

## Million Dollar Prediction

Warren Buffett recently predicted that the Dow Jones Industrial Average (DJIA) will reach 1 million within a hundred years. "That is not a ridiculous forecast at all, if you do the math on it," Buffett said.

The DJIA was first calculated on May 26, 1896 with a value of 40.96. Since then, it has increased 571 fold to its current value of 23,400. This expansion translates into a 5.4% compound annualized growth rate over the DJIA's approximate 121.4 year history. It would require another 43 fold increase for the DJIA to reach 1 million over the next century, or a compound growth rate of 3.8% per year. Although Buffett's prediction seems far-fetched, it is actually quite modest by historical standards.

Population growth, productivity improvements and innovation from technology have contributed to the tremendous expansion of American stocks. But there's another force that has propelled the DJIA throughout time: inflation. In terms of the value of goods and services it can buy, the US dollar has lost more than 97% of its value over the history of the DJIA. This translates to an average inflation rate of approximately 2.8% per year. If the US Federal Reserve were to pursue a 2% inflation target over the next century, more than half of the gain in the DJIA would be due to inflation alone.

Investing in the stock market has been a great way of avoiding the corrosive effect of depreciating dollars caused by inflation. The businesses that succeed find ways to pass inflation through to their customers, creating growing streams of cash flow for stockholders.

For bond investors, however, the story is different. Cash flows are negotiated and fixed in advance (with some exceptions such as real-return bonds and floating rate notes). A risk for bond investors, therefore, is that the contracted cash flows received (and their re-investment) plus the return of principal do not adequately compensate for inflation. Two margins of safety that bond holders have against this risk is in the price they pay and the time to maturity. A review of history is instructive in highlighting the risks of inflation to bond investors.

From 1953 to 1964, inflation in Canada averaged only 1.4% per year. By 1965, long-term federal bonds yielded 5%, which may have seemed like an attractive yield at the time. Although \$100 invested in long-term bonds in 1965

grew to a seemingly attractive \$137 by 1975, the purchasing power of those dollars was eroded to only \$77, due to inflation that averaged 5.9% per year. The parallel of the 1960's with today is that investor perception has been conditioned by almost a decade of low inflation and by current interest rates which are near all-time lows.

Consider the performance of the following two bonds if their yields are re-priced just 1% higher over the next two years.

	GovCan 2.75% due 12/01/2048	Rogers 5.34% due 03/22/2021
<i>On October 25, 2017:</i>		
Yield to Maturity	2.39%	2.39%
Price	\$107.80	\$109.60
<i>On October 25, 2019:</i>		
Yield to Maturity	3.39%	3.39%
Price	\$88.17	\$102.65
<i>2-year return estimate:</i>		
Coupons & re-investment	5.1%	9.8%
Capital Loss	<u>-18.2%</u>	<u>-6.3%</u>
Holding Period Return	-12.9%	3.5%

Source: Bloomberg

As shown, there is a much greater risk of capital loss in the longer-term Government of Canada bond if interest rates move up from here. As such, we prefer to take on the credit risk of Rogers over four years (as we have in QV's bond and balanced strategies) over the inflation and interest rate risk in the 30-year GovCan bond (which we do not hold).

Interest rates have just begun to bounce off their lowest levels in recorded history. If the economic recovery persists, interest rates may continue to rise toward historical norms. If this is the case, we believe the perception of risk will change dramatically.

Even in a rising interest rate environment bonds can be additive to portfolio returns provided their risks are evaluated carefully. Furthermore, bonds (especially high quality government issues) tend to perform well during periods of weakness and investor anxiety. The DJIA may very well go to 1 million by 2117. However, many investors prefer the stability and growth of a portfolio that balances the risks of stocks and bonds to help with the inevitable bumps along the way.