

# Volatility: a question of probability

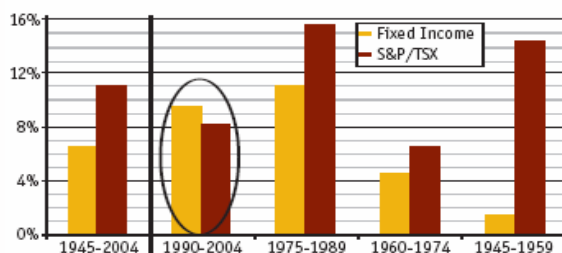


*With a return of more than 38% between January 1, 2004 and September 30, 2005, the Canadian stock market is among the world's top performers. But should we be worried about the prospect of sudden fluctuations?*

Investment management often involves balancing portfolio risk and return. Investors who take more risks reap larger returns than conservative investors do. It would actually be more accurate to say that risk-takers can expect better returns over the long term. As in many other fields, there is no place for absolute certainty when it comes to investing.

U.S. economic performance over the past 200 years clearly shows that over the very long term, the risk premium of stocks, i.e., the "reward" for risk-taking, has been between 2% and 5%. Rewards have gone to those who took more risks, rather than settling for fixed-income investments. In addition, without a long-term risk premium, the entrepreneurial spirit would quickly disappear – the opposite of what is needed in a healthy economic system.

However, if we consider shorter periods (e.g., 15 years), this relationship is not always respected. For example, in late 2004, a portfolio of fixed-income securities outperformed a portfolio of Canadian equities over 15 years.



Although real, this situation is quite exceptional and in no way reflects the future expectations of reward for accepting risk.

## Stock price volatility

In addition to higher volatility, there is the prospect of higher returns. The volatility of returns, usually measured by the standard deviation of observed returns, expresses the expected pattern of returns.

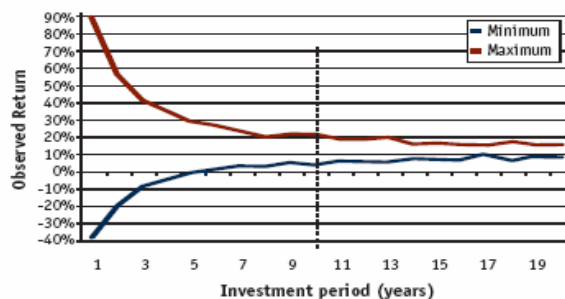
However, the annual return on Canadian equities is highly volatile. For example, if the investment horizon is only one year, history shows that the probability of losing money is approximately 27%. In a one-year period, returns have varied from -39.2% to +86.9%! Therefore, losses as well as gains may be substantial.

Over five years, however, the picture changes significantly. Since 1957, only 2% of five-year periods have had a negative return. In addition, returns of between 5% and 10% are the most common (39% of the time), with returns of between 10% and 15% occurring 26% of the time. In other words,

two times out of three, the five-year return was between 5% and 15%. As we have seen, the variability of returns, and thus volatility, is significantly reduced.

## Lower long-term volatility

Based on the following graph of return extremes, one-year volatility is enormous (hardly surprising), although it drops rapidly over time, tending toward the average return. In addition, the S&P/TSX Index showed no 10-year periods with negative returns (the lowest since 1957 was +3.3%).



However, negative returns are theoretically possible. Assuming an average expected equity return of 8% and a standard deviation over 10 years of approximately 3.6%, the probability of a positive return is nearly 99%. In addition, by diversifying shares with other geographic regions, risk is reduced further, and the chances of success are better.

In conclusion, even if stocks bring a level of short-term volatility that some investors cannot tolerate, their long-term volatility is much more acceptable, with expected returns often justifying this calculated risk. For that reason, stocks should be considered within a well diversified portfolio, in keeping with your investor profile. At National Bank Private Investment Management, our managers consistently strive to reduce volatility as part of the twin goals of capital preservation and long-term capital growth.

Your advisor will be happy to answer any questions you may have on this topic.

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