Assumptions and Approach Used. The assumptions used in developing the required estimates include the following key factors:

- *Discount rates.* Our discount rate assumptions are based primarily on the results of cash flow matching analyses, which match the future cash outflows for each major plan to a yield curve based on high-quality bonds specific to the country of the plan. Benefit payments are discounted at the rates on the curve to determine the year-end obligations.

- *Expected long-term rate of return on plan assets.* Our expected long-term rate of return considers inputs from a range of advisors for capital market returns, inflation, bond yields, and other variables, adjusted for specific aspects of our investment strategy by plan. Historical returns also are considered when appropriate. The assumption is based on consideration of all inputs, with a focus on long-term trends to avoid short-term market influences.

- *Salary growth.* Our salary growth assumption reflects our actual experience, long-term outlook, and assumed inflation.

- *Inflation.* Our inflation assumption is based on an evaluation of external market indicators, including real gross domestic product growth and central bank inflation targets.

- *Expected contributions.* Our expected amount and timing of contributions are based on an assessment of minimum requirements, cash availability, and other considerations (e.g., funded status, avoidance of regulatory premiums and levies, and tax efficiency).

- *Retirement rates.* Retirement rates are developed to reflect actual and projected plan experience.

- *Mortality rates.* Mortality rates are developed to reflect actual and projected plan experience.

- *Health care cost trends*. Our health care cost trend assumptions are developed based on historical cost data, the near-term outlook, and an assessment of likely long-term trends.

Assumptions are set at each year-end and are generally not changed during the year unless there is a major plan event, such as a curtailment or settlement that would trigger a plan remeasurement.

See Note 17 of the Notes to the Financial Statements for more information regarding pension and OPEB costs and assumptions.

Pension Plans

Effect of Actual Results. The year-end 2022 weighted average discount rate was 5.51% for U.S. plans and 4.42% for non-U.S. plans, reflecting increases of 260 and 267 basis points, respectively, compared with year-end 2021. In 2022, the U.S. actual return on assets was negative 21.20%, which was lower than the expected long-term rate of return of 5.75%. Non-U.S. actual return on assets was negative 25.40%, which was lower than the expected long-term rate of return of 3.29%. The lower returns are explained by losses on fixed income and growth assets, both of which were consistent with broader market performance. In total, higher rates and pension asset losses, in addition to demographic and other updates, resulted in a net remeasurement loss of $1.3 billion, which has been recognized within net periodic benefit cost and reported as a special item.

For 2023, the expected long-term rate of return on assets is 6.25% for U.S. plans, up 50 basis points from 2022, and 4.13% for non-U.S. plans, up 84 basis points compared with a year ago, reflecting higher nominal risk-free rates and a higher consensus on capital market return expectations from advisors.

De-risking Strategy. We employ a broad de-risking strategy for our global funded plans that increases the matching characteristics of our assets relative to our obligation as funded status improves. Changes in interest rates, which directly influence changes in discount rates, in addition to other factors have a significant impact on the value of our pension obligation and fixed income asset portfolio. Our de-risking strategy has increased the allocation to fixed income investments and reduced our funded status sensitivity to changes in interest rates. Changes in interest rates should result in offsetting effects in the value of our pension obligation and the value of the fixed income asset portfolio.