



**WHY THE SEQUENCE OF RETURNS MATTERS**

During the accumulation phase, regardless of whether a portfolio experiences poor or strong returns early on, the market value will be the same in the end.

This is not true in the retirement phase. As the table below shows, Portfolio A experiences poor early returns and runs out of money within 20 years. Portfolio B, which has strong early returns, benefits from 15 more years of withdrawals and still has a positive market value at age 100.

**ACCUMULATION PHASE**

Starting value for portfolio A and portfolio B = **\$200,000**  
Annual income withdrawal = **None**

AGE	PORTFOLIO A POOR EARLY RETURNS		PORTFOLIO B STRONG EARLY RETURNS	
	RETURN	ACC. VALUE	RETURN	ACC. VALUE
51		\$200,000		\$200,000
52	-23.1%	\$153,790	22.7%	\$245,400
53	-6.1%	\$144,369	19.6%	\$293,584
54	-0.3%	\$143,981	18.0%	\$346,546
55	24.5%	\$179,211	24.5%	\$431,340
56	18.0%	\$211,541	-0.3%	\$430,182
57	19.6%	\$253,077	-6.1%	\$403,831
58	22.7%	\$310,525	-23.1%	\$310,525
59	-23.1%	\$238,777	22.7%	\$381,014
60	-6.1%	\$224,151	19.6%	\$455,826
61	-0.3%	\$223,549	18.0%	\$538,056
62	24.5%	\$278,248	24.5%	\$669,709
63	18.0%	\$328,443	-0.3%	\$667,911
64	19.6%	\$392,933	-6.1%	\$626,998
65	22.7%	\$482,128	-23.1%	\$482,128
	<b>6.5%</b>	<b>\$482,128</b>	<b>6.5%</b>	<b>\$482,128</b>

NO DIFFERENCE

**RETIREMENT PHASE**

Starting value for portfolio A and portfolio B = **\$500,000**  
Annual income withdrawals = **\$25,000 (5% of first-year value) adjusted thereafter for inflation**. Inflation Rate = **3%**

AGE	PORTFOLIO A POOR EARLY RETURNS			PORTFOLIO B STRONG EARLY RETURNS		
	RETURN	WITHDRAWAL	ACC. VALUE	RETURN	WITHDRAWAL	ACC. VALUE
65			\$500,000			\$500,000
66	-23.1%	\$25,000	\$365,250	22.7%	\$25,000	\$582,825
67	-6.1%	\$25,750	\$318,704	19.6%	\$25,750	\$666,456
68	-0.3%	\$26,523	\$291,397	18.0%	\$26,523	\$755,377
69	24.5%	\$27,318	\$328,694	24.5%	\$27,318	\$906,202
70	18.0%	\$28,138	\$354,777	-0.3%	\$28,138	\$875,706
71	19.6%	\$28,982	\$389,764	-6.1%	\$28,982	\$794,858
72	22.7%	\$29,851	\$441,613	-23.1%	\$29,851	\$588,250
▼		▼		▼		
80	-23.1%	\$37,815	\$181,631	22.7%	\$37,815	\$790,464
81	-6.1%	\$38,949	\$133,941	19.6%	\$38,949	\$899,073
82	-0.3%	\$40,118	\$93,572	18.0%	\$40,118	\$1,013,911
83	24.5%	\$41,321	\$65,035	24.5%	\$41,321	\$1,210,566
84	18.0%	\$42,561	\$26,529	-0.3%	\$42,561	\$1,164,868
85	19.6%	\$26,529	\$0	-6.1%	\$43,838	\$1,052,361
86	<b>22.7%</b>	<b>\$0</b>	<b>\$0</b>	-23.1%	\$45,153	\$774,491
▼		▼		▼		
94	-23.1%	\$0	\$0	22.7%	\$57,198	\$976,010
95	-6.1%	\$0	\$0	19.6%	\$58,914	\$1,097,167
96	-0.3%	\$0	\$0	18.0%	\$60,682	\$1,223,467
97	24.5%	\$0	\$0	24.5%	\$62,502	\$1,445,033
98	18.0%	\$0	\$0	-0.3%	\$64,377	\$1,376,948
99	19.6%	\$0	\$0	-6.1%	\$66,308	\$1,230,356
100	22.7%	\$0	\$0	-23.1%	\$68,298	\$893,562
<b>Avg</b>	<b>6.5%</b>	<b>\$654,451</b>	<b>\$0</b>	<b>6.5%</b>	<b>\$1,511,552</b>	<b>\$893,562</b>

BIG DIFFERENCE

Total income generated by portfolio during retirement = **\$654,451**

**\$1,511,552**

Returns for Portfolio A are annual returns of the S&P/TSX Total Return Index, repeating a seven year period (June 2001 to June 2007) and do not include any fees or Management Expense Ratios (MERs). For Portfolio B, the returns are reversed. The sequence of returns has an average compounded annualized return of six and a half per cent over the respective periods. The accumulation portfolios assume a starting value of \$200,000 at age 51 with no annual withdrawals. The distribution portfolios assume a starting value of \$500,000 at age 65 as well as a five per cent first-year withdrawal, thereafter adjusted for three per cent inflation annually.

Difference in Withdrawals	\$	857,101
Difference in End Value	\$	893,562
<b>Total Difference</b>	<b>\$</b>	<b>1,750,663</b>



The sequence of returns may have less of an impact on the portfolio of a long-term investor who is accumulating assets for retirement. However, during retirement, the interplay between an investor's rate of withdrawal and the sequence of returns can have a dramatic impact on a portfolio's overall ability to last.

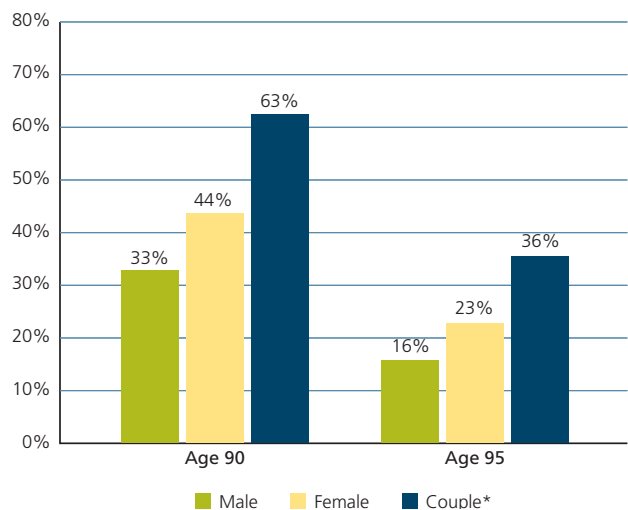
### WHAT'S THE BOTTOM LINE?

Planning for retirement income to last well into your 90s is a necessity. Savings must continue to grow and individuals need to be prepared to support their lifestyles for 25 years or more.

### LIVING LONGER IS A FACT OF LIFE

Compared to previous generations, both male and female Canadians can expect to live longer, healthier lives – extending the timeframe of their retirement.

#### PROBABILITY OF A 65-YEAR-OLD IN GOOD HEALTH LIVING TO:



\*One spouse of the couple. Source: Annuity 2000 Mortality Table, Society of Actuaries