

amount of such loss. The Company records a provision for a loss contingency when information available before the consolidated financial statements are issued or are available to be issued indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the consolidated financial statements and when the amount of loss can be reasonably estimated. The Company regularly re-evaluates claims to determine whether provisions need to be readjusted based on the most current information available to the Company. Changes in these evaluations could result in an adverse material impact on the Company's results of operations, cash flows or its financial position for the period in which they occur.

The Company has received and may in the future receive communications alleging possible infringements of third-party patents or other third-party intellectual property rights. Furthermore, the Company from time to time enters into discussions regarding a broad patent cross license arrangement with other industry participants. There is no assurance that such discussions may be brought to a successful conclusion and result in the intended agreement. The Company may become involved in costly litigation brought against the Company regarding patents, mask works, copyrights, trademarks or trade secrets. In the event that the outcome of any litigation would be unfavorable to the Company, the Company may be required to take a license to third party patents and/or other intellectual property rights at economically unfavorable terms and conditions, and possibly pay damages for prior use and/or face an injunction, all of which individually or in the aggregate could have a material adverse effect on the Company's results of operations, cash flows, financial position and/or ability to compete.

The Company has contractual commitments to various customers which could require the Company to incur costs to repair or replace defective products it supplies to such customer. The duration of these contractual commitments varies and, in certain cases, is indefinite. The Company is otherwise also involved in various lawsuits, claims, inquiries, inspections, investigations and/or proceedings incidental to its business and operations. Such matters, even if not meritorious, could result in the expenditure of significant financial or managerial resources. Any of the foregoing could have a material adverse effect on the Company's results of operations, cash flows or its financial position.

The Company regularly evaluates claims and legal proceedings together with their related probable losses to determine whether they need to be adjusted based on the current information available to the Company. There can be no assurance that its recorded reserves will be sufficient to cover the extent of its potential liabilities. Legal costs associated with claims are expensed as incurred. In the event of litigation which is adversely determined with respect to the Company's interests, or in the event the Company needs to change its evaluation of a potential third-party claim, based on new evidence or communications, a material adverse effect could impact its operations or financial condition at the time it were to materialize.

As at December 31, 2020 and 2019, respectively, provisions for estimated probable losses with respect to claims and legal proceedings were not considered material.

28. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT
28.1 Financial risk factors

The Company is exposed to changes in financial market conditions in the normal course of business due to its operations in different foreign currencies and its ongoing investing and financing activities. The Company's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance. The Company uses derivative financial instruments to hedge certain risk exposures.

Financial risk management is carried out by a central treasury department (Corporate Treasury). Additionally, a Treasury Committee, chaired by the CFO, steers treasury activities and ensures compliance with corporate policies. Treasury activities are thus regulated by the Company's policies, which define procedures, objectives and controls. The policies focus on the management of financial risk in terms of exposure to market risk, credit risk and liquidity risk. Treasury controls are subject to internal audits. Most treasury activities are centralized, with any local treasury activities subject to oversight from Corporate Treasury. Corporate Treasury identifies, evaluates and hedges financial risks in close cooperation with the Company's operating units. It provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, price risk, credit risk, use of derivative financial instruments, and

investments of excess liquidity. The majority of cash and cash equivalents is held in U.S. dollars and Euros and is placed with financial institutions rated at least a single “A” long-term rating from two of the major rating agencies, meaning at least A3 from Moody’s Investor Service and A- from Standard & Poor’s and Fitch Ratings, or better. These ratings are closely and continuously monitored in order to manage exposure to the counterparty’s risk. Hedging transactions are performed only to hedge exposures deriving from operating, investing and financing activities conducted in the normal course of business.

Market risk

Foreign exchange risk

The Company conducts its business on a global basis in various major international currencies. As a result, the Company is exposed to adverse movements in foreign currency exchange rates, primarily with respect to the Euro. Foreign exchange risk mainly arises from recognized assets and liabilities at the Company’s subsidiaries and future commercial transactions.

Management has set up a policy to require the Company’s subsidiaries to hedge their entire foreign exchange risk exposure with the Company through financial instruments transacted or overseen by Corporate Treasury. To manage their foreign exchange risk arising from foreign-currency-denominated assets and liabilities, subsidiaries use forward contracts and purchased currency options. Foreign exchange risk arises when recognized assets and liabilities are denominated in a currency that is not the entity’s functional currency. These instruments do not qualify as hedging instruments for accounting purposes. Forward contracts and currency options, including collars, are also used by the Company to reduce its exposure to U.S. dollar fluctuations in Euro-denominated forecasted intercompany transactions that cover a large part of its research and development, selling, general and administrative expenses as well as a portion of its front-end manufacturing costs of semi-finished goods. The Company also hedges through the use of currency forward contracts certain Singapore dollar-denominated manufacturing forecasted transactions. The derivative instruments used to hedge these forecasted transactions meet the criteria for designation as cash flow hedge. The hedged forecasted transactions have a high probability of occurring for hedge accounting purposes.

It is the Company’s policy to have the foreign exchange exposures in all the currencies hedged month by month against the monthly standard rate. At each month end, the forecasted flows for the coming month are hedged together with the fixing of the new standard rate. For this reason, the hedging transactions will have an exchange rate very close to the standard rate at which the forecasted flows will be recorded on the following month. As such, the foreign exchange exposure of the Company, which consists in the balance sheet positions and other contractually agreed transactions, is always close to zero and any movement in the foreign exchange rates will not therefore influence the exchange effect on items of the consolidated statement of income. Any discrepancy from the forecasted values and the actual results is constantly monitored and prompt actions are taken, if needed.

Derivative Instruments Not Designated as a Hedge

The Company enters into foreign currency forward contracts to reduce its exposure to changes in exchange rates and the associated risk arising from the denomination of certain assets and liabilities in foreign currencies in the Company’s subsidiaries. These include receivables from international sales by various subsidiaries, payables for foreign currency-denominated purchases and certain other assets and liabilities arising from intercompany transactions.

The notional amount of these financial instruments totaled \$897 million, \$575 million and \$376 million at December 31, 2020, 2019 and 2018, respectively. The principal currencies covered at the end of the year 2020 are the Euro, the Singapore dollar, the Swedish krona, the China Yuan Renminbi, the Swiss franc, the Moroccan dirham, the Japanese yen, the Malaysian ringgit, the Indian rupee, the Philippines peso, the South Korean won and the Taiwan dollar.

The risk of loss associated with forward contracts is equal to the exchange rate differential from the time the contract is entered into until the time it is settled. The risk of loss associated with purchased currency options is equal to the premium paid when the option is not exercised.

Foreign currency forward contracts not designated as cash flow hedge outstanding as at December 31, 2020 have remaining terms of 4 days to 181 days, maturing on average after 42 days.

Derivative Instruments Designated as a Hedge

To further reduce its exposure to U.S. dollar exchange rate fluctuations, the Company hedges through the use of currency forward contracts and currency options, including collars, certain Euro-denominated forecasted intercompany transactions that cover at year-end a large part of its research and development, selling, general and administrative expenses, as well as a portion of its front-end manufacturing costs of semi-finished goods within cost of sales. The Company also hedges through the use of currency forward contracts certain manufacturing transactions within cost of sales denominated in Singapore dollars.

The principles regulating the hedging strategy for derivatives designated as cash flow hedge are established as follows: (i) for R&D and corporate costs, up to 80% of the total forecasted transactions; (ii) for manufacturing costs, up to 70% of the total forecasted transactions. In order to follow a dynamic hedge strategy, the Company may change the percentage of the designated hedged item within the limit of 100% of the forecasted transaction. The maximum length of time over which the Company could hedge its exposure to the variability of cash flows for forecasted transactions is 24 months.

For the year ended December 31, 2020, the Company recorded an increase in cost of sales of \$3 million and a decrease in operating expenses of \$3 million, related to the realized losses and gains incurred on such hedged transactions. For the year ended December 31, 2019, the Company recorded an increase in cost of sales of \$51 million and an increase in operating expenses of \$28 million, related to the realized losses incurred on such hedged transactions. For the year ended December 31, 2018, the Company recorded a decrease in cost of sales of \$4 million and an increase in operating expenses of \$3 million, related to the realized gains and losses incurred on such hedged transactions.

The notional amount of foreign currency forward contracts and currency options, including collars, designated as cash flow hedge totaled \$1,502 million, \$1,328 million and \$1,597 million at December 31, 2020, 2019 and 2018, respectively. The forecasted transactions hedged at December 31, 2020 were determined to have a high probability of occurring.

As at December 31, 2020, \$61 million of deferred gains on derivative instruments included in "Accumulated other comprehensive income (loss)" in the consolidated statements of equity were expected to be reclassified as earnings during the next 12 months based on the monthly forecasted research and development expenses, corporate costs and semi-finished manufacturing costs. Foreign currency forward contracts and collars designated as cash flow hedge outstanding as at December 31, 2020 have remaining terms of 6 days to 11 months, maturing on average after 118 days.

As at December 31, 2020, the Company had the following outstanding derivative instruments that were entered into to hedge Euro-denominated and Singapore dollar-denominated forecasted transactions:

In millions of Euros	Notional amount for hedge on forecasted R&D and other operating expenses	Notional amount for hedge on forecasted manufacturing costs
Forward contracts	215	341
Currency collars	237	334
In millions of Singapore dollars		
	Notional amount for hedge on forecasted R&D and other operating expenses	Notional amount for hedge on forecasted manufacturing costs
Forward contracts	—	157

Cash flow and fair value interest rate risk

The Company's interest rate risk arises from long-term borrowings. Borrowings issued at variable rates expose the Company to cash flow interest rate risk. Borrowings issued at fixed rates expose the Company to fair value interest rate risk.

The Company analyses its interest rate exposure on a dynamic basis. Various scenarios are simulated taking into consideration refinancing, renewal of existing positions, alternative financing and hedging. The Company invests primarily on a short-term basis and as such the Company's liquidity is invested in floating interest rate instruments. As a consequence, the Company is exposed to interest rate risk due to potential mismatch between

the return on its short-term floating interest rate investments and the portion of its long-term debt issued at fixed rate.

Price risk

As part of its ongoing investing activities, the Company may be exposed to equity security price risk for investments in public entities. In order to hedge the exposure to this market risk, the Company may enter into certain derivative hedging transactions.

Information on fair value of derivative instruments and their location in the consolidated balance sheets as at December 31, 2020 and December 31, 2019 is presented in the table below:

Asset Derivatives	As at December 31, 2020		As at December 31, 2019	
	Balance sheet location	Fair value	Balance sheet location	Fair value
Derivatives designated as a hedge:				
Foreign exchange forward contracts	Other current assets	40	Other current assets	4
Currency collars	Other current assets	15	Other current assets	1
Total derivatives designated as a hedge		55		5
Derivatives not designated as a hedge:				
Foreign exchange forward contracts	Other current assets	10	Other current assets	3
Total derivatives not designated as a hedge:		10		3
Total Derivatives		65		8

Liability Derivatives	As at December 31, 2020		As at December 31, 2019	
	Balance sheet location	Fair value	Balance sheet location	Fair value
Derivatives designated as a hedge:				
Foreign exchange forward contracts	Other payables and accrued liabilities	–	Other payables and accrued liabilities	(4)
Currency collars	Other payables and accrued liabilities	–	Other payables and accrued liabilities	(2)
Total derivatives designated as a hedge		–		(6)
Derivatives not designated as a hedge:				
Foreign exchange forward contracts	Other payables and accrued liabilities	(2)	Other payables and accrued liabilities	(1)
Total derivatives not designated as a hedge:		(2)		(1)
Total Derivatives		(2)		(7)

The effect on the consolidated statements of income for the year ended December 31, 2020 and December 31, 2019 and on the “Accumulated other comprehensive income (loss)” (“AOCI”) as reported in the consolidated statements of equity as at December 31, 2020 and December 31, 2019 of derivative instruments designated as cash flow hedge is presented in the table below:

	Gain (loss) deferred in OCI on derivative		Location of gain (loss) reclassified from OCI into earnings	Gain (loss) reclassified from OCI into earnings	
	December 31, 2020	December 31, 2019		December 31, 2020	December 31, 2019
Foreign exchange forward contracts	29	(1)	Cost of sales	(2)	(36)
Foreign exchange forward contracts	3	—	Selling, general and administrative	1	(4)
Foreign exchange forward contracts	11	(1)	Research and development	2	(15)
Currency collars	11	(1)	Cost of sales	(1)	(15)
Currency collars	1	—	Selling, general and administrative	—	(2)
Currency collars	6	—	Research and development	—	(7)
Total	61	(3)		—	(79)

No significant ineffective portion of the cash flow hedge relationships was recorded in earnings for the years ended December 31, 2020 and December 31, 2019. No amount was excluded from effectiveness measurement on foreign exchange forward contracts and collars.

The effect on the consolidated statements of income for the year ended December 31, 2020 and December 31, 2019 of derivative instruments not designated as a hedge is presented in the table below:

	Location of gain (loss) recognized in earnings	Gain (loss) recognized in earnings	
		December 31, 2020	December 31, 2019
Foreign exchange forward contracts	Other income and expenses, net	(13)	1
Total		(13)	1

The Company did not enter into any derivative containing significant credit-risk-related contingent features.

The Company entered into currency collars as combinations of two options, which are reported, for accounting purposes, on a net basis. The fair value of these collars represented as at December 31, 2020 assets for a net amount of \$15 million (composed of \$16 million assets offset with a \$1 million liability). In addition, the Company entered into other derivative instruments, primarily forward contracts, which are governed by standard International Swaps and Derivatives Association ("ISDA") agreements, which are not offset in the statement of financial position and representing total assets of \$50 million and liabilities of \$2 million as at December 31, 2020.

Credit risk

The expected credit loss and impairment methodology applied on each category of financial assets following the adoption of new ASC 326 guidance is further described in each respective note. While cash and cash equivalents are also subject to ASC 326 new requirements, the identified expected credit loss is deemed to be negligible. The maximum credit risk exposure for all financial assets is their carrying amount.

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. Credit risk typically arises from cash and cash equivalents, contractual cash flows of debt investments carried at amortized cost, the counterparty of derivative financial instruments and deposits with banks and financial institutions, as well as credit exposure to customers, including outstanding receivables.

The Company is exposed to credit risk from its operating activities (primarily for trade receivables) and from its financing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments. Credit risk is managed at the Group level. The Company selects banks and/or financial institutions that operate with the group based on the criteria of long-term rating from at least two major Rating Agencies and keeping a maximum outstanding amount per instrument with each bank not to exceed 20%

of the total. For derivative financial instruments, management has established limits so that, at any time, the fair value of contracts outstanding is not concentrated with any individual counterparty.

The Company monitors the creditworthiness of its customers to which it grants credit terms in the normal course of business. If certain customers are independently rated, these ratings are used. Otherwise, if there is no independent rating, risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. Individual risk limits are set based on internal and external ratings in accordance with limits set by management. The utilization of credit limits is regularly monitored. Sales to customers are primarily settled in cash, which mitigates credit risk. At December 31, 2020 and 2019, no customer represented more than 10% of trade accounts receivable, net. Any remaining concentrations of credit risk with respect to trade receivables are limited due to the large number of customers and their dispersion across many geographic areas.

The Company’s investments in debt instruments primarily include U.S. Treasury Bonds and long-term receivables towards government bodies. As such, they are investments with immaterial expected credit loss. Any remaining receivable is of low credit risk and is individually not significant. The credit ratings of the investments are monitored for credit deterioration.

Liquidity risk

Prudent liquidity risk management includes maintaining sufficient cash and cash equivalents, short-term deposits and marketable securities, the availability of funding from committed credit facilities and the ability to close out market positions. The Company’s objective is to maintain a significant cash position and a low debt-to-equity ratio, which ensures adequate financial flexibility. Liquidity management policy is to finance the Company’s investments with net cash from operating activities.

Management monitors rolling forecasts of the Company’s liquidity reserve based on expected cash flows.

28.2 Capital risk management

The Company’s objectives when managing capital are to safeguard the Company’s ability to continue as a going concern in order to create value for shareholders and benefits and returns for its stakeholders, as to maintain an optimal capital structure. In order to maintain or adjust its capital structure, the Company may review the amount of dividends paid to shareholders, return capital to shareholders, or issue new shares.

Consistent with others in the industry, the Company monitors capital on the basis of the net debt-to-equity ratio. This ratio is calculated as the net financial position of the Company, defined as the difference between total cash position (cash and cash equivalents, short-term deposits, marketable securities and restricted cash, if any) and total financial debt (short term and long-term debt), divided by total parent company stockholders' equity.

28.3 Fair value measurement

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. The quoted market price used for financial assets held by the Company is the bid price. If the market for a financial asset is not active and if no observable market price is obtainable, the Company measures fair value by using significant assumptions and estimates. When measuring fair value, the Company makes maximum use of market inputs and minimizes the use of unobservable inputs.

The table below details financial assets (liabilities) measured at fair value on a recurring basis as at December 31, 2020:

	Fair Value Measurements using			
	December 31, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Marketable securities – U.S. Treasury debt securities	133	133	–	–
Short-term deposits	581	581	–	–
Equity securities measured at fair value through earnings	25	25	–	–
Derivative assets designated as cash flow hedge	55	–	55	–
Derivative assets not designated as cash flow hedge	10	–	10	–
Derivative liabilities designated as cash flow hedge	–	–	–	–
Derivative liabilities not designated as cash flow hedge	(2)	–	(2)	–
Contingent consideration on business acquisitions	(123)	–	–	(123)
Total	679	739	63	(123)

The table below details financial assets (liabilities) measured at fair value on a recurring basis as at December 31, 2019:

	Fair Value Measurements using			
	December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Marketable securities – U.S. Treasury debt securities	133	133	–	–
Short-term deposits	4	4	–	–
Equity securities measured at fair value through earnings	23	23	–	–
Derivative assets designated as cash flow hedge	5	–	5	–
Derivative assets not designated as cash flow hedge	3	–	3	–
Derivative liabilities designated as cash flow hedge	(6)	–	(6)	–
Derivative liabilities not designated as cash flow hedge	(1)	–	(1)	–
Total	161	160	1	–

For liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3), the reconciliation between January 1, 2020 and December 31, 2020 is presented as follows:

	Fair Value Measurements using Significant Unobservable Inputs (Level 3)
January 1, 2020	—
Contingent consideration on business combinations	117
Changes in fair value measurement	1
Currency translation adjustment	5
December 31, 2020	123

Amount of total losses for the period included in earnings attributable to liabilities still held at the reporting date 1

Contingent consideration reported as noncurrent liabilities on the consolidated balance sheet as at December 31, 2020 is based on the probability that the milestones defining the variable components of the consideration will be achieved.

No asset (liability) was measured at fair value on a recurring basis using significant unobservable inputs (Level 3) as at December 31, 2019.

No asset (liability) was measured at fair value on a non-recurring basis using significant unobservable inputs (Level 3) as at December 31, 2020 and December 31, 2019 respectively.

In 2020, the Company closed the acquisition of French Gallium Nitride (GaN) innovator Exagan and the acquisitions of the entire share capital of Ultra Wide Band specialist BeSpoon, of the cellular IoT connectivity assets of Riot Micro and of the radio-frequency assets of Somos, as detailed in Note 7. For these acquisitions, the purchase price allocation on the assets acquired and liabilities assumed, measured at fair value, was determined by the Company with the assistance of an independent third party. This corresponded to a Level 3 fair value measurement hierarchy. The main assets that were identified separately corresponded to technologies and amounted to \$118 million. The fair value of the intangible assets was determined using the multi-period excess earnings method, consisting in discounting at a discount rate, which approximates 9%, the future earnings attributable to the asset.

On August 4, 2020, the Company issued a \$1.5 billion principal amount of dual tranche senior unsecured convertible bonds (Tranche A and Tranche B for \$750 million each tranche), due 2025 and 2027, respectively. Proceeds were allocated between debt and equity by measuring first the liability component and then determining the equity component as a residual amount. The liability component was measured at fair value based on a discount rate adjustment technique (income approach), which corresponded to a Level 3 fair value hierarchy measurement. The fair value of the liability component at initial recognition totaled \$1,362 million before allocation of issuance costs and deferred tax effect, and was estimated by calculating the present value of cash flows using a discount rate of 1.30% and 1.85%, respectively, on each tranche. These applied discount rates were determined to be consistent with the market rates at the time for similar instruments with no conversion rights.

The call option available to the Company for the early redemption of Tranche A of the senior unsecured convertible bonds issued on July 3, 2017 was exercised in July 2020. As a consequence, bondholders exercised their conversion rights on Tranche A. The Company allocated the total consideration transferred between debt and equity by measuring at fair value the liability component of Tranche A prior to settlement, then determining the equity component as a residual amount. The liability component was measured at fair value based on a discount rate adjustment technique (income approach), which corresponded to a Level 3 fair value hierarchy measurement and consisted in calculating the present value of cash flows using an average estimated discount rate of 0.8%, which fairly approximated current market rates for similar bonds that have no conversion rights.

Further description on the senior unsecured convertible bonds issued by the Company is provided in Note 15.

The Company evaluated in 2020, 2019 and 2018 for impairment the aggregate carrying amount of long-term investments for which the Company applies the cost method as a measurement alternative, as described in Note

2.24. A \$1 million impairment charge was recorded on these investments in 2020, reported on the line “Loss on financial instruments, net” of the consolidated statement of income. No significant impairment charge was recorded on these investments in 2019 and 2018.

The following table includes additional fair value information on financial assets and liabilities as at December 31, 2020 and 2019:

	2020		2019	
	Level	Carrying Amount	Estimated Fair Value	Carrying Amount
Cash equivalents (1)	1	2,637	2,637	1,691
Short-term, deposits	1	581	581	4
Long-term debt				
- Bank loans (including current portion)	2	583	583	718
- Senior unsecured convertible bonds issued on July 3, 2017 (Tranche A) (2)	1	—	—	700
- Senior unsecured convertible bonds issued on July 3, 2017 (Tranche B) (3)	1	674	1,359	654
- Senior unsecured convertible bonds issued on August 4, 2020 (4)	1	1,364	1,835	—

(1) Cash equivalents primarily correspond to deposits at call with banks.

(2) The \$1,030 million fair value of Tranche A as at December 31, 2019 represented the market price of the bonds trading on the Frankfurt Stock Exchange, which corresponded to a Level 1 fair value measurement.

(3) The carrying amount of Tranche B senior unsecured convertible bonds issued on July 3, 2017 as reported above corresponds to the liability component only, since, at initial recognition, the value of the equity instrument embedded in the issued convertible bonds was recorded directly in equity. The initial recognition and subsequent measurements of the convertible bonds are further described in Note 15. The fair value represented the market price of the bonds trading on the Frankfurt Stock Exchange.

(4) The carrying amount of the senior unsecured convertible bonds issued on August 4, 2020 as reported above corresponds to the liability component only, since, at initial recognition, an amount of \$215 million before allocation of issuance costs and deferred tax effect was recorded directly in equity as the value of the equity instrument embedded in the issued convertible bonds. The initial recognition of the convertible bonds is further described in Note 15. The fair value represented the market price of the bonds trading on the Frankfurt Stock Exchange.

There were no debt securities that were in an unrealized loss position as at December 31, 2020 and December 31, 2019.

The methodologies used to estimate fair value are as follows:

Components	Methodology used to estimate fair value
Debt securities classified as available-for-sale	Quoted market prices for identical instruments
Foreign exchange forward contracts, currency options and collars	Quoted market prices for similar instruments
Equity securities measured at fair value through earnings	Quoted market prices for identical instruments
Equity securities carried at cost as a measurement alternative	Valuation of the underlying investments on a new round of third-party financing or upon liquidation
Long-term debt and current portion of long-term debt	Future cash flows on a borrowing-by-borrowing basis and discounting these future cash flows using the Company's incremental borrowing rates for similar types of borrowing arrangements
Cash and cash equivalents, accounts receivable, short-term borrowings, and accounts payable	The carrying amounts reflected in the consolidated financial statements are considered as reasonable estimates of fair value due to the relatively short period of time between the origination of the instruments and their expected realization.

29. RELATED PARTY TRANSACTIONS

Transactions with significant shareholders, their affiliates and other related parties were as follows:

	December 31, 2020	December 31, 2019	December 31, 2018
Sales & other services	5	2	—
Other purchases	21	18	15
Accounts receivable	1	—	2
Accounts payable	—	—	52

For the years ended December 31, 2020, 2019 and 2018, the related party transactions were primarily with companies in which management of the Company perform similar policymaking functions. These include, but are not limited to: Orange, Telecom Italia and Idemia France.

For the years ended December 31, 2020 and 2019, the Company did not report any material transaction with its equity-method investments. For the year ended December 31, 2018, the accounts payable amount reported in the table above primarily relates to ST-Ericsson SA, a former equity-method investment of the Company, which was wound down in 2019.

The Company made a contribution of \$0.5 million for the year ended December 31, 2020, \$0.4 million for the year ended December 31, 2019 and \$0.5 million for each of the year ended December 31, 2018 to the ST Foundation, a non-profit organization established to deliver and coordinate independent programs in line with its mission. Certain members of the Foundation's Board are senior members of the Company's management.

STMICROELECTRONICS N.V.
VALUATION AND QUALIFYING ACCOUNTS

Valuation and qualifying accounts deducted from the related asset accounts	Balance at beginning of period	Translation adjustment	Charged to costs and expenses	Additions/ (Deductions)	Balance at end of period
	(Currency—millions of U.S. dollars)				
2020					
Accounts Receivable	16	—	—	—	16
Deferred Tax Assets	1,534	28	(11)	(913)	638
2019					
Accounts Receivable	15	—	—	1	16
Deferred Tax Assets	1,548	(4)	—	(10)	1,534
2018					
Accounts Receivable	15	—	—	—	15
Deferred Tax Assets	1,502	(16)	143	(81)	1,548