mix with strong software contribution and our focus on productivity.

Total expense and other (income) increased 17.5 percent in 2020 compared to the prior year. The year-to-year performance was driven by higher charges for workforce rebalancing, a full year of Red Hat operational spending in 2020 compared to six months in 2019, lower gains from divestitures and higher non-operating retirement-related costs, partially offset by lower spending including reductions in travel and other expenses associated with COVID-19 restrictions. Total operating (non-GAAP) expense and other (income) increased 16.8 percent year to year, driven primarily by the same factors excluding the non-operating retirement-related costs.

Pre-tax income from continuing operations of \$4.6 billion decreased 54.4 percent and the pre-tax margin was 6.3 percent, a decrease of 6.9 points versus 2019, primarily due to higher workforce rebalancing charges in 2020, lower gains from divestitures and higher retirement-related costs in the current year. The continuing operations effective tax rate for 2020 was (18.6) percent compared to 7.2