Cash Wedge Strategy

Manulife GIF Select InvestmentPlus®

The Manufacturers Life Insurance Company

Manulife Investments

Prepared for **Dave Roberts**	
Prepared by **H D R**	
Date **January 18, 2018**	

Dear Mr. Dave Roberts,

Here is a detailed breakdown of The Cash Wedge Strategy for your RIF contract.

How the Cash Wedge Strategy works

- The Cash Wedge strategy incorporates a number of income and investment concepts. Its aim is to take advantage of the changes in performance of segregated funds held within your contract.

- The process begins with what we call the Cash Wedge. It consists of a defined amount of money within your RIF contract that is allocated to relatively stable funds such as the Manulife High Interest Savings GIF Select and the Manulife Short-Term Bond GIF Select. It is from these funds that the actual income amounts are paid out of your contract.

- The objective of the strategy is to maintain the defined amount of money in the Cash Wedge by reallocating funds to it when growth within your segregated fund contract permits. The goal is to maintain the Cash Wedge balance, while providing growth potential in your segregated fund contract. Any growth in your contract that is not needed to restore the Cash Wedge balance can be reallocated to other funds within your segregated fund contract.

- The Cash Wedge Strategy is a process that aims to provide a source of income that is less exposed to market fluctuations - it is not a strategy to time the market.

- The goal of this strategy is to avoid selling market based investments at inopportune times. Market based investments have values that change every day based on market forces. When assets are sold at the wrong time capital can be permanently lost. The Cash Wedge strategy aims to lessen the impact of market fluctuations within your RIF contract when taking income.

- Please refer to Appendix I and II for a detailed explanation and example of the sequence of return and its potential impact on investments.

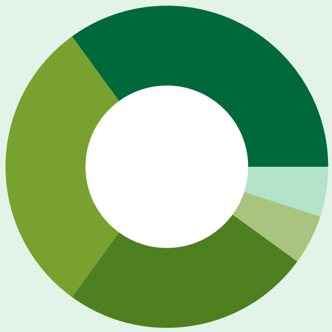
- This illustration provides a description of a strategy that attempts to reduce the risk faced when taking income regularly from a segregated fund contract. Ultimately, the allocation of, and the funds used, will be determined by you, with the advice of your advisor, based on your personal circumstances.

- Investing in a segregated fund contract also provides valuable benefits only these contracts can provide, such as guarantees to help protect your investment in case of market downturns at maturity* and at death. Depending on the contract you chose, the guarantee may be reduced proportionately or on a dollar for dollar* basis (*Registered Retirement Income Funds held within Manulife's Ideal Signature Select only) when you withdraw income payments. Please review the Information Folder and Contract Provisions to fully understand the impacts of withdrawals on your segregated fund contract guarantees. Your advisor can also assist in understanding these impacts.

Customized Illustration

Name	Dave Roberts
Initial Deposit	$1,000,000.00
Desired Yearly Income*	Client Selected
Date of Birth**	January 31, 1955

Initial Asset Allocation



35%	$350,000.00	Manulife Floating Rate Income GIF Select
30%	$300,000.00	Manulife International Equity Index GIF Select
25%	$250,000.00	Manulife Fidelity NorthStar GIF Select
5%	$50,000.00	Manulife High Interest Savings GIF Select
5%	$50,000.00	Manulife Short-Term Bond GIF Select

Based on the income you have chosen, this illustration shows an allocation of 10% of the initial deposit to the Cash Wedge. As you selected, this represents approximately 2 years worth of income payments. You can withdraw your income from this portion of your contract. By allocating funds to the Cash Wedge you help ensure that you do not withdraw from market based funds within your contract at a time when market fluctuations coupled with income withdrawals could permanently deplete your investment.

The goal of the strategy is to always withdraw your income from the balance in the Cash Wedge. On a regular basis you and your advisor should review your fund allocation to make sure the Cash Wedge maintains an amount that is equal to approximately 2 years of income payments.

By having a balance in the Cash Wedge, if you do not have growth in the other funds in any given year, there is less worry about withdrawing from those funds and can draw on the balance in the Cash Wedge.

About the Fund Allocation

Ideally, allocating a portion of the value of your contract to funds that aim to generate income will help ensure adequate cash funding of the Cash Wedge Strategy.

Funds offering long term growth opportunities could help ensure income payments keep up with inflation. Some of the funds offered by Manulife can help fulfill this objective.

The Manulife High Interest Savings GIF Select and the Manulife Short-Term Bond GIF Select form the Cash Wedge. These funds (or the underlying fund, if applicable) invest in various money market and fixed income instruments aiming to provide low volatility and to generate income.

Please review the Information Folder, Contract and the Fund Facts to learn more about specific fund objectives of the funds you are selecting.

** RRIF/LIF/LRIF minimum income factors are used in this concept.*
*** Illustration based on your age on the date it is prepared.*

Appendix I - Sequence of returns during the accumulation phase

Depending on when money is taken as income and the prevailing market conditions at the time of withdrawal, the effects on your contract may be quite different. Thus, the question we want to answer is does the sequence of returns matter?

In the illustrated scenario below, two individuals ("Individual A" and "Individual B"), each invest $100,000 in segregated fund contracts:

- The investment duration is 25 years
- Each investor is 40 years old
- No withdrawals are made over that time period

Individual A's contract starts out with a couple of years of poor market returns, while individual B's contract experiences strong early returns.

	Individual A's contract Poor early returns*	Individual B's contract Strong early returns*
Age	**Return**	**Return**
41	-34.2%	27.4%
42	-10.6%	23.0%
43	13.6%	16.7%
44	11.5%	2.6%
45	27.4%	16.9%
46	11.0%	8.4%
47	-11.0%	23.9%
48	3.0%	-2.2%
49	-5.9%	34.9%
50	16.0%	19.7%
51	12.4%	5.0%
52	5.3%	23.2%
53	-9.8%	-9.8%
54	23.2%	5.3%
55	5.0%	12.4%
56	19.7%	16.0%
57	34.9%	-5.9%
58	-2.2%	3.0%
59	23.9%	-11.0%
60	8.4%	11.0%
61	16.9%	27.4%
62	2.6%	11.5%
63	16.7%	13.6%
64	23.0%	-10.6%
65	27.4%	-34.2%
	8.0%	**8.0%**

* For illustration purposes only, results may be exaggerated positively or negatively and are not linked to any specific product or fund. Actual results will vary.

Who ends up further ahead by age 65?

As you can see in the accumulation phase, the sequence of returns does not affect the final outcome. At age 65, both contracts show an average 8% return whether the returns were poor or strong at the onset or throughout the accumulation period.

Appendix II - Sequence of returns during the decumulation (withdrawal) phase

Now that we have shown that during the accumulation phase, the sequence of returns does not affect the outcome, let's see if it does matter during the decumulation phase.

In this illustrated scenario, two individuals ("Individual A" and "Individual B") are 65 years old
- Each invested the same amount in a segregated fund contract.
- Each is taking 5% withdrawals at the beginning of the year

Again, Individual A's contract starts out with a couple of years of poor market returns, while individual B's contract experiences strong early returns.

As you can see, even though both individuals started out with the same amount of money at age 65, Individual A, who is experiencing poor early returns will run out of money at age 81, while Individual B, experiencing strong early returns, will be able enjoy his nest egg for much longer.

	Individual A's contract Poor early returns*			Individual B's contract Strong early returns*		
Age	Return	Withdrawal	Contract Value	Return	Withdrawal	Contract Value
66	-34.2%	$50,804	$635,153	27.4%	$50,804	$1,229,765
67	-10.6%	$52,328	$521,046	23.0%	$52,328	$1,448,247
68	13.6%	$53,898	$530,680	16.7%	$53,898	$1,627,206
69	11.5%	$55,515	$529,809	2.6%	$55,515	$1,612,554
70	27.4%	$57,181	$602,128	16.9%	$57,181	$1,818,232
71	11.0%	$58,896	$602,988	8.4%	$58,896	$1,907,121
72	-11.0%	$60,663	$482,669	23.9%	$60,663	$2,287,761
73	3.0%	$62,483	$432,792	-2.2%	$62,483	$2,176,322
74	-5.9%	$64,357	$346,697	34.9%	$64,357	$2,849,041
75	16.0%	$66,288	$325,275	19.7%	$66,288	$3,330,955
76	12.4%	$68,277	$288,866	5.0%	$68,277	$3,425,813
77	5.3%	$70,325	$230,124	23.2%	$70,325	$4,133,961
78	-9.8%	$72,435	$142,236	-9.8%	$72,435	$3,663,497
79	23.2%	$74,608	$83,318	5.3%	$74,608	$3,779,101
80	5.0%	$76,846	$6,796	12.4%	$76,846	$4,161,334
81	19.7%	$6,796	$0	16.0%	$79,151	$4,735,332
82	34.9%	-	$0	-5.9%	$81,526	$4,379,232
83	-2.2%	-	$0	3.0%	$83,972	$4,424,118
84	23.9%	-	$0	-11.0%	$86,491	$3,860,489
85	8.4%	-	$0	11.0%	$89,085	$4,186,258
86	16.9%	-	$0	27.4%	$91,758	$5,216,393
87	2.6%	-	$0	11.5%	$94,511	$5,710,898
88	16.7%	-	$0	13.6%	$97,346	$6,376,995
89	23.0%	-	$0	-10.6%	$100,266	$5,611,396
90	27.4%	-	$0	-34.2%	$103,274	$3,624,344
		$951,698	**$0**		**$1,852,282**	**$3,624,344**

* For illustration purposes only results may be exaggerated positively or negatively and are not linked to any specific product or fund. Actual results will vary.

As you can see, experiencing poor early returns during retirement can have long lasting effects which could even deplete your savings permanently. During the decumulation phase, the sequence of returns does matter.

Manulife

Investments