties in its entirety.



Disclosures

No part of this presentation may be reproduced or used in any form or by any means, electronic or mechanical, including photocopying or recording, or by any information storage and retrieval system, without prior written permission from the Principal Financial Group®.

The subject matter in this communication is provided with the understanding that Principal® is not rendering legal, accounting, investment, or tax advice. You should consult with appropriate counsel or other advisors on all matters pertaining to legal, tax, or accounting obligations and requirements.

Asset allocation/diversification does not guarantee a profit or protect against a loss. Use of DAA and/or any glide path does not guarantee improvement in plan funding status nor the timing of any improvement. Investment options are subject to investment risk. Shares or unit values will fluctuate and investments, when redeemed, may be worth more or less than their original cost. Fixed-income investment options are subject to interest rate risk, and their value will decline as interest rates rise.

Principal, Principal and symbol design, and Principal Financial Group are trademarks and service marks of Principal Financial Services, Inc., a member of the Principal Financial Group.

Insurance products and plan administrative services are provided through Principal Life Insurance Company, a member of the Principal Financial Group® Des Moines, IA 50392.

©2019 Principal Financial Services, Inc. 830103-042019



Thank you

