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International Business Machines Corporation and Subsidiary Companies

Operating (non-GAAP) expense increased 12.1 percent year to year primarily driven by the same factors excluding the acquisition-related charges and amortization of acquired intangible assets associated with the Red Hat transaction.

Provisions for expected credit loss expense increased \$19.8 million in 2020 compared to 2019. The receivables provision coverage was 2.4 percent at December 31, 2020, an increase of 70 basis points from December 31, 2019. The higher coverage rate at December 31, 2020 also reflects the adoption of the new guidance for current expected credit losses.

Research, Development and Engineering Expense

(\$ in millions)

	2020	2019	Yr.-to-Yr. Percent Change
For the year ended December 31:			
Total consolidated research, development and engineering	\$6,333	\$5,989	5.7 %
Non-operating adjustment			
Acquisition-related charges	—	(53)	(100.0)
Operating (non-GAAP) research, development and engineering	\$6,333	\$5,936	6.7 %

Research, development and engineering (RD&E) expense was 8.6 percent of revenue in 2020 and 7.8 percent of revenue in 2019.

RD&E expense increased 5.7 percent in 2020 versus 2019 primarily driven by:

- Higher spending (7 points) driven by a full year of Red Hat spending in 2020 compared to six months in 2019 (8 points); partially offset by
- Lower acquisition-related charges associated with the Red Hat transaction (1 point).

Operating (non-GAAP) expense increased 6.7 percent year to year primarily driven by Red Hat spending.

Intellectual Property and Custom Development Income

(\$ in millions)

	2020	2019	Yr.-to-Yr. Percent Change
For the year ended December 31:			
Licensing of intellectual property including royalty-based fees	\$309	\$367	(15.8)%
Custom development income	275	246	11.7
Sales/other transfers of intellectual property	42	34	22.4
Total	\$626	\$648	(3.3)%

Licensing of intellectual property including royalty-based fees decreased 3.3 percent in 2020 compared to 2019. This was primarily due to a decline in licensing of intellectual property including royalty-based fees compared to the prior year. The timing and amount of licensing, sales or other transfers of IP may vary significantly from period to period depending upon the timing of licensing agreements, economic conditions, industry consolidation and the timing of new patents and know-how development.

Other (Income) and Expense

(\$ in millions)

	2020	2019	Yr.-to-Yr. Percent Change
For the year ended December 31:			
Other (income) and expense			
Foreign currency transaction losses/(gains)	\$ 114	\$ (279)	NM
(Gains)/losses on derivative instruments	(101)	15	NM
Interest income	(105)	(349)	(70.0)%