On March 20, 2014, Brazil's Administrative Council for Economic Defense (CADE) published a Technical Opinion which named 18 companies and over 100 individuals as defendants, including two subsidiaries of Caterpillar Inc., MGE - Equipamentos e Serviços Ferroviários Ltda. (MGE) and Caterpillar Brasil Ltda. The publication of the Technical Opinion opened CADE's official administrative investigation into allegations that the defendants participated in anticompetitive bid activity for the construction and maintenance of metro and train networks in Brazil. While companies cannot be held criminally liable for anticompetitive conduct in Brazil, criminal charges have been brought against one current employee of MGE and two former employees of MGE involving the same conduct alleged by CADE. On July 8, 2019, CADE found MGE, one of its current employees and two of its former employees liable for anticompetitive conduct. CBL was dismissed from the proceeding without any finding of liability. MGE intends to appeal CADE's findings. We currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

In addition, we are involved in other unresolved legal actions that arise in the normal course of business. The most prevalent of these unresolved actions involve disputes related to product design, manufacture and performance liability (including claimed asbestos exposure), contracts, employment issues, environmental matters, intellectual property rights, taxes (other than income taxes) and securities laws. The aggregate range of reasonably possible losses in excess of accrued liabilities, if any, associated with these unresolved legal actions is not material. In some cases, we cannot reasonably estimate a range of loss because there is insufficient information regarding the matter. However, we believe there is no more than a remote chance that any liability arising from these matters would be material. Although it is not possible to predict with certainty the outcome of these unresolved legal actions, we believe that these actions will not individually or in the aggregate have a material adverse effect on our consolidated results of operations, financial position or liquidity.

RETIREMENT BENEFITS

We recognize mark-to-market gains and losses immediately through earnings upon the remeasurement of our pension and OPEB plans. Mark-to-market gains and losses represent the effects of actual results differing from our assumptions and the effects of changing assumptions. Changes in discount rates and differences between the actual return on plan assets and the expected return on plan assets generally have the largest impact on mark-to-market gains and losses.

The table below summarizes the amounts of net periodic benefit cost recognized for 2019, 2018 and 2017, respectively, and includes expected cost for 2020.

(Millions of dollars)	**2020 Expected**	**2019**	2018	2017
U.S. Pension Benefits	**$ (308)**	**$ (7)**	$ (149)	$ (85)
Non-U.S. Pension Benefits	**(4)**	**19**	(69)	(22)
Other Postretirement Benefits	**150**	**158**	138	148
Mark-to-market loss (gain)	**—** [1]	**468**	495	301
Total net periodic benefit cost (benefit)	**$ (162)**	**$ 638**	$ 415	$ 342

[1] Expected net periodic benefit cost (benefit) does not include an estimate for mark-to-market gains or losses.

- **Expected decrease in expense in 2020 compared to 2019** - Excluding the impact of mark-to-market gains and losses, our net periodic benefit cost is expected to decrease $332 million in 2020. This decrease is primarily due to lower interest cost as a result of lower discount rates at year-end 2019, elimination of service cost for our U.S. pension plans freezing benefit accruals and higher expected return on plan assets due to a higher asset base at year-end 2019.
- **Increase in expense in 2019 compared to 2018** - Primarily due to lower expected return on plan assets (U.S. pension plans had an expected rate of return of 5.9 percent in 2019 compared to 6.3 percent in 2018) and higher interest costs due to higher discount rates at year-end 2018.
- **Increase in expense in 2018 compared to 2017** - Primarily due to higher net mark-to-market losses in 2018 compared to 2017. This was partially offset by a higher expected return on plan assets and curtailment gains compared to curtailment and termination charges in 2017.

The primary factors that resulted in mark-to-market losses for 2019, 2018 and 2017 are described below. The net mark-to-market losses were included in Other income (expense) in the Results of Operations.