Alberta Refrigeration Industry Pension Plan

Pension Information Session

April 6, 2021

Segal

Agenda

Canadian retirement system

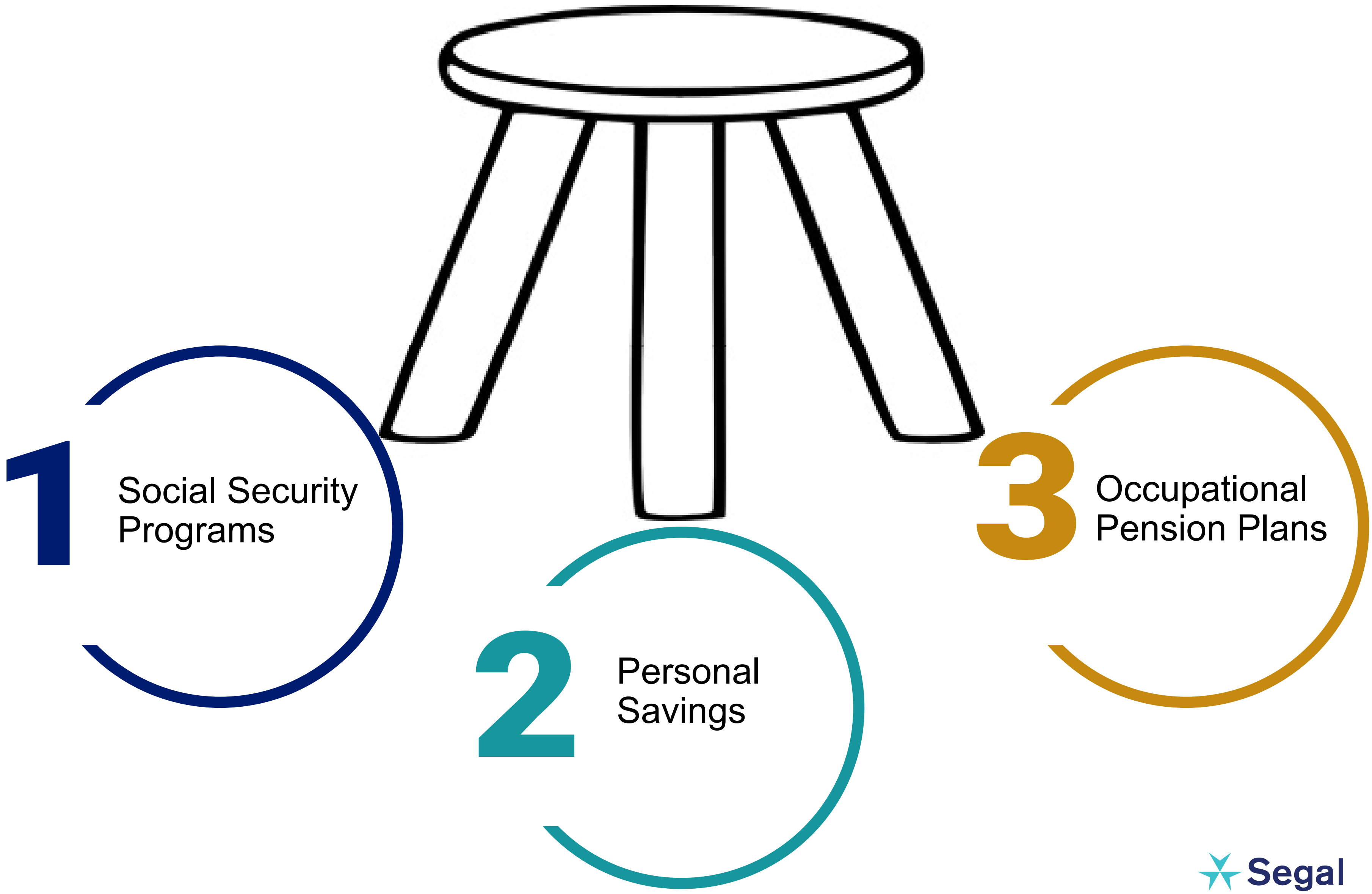
Types of occupational plans

Alberta Refrigeration Industry Pension Plan

Role of the actuary

Valuations

Canadian Retirement System



Canadian Retirement System Government Programs

1

Canada Pension Plan

- Based on contributions
- Compulsory for workers
- At Jan 2021 - max CPP at 65 is $1,204/month.
- Can start at 60 (7.2%/year reduction from 65)
- After 65 but by 70 (8.4%/year increase after 65)

Old Age Security

- Most Canadians are covered
  - Based on time in Canada
- As of January 2021, maximum amount is $615/month
  - “Clawback” based on prior year income – OAS cut by 15% (recovery tax) of excess income above OAS threshold ($77,580 for 2019 income)
- Start at 65 or delay up to 5 years for increased payments

Guaranteed Income Supplement

- Means tested
- For low income earners

Canadian Retirement System
Personal Savings

2

- Registered Retirement Savings Plan (RRSP)
  - Contributions are tax deductible but are limited
  - Savings grow tax free throughout your lifetime
  - Tax is payable on withdrawals
- Tax-Free Savings Account (TFSA)
  - Lower contributions limits than RRSP
  - Contributions are not tax deductible
  - Savings grow tax free throughout your lifetime
  - No tax on withdrawals

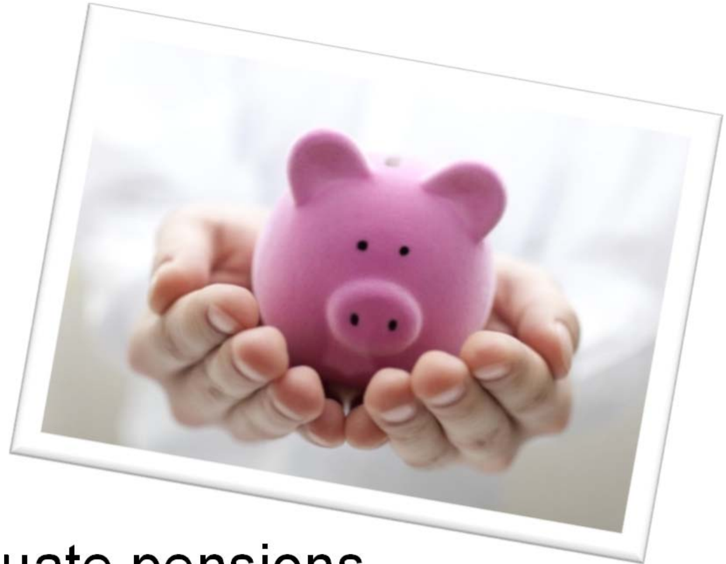
You should speak to your financial planner

Canadian Retirement System
Types of Occupational Plans

3

Capital Accumulation Plan (CAP)

– Contributions are accumulated in individual accounts
– Pension income is based on account balance



- **Types of CAPs**
  – Defined Contribution (DC),
  – Group RRSP,
  – DPSP
  – Group TFSA
- **Members bear individual risks**
  – Poor investment returns result in inadequate pensions
  – Can outlive pension assets (longevity risk)
  – Expenses are typically much higher than Defined Benefit plans
  – Retirement planning can be difficult

Canadian Retirement System
Types of Occupational Plans

3

Defined Benefit (DB)

- Pools all risks together like insurance
  - Individual members do not bear investment and longevity risks
- Simplifies retirement planning by offering predictable levels of retirement income
- Professional oversight
- Lower fees

Canadian Retirement System
Types of Occupational Plans

3

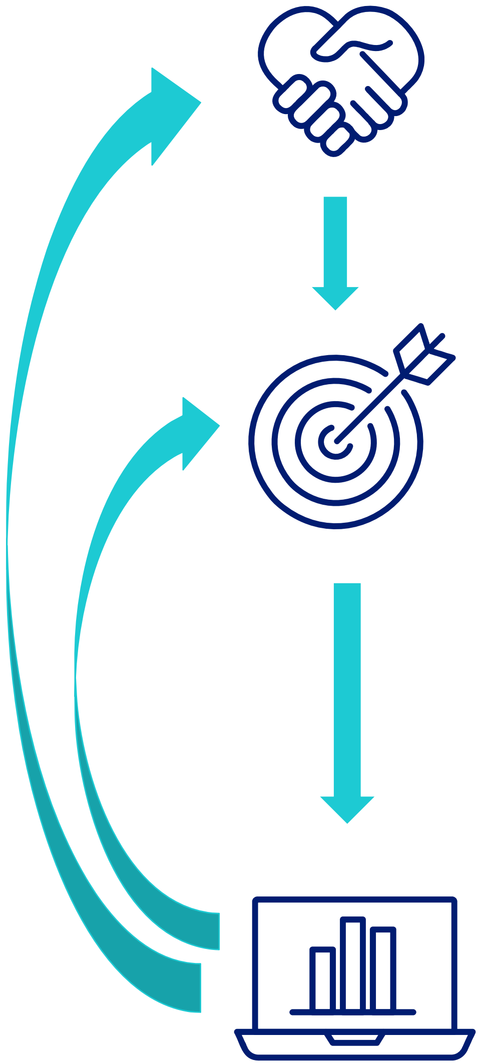
Alberta Refrigeration Industry Pension Plan

- **Defined Benefit Plan**
  - **Multi-Employer Pension Plan (MEPP)**

- Target benefit
- The pension amount is a target amount based on the negotiated contributions
- Pension formula is defined
- Risks are pooled together
- Board of Trustees
- Professional oversight
- Lower fees

Target Benefit is based on a formula where the benefit may be reduced or increased over time depending on the funded status and negotiated contributions

Alberta Refrigeration Industry Pension Plan



Contribution rates are negotiated

- Member receives an hour credit for every $5.60 contributed

A target benefit is set – currently $0.075 for each Covered hour of Employment in each year that exceeds 100

The Plan is monitored as a whole, with all risks pooled.

- If funded level sits above the regulatory imposed PfAD (fancy name for margin) – benefits can be increased
- If funded level is below regulatory PfAD – no changes
- If funded level is below the PfAD and contributions are less than costs – target benefits are reduced unless contributions are increased

Alberta Refrigeration Industry Pension Plan
How secure are your benefits

Last actuarial review – December 31, 2019	
Assets	130,900,000
Liabilities	98,300,000
Surplus	32,600,000
Funded Ratio	133.2%
PfAD	32.7%

Contributions/hour	$5.60
Cost/hour	4.63
Margin/hour	0.97

PfAD = Provision for Adverse Deviations
- Margin that the regulator imposes on Target Benefit Plans in Alberta to help provide security of benefits
- PfAD changes with market interest rates

While the funded level sits just above PfAD - it's not yet enough to make any material benefit improvements

Role of the Actuary

Identify risks that can impact the plan and trustees

- Seek to understand Trustee’s goals, expectations and industry issues
- Look at how/when people are coming/going from the Plan (demographic patterns)

Quantify the risks, determine materiality

- Review financial information and pension laws
- Build assumptions and models to measure results (valuations)

Find ways to **manage** the risks and report to the Trustees

- Communicate results, recommend and advise only

Actuary is key to a plan’s long term success

Actuarial Valuations

What

- Measure of liability and assets at a specific date
- Liability = the value of benefits earned to date

Why

- Determine the funded level of the Plan and estimate future costs
- Report whether or not the Plan can meet its promised benefits

Types of valuations:

Going concern - forward looking using best estimate assumptions

Solvency - backward looking using regulatory assumptions

Funding and benefit security is based on the going concern. Solvency valuation does not reflect the ongoing health of the plan.

How a Discount Rate Works

Investment Vehicle	Expected Return (Discount Rate)	Dollar Value in 1 Years	Dollars Needed Today
Bonds	2% pa	1,000	980
Equity	10% pa	1,000	909

Going concern - forward looking using best estimate assumptions

- Expect 5.75% returns per year going forward
- Actual returns in the last 10 years on average have exceeded this

Solvency - backward looking using regulatory assumptions

- Rates at last valuation equivalent to 3.99% per year

A low discount rate means a larger value today

Ultimate Cost of a Pension Plan

Discount Rate

- Used to determine the level of funding
- May or may not be tied to Plan's investments
- Does not dictate the true cost of the Plan

Actuarial valuations do not determine the ultimate cost of a pension plan.

Actuarial valuations are used to estimate the financial health of a plan.

The ultimate cost is determined by the equation:

Contributions + Investment Income = Benefits Paid + Expenses

Solvency Valuation

- Hypothetical situation assuming a plan is terminated and wound-up on a specific date
- Legislation requires that for a wind-up all accrued benefits must be settled by:
    a. Annuity – members receiving a pension would have their pension continue through an annuity.
    b. Commuted value (CV) - members not eligible for a pension could choose an annuity payable in the future or receive a (CV)
- Regulators require that the above situation be valued
- Solvency assumptions are based on current market conditions and specified by the regulators and by the Canadian Institute of Actuaries.
- Concept does not make sense in multi-employer plan
- For the Alberta Refrigeration Industry Pension Plan solvency funding is not required and the solvency valuation is performed **only** for disclosure purposes
- At December 31, 2019 the solvency valuation revealed a solvency funded ratio of 95% ($6.7 million deficit)

Financial Disclosures

Going concern

- Assets are $32.7 million larger than liabilities
- Funded ratio = 133%
- For each $1 the Plan gets:
  - $0.64 goes to funding the cost of pensions
    - Benefits and expenses
  - $0.19 goes towards the regulatory margin to securitize benefits
  - $0.17 additional margin for a rainy day or future benefit increases