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Retirement Income Options

200 Prof.
Peter Klein a
UBC studen
awarded an

Murch 1993

Prof. Susan Murch develops a new way to propagatebreadfruit, improving food security in

Prof. Peter Klein and UBC students awarded an Emmy for investigative journalism

1962 - Prof. Neil Bartlett demonstrates the first reaction of a noble gas.

1908 - UBC Begins

Klein and UBC students
awarded an Emmy

Prof. Neil Bartlett Lorraine Heseltine

Prof. Susan Murch develops a February 19, 2020

Smith awarded a Nobel improving food secuUBC Faculty Pension Plan

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2007 Deef Consent Manual advantage und Emmy for

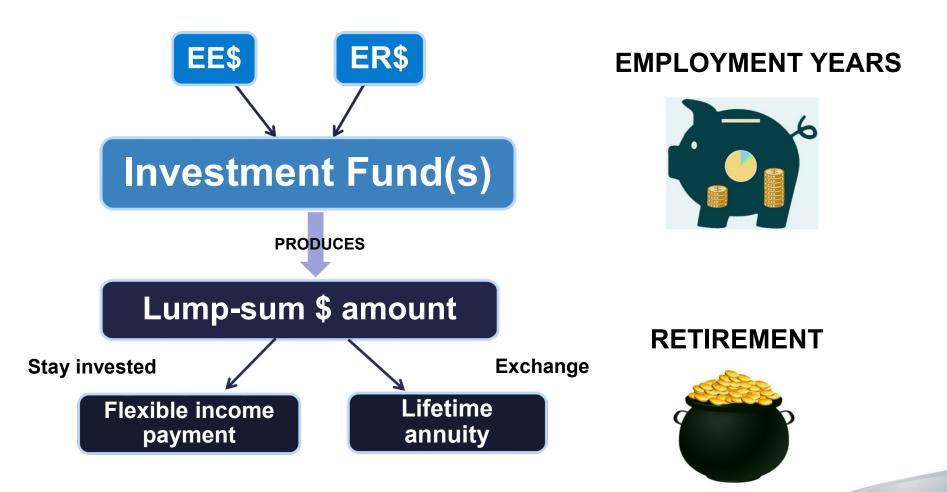
908 - LIRC Regins 2007 - Prof. Susan Murch develops a new v

Agenda

- Plan Overview
- Retirement Income Options
- Investment Choices
- Navigating the Faculty Pension Plan Website / Sun Life Website



Money Accumulation Plan





Board of Trustees

Appointed by the UBC Board of Governors	Elected by Plan Members
Mr. Joost Blom, Chair Professor Emeritus, Peter A. Allard School of Law Term expires December 31, 2020	Dr. Joy Begley Associate Professor, Sauder School of Business Term expires December 31, 2021
Dr. Joyce Boon Associate Professor Emeritus, Biology UBC Okanagan Term expires December 31, 2020	Dr. Martin Comyn Retired TRIUMF Research Scientist Term expires December 31, 2023
Dr. Murray Carlson Divisional Chair/Professor, Finance Division Sauder School of Business Term expires December 31, 2022	Dr. Lorenzo Garlappi Professor, Sauder School of Business Term expires December 31, 2021
Dr. R. Kenneth Carty Professor Emeritus, Political Science Term expires December 31, 2022	Dr. Robert L. Heinkel, Vice-Chair Professor, Sauder School of Business Term expires December 31, 2023

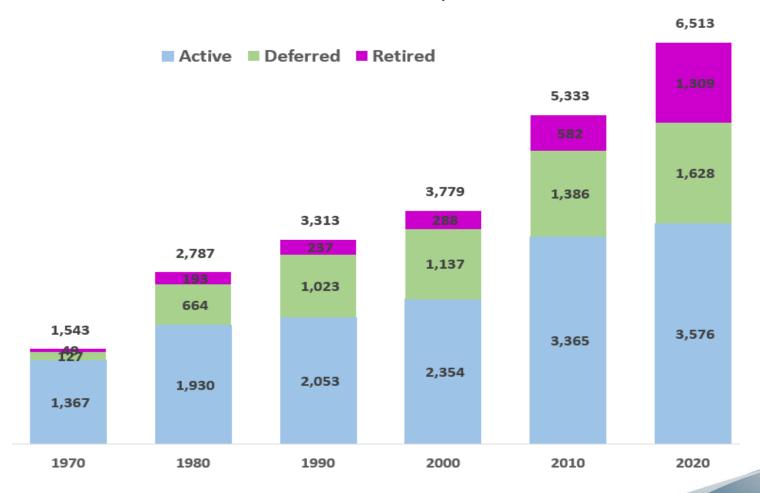


Plan's Mission Statement

The main purpose of the Plan is to provide a well-managed, cost-effective retirement plan, designed to assist members in meeting their financial responsibilities, both leading up to retirement and, if members choose, **through retirement**.



Membership Growth as at December 31, 2019





Plan Principles for Investment Management

- Maximize returns at a level of risk suitable for each Investment choice
- Risk should be managed through broad diversification
- Costs should be kept to a minimum

Cost of Investing

- Investment manager expertise in security selection, research
- Operating expenses (custodial charges, banking fees)
- How are these fees charged and what are they called?
 - MER Management Expense Ratio
 - FMF Fund Management Fee



Management Expense Ratio

\$100,000 @ 6% per year for 20 years

MER	0%	0.50%	1.50%	2.50%
First year cost	\$0	\$500	\$1,500	\$2,500
Total cost over 20 years	\$0	\$28,940	\$79,545	\$121,735
Net Asset Value after 20 years	\$320,715	\$291,775	\$241,170	\$198,980



Growth of \$10,000 over 50 years

8.0% Annual Return Less 2.5% Fees

Gross Investment Return	\$196,974
Portion to Investor	\$135,420
Portion to Fees	\$61,554

(45% of what Investor receives)

Fees Matter

Average Mutual Fund Fees Top 6 Banks – Average MERs, May 2016

Money market	0.70%
Fixed income fund	1.47%
Balanced fund	1.99%
Canadian equity fund	2.29%
US equity fund	2.31%
Global equity fund	2.53%
International equity	2.44%
Target date fund (2025+)	2.11%

Source: Publicly available information on each bank's website

Online – Your Sun Life Account

Home Group retirement services	Accounts	Requests	Resource Centre	Quick Links
	Balances			
	Statements			
my financial centre	View account	S		
	Transaction history			
	Account fees			
M	Investment mix - charts			
My account: As of: 17 Jan 2020				
AS 01: 17 Jan 2020	Investment performance			
	Personal rates of return			

Fund	Annualized Fees as of January 31, 2020
UBC FPP Balanced Fund	0.44 %
UBC FPP Bond Fund	0.28 %
UBC FPP Canadian Equity Fund	0.40 %
UBC FPP Foreign Equity Fund	0.51 %
UBC FPP STIF	0.13 %



Fees: Things to Consider

Fees have a major impact on your net return, so make sure you know what you are paying.

- MERs, Administrative Fees, Buy/Sell Transactions, Termination Fees, etc.
- Reduced MER for higher account value
- Fees are necessary and appropriate if they reflect the returns, advice, and service you receive





Registered Pension Plans

- Canada Revenue Agency
 - Income Tax Act

- Provincial Pension Legislation
 - BC Pension Benefits Standards Act



Account Balances

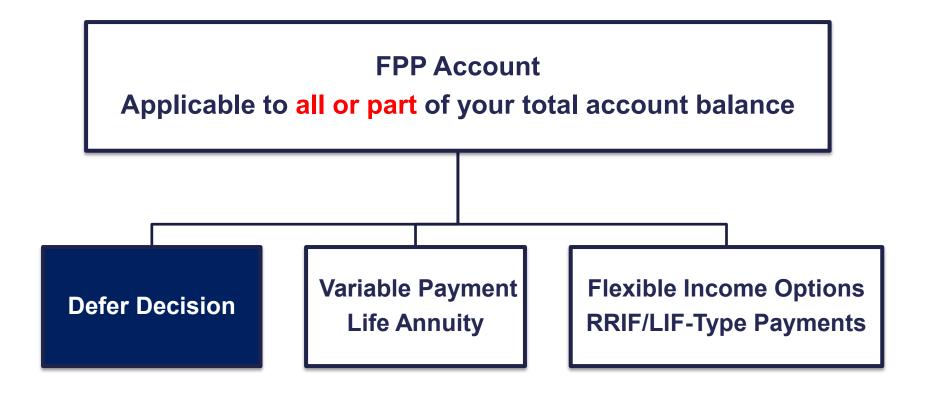
- Non-Locked-In funds (pre-1993)
 - No restrictions on withdrawals after termination or retirement
 - Includes RRSP, Voluntary Contributions
- Locked-In funds (post-1992)
 - Must be used to provide an income for your lifetime

Why Provide Retirement Options?

- Trustees' belief that their responsibilities to members do not end at the date of retirement
- Investment Objective of the Plan to earn a real return on the Balanced Fund such that a "typical" member would be able to achieve a reasonable income replacement ratio (i.e. 50% or higher) based on their final year's salary.



UBC Retirement Income Options





Leave Funds in the Plan Defer Decision

- Applicable to all or part of account balance
- You continue to choose investment fund(s)
- Defer until the year you reach age 71
- Elect any of the other options at anytime
- Full Account balance is paid on death
- Cash withdrawals from non-locked-in



Leave Funds in the Plan Defer Decision

Things To Consider:

- Gives time to evaluate your retirement lifestyle and need for income
- A good way to defer taxes
- Continue to build your account balance by taking advantage of tax sheltered investment growth
- Enjoy the plan's low management and administration fees



Leave Funds in the Plan Defer Decision

Things To Consider:

- Withdrawals do NOT qualify for:
 - \$2,000 Pension Income Tax Deduction
 - Spousal Pension Income Splitting



UBC Retirement Income Options

FPP Account Applicable to all or part of your total account balance **Variable Payment Flexible Income Options Defer Decision RRIF/LIF-Type Payments Life Annuity**



Understanding Annuities

Fixed Payment Life Annuity

VS.

FPP Variable Payment Life Annuity

Understanding Annuities

What determines the monthly payment?

- The purchase amount \$ (dollars exchanged)
- An actuarial factor
 - Mortality tables
 - Your age (your spouse's age) at commencement date
 - Form of pension elected
 - Future investment rate of return assumption
 - Long term interest rate environment (for insured annuities)



Illustration of the Relationship Between Market Interest Rates and the Annuity Amount

Purchase Date	Average Monthly Insured Annuity
January 1, 2013	\$2,657
January 1, 2014	\$2,863
January 1, 2015	\$2,526
January 1, 2016	\$2,512
January 1, 2017	\$2,578
January 1, 2018	\$2,544
January 1, 2019	\$2,523
January 1, 2020	\$2,461

Average from 5 insurance companies and based on a single life annuity at age 65, using a purchase amount of \$500,000.



Fixed Payment Life Annuity

- Monthly payment amount never changes
- Retiree risk purchasing power
- Interest rates at time of purchase impacts amount of monthly pension
- Insurance Company reaps the rewards of excess investment/interest earnings



Fixed Payment Life Annuity

 Fixed payment – no opportunity for you to reap the rewards for excess investment earnings

 FPP Variable Payment Life Annuity – opportunity to reap the rewards for excess investment earnings

Variable Payment Life Annuity

How It Works!

1. Your Purchase Amount is invested in the Balanced Fund for the Retiree Group



Variable Payment Life Annuity

How It Works!

2. You choose:

- the future investment rate of return assumption used in determining the initial monthly amount (4% or 7% or both); and
- the form of pension payment

Variable Payment Life Annuity

How It Works!

- 3. Your monthly pension amount will be adjusted once per year (each April 1st) by the difference between:
 - the previous year's ACTUAL rate of return in the Balanced Fund*; and
 - the ASSUMED rate of return (4% or 7%)

*Note: there is also an adjustment to reflect the mortality experience of the group.

How do annual adjustments work?

Compare 4% & 7% future annual growth rate assumption.

Combined Investment + Mortality Experience	Adjustment to 4% VPLA	Adjustment to 7% VPLA
12%	8%	5%
9%	5%	2%
2%	-2%	-5%
-2%	-6%	-9%



2018 Adjustment – 4% Option

2017 Net Balanced Fund Return less adjustment for mortality experience	7.85%
ASSUMED Return when pension started	<u>- 4.00%</u>
Pension increase on April 2018	3.85%

Monthly pension at April 1, 2017	\$1,000.00
Monthly pension at April 1, 2018	\$1,038.50



2019 Adjustment – 4% Option

2018 Net Balanced Fund Return less adjustment for mortality experience	(1.42)%
ASSUMED Return when pension started	<u>- 4.00%</u>
Pension decrease on April 2018	(5.42)%
Monthly pension at April 1, 2017	\$1,000.00
Monthly pension at April 1, 2018	\$ 1,035.80
Monthly pension at April 1, 2019	\$ 979.67

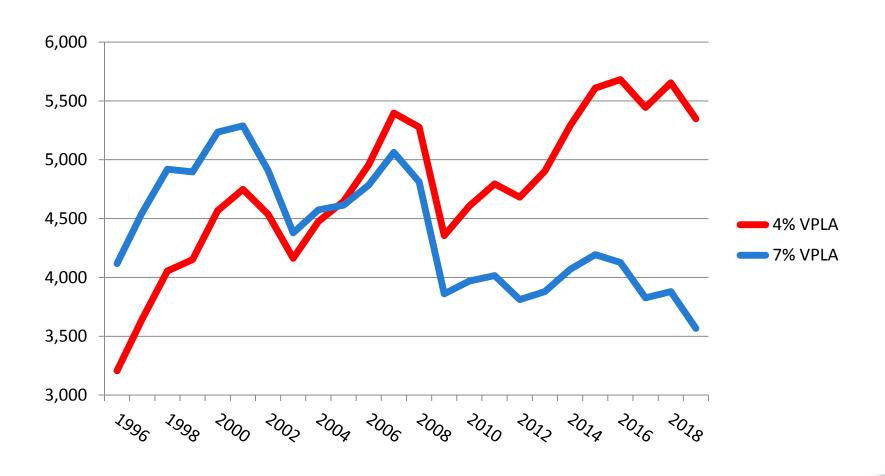


Comparison of 4% & 7% VPLA - Payment History from 1996- \$500,000 Purchase Price

	4% Annuity	7% Annuity	
1996 (age 65)	\$3,207	\$4,118	
2006	\$4,958	\$4,785	
2007	\$5,397	\$5,062	
2008	\$5,277	\$4,812	
2009	\$4,355	\$3,860	
2010	\$4,607	\$3,969	
2011	\$4,794	\$4,015	
2012	\$4,682	\$3,811	
2013	\$4,904	\$3,880	
2014	\$5,290	\$4,068	
2015	\$5,609	\$4,193	
2016	\$5,681	\$4,127	
2017	\$5,444	\$3,844	
2018	\$5,654	\$3,880	
2019 (age 87)	\$5,348	\$3,567	
Total of Payments:	\$1,354,308	\$1,253,559	
# of years payment decreased:	7	9	

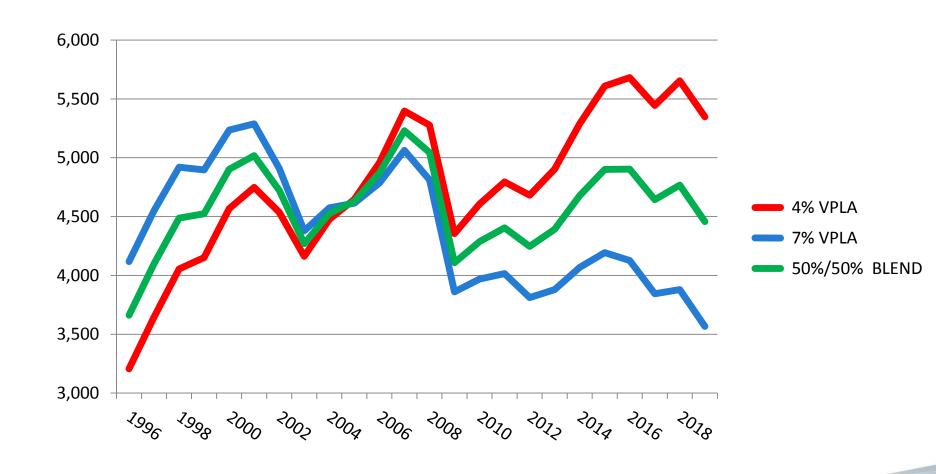


VPLA 4% vs 7% (1996-2019)





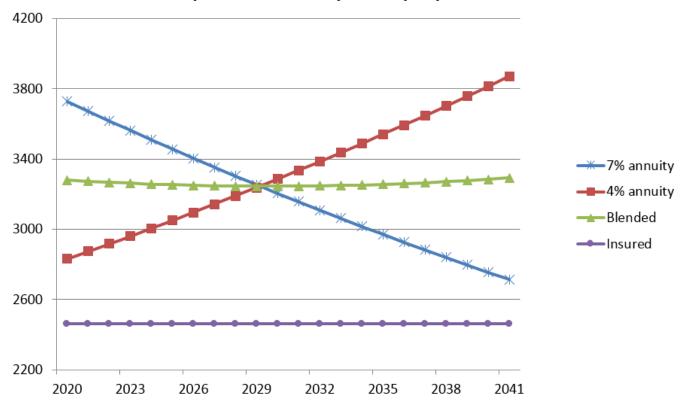
VPLA Blend of 4% & 7%





2020 – Looking Forward

Comparison of Monthly Annuity Payments



Purchase Amount: \$500,000

Form of Pension: Single Life Annuity

Purchase Date: January 2020

VPLA Assumption: 5.5% combined investment and mortality experience

Blended: 50/50 4%/7%

Insured: Average annuity amount from 5 insurance companies



Decisions To Make When Choosing the VPLA

- Do I use all or a portion of my account balance to purchase the VPLA?
- Future Investment Return Assumption?
 (4% or 7% or a blend of both)
- Payable during your lifetime only or during your spouse's as well?



Choose An Annuity Option

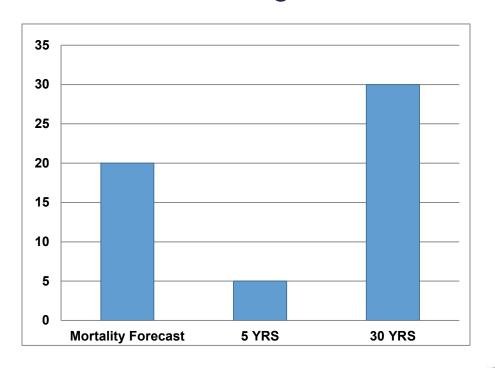
Options	Initial Monthly Payment
Single Life	\$2,832
Joint & Survivor	
60% to Spouse on your death	\$2,588
100% to Spouse on your death	\$2,448

Based on a 4% Annuity choice with a purchase amount of \$500,000 at age 65 Spouse is same age – 2020 mortality tables



What Happens When my Spouse and I die?

- An annuity is an insurance type of arrangement
- Normally payments cease on death those who die early subsidize those who live longer





What Happens When my Spouse and I die?

- You can take a reduced pension to guarantee that a minimum # of years of payments will be made.
- Options are a minimum guarantee of 5, 10, or 15 years of payments in event of early death
- Regardless, the pension will never cease while you are living

Adding a Guarantee Period

Choosing an Annuity Option With or Without Guarantee Period				
Options	With No Guarantee	15 Year Guarantee	Cost	
Single Life	\$2,832	\$2,710	\$122	
Joint & Survivor Form				
60% to spouse on your death	\$2,588	\$2,583	\$5	
100% to spouse on your death	\$2,448	\$2,440	\$8	

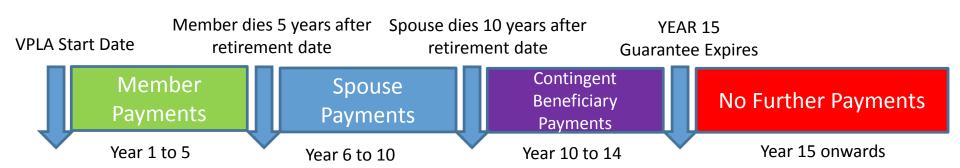
Based on a 4% Annuity choice with a purchase amount of \$500,000 at age 65 Spouse is same age – 2020 mortality tables



How does the Guarantee Work?

Example: Joint and Survivor form with a 15 Year Guarantee Period

Scenario 1
Member dies 5 years after retirement date
Spouse dies 10 years after retirement date



Scenario 2
Member dies 25 years after retirement date
Spouse dies 30 years after retirement date

Member dies 25 years Spouse Dies 30 years after retirement date

Member dies 25 years Spouse Dies 30 years after retirement date

Spouse Payments No Further Payments

Payments



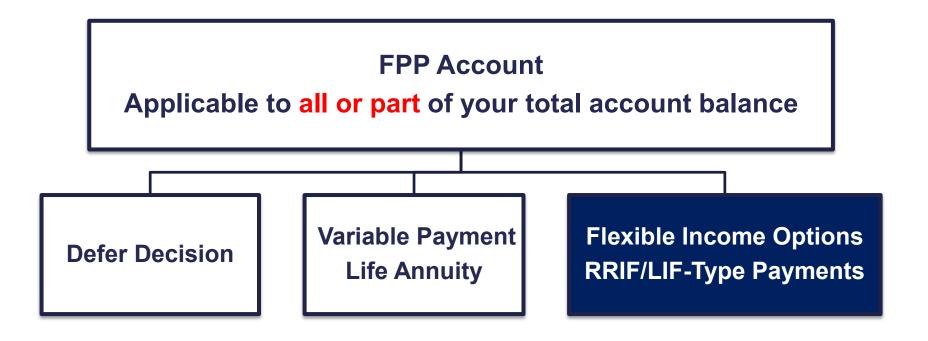


VPLA: Things to Consider

- Security you know your income is for life
- Simplicity doesn't require active management on your part
- Allows you to participate in the performance of the Balanced Fund to gain inflation protection
- You can choose between a conservative or aggressive investment assumption
- No opportunity to make changes during severe market downturns
- Early death could result in less than your account value being paid



UBC Retirement Income Options





Flexible Income Options

	RRIF-Type	LIF-Type
	Payment Accounts	Payment Accounts
Source of Funds	Non-Locked-In	Locked-In
Who makes Investment Decisions	You	You
Minimum Withdrawal	Yes	Yes
Maximum Withdrawal	No	Yes
Death Benefit	Remaining Account	Remaining Account
Death Denem	Balance	Balance



Minimum/Maximum Withdrawal Uses December 31st Account Balance

Age at January 1 st	Minimum RRIF + LIF	Maximum* LIF
65	4.00%	7.38%
70	5.00%	8.22%
71	5.28%	8.45%
75	5.82%	9.71%
80	6.82%	12.82%
85	8.51%	22.40%
89	10.99%	100.00%
95+	20.00%	100.00%



^{*} Maximum is prior year's rate of return if higher

How Do RRIF/LIF-Type Payments Work?

- Think of a bank account you have a balance in your account
- Investment/Interest earnings added, withdrawals deducted
- You determine the monthly income you want to draw
- You can change your monthly income payments
- Minimum is the same for both RRIF & LIF
- LIF has maximum



How Do RRIF/LIF-Type Payments Work?

- You can use your spouse's younger age to calculate minimums; maximum is based on member age
- You choose payment frequency—monthly, quarterly, semi-annually or annually
- Special lump sum withdrawals are possible throughout the year (up to early December)
- You can convert all or part of your balance to annuity at any time



Features of FPP RRIF/LIF-Type Payments

- You can use all or a portion of your account balance
- Your funds remain in the UBC Faculty Pension
- Payments are by direct deposit you choose
 - the 1st of the month
 - the 15th of the month
 - the last day of the month



Features of FPP RRIF/LIF-Type Payments

- A spouse can continue payments from the plan after death
- Quarterly Statements of Account online
- Ad hoc withdrawals* and changes to scheduled payments can be made

* up to early December



- A way to lower taxes by taking only the minimum
- Gain flexibility to vary your income according to your changing needs
- Continued compound growth with you choosing the investment fund
- Full account balance is paid upon your death to your beneficiaries

If you elect to receive the legal maximum

- Payments end at age 89
- Large investment returns can result in increased payouts i.e. withdrawal payments will fluctuate

Example (using a \$500,000 balance):

- At ages 65 / 66 / 67
- Maximum rates are 7.38% / 7.52% / 7.67%
- What if ROR is 13.88%? (net 2019 Balanced Fund)
 Maximum withdrawal is \$69,400 instead of \$37,600



- Management and administrative fees are modest
- You can change to another option at any time
- Could exhaust your funds:
 - Investment Risk plus Longevity Risk



Life Expectancy Continues to Rise

At Birth (Canada)

	2011-13	2015-17
Males	79.6	80.0
Females	83.9	84.1

(Vancouver)

2011-13	2015-17
81.8	81.6
86.4	86.6

At Age 65 (Canada)

	2011-13	2015-17
Males	84.1	84.5
Females	87.1	87.3

(Vancouver)

2011-13	2015-17
85.8	86.2
89.0	89.2

How long will I live?





^{*}Statistics Canada

Investment Allocation

- You control investment of your funds and assume the risk
- What is your Investment Time Horizon?
- Lower risk tolerance as we get older
- Will my money last if I allocate to investments with no risk?



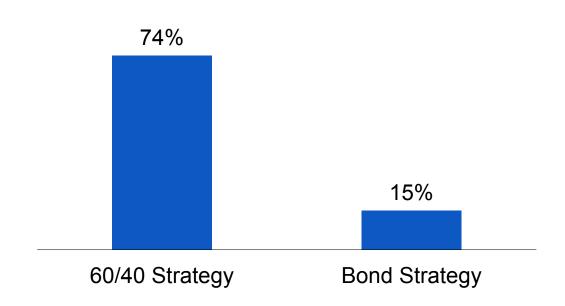
What is the best Asset Mix Strategy for making your assets last through retirement?

- Would people retiring in previous periods have run out of money?
- Which asset mix would have been the best strategy to fund retirement?

From Study by Alliance Bernstein, December 2008

A 60/40 Portfolio Also Delivered Better Real Outcomes Than Bonds. Cash (Short Term) never lasted 30 Years

Lasted 30 Years



Based on a hypothetical portfolio; actual fund performance may differ. Assumed 5% withdrawal for 30 years. Not inflation adjusted.



Long-Term Risk

- LESS RISKY
 - Equities combined with Long-term bonds
- MORE RISKY
 - GIC'S
 - Treasury bills

Does not meet retirement objectives (i.e., insufficient returns)



Think about your Investment Time Horizon and select your Investment Type

Short Term Investment Time Horizon

Money Market or Treasury Bills

Medium Term Investment Time Horizon

Government, Corporate Bonds or GICS

Long Term Investment Time Horizon

Mutual Funds – Stocks and Bonds



Does It Matter?

(How Long Will our Money Last?)

Assumptions:

Initial Investment: \$500,000 Monthly Withdrawal: \$3,000

Annual Rate of Return	From Age 65 Until Age
7.25%	100+
6.25%	94
5.00%	87
4.00%	84
3.00%	81

Balanced Fund NET ReturnsRRIF/LIF-Type Payments

- Using net returns from 1996-2018
- Initial Balance \$500,000
- 5% withdrawal from 65-70 and per Minimum withdrawal schedule thereafter
- Total payments to age 87 = \$928,717

Age	Withdrawal Rate	Annual Withdrawal	Account Balance
65	5.00%	\$25,000	\$567,900
71	5.28%	\$33,785	\$586,432
80	6.82%	\$42,309	\$594,311
87	9.55%	\$56,883	\$565,091



Based on annual payments at year end

Balanced Fund Annual Returns (NET) 30 Year Track Record • 8.03%

1990-1999	2000-2009	2010-2019
-0.46%	4.77%	9.37%
16.29%	0.64%	2.62%
7.33%	-3.07%	9.58%
22.19%	12.36%	13.18%
-0.54%	8.09%	10.86%
17.03%	11.79%	6.09%
18.58%	13.58%	5.62%
14.54%	2.66%	8.62%
6.79%	-13.45%	-0.81%
10.90%	11.93%	13.88%



Projected 5.5% NET RRIF/LIF-Type Payments

- Using 5.5% net return assumption
- Initial Balance \$500,000
- 5% withdrawal from 65-70 and per Minimum withdrawal schedule thereafter
- Total payments to age 87 = \$719,780

Age	Withdrawal Rate	Annual Withdrawal	Account Balance
65	5.00%	\$25,000	\$502,500
71	5.28%	\$27,202	\$516,322
80	6.82%	\$33,994	\$491,866
87	9.55%	\$40,451	\$406,419



Based on annual payments at year end

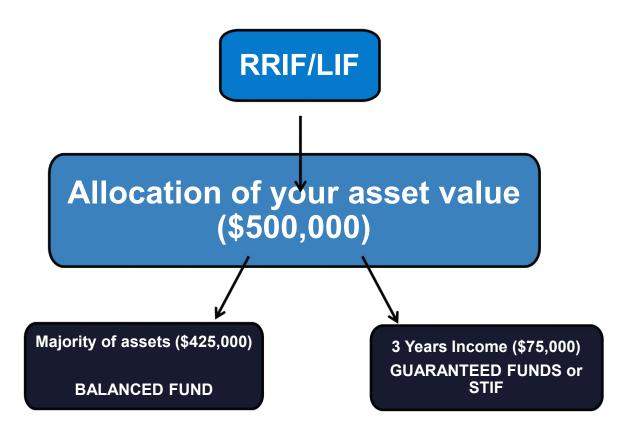
Strategy for Dealing with Market Downturn Early in Retirement

- Taking money out of a fund that is already decreasing in value due to a market correction can be distressing
- Instead, take your cash flow requirements out of a fund that is not market related (Short Term or GIC funds).





Decumulation Phase



Using Guaranteed Investments in Your Investment Strategy



VPLA or RRIF/LIF-Type? Both?

VPLA

- Capital exchanged
- Lifetime income
- Sense of security
- Enhancements
- No investment choice
- Can't change

RRIF/LIF-Type

- Capital retained
- Growth potential
- Investment flexibility
- Flexible income
- Cash withdrawals (RRIF)
- Can convert to an annuity but not required
- Investment risk
- Longevity risk
- LIF (max ends at age 89)



What Some Advisors Suggest

- Start with RRIF/LIF-Type (Active Phase)
- Consider changing part to Life Annuity (VPLA) in mid to late 70's (Passive Phase)
- Interest rates have less impact on annuity pricing than mortality at higher ages
- Consult your financial planner who can develop a personalized plan for you



What Do Other Members Do?

Income Option	# Pensioners
LIF only	212
RRIF only	185
VPLA only	413
RRIF & LIF	425
LIF & VPLA	2
RRIF & VPLA	61
RRIF, LIF & VPLA	11
TOTAL	1,309

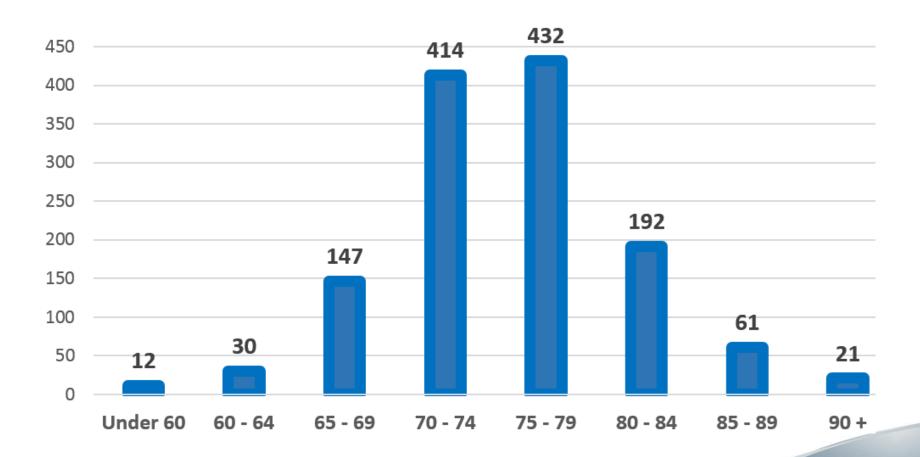
RRIF	650
LIF	682
VPLA	487

At December 31, 2019

Annual Reports online under Plan Governance

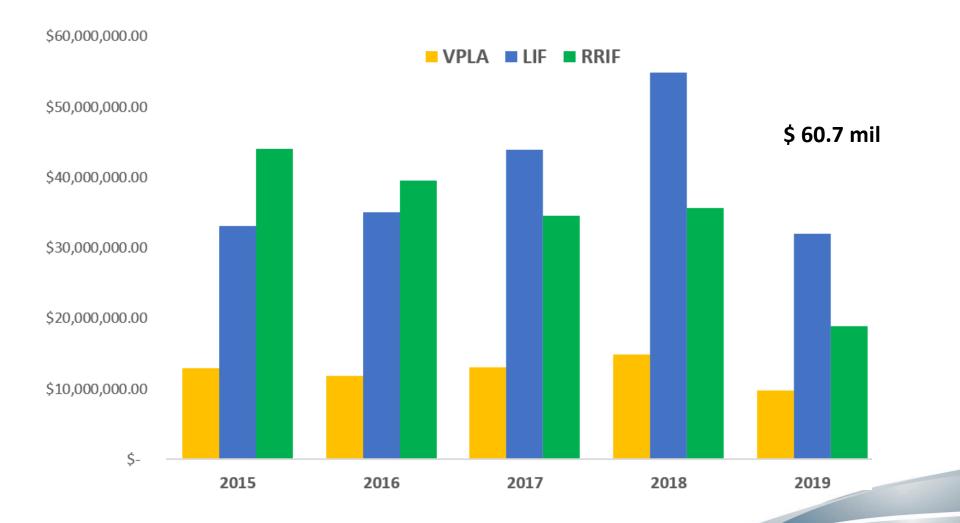


Retired Members by Age as of December 31, 2019 (1,309)





Where Are New Retirees Putting Their Money?





Government-Administered Benefits

www.servicecanada.gc.ca

Old Age Security at age 65

- Minimum 10 years in Canada
- Maximum \$613.53 per month
- Can defer to age 70- increased 36%
- 40 years in Canada = Max
- Indexed quarterly
- Non-Residents must have lived at least 20 years in Canada over age 18

Claw back on OAS - Net Income

- Starting at \$79,054
- Ending at \$128,137

Canada Pension Plan

- Maximum \$1,175.83 per month
- Indexed annually
 - * apply 6 months in advance
 - * new online application
 - * starting Jan 1/20 automatically start at age 70

Special features

- Available from age 60 reduced 36%
- Defer until age 70 increased 42%
- Split payment with your spouse (at source)

*My Service Canada Account



The Canadian pension system

WORLD BANK | MULTI-PILLAR APPROACH

PILLAR 0

A basic public pension that provides a minimal level of protection

PILLAR 1

A public mandatory and contributory system linked to earnings

PILLAR 2

A private and fully funded system

PILLAR 3

A voluntary and fully funded system

PILLAR 4

Financial and non-financial support outside formal pension arrangements



OAS / GIS

Q/CPP

DB / DC

VRSP / RRSP /
Retirement
Savings

TFSA / Home / Savings / Health Care



Tax-Free Savings Accounts

- Investment earnings and withdrawals are never taxed
- Can invest in Stocks & Bonds, Mutual Funds, GIC's, etc.
- Could help eliminate or reduce claw backs
- Help pay medical expenses in retirement, fund vacations, have a "rainy day" fund
- A place to invest Age 71 RRIF/LIF minimums

Years	Annual Limit	Cumulative Total
2009-2012	\$5,000	\$20,000
2013-2014	\$5,500	\$31,000
2015	\$10,000	\$41,000
2016-2018	\$5,500	\$57,500
2019-2020	\$6,000	\$69,500



Planning Your Retirement Income

What are the Risks?



- Longevity
- Market Volatility
- Inflation

"When you pay \$15 for the \$10 haircut that you used to get for \$5 when you had hair." - Sam Ewing

Inflation Reduces Purchasing Power Even at Only 2% Per Year

Number of years retired	Value in today's dollars
0	\$38,500
10	\$31,457
20	\$25,702
30	\$21,000



What's Your Goal?

Is it to maintain the same standard of living in retirement as you had before retirement?



% of Pre-Retirement Income Needed

- It is different for each of us.
- How much is the NET Salary Deposit to your bank each month?
- What % is being used for living expenses. Do a budget showing your current expenses.
- Do another budget estimating your expenses in retirement
- The key is to have little or no debt when you retire. It then becomes very easy to adjust your lifestyle to the income you will receive.

Living standard replacement ratio

Tax and Other Savings In Retirement

- Lower income means lower taxes
- Age 65 tax deduction credit \$7,637 (reduced for earnings from \$38,508 and eliminated at \$89,422)
- \$2,000 Pension Income tax deduction credit (\$1,000 Provincial)
- Deem your pension income to be split with your spouse to reduce taxes



Pension Income Splitting

- Shift up to 50% of eligible pension income to spouse in a lower tax bracket
- Impacts federal income taxes only
- Make the election each year when you file your previous year's tax return
- A deemed transfer for tax calculation purposes only
- Either or both spouses can make the election

Income Taxation (BC) Approximate Rates for 2020

- 0% tax on the first \$12,298 of income
- 20.06% on income between \$12,298 and \$41,725
- 22.70% on income between \$41,725 and \$48,535
- 28.20% on income between \$48,535 and \$83,451
- 31.00% on income between \$83,451 and \$95,812
- 32.79% on income between **\$95,812** and **\$97,069**
- 38.29% on income between \$97,069 and \$116,344
- 40.70% on income between \$116,344 and \$150,473
- 43.70% on income between \$150,473 and \$157,748
- 45.80% on income between \$157,748 and \$214,368
- 49.80% on income above \$214,368

(Combined Federal and British Columbia Tax Brackets and Tax Rates)



How Federal Taxes Can Be Reduced

- Lower overall marginal tax rate
- Clawbacks can be reduced or eliminated
- Old Age Security Pension
- Age 65 Tax Credit (\$7,637 in 2020)
- Pension Income Tax Credit of \$2,000 could be claimed by you and your spouse



What is Eligible For Deemed Transfer to Spouse

BEFORE 65	FROM 65	NOT ELIGIBLE
Life annuity from pension plan	Life annuity	Cash Withdrawals while deferred
	RRIF	Old Age Security
	LIF	Canada Pension Plan



Other Savings In Retirement

- Higher Property Tax Credit
 - You can defer paying property taxes in BC and pay only simple interest. Let the kids worry about it!
- Lower ICBC Premiums after 65
- Buses, ferries, eye examinations all cheaper!
- Restaurants, museums, theatres, hotels, shopping (senior discount days)

You pay more for extended health/dental



UBC FPP Retirement Income Options

Applicable to all or part of your total account balance

Defer Decision

Variable Payment
Life Annuity

Flexible Income Options
RRIF/LIF-Type Payments



External Options

- Non-locked-in RRSP
- Locked-in retirement account (LIRA)
- Life annuity
 - Fixed payments
 - Variable payments
 - Indexed payments
- RRIF (Non-locked-in funds)
- LIF (Locked-in funds)



EXTERNAL OPTIONS

- Unsolicited financial advice
- Not affiliated with the Faculty Pension Plan



UBC does not in any way endorse nor is affiliated with seminars and/or any other events presented by ****

EXTERNAL OPTIONS Things to Consider

- Allows you to gain access to more investment options
- You could set up a "self-directed" plan
- Professional investment advice is often available
- More lifetime annuity options
- Management and administrative fees are usually higher than FPP



UBC OPTIONS Things to Consider

- Management and administrative fees are usually lower
- You can access the same investment funds you are already familiar with
- The FPP is closely supervised by Trustees
- We are not financial advisors

FLEXIBILITY

- Use <u>all or part</u> of your account balance for any of the choices
- Elect to transfer <u>all or part</u> of your account balance to a financial institution.
- You can re-transfer funds back into the plan at a later date
- You can transfer RRSP funds into your UBC Faculty Pension Plan account



Transfers In From Other Plans

- All funds from other registered plans are accepted, including:
 - RRSP'S (excluding spousal)
 - RPP'S
- There are no tax consequences
- Check if any transfer fees from current provider

\$7.86 M in 2019



What's Inside?





Working at UBC Beyond Age 65

WITHOUT Starting a UBC Pension:

- Pension contributions continue until age 71.
- No Reduction for part-time with 15 years service
- Group Benefit Coverage continues except:
 - IRP + Spousal Life
 - Basic Life reduces to 1 times salary
 - CPP & OAS are payable



Working at UBC Beyond Age 65

PLUS Starting a UBC Pension:

- Pension contributions cease
- Group benefits cease
- Option to continue health and dental on employee pay all basis
- CPP & OAS are payable

* UBC Emeritus College



Services of a Financial Planner

- Investment allocation advice
- Tax planning
- Do you want to leave an estate?
- Monthly budgeting
- Debt management
- Management of your non-registered assets
- Develop a Long Term Financial Plan for you



Creating a Financial Plan

The financial literacy issue

Only **54%**

feel financially ready for retirement **50%**

say they find investing and financial matters too complicated **58%**

worry about their workplace retirement savings plans (e.g., they haven't saved enough) Just

37%

have a documented financial plan



Source: Benefits Canada's 2016 CAP Member Survey

Retirement Literacy



Quizzes: https://retirementliteracy.acpm.com/

Creating a Financial Plan

- A Will and Financial Plan are both essential
- Identify what you own and what you owe
- What is your cash flow income and expenses
- Identify your tolerance for investment risk
- Determine what standard of living you expect in retirement and what your expenses will be
- Recommend investments that will ensure you meet your goals
- A Financial Planner can help



Failing to plan is planning to fail.



Financial Planners

- Should be able to assist you in pension decisions in context of an overall financial plan
- Many different types of compensation (fee-for-service)
- Resources
 - Financial Consumer Agency of Canada website: Choosing a financial advisor www.canada.ca/en/financial-consumer-agency/services/savingsinvestments/choose-financial-advisor
 - Financial Planning For Canadians www.financialplanningforcanadians.ca
 - Get Smarter About Money website: Getting advice www.getsmarteraboutmoney.ca/plan-manage/getting-advice

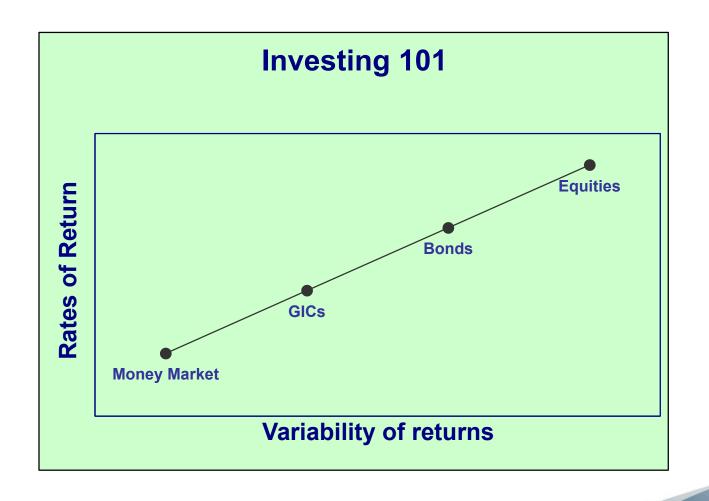


Making Investment Choices

- Investing 101
- Faculty Plan fund options
- Things to consider when choosing an investment strategy that is right for you
- What is risk?
- How often should I change my investment allocation?
- Common mistakes advisors say investors make

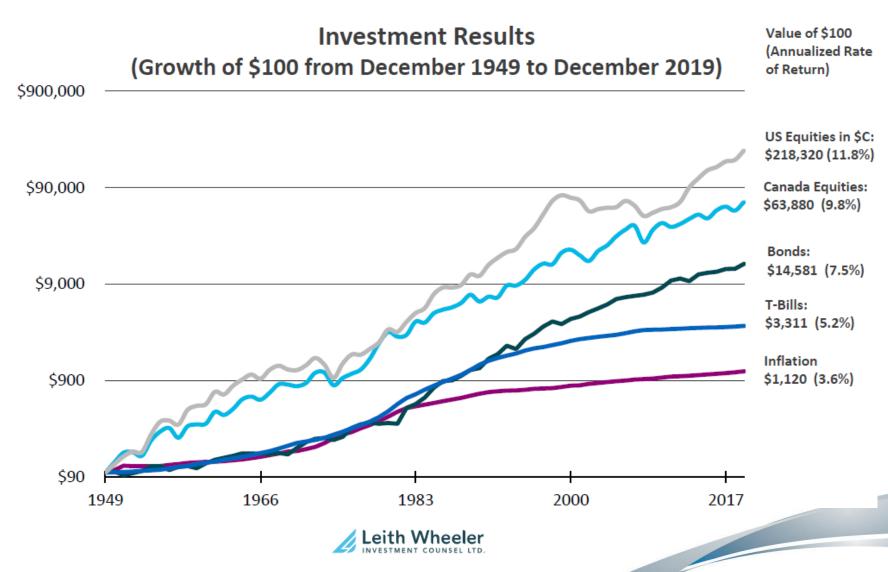


General Classes of Investments



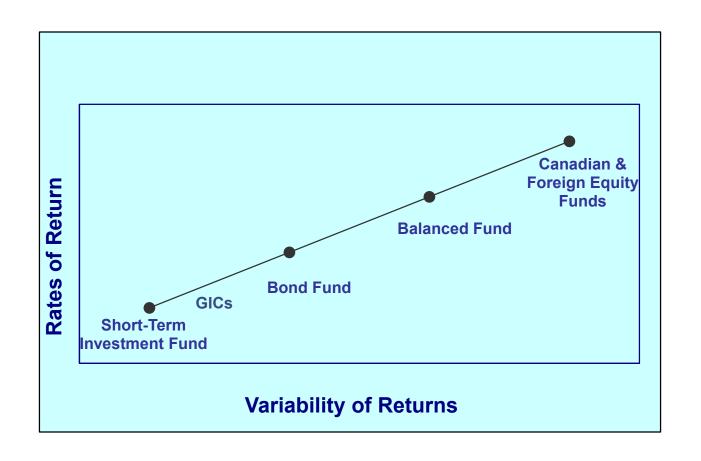


Long Term Asset Class Returns





FPP Investment Funds





RISK / REWARD

HIGH	ABOVE AVERAGE		MEDIUM	L	OW
EMERGING MARKETS	CONVERTIBI DEBENTURE		BLUE CHIP STOCKS	F	-BILLS
PENNY STOCKS	SMALL CAP STOCKS		GOVERNMENT BONDS	G	C'S
FUTURES	WARRANTS		CORPORATE BONDS	S	ANADA AVINGS ONDS
DERIVATIVES	SPECULATIV REAL ESTATI	\	INCOME REAL ESTATE		REMIUM AVING A/C'S



FPP Long Term Investment Objectives

- Capital Preservation Versus Speculation
- Professional Investment Managers Buy/Sell Securities
- Performance Objectives
- Formal Performance Assessment & Monitoring by the FPP Board



Fund Composition at December 31, 2019

FPP Fund Name	Assets (Millions)	% of Total Funds
Balanced Fund	2,049.9	81%
Bond Fund	69.3	3%
Canadian Equity Fund	170.4	7%
Foreign Equity Fund	181.4	7%
Short Term Investment Fund	35.6	1%
GICs	24.4	1%



Investment Performance



Select a plan to review:

FPP Account (FPP)

Go to personal rates of return to find out how your investments are performing.

Performance of funds available in your plan

Show investment performance for:

SLA 4Yr Guaranteed Fund

SLA 5Yr Guaranteed Fund

14 ▼ Feb ▼ 2020 ▼ submit

Rates Of Return As Of: 31 Jan 2020				
Fund	1 Month	YTD	1 Year	5 Year
UBC FPP Balanced Fund	1.7	1.7	12.1	6.0
UBC FPP Bond Fund	2.9	2.9	9.0	2.7
UBC FPP Canadian Equity Fund	1.3	1.3	13.2	6.6
UBC FPP Foreign Equity Fund	0.6	0.6	16.5	9.7
UBC FPP STIF	0.1	0.1	1.7	1.0

Back to top

1.70000 1.65000

Guaranteed Fund Interest Rates (%) As Of: 14 Feb 2020	
Fund	Rate
SLA 1Yr Guaranteed Fund	1.75000
SLA 2Yr Guaranteed Fund	1.70000
SLA 3Yr Guaranteed Fund	1.70000

Which Fund Should I Invest In?

Investment Fund	2015	2016	2017	2018	2019
Balanced Fund	6.09%	5.62%	8.62%	-0.81%	13.88%
Bond Fund	3.21%	1.43%	2.74%	0.67%	7.59%
Canadian Equity	-7.13%	20.78%	9.92%	-9.35%	20.81%
Foreign Equity	19.02%	2.74%	15.47%	0.54%	19.59%
Short Term Inv. Fund	0.81%	0.48%	0.63%	1.38%	1.71%

Net returns



What does this tell us?

- Last year's returns are not next year's returns
- You would be playing a futile guessing game if you made long term investment decisions based on short term returns
- Long term investment decisions are just that long term and should be not be changed in response to short term market swings



Long Term Averages Can Be Misleading

	10 Year Gross Averages to December 31, 2012
Balanced	7.06%
Bond	6.26%
Can. Equity	10.28%
Foreign Equity	3.12%
Short Term	2.31%



Long Term Averages Can Be Misleading

	10 Year Gross Averages to December 31, 2007
Balanced	7.15%
Bond	6.07%
Can. Equity	10.48%
Foreign Equity	3.38%
Short Term	4.35%



What does this tell us?

- Be wary of average returns one year's unique results can skew long term averages
- Our investment decision needs to be based on our tolerance for variability in returns.
- Look at long term returns but look at the long term pattern to see if it fits with your risk tolerance.



Asset Class Winners & Losers

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
est	14.2	33.9	28.3	39.2	37.7	31.7	13.7	8.8	11.3	26.7	14.5	24.1	26.3	9.8	6.2	35.1	20.6	18.8	14.8	48.4	24.0	21.0	21.1	16.8	4.0	25.2
Highest	7.4	26.3	23.4	27.7	28.5	19.7	7.4	5.7	2.5	20.5	12.0	14.0	18.3	4.4	3.3	14.4	17.6	4.4	13.8	41.5	17.9	18.3	17.7	13.8	1.4	22.9
	5.4	25.0	17.5	18.6	15.0	14.3	5.5	4.7	-7.1	13.4	10.2	10.4	17.3	4.4	-15.6	12.6	12.1	1.0	13.5	31.3	14.4	14.0	8.6	9.1	0.3	19.5
	4.0	19.9	16.9	16.2	13.4	14.1	3.4	-3.7	-12.4	12.4	10.2	10.0	15.7	0.9	-17.9	8.7	9.5	1.0	8.3	14.8	11.4	6.0	7.2	8.5	-1.8	16.7
	1.8	14.5	14.1	15.0	4.7	12.8	8.0	-6.5	-16.6	8.0	9.0	2.6	13.0	-5.7	-21.9	8.1	9.3	-2.0	7.2	13.0	10.6	4.5	1.3	7.3	-3.2	15.9
est	-0.2	8.2	6.4	6.2	4.4	4.7	-5.5	-12.6	-21.1	5.3	3.3	1.6	4.0	-10.5	-29.8	1.2	2.4	-8.7	4.0	1.0	3.7	0.6	0.5	7.1	-6.3	12.7
Lowest	-7.8	7.4	5.0	3.2	-1.6	-6.2	-10.8	-16.6	-22.7	2.9	2.3	1.3	3.9	-16.5	-33.0	0.6	0.5	-10.2	1.0	-7.0	0.9	-8.3	-2.0	0.6	-8.9	1.6
R	Small (Sussell 20			S	Large C S&P 500				Large Ca X Comp				ernation EAFE - N				m Gov't Canada L				easury: ay T-Bil	ls		Dive	ersified	

^{*} Diversified: 25% TSX Composite, 20% S&P 500 (C\$), 15% MSCI EAFE - Net (C\$), 40% FTSE TMX Canada Universe Bond Index





Finding your Risk Tolerance (Funds With Stocks) *Gross Returns*

Year	Canadian Equity	Foreign Equity	Balanced Fund
2008	-30.69%	-26.84%	-13.00%
2009	30.67%	10.50%	12.46%
2010	17.97%	6.27%	9.98%
2011	-7.95%	-2.14%	3.18%
2012	11.52%	16.46%	10.14%
2013	20.33%	36.81%	13.77%
2014	10.72%	16.23%	11.44%
2015	-6.75%	19.55%	6.56%
2016	21.25%	3.18%	6.05%
2017	10.33%	15.92%	9.05%
2018	-9.00%	1.02%	-0.40%
2019	21.20%	20.13%	14.32%



Advantages of a Balanced Fund: Risk is Reduced by Diversification

- Asset Class (Stocks, Bonds, Real Estate)
- Countries
- Investment Manager Styles
- Industries and Sectors
- Government and Corporate Bonds
- Long Term and Short Term Maturities
- Currencies

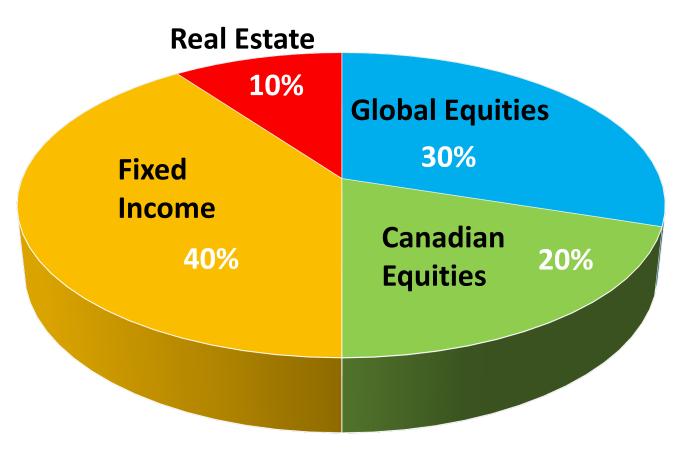


Your Most Important Decision

- The most important decision you have to make is to decide what % of your pension fund will be invested in stocks and what % will be invested in fixed income
- Are you comfortable with the asset allocation of the FPP Balanced Fund or would you prefer to build your own balanced portfolio?



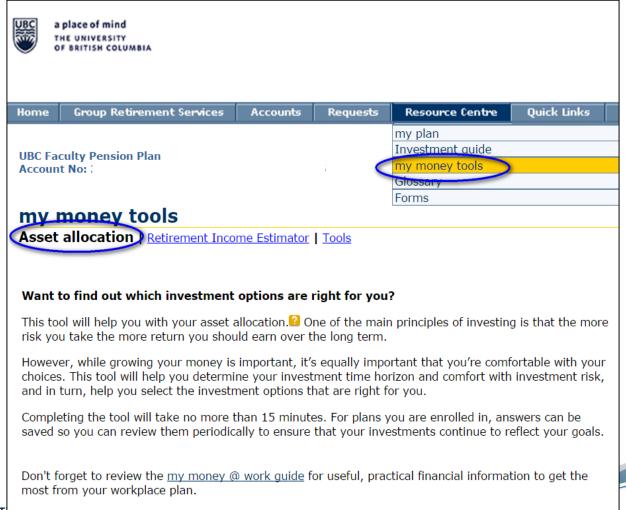
Balanced Fund Target Asset Allocation



* Global Equities includes investments in both U.S. Equities and Non-North American Equities

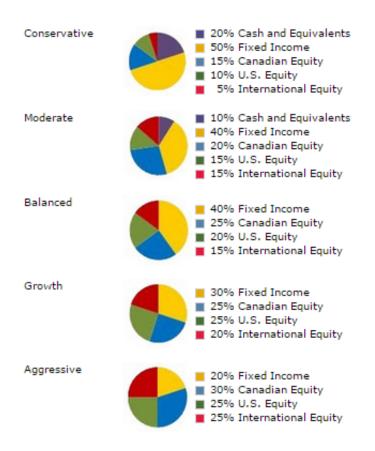


Asset Allocation ToolInvestment Risk Profiler



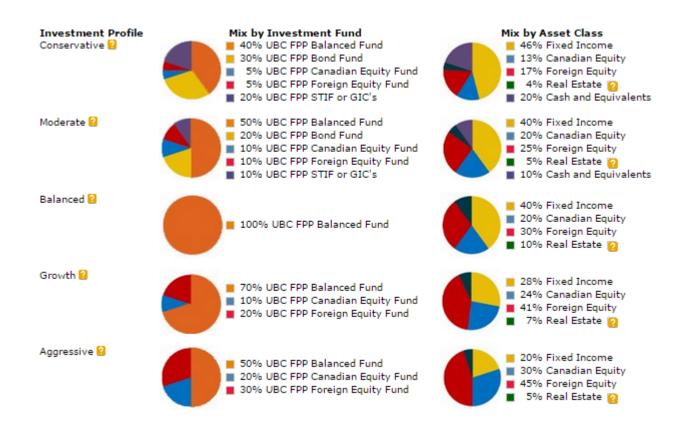


Your Results





Asset Mix





Don't Forget to Rebalance!

- Rebalancing back to your original asset allocation at least annually is the key to staying on track!
- Do this regardless of market conditions
- Financial planner can be very helpful in developing an investment plan

Note: If you want real estate exposure, you must have some assets in the Balanced Fund



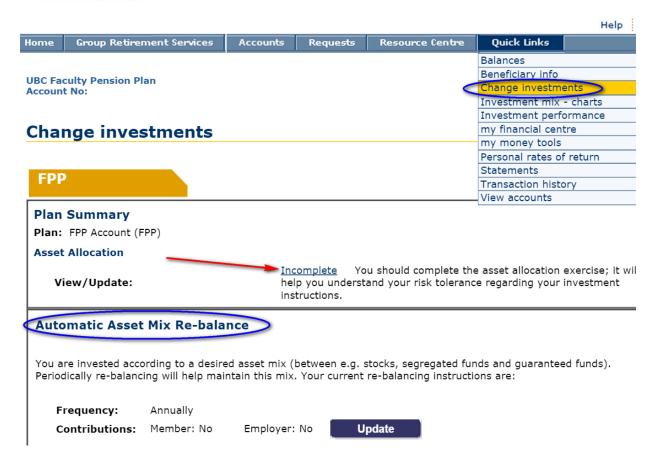
The Importance of Re-Balancing

	Canadian Equity	Foreign Equity	Bond Fund
End of 2002	20%	20%	60%
End of 2007	32%	18%	50%



The Importance of Re-Balancing







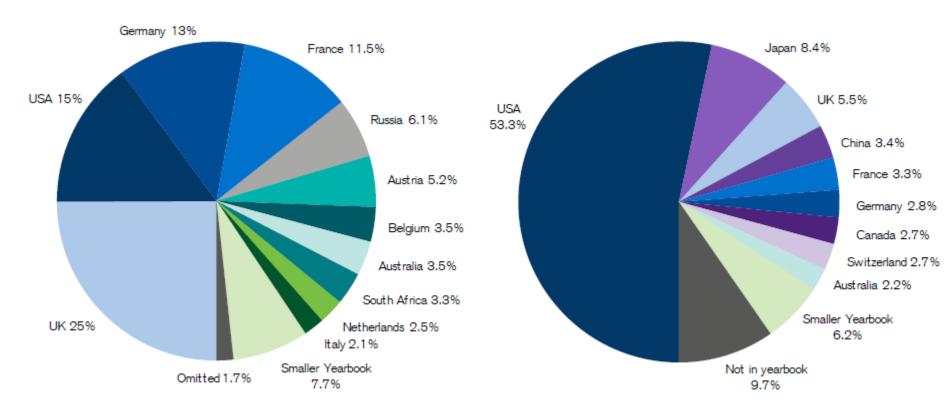
Why Consider Investing Outside of Canada?

- Narrowness of Canadian Market (Energy, Materials & Financials)
- Canada is less than 3% of world market (could be missing out on 97% of the world's investment opportunities)
- Small # of firms dominate Canadian Market (example of Nortel – 30% in 2000)



Why Consider Investing Outside of Canada?

Relative sizes of world stock markets, end-1899 versus start-2019



Source: MSCI, FTSE Russell, S&P, Elroy Dimson, Paul Marsh, and Mike Staunton. Not to be reproduced without express written permission from the authors.



Making your Investment Choice: Things to Consider

- The Nature of Faculty Pension Plan Investments
- Investment Time Horizon
- Tolerance for Variability of Returns
- Historical Returns (does the pattern of returns fit your tolerance for risk)
- Other non-pension investments/assets
- Investment knowledge/interest
- Work with professional investment and financial advisors



How Often Can I Change My Investment Allocation?

- Online allocation changes on Sun Life website
- Daily Valuation- BEFORE 4:00 pm EASTERN
- Watch for Short-term Trading warning



Short-term Trading

You are moving money out of a segregated fund. If you previously moved money into the same segregated fund within the last 30 days, you may be charged a 2% short-term trading fee. As well, if applicable, the 2% fee will appear here the next business day after your transaction is processed.

Any contributions or withdrawals are exempt from this short-terms trading fee. To see a list of your recent moves, select **Accounts > Transaction History**. Any changes you have just made will not be saved if you navigate away from this page before clicking Submit.

For more information, see Jargon, the short-term trading **Question & Answers** and your plan rules.



The Remedy For Fear

If you do not invest beyond your risk tolerance you will never have to worry about fear taking control and being responsible for emotional decisions during a market downturn.



Making Investment Changes During a Market Correction

Balanced Fund

- May 2008 \$441,961
- Dec 2008 \$374,504
- Difference \$(67,457)

Moved to Short Term Fund at December 31, 2008

- Short Term Fund at Nov. 2010 \$376,900
- Balanced Fund at Nov. 2010 \$445,510
- Difference \$ 68,610-



Rational Thinking

- Stock market declines last 13 months on average
- Market corrections are normal and they have always recovered and exceeded new highs
- Stocks are now cheaper
- Stocks compensate for short term volatility by providing higher returns.
- Stocks are only one component in a Balanced Fund

What is Risk?

 Possible loss of all my money invested in the Faculty Pension Plan?

OR

- Variability of returns the ups and downs
- Possibility that my investments won't earn enough to last for my life

Sample of 2019 Holdings in FPP Canadian Equity & Balanced Fund

Agnico Eagle Mines
Aliment Couche-Tard
Bank of Montreal
Bank of Nova Scotia
Brookfield Asset Management
Canadian National Railway
Canadian Natural Resources
Canadian Pacific Railway
Constellation Software

Manulife Financial Corp.
Open Text Corp.
Royal Bank of Canada
Saputo Inc.
Suncor Energy Inc.
TC Energy
Toromont Industries
Toronto Dominion Bank

Advice From Professionals

"If you want to see the greatest threat to your financial future then go home and take a look in the mirror!"

Warren Buffet

"In the end, how your investments behave is much less important than how you behave!"

Benjamin Graham



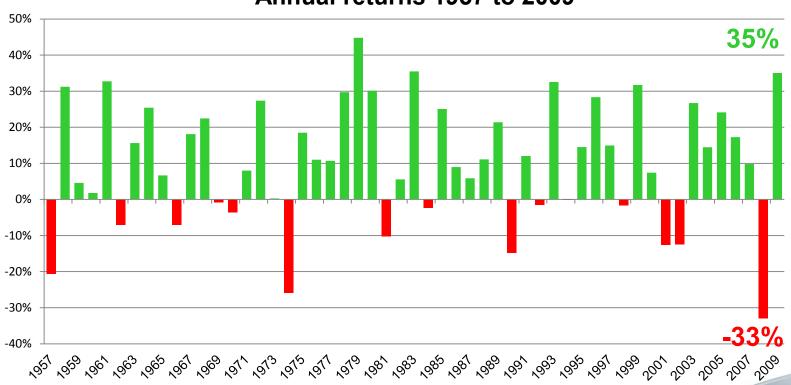
Recovery of Markets After Major Downturns

YEAR	CRISIS
1982	Latin American financial crisis
1984	US Bank crisis
1987	Black Monday- US stock crash
1990	US Savings & Loan Crisis
1995	Mexican pesos crisis
1997	Asian economic recession
1998	Hedge Fund blow-up
2000	Tech stock meltdown
2008	US sub-prime mortgage crisis
2011	European and U.S. Debt Crisis



Including dividends, the 2009 annual returns rank 3rd behind only 1979 and 1983. 2008 was by far the worst year over this period.

S&P/TSX Total Return Index: Annual returns 1957 to 2009





Addiction to Prediction

"It is very difficult to make predictions – especially about the future!"

Yogi Berra, New York Yankees

"There are two kinds of forecasters those who don't know, and those who don't know they don't know."

John Kenneth Galbraith, Economist



The Challenge of Trying to Time the Markets

Year	Canadian Equity Fund	Bond Fund
2008	-30.69%	2.73%
2009	30.67%	10.47%
2010	17.97%	8.61%
2011	-7.95%	10.52%
2012	11.52%	4.37%
2013	20.33%	-3.58%
2014	10.72%	9.62%
2015	-6.75%	3.54%
2016	21.25%	1.75%
2017	10.33%	3.06%
2018	-9.35%	0.67%
2019	21.20%	7.86%

(Gross annual returns)



Markets are Unpredictable!

(Returns include dividends and are measured in Canadian \$)

Stock Market/Country	2011 Returns
US- Dow	+10%
US-S&P 500	+3%
US. Nasdaq	+1%
U.K	-1%
Japan	-9%
Korea	-11%
Canada	-12%
China	-15%
Germany	-16%
Hong Kong	-16%
France	-17%
India	-32%



Mistakes Investment Advisors Say Are Hazardous to Your WEALTH

- Failing to realize that market downturns are normal
- Thinking we can consistently time market downturns and recoveries
- A double-edged sword



The Problem with Paying Too Much Attention to Short Term Returns

2010 NET RETURNS	BALANCED FUND	BOND FUND
January – August*	1.89%	6.91%

^{*} Member changes from Balanced Fund to Bond Fund

Sept. – Dec.	7.48%	1.34%
--------------	-------	-------

Balanced Fund Return: 9.37%
Bond Fund Return: 8.25%
Member's Return 3.23%



Balanced Fund Annual Returns (NET) 30 Year Track Record • 8.03%

1990-1999	2000-2009	2010-2019
-0.46%	4.77%	9.37%
16.29%	0.64%	2.62%
7.33%	-3.07%	9.58%
22.19%	12.36%	13.18%
-0.54%	8.09%	10.86%
17.03%	11.79%	6.09%
18.58%	13.58%	5.62%
14.54%	2.66%	8.62%
6.79%	-13.45%	-0.81%
10.90%	11.93%	13.88%



Negative Quarters Are Normal!

(Based on Balanced Fund)

Year	Negative Quarters	Annual Return (Gross)
2008	3	-13.00%
2009	1	12.46%
2010	1	9.98%
2011	1	3.18%
2012	1	10.14%
2013	1	13.77%
2014	0	11.44%
2015	2	6.56%
2016	1	6.05%
2017	0	9.05%
2018	1	-0.40%
2019	0	14.32%

Don't miss the larger quarterly gains that frequently occur.



Short Term Volatility in Equity Investments Is a Fact of Life: THINK LONG TERM!

- Over the very long term stocks have always been the highest asset class
- Negative returns happen in less than 5 year averages not in the long term
- Choose the level of short term volatility you are comfortable with and stick to the plan
- Reacting to short term market noises can destroy a good long term plan



What Professionals Say About Making Investment Allocation Changes

- Try NOT to make changes in response to what is happening in the markets.
- Instead make changes when:
 - You want to rebalance your unique balanced fund.
 - You feel there is a change in your long term risk tolerance- life cycle investing.



Sample of Life Cycle Investing

Age	Asset N	Equity %	
20-40	Balanced Canadian Equity Foreign Equity	50% 25% 25%	75%
40-50	Balanced Canadian Equity Foreign Equity	70% 15% 15%	65%
50-60	Balanced Bond Fund	90% 10%	45%
60+	Balanced Bond GIC / Short Term	60% 30% 10%	30%



Advice From Professionals

"The investor with a portfolio of sound stocks and bonds should expect their values to fluctuate and should neither be concerned by sizable declines nor become excited by sizable advances. Always remember that market corrections are temporary and are there to either be taken advantage of or to be ignored!"

Benjamin Graham

Summary of Investor Mistakes

- Having all our "eggs" in one basket
- Putting too much long term money into <u>savings</u> vehicles (GIC'S) rather than <u>investment</u> vehicles
- Chasing last years returns (rear view mirror investing)
- Not understanding our tolerance for risk
- Trying to time the markets thinking they are predictable
- Moving pension money into short term investments near or at the end of a market downturn
- Leaving funds designated for long term investing parked in a short term fund for too long a period of time



Investment Advisor Recommendations

- Diversification
- Expect market corrections but see them for what they are – normal and buying opportunities
- Stay invested don't try and guess market ups and downs. Markets are unpredictable and will always surprise you! Try to avoid prediction addiction!
- Review pension investments annually not daily/monthly. Think long term
- Work with a professional advisor



Life Events > Retiring

UBC FACULTY PENSION PLAN RETIREMENT GUIDE







UBC Faculty Pension Plan

Home

Overview

my Sun Life Login

UBC is invested in your financial future

Find out more



UBC is invested in your financial future

The UBC Faculty Pension Plan (FPP) is one of Canada's largest defined contribution pension plans and it is among the most valued benefits offered by the University. The Plan is designed to help you save and invest for your future. Read More





2020 Annual Pension Forum

Date: May 6, 2020 (Wednesday)

Time: 10:00 am - 1:00 pm

Place: Jack Poole Hall - Robert H. Lee Alumni Centre*

Presentation begins at 10:30 am

- Plan performance in 2019
- Review 2019 and 2020 Initiatives

Information Tables & Guest Exhibitors 12:00 pm to 1:00 pm

- New to the Plan
- Retirement & Survivor Benefits
- Emeritus College

- Retirement
- Sun Life
- EFAP
- Register to attend in person-opens on our website in Spring 2020
- Also available via live Webcast (registration not required)

Happiness Comes From Within

"Happiness resides not in possessions and not in gold. The feeling of happiness dwells in the soul"

Democritus (460-370 BC)

