## What's investment risk?

When we talk about investment risk we think of the likelihood of an investment losing its value in the short term, for example because of economic developments or events that affect the entire market.

- As an investor, you must be prepared to accept some short-term investment risk if you want to beat inflation in the long term.
- But you need to know how much investment risk you can tolerate - without getting stressed out or having to change your lifestyle.

Let's look at an example. Let's say you and your friend each invested $\$ 5,000$ in a portfolio, one with $30 \%$ equity and the other $70 \%$ equity (the other part of each portfolio being a more stable fixed income asset). Our glossary at the end explains these terms.

We cannot predict future performance of these portfolios. But we can look at previous years and, using some math and statistics, establish reasonable expectations of how these portfolios should perform.

We can also assess what you'd stand to lose if you were to make your investment at the worst possible time, right before a worst-ever market crash. How long would you have to hold your investment to recoup its value?

We're talking about risk here - so let's start with the worst case.

## Worst historical performance of a $\$ 5,000$ portfolio

|  | 30\% equity | 70\% equity |
| :---: | :---: | :---: |
| 6 month: | -\$453 | -\$1,131 |
| 1 year | -\$388 | -\$1,091 |
| 2 years | -\$406 | -\$1,368 |
| 3 years | -\$313 | -\$1,401 |
| 4 years | -\$22 | -\$976 |
| 5 years | \$274 | -\$611 |
| 11 years | \$1,316 | \$5 |

Based on past market data, it would take 5 years to recover from a market collapse with a 30\% equity asset mix ( $\$ 274$ gain after 5 years). It would take 11 years to recover from a similar crisis with a 70\% equity portfolio (\$5 gain).

After 14 years, even the most \aggressive $100 \%$ equity portfolios eventually recovers (\$526)

|  | $\mathbf{0} \%$ | $\mathbf{1 0 \%}$ | $\mathbf{2 0 \%}$ | $\mathbf{3 0 \%}$ | $\mathbf{4 0} \%$ | $\mathbf{5 0 \%}$ | $\mathbf{6 0 \%}$ | $\mathbf{7 0 \%}$ | $\mathbf{8 0 \%}$ | $\mathbf{9 0 \%}$ | $\mathbf{1 0 0 \%}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 3}$ years | $\$ 2,820$ | $\$ 2,502$ | $\$ 2,184$ | $\$ 1,866$ | $\$ 1,548$ | $\$ 1,230$ | $\$ 912$ | $\$ 594$ | $\$ 276$ | $-\$ 42$ | $-\$ 360$ |
| $\mathbf{1 4}$ years | $\$ 3,093$ | $\$ 2,837$ | $\$ 2,580$ | $\$ 2,323$ | $\$ 2,067$ | $\$ 1,810$ | $\$ 1,553$ | $\$ 1,296$ | $\$ 1,040$ | $\$ 783$ | $\$ 526$ |
| 15 years | $\$ 3,377$ | $\$ 3,197$ | $\$ 3,016$ | $\$ 2,836$ | $\$ 2,656$ | $\$ 2,476$ | $\$ 2,296$ | $\$ 2,116$ | $\$ 1,936$ | $\$ 1,756$ | $\$ 1,575$ |

After 18 years, all portfolios with some equity begin to earn more than a $0 \%$ equity portfolio

|  | $\mathbf{0 \%}$ | $\mathbf{1 0 \%}$ | $\mathbf{2 0 \%}$ | $\mathbf{3 0 \%}$ | $\mathbf{4 0 \%}$ | $\mathbf{5 0 \%}$ | $\mathbf{6 0 \%}$ | $\mathbf{7 0 \%}$ | $\mathbf{8 0 \%}$ | $\mathbf{9 0 \%}$ | $\mathbf{1 0 0 \%}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 7}$ years | $\$ 3,973$ | $\$ 3,937$ | $\$ 3,901$ | $\$ 3,864$ | $\$ 3,828$ | $\$ 3,792$ | $\$ 3,755$ | $\$ 3,719$ | $\$ 3,683$ | $\$ 3,647$ | $\$ 3,610$ |
| 18 years | $\$ 4,287$ | $\$ 4,359$ | $\$ 4,431$ | $\$ 4,502$ | $\$ 4,574$ | $\$ 4,646$ | $\$ 4,717$ | $\$ 4,789$ | $\$ 4,861$ | $\$ 4,932$ | $\$ 5,004$ |

## What's the upside of taking more risk?

Equity carries more short-term risk than fixed income but, in the long run, is significantly more profitable.

When you compare the average returns (not the best, just average) of $30 \%$ equity and $70 \%$ equity asset mixes (instead of the worst returns due to a market collapse), the benefits of equity become very evident.

## Average historical performance of a $\$ 5,000$ portfolio

| 30\% equity |  |  |
| :--- | :---: | :---: |
| $\mathbf{6}$ month: | $\$ 123$ | $\$ 212$ |
| $\mathbf{1}$ year | $\$ 263$ | $\$ 428$ |
| $\mathbf{2}$ years | $\$ 546$ | $\$ 854$ |
| $\mathbf{3}$ years | $\$ 886$ | $\$ 1,397$ |
| $\mathbf{4}$ years | $\$ 1,222$ | $\$ 1,926$ |
| $\mathbf{5}$ years | $\$ 1,464$ | $\$ 2,166$ |
| $\mathbf{1 1}$ years | $\$ 3,166$ | $\$ 4,322$ |
| $\mathbf{2 0}$ years | $\$ 6,905$ | $\$ 9,512$ |

After 5 years, with the same $\$ 5,000$ dollar investment, the $70 \%$ equity asset mix earned $14 \%$ more ( $\$ 702$ ) than the $30 \%$ equity mix. After 20 years, the equity-dominated portfolio outperformed by $52 \%$.

## Glossary:

Investment portfolios are built from investment products you can buy, also called securities. Basic investment products are stocks and bonds, mutual funds and ETFs, and GICs.

- When you buy stocks, you buy small portions of companies, like a chain of grocery stores or a car maker. This kind of investment is referred to as equity (or equities).
- When you buy bonds, you lend money to companies or governments, like the government of Canada, British Columbia, or City of Toronto. Bonds are referred to as fixed income.
- GICs (guaranteed investment certificates) are another example of fixed income: you lend money to the bank that issues the GIC, but the loan is insured by the government of Canada (this means that should the bank get into trouble and not be able to pay you back, the government will).
- You can buy stocks and bonds directly, but consider buying them through index ETFs (exchangetraded funds) or index mutual funds. It's less risky because these funds are large 'baskets' of individual securities. They are called index funds because they hold all securities in their market, for example US equities.

In our example, the portfolios consist of a global equity ETF and, as fixed income, 5-year GICs.

