- Long-term growth rate. A growth rate is used to calculate the terminal value of the business and is added to the present value of the debt-free interim cash flows. The growth rate is the expected rate at which an asset group's business unit's earnings stream is projected to grow beyond the planning period.
- Discount rate. When measuring possible impairment, future cash flows are discounted at a rate that is consistent with a weighted-average cost of capital that we
 anticipate a potential market participant would use. Weighted-average cost of capital is an estimate of the overall risk-adjusted pre-tax rate of return expected by
 equity and debt holders of a business enterprise.
- Economic projections. Assumptions regarding general economic conditions are included in and affect our assumptions regarding industry sales and pricing estimates for our vehicles. These macroeconomic assumptions include, but are not limited to, industry sales volumes, inflation, interest rates, prices of raw materials (e.g., commodities), and foreign currency exchange rates.

The market approach is another method for measuring the fair value of a reporting unit or asset group. This approach relies on the market value (i.e., market capitalization) of companies that are engaged in the same or similar line of business as the reporting unit or asset group being evaluated. In addition, to the extent available we also consider third-party valuations that were prepared for other business purposes.

During 2022, we continued to progress our global redesign. Against this backdrop, we determined that there were triggering events related to our South America and International Markets Group ("IMG") business units. We also assessed our expected new 2023 asset groups, which consist of Ford Blue North America, Ford Blue Europe, Ford Blue Rest of World, Ford Model e, Ford Pro, Ford Credit and Ford Next and assessed these groups for triggering events and potential impairment. We determined that the carrying values of the long-lived assets were recoverable at December 31, 2022 under our existing assets groups as well as under our anticipated 2023 asset groups. If in future quarters our economic or business projections were to change as a result of our plans or changes in the economic or business environment, there was a significant adverse change in the extent or manner in which a long-lived asset is being used, or there was a current expectation that a long-lived asset group will be disposed of significantly before the end of its useful life, we would undertake additional testing, as appropriate, which could result in an impairment of long-lived assets.

Assumptions and Approach Used - Held-for-Sale Operations. In the third quarter of 2022, we entered into an agreement to sell our Sanand, India vehicle assembly and powertrain plants to Tata Passenger Electric Mobility Limited ("Tata"). The sale transaction included the land, buildings, and other fixed assets (excluding the powertrain machinery and equipment) for the plants. Accordingly, we have reported \$88 million of fixed assets for this operation as held for sale for the period ended December 31, 2022. We recognized pre-tax impairment charges in Cost of sales of \$32 million in the third quarter of 2022 to adjust the carrying value of the held-for-sale assets to fair value less costs to sell. We determined fair value using the market approach, estimated based on the negotiated value of the assets. On January 10, 2023, we completed the sale of the plants to Tata. See Note 22 of the Notes to the Financial Statements for more information regarding held-for-sale operations.

Allowance for Credit Losses

The allowance for credit losses represents Ford Credit's estimate of the expected lifetime credit losses inherent in finance receivables as of the balance sheet date. The adequacy of Ford Credit's allowance for credit losses is assessed quarterly, and the assumptions and models used in establishing the allowance are evaluated regularly. Because credit losses can vary substantially over time, estimating credit losses requires a number of assumptions about matters that are uncertain. Changes in assumptions affect Ford Credit interest, operating, and other expenses on our consolidated income statements and the allowance for credit losses contained within Ford Credit finance receivables, net on our consolidated balance sheets. See Note 10 of the Notes to the Financial Statements for more information regarding allowance for credit losses

Nature of Estimates Required. Ford Credit estimates the allowance for credit losses for receivables that share similar risk characteristics based on a collective assessment using a combination of measurement models and management judgment. The models consider factors such as historical trends in credit losses, recent portfolio performance, and forward-looking macroeconomic conditions. The models vary by portfolio and receivable type including consumer finance receivables, wholesale loans, and dealer loans. If Ford Credit does not believe the models reflect lifetime expected credit losses for the portfolio, an adjustment is made to reflect management judgment regarding qualitative factors including economic uncertainty, observable changes in portfolio performance, and other relevant factors.