



# TD Economics

## Special Report

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### RATES OF RETURN FOR THE LONG HAUL

When building a retirement plan, one needs to make a number of key assumptions, such as: what age you plan to retire, how long your savings have to last, and what percentage of pre-retirement income you will require during your leisure years. One critical assumption is what rate of return your savings will earn. After all, it can be mathematically shown that the compounding effect from the financial returns on past savings is the dominant driver of wealth accumulation. This is why saving early is so important. But, what represents a reasonable expectation for the rate of return on a well diversified portfolio over the long haul?

One natural approach is to look at historical averages as a guide. However, the past is often a poor predictor of the future, particularly given the shift to a sustained low inflation environment. As an alternative, we have tackled this issue by making long-term projections for inflation, productivity, labour market conditions, economic growth,

LONG-RUN ECONOMIC PROJECTIONS	
Economic Forecasts	Average annual per cent change
<b>Canada</b>	
Labour Force Growth	0.5
Output per Employee	2.0
Real GDP	2.5
Inflation	2.0
Nominal GDP	4.5
Corporate Profits	4.5
<b>International</b>	
U.S. Nominal GDP	5.0
Euro-zone Nominal GDP	4.2
Japan Nominal GDP	2.0
Source: TD Economics	

LONG-RUN FINANCIAL PROJECTIONS	
Financial Forecasts	Average annual per cent return
Bank of Canada Overnight Rate	4.50
Cash: 3-Month T-bills	4.40
Income: Scotia Universe Bond Index	5.60
Cdn Equities: S&P/TSX	7.30
U.S. Equities: S&P500	7.80
Int'l Non-U.S. Equities: MSCI EAFE Index	7.50
Source: TD Economics	

and corporate profits, as summarized in the accompanying table. These forecasts are then used to infer what the future returns for various major asset categories might be and from them derive an expectation for portfolio returns.

We will focus on three asset categories: cash, income and equities.

Cash represents the return on short-term fixed income investments, including money market mutual funds. The reference benchmark for the performance of cash is the expected yield on 3-month T-bills.

Income is the return on medium-to-long term fixed income products, such as government bonds and corporate debentures. The standard benchmark for the income category is the Scotia Capital Markets Universe Bond Index, which is a weighted basket encompassing federal, provincial, municipal and corporate bonds.

Equities represent the return on shares listed on the major stock exchanges. The S&P/TSX is used as a benchmark for Canadian equities, while the S&P500 is used as a reference for U.S. equities. The Morgan Stanley Capital International (MSCI) Europe, Australia and Far East (EAFE) Index – a composite measure of stock perform-

ance in the major industrialized economies excluding the United States and Canada – is the reference for international equities. Let's outline the expected average annual return for each of these investment classes.

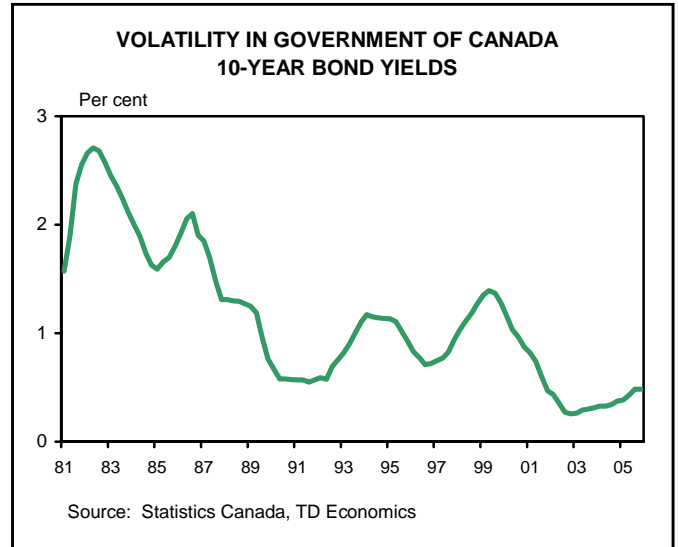
**Cash to return 4.40%**

The return on cash is forecast to average 4.40%. This is higher than the current yield and is consistent with a neutral stance to monetary policy by the Bank of Canada, which we estimate is broadly in line with an overnight rate averaging approximately 4.50% – representing a real overnight rate of 2.50% plus 2% for inflation. Over a long time horizon, there will be periods when monetary policy is accommodative, with low interest rates like today, and periods when monetary policy is restrictive, but they should average out over time.

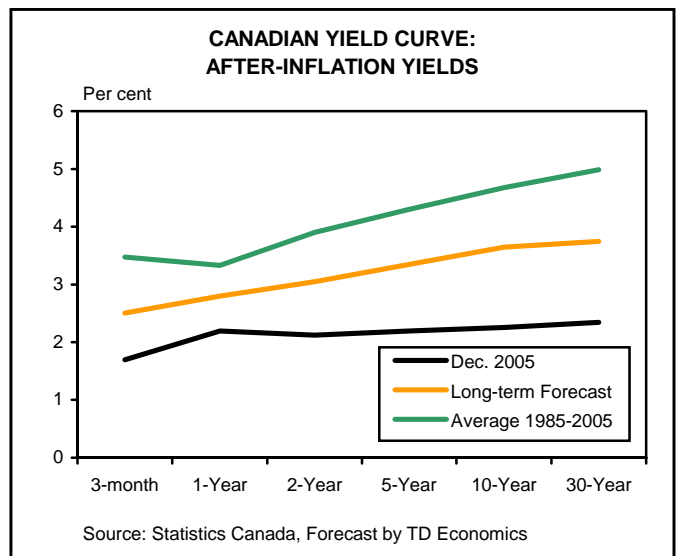
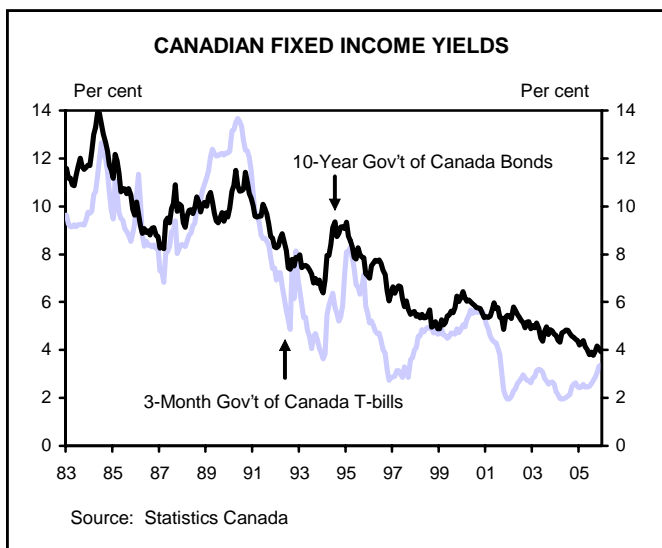
**Income to provide 5.60%**

The projected return on income is 5.60%. As one would expect, the return is greater than on cash. Since bonds carry a commitment by the issuer to provide a stipulated interest payment over a 2 to 30 year time horizon and a promise to repay the initial investment at the end of the period, investors must be compensated for a variety of risks. For example, there is term risk associated with uncertainty over the future level of interest rates, inflation risk associated with the possibility that the purchasing power of the interest payments will be eroded by rising prices and default risk that the issuer will not meet the terms of the commitment.

The forecast is based on the expectation for monetary policy to average a neutral stance over the next ten years,



which will boost the level of yields from those that exist today. However, the overall return will be less than in the past, reflecting lower term and inflation risk premiums. Since 1995, the SCM Universe Bond Index has provided an average annual return of 7.73%, with a trend decline in bond prices producing capital gains that added to the interest payments from the bonds. In our opinion, the secular bull market that was fuelled by declining inflation expectations is over and future capital gains and capital losses should largely offset one another. As a result, the return will be dominated by the yield on the instruments, and the yield will be constrained by more modest term and inflation premiums. Indeed, one of the defining economic trends over the past decade has been a marked reduction in the volatility in inflation, interest rates and economic growth. While this is a clearly positive development, it



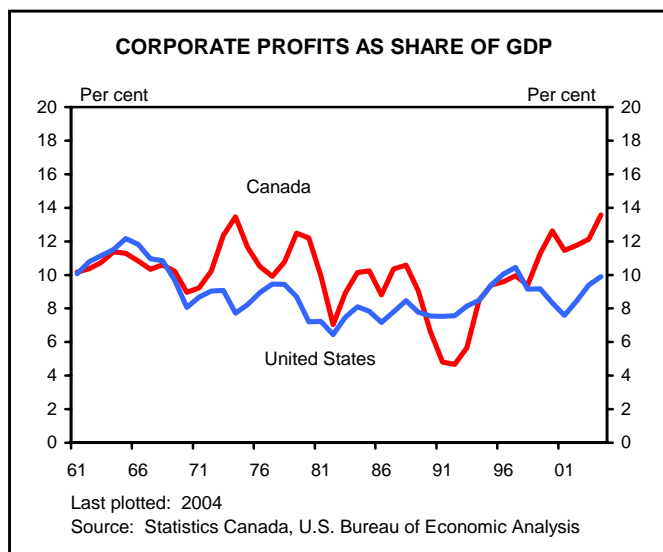
has reduced the risk associated with investing in longer-term financial products and has led to a sustained lower level of bond yields.

### Equities to deliver 7 to 8%

Equities are expected to provide an average annual return between 7 to 8% over the next 10 years. Based on projections for labour force growth, productivity and inflation, one can assess the prospects for corporate profits in Canada, the U.S. and in the other major industrialized countries. Assuming relatively stable price-to-earnings multiples, the benchmark indexes should roughly parallel the growth in underlying profits, which in turn should generally track nominal GDP growth (as shown in the chart below). Adding on dividends, the total return for Canadian equities is expected to average 7.3%. Higher productivity and labour force growth south of the border is expected to generate 7.8% on U.S. equities. Meanwhile, slower labour force growth but higher dividends are expected to put international equities in the middle with 7.5%.

### Portfolios to average between 6.0 to 7.6%

Armed with the above mentioned rate of return assumptions, one can build expectations for various portfolios by simply using a variety of weights to construct the basket



PORTFOLIO RETURNS						
Portfolio	Asset % share of portfolio					% Rate of Return
	Cash	Income	Cdn Equity	U.S. Equity	Int'l Equity	
<b>Income</b>	20	50	9	12	9	<b>6.0</b>
<b>Income &amp; Moderate Growth</b>	10	45	12	19	14	<b>6.4</b>
<b>Balanced Growth</b>	5	35	15	26	19	<b>6.7</b>
<b>Aggressive Growth</b>	0	20	19	35	26	<b>7.2</b>
<b>Maximum Equity Growth</b>	0	0	22	44	34	<b>7.6</b>

Source: TD Economics, TD Asset Management Inc.

of investments. In the accompanying table, we apply the asset weights in a number of TD Waterhouse portfolios. The resulting average annual portfolio returns range from 6.0 to 7.6%.

It should be highlighted that the discussion has been about the average annual returns, not the performance in any given year. This masks the fact that there will be considerable volatility, with years of double digit gains and years of low single digit gains, or even losses. The returns are also based on projections for the major benchmark indexes, and the asset holdings of individual portfolios will not match the index. Lastly, the returns are before inflation, fees or taxes.

While some may be disappointed by the forecasted returns and may be anticipating a superior performance by their portfolios, we feel that these results are realistic. And, we would stress that conservative assumptions are called for in financial planning. After all, it is a windfall if a portfolio performs better than expected, but financial plans and retirement lifestyle could fall short if returns disappoint.

*Craig Alexander, VP & Deputy Chief Economist*  
416-982-8064

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