INVESTING IS A POSTIVE-SUM GAME BUT A ZERO-SUM GAME AROUND THE MARKET RETURN

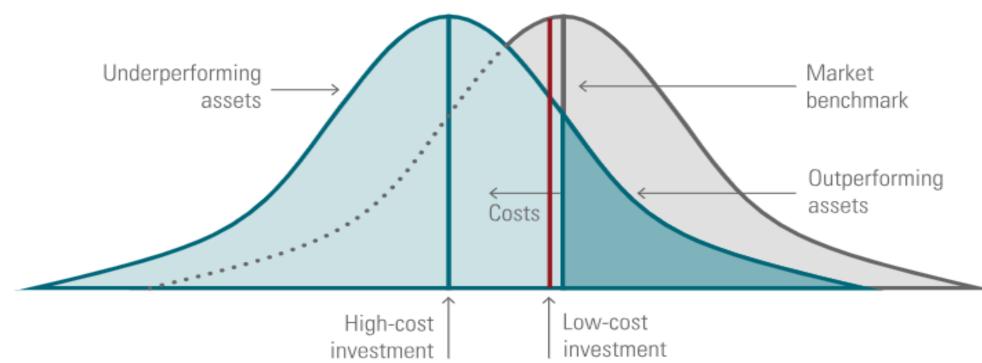


Figure 2: Market participant returns after adjusting for costs

- Investing is a positive-sum game (assuming a diversified portfolio).
 - o The market return is a positive number in the long run.
 - $\circ\quad$ All portfolios can grow. We can all have more than our original investment.
- But, and this is a big but, investing around the market return is a zero-sum game.
 - The curve is symmetrical around the market return. Every dollar invested that outperforms the market return, is accompanied by a dollar that underperforms.
- Cost shifts the curve left toward lower return.
 - o In other words, investing is a positive-sum game but a zero-sum game around the **after-cost** market return.

2017 Morningstar Andex Chart

	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71_	72
\$1,000,000																							
	Percentage Returns (6-30-2017)									1 Yr	3 Yr		5 Yr 10 Yr		10 Yr	20 Yr		30 Yr	Since 1-1-1950		Risk	Risk 5 Yr	
	 U.S. Small Stock Total Return Index (CAD) 										1	15,9	21.3		9,6	9,	9	10,7	14,	,D	24,3	-14	1.1
	 U.S. Large Stock Total Return Index (CAD) 								21.4	1	0,81	20.9		9.6	7.5	0	9.6	11a	7	17.2	-7.5		
	 S&P/TSX Composite Total Return Index 							11,0		3.1	8.7		3.9	6.	9	7,5	9,	8	16.7	-1.9			
	- Balanced Portfolio (60% Equity, 40% Fixed Income)									9,7		8.4	10,4		6,6	7.	1	8.7	9,	5	10.1	0	1.2
	- FTSE TMX (formerly DEX) Long Bond Index								0.4		6.7	4,9		7.2	7.	7	9,3	7,	5	9.7	-1	.0	
100,000	 5 Year Guaranteed Investment Certificates 								1,3		1.5	1,6		1,9	2,	9	4,6	6,	3	3.5	1	.6	
	 91 Day Canada Treasury Bills 									0.4		0.6	8.0		1,2	2.5	5	4.3	5.	3	4.0	0	1:8
	 Consumer Price Index (Cost of Living) 									1.3		1.2	1.3		1.5	1.	9	2,2	3,	Б	$\overline{}$	-	-
	World Markets ex-U.S.: Total Return Index (CAD)								17.8		8.7	14,7		3.9	4,	6	5,5	10.	0×	20,5*	-7	.0*	
			- 5								"Since	1-1-19	70										