

# **The 10 Essential Elements of Investing**

## **Essential Element 2 Set the mix**



**Beaver Investing**

The investment guide for Canadian foundations and charities  
Third edition

Written: February 1, 2019  
Updated: April 30, 2020

In Essential Element 1: Start with why, we covered the Discern phase: discerning whether and why to invest. We now proceed to the Invest phase with Essential Elements 2-7: planning the investment program.

Discern	Invest	Govern & Lead
1) Start with why	2) Set the mix	8) Own the plan
	3) Diversify	9) Build inside
	4) Simplify	10) Build outside
	5) Balance risk	
	6) Control cost	
	7) Use time	

Asset mix – the blend of stocks, bonds and cash in the portfolio – is the bedrock decision of investment planning. It contributes more to long-term success than any other investment factor. While we will discuss cash and bonds, we will focus on stocks as the foundation of the asset mix for long-term investors.

### Historical returns of asset classes

How long are we investing for? Do we have the right investment assets to match this time horizon? These are critical questions in setting the asset mix. To address these questions, however, we need a clear understanding of the risk and return characteristics of stocks, bonds and cash, over the short and long term. Below we see that as the investment holding period becomes longer, it becomes increasingly likely that stocks will outperform bonds and bills (Treasury bills, equivalent to cash).

Table 1: Percentage of time stocks outperform bonds and bills over various holding periods, United States, 1871 to 2012

Holding period	Stocks outperform bonds	Stocks outperform bills
1 year	61.3%	66.9%
5 years	69.0%	74.6%
10 years	78.2%	83.8%
20 years	95.8%	99.3%
30 years	99.3%	100%

The above table is from Jeremy Siegel, *Stocks for the Long Run*.<sup>1</sup> Siegel explains how stocks are safer than they appear over the long term:

Stocks are unquestionably riskier than bonds or Treasury bills over one- and two-year periods. However, in every five-year period since 1802, the worst performance in stocks, at -11.9 percent per year, has been only slightly worse than the worst performance in bonds and bills. And for 10-year holding periods, the worst stock performance has actually been *better* than that for bonds or bills.<sup>2</sup>

Institutions that are truly investing for the long term will want a bias towards stocks, which are more likely to exhibit higher returns than bonds or cash and have a higher chance of preserving

purchasing power over the long term. When matched to a long-term horizon, stocks can be less risky than bonds or cash.

Table 2: Asset classes, annualized returns, United States, 1802 to 2012, US dollars

Asset class	Nominal return	Real return	Final balance
Stocks	8.1%	6.6%	\$704,997
Bonds	5.1%	3.6%	\$1,778
Bills	4.2%	2.7%	\$281
Gold	2.1%	0.7%	\$4.52
US dollar	1.4%	-1.4%	\$0.05

The above table shows the result of investing one dollar from 1802 to 2012, in nominal terms (before inflation) and real terms (after inflation).<sup>3</sup> A dollar invested in stocks was worth about \$705,000 by 2012, while a dollar invested in Treasury bills was worth just \$281. The final balance, in real terms, was over 2,500 times greater for stocks.

Recognizing that most institutions are not investing for periods of two centuries, we will now take these long-term real returns and show the return differential of stocks versus bonds and bills, applied to an initial balance of \$10 million over periods of 10, 20 and 30 years.

Table 3: Return differential of stocks over bonds and bills, real terms

Asset class	After 10 years	After 20 years	After 30 years
Stocks: 6.6%	\$18.9 million	\$35.9 million	\$68.0 million
Bonds: 3.6%	\$14.2 million	\$20.3 million	\$28.9 million
Bills: 2.7%	\$13.1 million	\$17.0 million	\$22.2 million

After 20 years, stocks have an expected return of about \$15.6 million more than bonds and about \$18.9 million more than bills. With the power of compound interest, the advantage of stocks becomes even more pronounced after 30 years, by which time stocks have an expected return of about \$39.1 million more than bonds and about \$45.8 million more than bills. Having reviewed the long-term performance of stocks, bonds and bills, we will explore each of these assets in greater detail.

## Cash

Cash, interest-bearing holdings with a term of less than one year that are extremely safe and can be immediately sold, provide liquidity to cover short-term spending. Examples of cash include Treasury bills, Guaranteed Income Certificates and bank savings accounts. Cash, as a short-term asset, should be matched to short-term liabilities. Yet we find that many foundations and charities, including those with a perpetual time horizon, are cash-heavy. We believe that long-term charitable investors should have little need for cash, other than to cover spending for the current year and possibly the next year. This amount can be held separately from the portfolio, so that the only cash in the portfolio is from dividends and interest. By using cash for short-term liquidity, institutions can focus their long-term investment planning on setting an appropriate mix of stocks and bonds.

## Bonds

Bonds, loans made by government or corporations with a term of one year to 30 years or longer and that pay regular interest to investors, provide short-term stability to the portfolio. This is particularly important when the stock market crashes. In the United States from 1928 to 2016, during 21 of the 24 years when stock returns were negative, bond returns were positive. On average during down years in the stock market, stock returns were down about 14%, while bond returns were up about 5%.<sup>4</sup> While bonds seem safe over the short term, they can be surprisingly risky over the long term. Low yields and rising rates create a risk of bond returns falling below the level of inflation for a sustained period (as was the case from the early 1950s to the early 1980s), which can significantly erode the value of a portfolio. Given the need of institutions to balance short-term stability and long-term growth, bonds typically comprise about 30-50% of a long-term asset mix.

## Stocks

Stocks, claims on the profits and dividends of corporations with no guaranteed value, provide the potential for long-term growth, although with much greater risk of short-term loss than cash or bonds. Since stocks have the highest expected return of any long-term asset, they play an important role for institutions, protecting assets from being gradually eroded by inflation. Given the need of institutions to balance short-term stability and long-term growth, stocks typically comprise about 50-70% of a long-term asset mix.

As a general rule, institutions tend to underestimate rather than overestimate how much they should allocate to stocks. A key reason for this is a lack of clarity about the returns involved – nominal, real and net. Nominal means the return before accounting for inflation, fees and costs. It is usually the nominal return we see in the media when we read that "Canadian stocks are up 10% this year".<sup>5</sup> From the nominal return, we subtract inflation, which provides the real return. From the real return, we subtract fees and costs, which provides the net return. Long-term investors should focus relentlessly on the net return – the increase in purchasing power, after subtracting inflation, fees and costs. Nominal returns are just that – in name only. Net returns are what enable a school to build a new library, a hospital to build a new cardiac unit or a youth agency to build a new sports centre.

Imagine an institution decides that it requires a 4% return to meet its investment objectives. In this example, we allow 2% for inflation<sup>6</sup> and 1% for fees and costs<sup>7</sup>. To achieve this return on a net basis, the institution requires a nominal return of 7%, so that when it subtracts inflation of 2% and fees and costs of 1%, it actually ends up with a net return of 4%. The institution might also wish to add a margin of safety of around 1%. When the target nominal return is 7-8%, this implies a much more substantial allocation to stocks than if the target nominal return were 4%. From this perspective, we see that organizations can easily underestimate how much they should allocate to stocks, in order to achieve the net return that will enable them to meet their investment objectives.

## Conclusion

Asset mix – the blend of stocks, bonds and cash in the portfolio – is the bedrock decision of investment planning. Long-term investors should look to minimize the level of cash in the portfolio and instead focus on the mix of stocks and bonds, with a bias to stocks because of their potential for long-term growth. With a sound asset mix in place, foundations and charities are prepared to start building an investment program.

<sup>1</sup> Jeremy Siegel, *Stocks for the Long Run* (2014), fifth edition, p. 96, table 6-1.

<sup>2</sup> Jeremy Siegel, p. 94.

<sup>3</sup> Jeremy Siegel, p. 6, figure 1-1.

<sup>4</sup> Ben Carlson, *A Wealth of Common Sense*, blog post, March 18, 2014.  
<http://awealthofcommonsense.com/2014/03/black-swan-strategy>

<sup>5</sup> The nominal return is often quoted in the media as a price return (price change only), rather than a total return (price change plus reinvested distributions). When establishing target returns, which are typically nominal, institutions should use total returns.

<sup>6</sup> Canadian inflation, as measured by annual changes in the Consumer Price Index, averaged 4.01% in the 50 years from 1968 to 2018 and 1.81% in the 25 years from 1993 to 2018. An estimate for inflation is the midpoint of the Bank of Canada's current target range for inflation (the range is 1-3% and the midpoint is 2%). For historical inflation, see the Bank of Canada's inflation calculator.  
<http://www.bankofcanada.ca/rates/related/inflation-calculator>

<sup>7</sup> For more details on fees and costs, see Essential Element 6: Control cost.