NOTE 21 RISK MANAGEMENT (CONTINUED)

MARKET RISK

Currency risk For Lifeco, if the assets backing insurance and investment contract liabilities are not matched by currency, changes in foreign exchange rates can expose Lifeco to the risk of foreign exchange losses not offset by liability decreases. Lifeco has net investments in foreign operations. In addition, Lifeco's debt obligations are mainly denominated in Canadian dollars. In accordance with IFRS, foreign currency translation gains and losses from net investments in foreign operations, net of related hedging activities and tax effects, are recorded in other comprehensive income. Strengthening or weakening of the Canadian dollar spot rate compared to the U.S. dollar, British pound and euro spot rates impacts Lifeco's total share capital and surplus. Correspondingly, Lifeco's book value per share and capital ratios monitored by rating agencies are also impacted. The following policies and procedures are in place to mitigate Lifeco's exposure to currency risk:

> Lifeco uses financial measures such as constant currency calculations to monitor the effect of currency translation fluctuations.

> Investments are normally made in the same currency as the liabilities supported by those investments. Segmented investment guidelines include maximum tolerances for unhedged currency mismatch exposures.

> Foreign currency assets acquired to back liabilities are normally converted back to the currency of the liability using foreign exchange contracts.

> A 10% weakening of the Canadian dollar against foreign currencies would be expected to increase non-participating insurance and investment contract liabilities and their supporting assets by approximately the same amount, resulting in an immaterial change to net earnings. A 10% strengthening of the Canadian dollar against foreign currencies would be expected to decrease non-participating insurance and investment contract liabilities and their supporting assets by approximately the same amount, resulting in an immaterial change in net earnings.

Interest rate risk The following policies and procedures are in place to mitigate Lifeco's exposure to interest rate risk:

> Lifeco utilizes a formal process for managing the matching of assets and liabilities. This involves grouping general fund assets and liabilities into segments. Assets in each segment are managed in relation to the liabilities in the segment.

> Interest rate risk is managed by investing in assets that are suitable for the products sold.

> Where these products have benefit or expense payments that are dependent on inflation (inflation-indexed annuities, pensions and disability claims), Lifeco generally invests in real return instruments to hedge its real dollar liability cash flows. Some protection against changes in the inflation index is achieved as any related change in the fair value of the assets will be largely offset by a similar change in the fair value of the liabilities.

> For products with fixed and highly predictable benefit payments, investments are made in fixed income assets or real estate whose cash flows closely match the liability product cash flows. Where assets are not available to match certain period cash flows, such as long-tail cash flows, a portion of these are invested in equities and the rest are duration matched. Hedging instruments are employed where necessary when there is a lack of suitable permanent investments to minimize loss exposure to interest rate changes. To the extent these cash flows are matched, protection against interest rate change is achieved and any change in the fair value of the assets will be offset by a similar change in the fair value of the liabilities.

> For products with less predictable timing of benefit payments, investments are made in fixed income assets with cash flows of a shorter duration than the anticipated timing of benefit payments or equities, as described below.

> The risks associated with the mismatch in portfolio duration and cash flow, asset prepayment exposure and the pace of asset acquisition are quantified and reviewed regularly.

Projected cash flows from the current assets and liabilities are used in the Canadian Asset Liability Method to determine insurance contract liabilities. Valuation assumptions have been made regarding rates of returns on supporting assets, fixed income, equity and inflation. The valuation assumptions use best estimates of future reinvestment rates and inflation assumptions with an assumed correlation together with margins for adverse deviation set in accordance with professional standards. These margins are necessary to provide for possibilities of misestimation and/or future deterioration in the best estimate assumptions and provide reasonable assurance that insurance contract liabilities cover a range of possible outcomes. Margins are reviewed periodically for continued appropriateness.

Projected cash flows from fixed income assets used in actuarial calculations are reduced to provide for potential asset default losses. The net effective yield rate reduction averaged 0.18% (0.19% in 2013). The calculation for future credit losses on assets is based on the credit quality of the underlying asset portfolio.

Testing under a number of interest rate scenarios (including increasing, decreasing and fluctuating rates) is done to assess reinvestment risk. The total provision for interest rates is sufficient to cover a broader or more severe set of risks than the minimum arising from the current Canadian Institute of Actuaries-prescribed scenarios.

The range of interest rates covered by these provisions is set in consideration of long-term historical results and is monitored quarterly with a full review annually. An immediate 1% parallel shift in the yield curve would not have a material impact on Lifeco's view of the range of interest rates to be covered by the provisions. If sustained however, the parallel shift could impact Lifeco's range of scenarios covered.

The total provision for interest rates also considers the impact of the Canadian Institute of Actuaries-prescribed scenarios:

> The effect of an immediate 1% parallel increase in the yield curve on the prescribed scenarios would not change the total provision for interest rates.

> The effect of an immediate 1% parallel decrease in the yield curve on the prescribed scenarios would not change the total provision for interest rates.

Another way of measuring the interest rate risk associated with this assumption is to determine the effect on the insurance and investment contract liabilities impacting the shareholders' earnings of Lifeco of a 1% change in Lifeco's view of the range of interest rates to be covered by these provisions:

> The effect of an immediate 1% increase in the low and high end of the range of interest rates recognized in the provisions would be to decrease these insurance and investment contract liabilities by approximately $75 million, causing an increase in net earnings of approximately $41 million.

> The effect of an immediate 1% decrease in the low and high end of the range of interest rates recognized in the provisions would be to increase these insurance and investment contract liabilities by approximately $564 million, causing a decrease in net earnings of approximately $383 million.