CLARIANT

Financial Report 2019

what is precious to you?

Index

CONSOLIDATED BALANCE SHEETS

at 31 December 2019 and 2018

	Notes[1]	**31.12.2019** in CHF m	in %	31.12.2018 in CHF m	in %
Assets					
Non-current assets					
Property, plant and equipment	5	1 649		2 081	
Right-of-use assets	7	219		–	
Intangible assets	6	1 351		1 682	
Investments in associates and joint ventures	8	248		368	
Financial assets	9	218		211	
Prepaid pension assets	20	41		30	
Deferred tax assets	10	234		269	
Total non-current assets		**3 960**	**49.6**	**4 641**	**58.1**
Current assets					
Inventories	11	651		1 018	
Trade receivables	12	680		1 017	
Other current assets	13	337		366	
Current income tax receivables		104		65	
Short-term deposits	14	304		26	
Cash and cash equivalents	15	638		833	
Total current assets		**2 714**	**34.0**	**3 325**	**41.7**
Assets held for sale	**24, 25**	**1 305**	**16.4**	**15**	**0.2**
Total assets		**7 979**	**100.0**	**7 981**	**100.0**
Equity and liabilities					
Equity					
Share capital	17	1 228		1 228	
Treasury shares (par value)	17	–10		–8	
Other reserves		–431		–189	
Retained earnings		1 719		1 767	
Total capital and reserves attributable to Clariant shareholders		**2 506**		**2 798**	
Non-controlling interests		171		172	
Total equity		**2 677**	**33.6**	**2 970**	**37.2**
Liabilities					
Non-current liabilities					
Financial debts	18	1 485		1 711	
Deferred tax liabilities	10	43		47	
Retirement benefit obligations	20	673		778	
Non-current lease liabilities	7	172		–	
Other liabilities	22	68		72	
Provision for non-current liabilities	21	164		125	
Total non-current liabilities		**2 605**	**32.6**	**2 733**	**34.2**
Current liabilities					
Trade payables and other liabilities	22	875		1 266	
Financial debts	23	587		529	
Current income tax liabilities		238		212	
Current lease liabilities	7	45		–	
Provision for current liabilities	21	393		271	
Total current liabilities		**2 138**	**26.8**	**2 278**	**28.6**
Liabilities directly associated with assets held for sale	**25**	**559**	**7.0**	**–**	**–**
Total liabilities		**5 302**	**66.4**	**5 011**	**62.8**
Total equity and liabilities		**7 979**	**100.0**	**7 981**	**100.0**

[1] The notes form an integral part of the consolidated financial statements.

CONSOLIDATED INCOME STATEMENTS

for the years ended 31 December 2019 and 2018

	Notes[1]	2019 in CHF m	in %	2018[2] in CHF m	in %
Sales	24	4 399	100.0	4 404	100.0
Costs of goods sold		–3 024		–3 042	
Gross profit		**1 375**	**31.3**	**1 362**	**30.9**
Selling, general and administrative costs		–1 070		–923	
Research and development costs		–173		–175	
Income from associates and joint ventures	24	33		84	
Operating income		**165**	**3.9**	**348**	**7.8**
Finance income	28	23		19	
Finance costs	28	–117		–86	
Income before taxes		**71**	**1.7**	**281**	**6.3**
Taxes	10	–105		–68	
Net result from continuing operations		**–34**	**–0.7**	**213**	**4.8**
Attributable to:					
Shareholders of Clariant Ltd		–57		196	
Non-controlling interests		23		17	
Net result from discontinued operations	**25**	**72**		**143**	
Attributable to:					
Shareholders of Clariant Ltd		67		141	
Non-controlling interests		5		2	
Net income		**38**		**356**	
Attributable to:					
Shareholders of Clariant Ltd		10		337	
Non-controlling interests		28		19	
Basic earnings/loss per share attributable to the shareholders of Clariant Ltd (CHF/share)					
Continuing operations	29	–0.17		0.59	
Discontinued operations	29	0.20		0.43	
Total		**0.03**		**1.02**	
Diluted earnings/loss per share attributable to the shareholders of Clariant Ltd (CHF/share)					
Continuing operations	29	–0.17		0.59	
Discontinued operations	29	0.20		0.43	
Total		**0.03**		**1.02**	

[1] The notes form an integral part of the consolidated financial statements.

[2] Restated – see note 1.03

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

for the years ended 31 December 2019 and 2018	Notes[1]	**2019** in CHF m	2018[2] in CHF m
Net income		**38**	**356**
Other comprehensive income/loss:			
Remeasurements:			
Actuarial gain/loss on retirement benefit obligations	20	–316	126
Return on retirement benefit plan assets, excluding amount included in interest expense	20	219	–149
Fair value adjustment on financial assets	9	16	2
Total items that will not be reclassified subsequently to the income statement, gross		**–81**	**–21**
Deferred tax effect	10	35	1
Total items that will not be reclassified subsequently to the income statement, net		**–46**	**–20**
Net investment hedge	30	35	28
Cash flow hedge		–2	–1
Currency translation differences		–120	–146
Share in other comprehensive income of associates and joint ventures	8	–9	—
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities		19	2
Total items that may be reclassified subsequently to the income statement, gross		**–77**	**–117**
Deferred tax effect		—	—
Total items that may be reclassified subsequently to the income statement, net		**–77**	**–117**
Other comprehensive income/loss for the period, net of tax		**–123**	**–137**
Total comprehensive income/loss for the period		**–85**	**219**
Attributable to:			
Shareholders of Clariant Ltd		–106	210
Non-controlling interests		21	9
Total comprehensive income/loss for the period		**–85**	**219**
Total comprehensive income/loss attributable to shareholders of Clariant Ltd arising from:			
Continuing operations		–142	114
Discontinued operations		36	96
Total comprehensive income/loss attributable to shareholders of Clariant Ltd		**–106**	**210**

[1] The notes form an integral part of the consolidated financial statements.

[2] Restated – see note 1.03

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY in CHF m

at 31 December 2019 and 2018

				Other reserves						
	Total share capital	Treasury shares (par value)	Share premium reserves	Hedging reserves	Cumulative translation reserves	Total other reserves	Retained earnings	Total attributable to equity holders	Non-controlling interests	Total equity
Balance 31 December 2017	**1 228**	**–10**	**1 171**	**5**	**–1 093**	**83**	**1 459**	**2 760**	**179**	**2 939**
Changes in accounting policy[1]						–	–4	–4		–4
Balance 1 January 2018	**1 228**	**–10**	**1 171**	**5**	**–1 093**	**83**	**1 455**	**2 756**	**179**	**2 935**
Net income						–	337	337	19	356
Cash flow hedge				–1		–1		–1		–1
Net investment hedge					28	28		28		28
Remeasurements:										
Actuarial gain/loss on retirement benefit obligations (see note 20)						–	126	126		126
Return on retirement benefit plan assets, excluding amount included in interest expense (see note 20)						–	–149	–149		–149
Deferred tax on remeasurements (see note 10)						–	1	1		1
Currency translation differences					–136	–136		–136	–10	–146
Fair value adjustment on financial assets						–	2	2		2
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities					2	2		2		2
Total comprehensive income/loss for the period	**–**	**–**	**–**	**–1**	**–106**	**–107**	**317**	**210**	**9**	**219**
Distributions			–165			–165		–165		–165
Dividends to non-controlling interests						–		–	–16	–16
Employee share scheme:										
Effect of employee services						–	–12	–12		–12
Treasury share transactions		2				–	7	9		9
Balance 31 December 2018	**1 228**	**–8**	**1 006**	**4**	**–1 199**	**–189**	**1 767**	**2 798**	**172**	**2 970**
Changes in accounting policy[2]						–	1	1		1
Balance 1 January 2019	**1 228**	**–8**	**1 006**	**4**	**–1 199**	**–189**	**1 768**	**2 799**	**172**	**2 971**
Net income						–	10	10	28	38
Cash flow hedge				–2		–2		–2		–2
Net investment hedge					35	35		35		35
Remeasurements:										
Actuarial gain/loss on retirement benefit obligations (see note 20)						–	–316	–316		–316
Return on retirement benefit plan assets, excluding amount included in interest expense (see note 20)						–	219	219		219
Deferred tax on remeasurements (see note 10)						–	37	37		37
Currency translation differences					–113	–113		–113	–7	–120
Fair value adjustment on financial assets						–	14	14		14
Share in other comprehensive income of associates and joint ventures (see note 8)						–	–9	–9		–9
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities					19	19		19		19
Total comprehensive income/loss for the period	**–**	**–**	**–**	**–2**	**–59**	**–61**	**–45**	**–106**	**21**	**–85**
Distributions			–181			–181		–181		–181
Dividends to non-controlling interests						–		–	–20	–20
Transaction with non-controlling interests						–	1	1	–2	–1
Employee share scheme:										
Effect of employee services						–	–1	–1		–1
Treasury share transactions		–2				–	–4	–6		–6
Balance 31 December 2019	**1 228**	**–10**	**825**	**2**	**–1 258**	**–431**	**1 719**	**2 506**	**171**	**2 677**

[1] The impact of the changes in accounting policy include CHF 4 million (net of tax) related to the implementation of IFRS 9.

[2] The impact of the changes in accounting policy include CHF 1 million related to the implementation of IFRS 16 (see note 1.04).

The notes form an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

for the years ended 31 December 2019 and 2018

	Notes[1]	**2019** in CHF m	2018 in CHF m
Net cash generated from operating activities	**16**	**509**	**530**
Cash flows from investing activities:			
Investments in property, plant and equipment	5	–273	–237
Investments in financial assets, associates and joint ventures		–4	–4
Investments in intangible assets	6	–16	–20
Changes in current financial assets and short-term deposits		–285	15
Sale of property, plant and equipment and intangible assets		14	14
Proceeds from the disposal of associates and financial assets		4	62
Proceeds from the disposal of discontinued operations	25	295	—
Proceeds/payments associated with disposals of activities not qualifying as discontinued operations	26	11	38
Net cash provided by/used in investing activities		**–254**	**–132**
Cash flows from financing activities:			
Purchase of treasury shares		–10	—
Distribution from the reserves to the shareholders of Clariant Ltd	17	–181	–165
Dividends paid to non-controlling interests		–20	–16
Proceeds/payments associated with transactions with non-controlling interests	17	–1	—
Proceeds from financial debts		268	350
Repayments of financial debts		–370	–354
Repayments of lease liabilities	7	–58	—
Interest paid		–79	–79
Interest paid for leases	7	–12	—
Interest received		23	18
Net cash provided by/used in financing activities		**–440**	**–246**
Currency translation effect on cash and cash equivalents		–10	–20
Net change in cash and cash equivalents		**–195**	**132**
Cash and cash equivalents at the beginning of the period	**15**	**833**	**701**
Cash and cash equivalents at the end of the period	**15**	**638**	**833**

[1] The notes form an integral part of the consolidated financial statements.

Notes to the consolidated financial statements

1. Accounting policies

1.01 – General information

Clariant Ltd (the »Company«) and its consolidated subsidiaries (together the »Group«) are a global leader in the field of specialty chemicals. The Group develops, manufactures, distributes and sells a broad range of specialty chemicals which play a key role in its customers' manufacturing and treatment processes or add value to their end products. The Group has manufacturing plants around the world and sells mainly in countries within Europe, the Americas and Asia.

Clariant Ltd is a limited liability company incorporated and domiciled in Switzerland. The address of its registered office is Rothausstrasse 61, CH-4132 Muttenz, Switzerland. The Company is listed on the SIX Swiss Exchange.

The Board of Directors approved the consolidated financial statements for issue on 11 February 2020. They will be subject to approval by the Annual General Meeting of Shareholders scheduled for 30 March 2020.

1.02 – Basis of preparation

The consolidated financial statements of the Clariant Group have been prepared in accordance with the International Financial Reporting Standards (IFRS) and the IFRIC interpretations applicable to companies reporting under IFRS, and with the significant accounting policies set out below.

The consolidated financial statements have been prepared under the historical cost convention as modified by the revaluation of certain financial assets and liabilities (including derivative instruments) at fair value through profit or loss and other comprehensive income.

The preparation of financial statements in conformity with the IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of aplying the Group's accounting policies.

These estimates and judgments affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements as well as the reported amounts of revenues and expenses during the reporting period.

Although these are based on management's best knowledge of current events and circumstances, actual outcomes may ultimately differ from those estimates. The areas involving a higher degree of judgment or complexity, or areas where estimates are significant to the consolidated financial statements, are disclosed under note 4.

1.03 – Restatement of the 2018 consolidated financial statement in accordance with IFRS 5, Non-current Assets held for sale and Discontinued operations

Following the decision of the Board of Directors to dispose the Business Units Masterbatches (including Business Line Healthcare Packaging) and Pigments in June 2019 the two Business Units concerned have been reclassified to discontinued operations in the 2019 financial statement and therefore are presented separately in accordance with IFRS 5. The prior year figures have been re-stated accordingly in the income statement.

Assets and liabilities pertaining to the discontinued operations are presented as »assets held for sale« and as »liabilities directly associated with assets held for sale« respectively in the current year balance sheet as required by IFRS 5. In accordance with IFRS 5 the prior year balance sheet was not restated.

1.04 – Standards, interpretations and amendments effective in 2019

The Group has applied the following standards and amendments for the first time:

· IFRS 16 Leases
· IFRIC 23 Uncertainty over income tax treatments
· Prepayment features with Negative Compensation – Amendments to IFRS 9
· Long-term Interests in Associates and Joint Ventures – Amendments to IAS 28
· Annual improvements 2015 – 2017 Cycle
· Plan Amendment, Curtailment or Settlement – Amendments to IAS 19

The Group had to change its accounting policies and made certain adjustments as of 1 January 2019 following the adoption of IFRS 16, Leases. The other amendments listed above did not have any impact on the amounts recognized in prior periods and are not expected to significantly affect the current or future periods.

IFRS 16, Leases, introduces a new lessee accounting approach by which the lessee is required to recognize its leases on the balance sheet by way of the recognition of a right of use asset and a lease liability. It also provides new guidance on sale and lease-back accounting and requires new and different disclosures. This new standard replaces the guidance of IAS 17, Leases, and is effective for accounting periods beginning on or after 1 January 2019. The Group has adopted IFRS 16 as of 1 January 2019 by applying the simplified transition approach, not restating comparative amounts for 2018. The reclassification and the adjustments arising from the new leasing rules are therefore recognized in the opening balance sheet on 1 January 2019.

On adoption of IFRS 16, the Group recognized lease liabilities in relation to leases which had been previously classified as operating leases under IAS 17 Leases. Lease liabilities were measured at the present value of the remaining lease payments, discounted using the incremental borrowing rate as of 1 January 2019. For leases previously classified as finance leases the Group recognized the carrying amount of the leased assets and lease liabilities immediately before the transition as the carrying amount of the right-of-use assets and the lease liabilities at the date of initial application. For the measurement of the right-of-use assets at the date of first-time application, initial direct costs were not taken into account, as permitted by IFRS 16. The Group has also elected to apply the practical expedient that allows to rely on its assessment of whether leases were onerous by applying IAS 37 immediately before the date of initial application as an alternative to performing an impairment review.

The adoption of IFRS 16 affected the balance sheet on 1 January 2019 by a decrease of CHF 24 million of property plant and equipment, an increase of CHF 256 million of right-of-use assets, a decrease of CHF 18 million of financial debts and an increase of CHF 249 million of lease liabilities. The cumulative effect recorded at January 1, 2019 was an increase in retained earnings of CHF 1 million.

More information on lease contracts can be found in note 1.12 and note 7.

1.05 – Standards, interpretations and amendments not yet effective

The following standards, interpretations and amendments already issued but not yet effective will be adopted by the Group as they become effective.

- Amendments to IFRS 3, Business Combinations
- Amendments to IAS 39, Financial Instruments, Recognition and Measurement, IFRS 9 Financial Instruments and IFRS 7, Financial Instruments: Disclosure
- Amendments to IAS 1, Presentation of financial statements
- Amendments to IAS 8, Accounting Policies, changes in accounting estimates and errors

The Group is currently reviewing the impact the new accounting requirements will have on its accounts. As of yet no substantial effects have been identified.

1.06 – Scope of consolidation

- **Subsidiaries:** Subsidiaries are those entities over which the Group has control. This is the case when it is exposed to, or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group and they are deconsolidated from the date the control ceases.

- **Associates:** Associates are entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method.

- **Joint arrangements:** The Group applies IFRS 11, Joint Arrangements, to all joint arrangements. Under IFRS 11, investments in joint arrangements are classified as either joint operations or joint ventures, depending on the contractual rights and obligations of each investor. Clariant has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method.

All associates and joint ventures apply the same accounting principles as the Group.

1.07 – Principles and methods of consolidation

The annual closing date of the individual financial statements is 31 December. The consolidated financial statements are prepared applying uniform presentation and valuation principles.
The results of non-controlling interests are separately disclosed in the income statement and in the balance sheet.

1.08 – Recognition of revenue from contracts with customers

Sales of goods and services are recognized in line with the requirements of IFRS 15, Revenue from contracts with customers. Revenue is measured based on the consideration the Group expects to receive in exchange for the goods or services. Revenue from sales of goods is recognized in the income statement when control has been transferred to the buyer, which is usually upon delivery, at a fixed or determinable price, and when collectability is reasonably assured. Delivery is defined based on the terms of the sale contract. Revenue from services is recognized when the respective services have been rendered. Revenue is reported net of sales taxes, returns, discounts and rebates. Rebates to customers are provided for in the same period that the related sales are recorded based on the contract terms.

Where third parties hold Clariant inventories on a consignment basis, revenue is recognized in the period that inventories are withdrawn from consignment and delivered to customers. Clariant periodically enters into prepayment contracts with customers whereby it receives contract liabilities for products to be delivered in a future period.

These contract liabilities are recorded as liabilities and presented as part of Other liabilities. Advance payment liabilities are released and revenues associated with such advance payment transactions are recognized upon delivery of and transfer of title, ownership, and risk of loss of the related products to the customer. Cash rebates and discounts granted to customers are classified as a reduction of revenue.

1.09 – Recognition of revenues from interest and dividends

Interest income is recognized on a time proportion basis, taking into account the principal outstanding and the effective rate over the period to maturity when it is determined that such income will accrue to the Group. Dividends are recognized when the right to receive the payment is established.

1.10 – Exchange rate differences

Exchange rate differences are recognized in line with the requirements of IAS 21, The Effect of Changes in Foreign Exchange Rates. The consolidated financial statements are presented in Swiss francs, which is the functional and presentation currency of the parent company.

Transactions and balances: Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies are recognized in the line »Finance costs« in the income statement, except when deferred in »Other comprehensive income« as qualifying cash flow hedges and net investment hedges.

Translation differences on debt securities and on other monetary financial assets measured at fair value are included in foreign exchange gains and losses in the line »Finance costs« in the income statement.

Group companies: Income statements and cash flow statements of foreign entities are translated into the Group's presentation currency at sales-weighted average exchange rates for the year and their balance sheets are translated at the exchange rates prevailing on 31 December.

All resulting exchange rate differences are recognized in Other comprehensive income in the line »Currency translation differences«. Exchange rate differences arising on the translation of the net investment in foreign entities and on borrowings and other currency instruments designated as hedges of such investments are recognized in »Other comprehensive income« in the line »Net investment hedge«. Net investments also include loans for which the settlement is neither planned nor likely to occur in the foreseeable future.

When a foreign operation is disposed of and as a consequence control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as a part of the gain or loss on disposal.

When the Group's interest in a subsidiary that includes a foreign operation changes, while retaining control in the subsidiary, a proportionate part of the cumulative amount of the translation difference that was recognized in other comprehensive income is reclassified to non-controlling interests.

1.11 – Property, plant and equipment

Property, plant and equipment, except for the ones pertaining to mining activities, are valued at historical acquisition or production costs and depreciated on a straight-line basis to the income statement, using the following estimated useful lives in accordance with the Group guidelines:

· Buildings	15 to 40 years
· Machinery and equipment	10 to 16 years
· Furniture, vehicles, computer hardware	3 to 10 years
· Land is not depreciated	

Property, plant and equipment pertaining to mining activities are valued at historical costs and depreciated over their useful lives to the income statement using the units of production method.

When the entity has a present legal or constructive obligation to dismantle an item of property, plant and equipment or restore a site, its initial costs include an estimate of the costs of dismantling and removing the item and restoring the site on which it is located. A corresponding provision is recorded for the amount of the asset component.

Financing costs directly associated with the acquisition, construction or production of qualifying property, plant and equipment are capitalized as a part of the costs of these assets. Investment property is valued at cost less depreciation. As all investment property held by Clariant consists of industrial and administrative sites which have been in use for several decades, there is no active market which would give information on possible market prices, if such property were sold to a third party. The fair values of the investment properties are therefore determined by way of external appraisals and value-in-use calculations.

1.12 – Leases

Clariant accounts for lease contracts in accordance with IFRS 16, Leases.

At the inception of the lease a right-of-use asset and a lease liability are recognized in the balance sheet. The asset is initially measured at the amount of the lease liability plus any initial direct costs incurred. The lease liability is initially measured at the present value of the lease payments payable over the lease term, including variable lease payments depending on an index at the commencement date and the exercise price of purchase options if it is reasonably certain that the option will be exercised. The lease liability is discounted at the rate implicit in the lease. If that rate cannot readily be determined the incremental borrowing rate is used. Lease liabilities are subsequently re-measured to reflect possible changes in the lease terms.

Right-of-use assets are depreciated over of the duration of the lease contract including contractually agreed optional extension periods, whose exercise are deemed to be reasonably certain. The depreciation is recognized in operating income.

The unwinding of the discounting effect is included in the financial expense. Lease payments are accounted for as a repayment of the lease liability.

Expenses for lease contracts for objects with a value of less than CHF 5 thousand and lease contracts with a duration of up to twelve months are recognized directly in the income statement.

1.13 – Intangible assets

Goodwill is recognized as per the requirements of IFRS 3, Business Combinations, IAS 38, Intangible Assets, and IFRS 11, Joint arrangements. Goodwill is not amortized, but tested annually for impairment as required by IAS 36, Impairment of Assets.

Trademarks and licenses are capitalized at historical costs and amortized on a straight-line basis to the income statement over their estimated useful lives, with a maximum of ten years.

Acquired computer software licenses are capitalized on the basis of the costs incurred to acquire and bring to use the specific software. They are amortized on a straight-line basis to the income statement over their estimated useful lives (three to five years).

Costs directly associated with the production of identifiable and unique software and other intangible products controlled by the Group, that will probably generate economic benefits beyond one year, are recognized as intangible assets and depreciated over their useful life of three years. Direct costs include software development costs, personnel costs and advisory costs directly related to the software or product development and an appropriate portion of the relevant overheads. Costs associated with developing and maintaining common software programs are recognized as an expense when incurred.

Intangibles acquired in a business combination with the exception of mining rights are amortized using a straight-line method over their remaining useful lives as follows:

· Technology	3 to 15 years
· Customer relationships	6 to 20 years
· Tradenames	10 years
· Order backlog	2 years

Mining rights are depreciated over their useful lives using the units of production method.

On 1 June 2007, a European Union regulation on chemicals and their safe use came into effect. It deals with the Registration, Evaluation, Authorization and Restriction of Chemical Substances (REACH). REACH applies to all substances manufactured, placed on the market and used in the European Union, either on their own, in mixtures or in products. REACH requires the registration of certain substances, with annual volumes exceeding a consumption of 1 000 metric tons, by 2010 and various other substances depending on their category by 2018.

As a company active in the chemical industry, Clariant has incurred costs in connection with REACH. Due to their nature, these costs are considered within the context of IAS 38, Intangible Assets, and those qualifying for capitalization are reported as intangible assets. As the initial two phases of the registration were completed in 2010 and 2013 respectively, the corresponding costs capitalized as intangible assets are amortized since 2011 for the first phase and since January 2014 for the second phase on a straight-line basis to the income statement over their estimated useful lives of twelve years.

1.14 – Impairment of assets

Impairment of assets is recognized and disclosed as per the requirements of IAS 36, Impairment of Assets.

1.15 – Non-current assets and disposal groups held for sale

Non-current assets and disposal groups are classified as held for sale when their carrying amount is to be recovered through a sale transaction and a sale is considered highly probable. They are stated at the lower of the carrying amount and fair value less costs of disposal, as per the requirements of IFRS 5, Non-current Assets Held for Sale and Discontinued Operations.

1.16 – Inventories

Purchased goods are valued at acquisition costs, while self-manufactured products are valued at manufacturing costs including related production overhead costs. Inventory held at the balance sheet date is primarily valued at standard costs, which approximates actual costs on a weighted average basis. This valuation method is also used for valuing the costs of goods sold in the income statement. Adjustments are made for inventories with a lower net realizable value. Unsaleable inventories are fully written off. These adjustments are recorded as valuation allowances, which are deducted directly from the inventory value in the balance sheet. The allowances are reversed when the inventories concerned are either sold or destroyed and as a consequence are removed from the balance sheet.

1.17 – Trade receivables

Trade receivables are amounts due from customers for goods sold or services rendered in the ordinary course of business and are recognized in accordance with IFRS 9, Financial Instruments. They are generally due within 40 days and therefore classified as current. Trade receivables are recognized initially at the amount of considerations that is unconditional. The Group holds trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortized cost. Details about the Group's impairment policies and the calculation of the loss allowance are provided in note 12.

1.18 – Cash and cash equivalents, short-term deposits

Cash and cash equivalents comprise cash in hand, deposits and calls with banks, as well as short-term investment instruments with an initial lifetime of 90 days or less. Bank overdrafts are reported within financial debt in current liabilities on the balance sheet. Short-term deposits are disclosed separately in the balance sheet if they have an original maturity between 90 and 365 days. They are valued at their nominal value, which is close to their fair market value.

1.19 – Derivative financial instruments and hedging

Derivative financial instruments and hedges are recognized in accordance with IFRS 9, Financial Instruments. Qualifying hedge instruments are derivatives and non-derivative financial assets and liabilities that are fully measured at fair value through profit and loss. Hedged items are assets or liabilities, unrecognized firm commitments, forecast transactions or net investments in foreign entities. They are reliably measurable and if not recognized they are highly probable. The hedges are accounted for either as fair value hedges in the case of exposures in fair value of recognized assets and liabilities or unrecognized firm commitments, as cash flow hedges in the case of exposures in cash flows arising from recognized assets or liabilities or forecast transactions that could affect profit or loss, or as hedges of a net investment in a foreign entity.

1.20 – Current income tax

The taxable profits (losses) of Group companies are calculated in acordance with the rules established by the taxation authorities of the countries in which they operate. They are the basis for the determination of income tax payments (reimbursements) for the reporting period in accordance with the prevailing local income tax rates. Current income tax is accounted for in accordance with the requirements of IAS 12, Income Taxes.

1.21 – Deferred income tax

Deferred income tax is calculated using the comprehensive liability method as per the requirements of IAS 12, Income Taxes.
No deferred income tax is calculated for the temporary differences on investments in Group companies, provided that the investor (parent company) is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.
Deferred income tax assets are recognized on tax losses incurred, if based on the business plans of the respective subsidiaries it is deemed probable that the tax losses are recoverable in the foreseeable future. The recoverability of these tax losses is assessed by Management on a regular basis.

1.22 – Employee benefits

Group companies operate various post-employment schemes, including both defined benefit and defined contribution pension plans, post-employment health care plans and other benefits. Obligations for employee benefits are determined and recorded in line with the requirements of IAS 19, Employee Benefits.

Defined contribution plans: Contributions to defined contribution plans are recorded in the income statement in the period to which they relate.

Defined benefit plans: For defined benefit plans, the amount to be recognized in the provision is determined using the Projected Unit Credit method. Independent actuaries perform the actuarial valuations for the defined benefit plans on a regular basis. For the larger plans these valuations take place annually. For the smaller ones valuations are performed at least every three years, with systematic roll-forwards in the years in between.
The retirement benefit obligations recognized in the balance sheet represent the present value of the obligations at the end of the reporting period less the fair value of the plan assets.
The prepaid pension assets recognized in the balance sheet are capitalized only to the extent of their recoverability, that is when a cash refund or a reduction in the future payments is available. The return on plan assets, except for amounts reflected in net interest income, are reported under other comprehensive income.

Actuarial gains and losses are charged or credited to equity in other comprehensive income in the period in which they arise. Past service costs are recognized immediately in the income statement.

Some Group companies **provide post-employment health care benefits** to their retirees. The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment using an accounting method similar to that for the defined benefit pension plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

The charges for defined benefit plans, defined contribution plans and termination benefits are included in personnel expenses and reported in the income statement under the corresponding functions of the related employees.

Other **long-term employee benefits** are employee benefits (other than post-employment benefits and termination benefits) which do not fall wholly due within twelve months after the end of the period in which the employees render the related service. These include long-term compensated absences such as long-service or sabbatical leave and jubilee or other long-service benefits. The accounting policy for other long-term employee benefits is equal to that for post-employment benefits, with the exception that actuarial gains and losses are recognized immediately in the income statement.

Short-term employee benefits are employee benefits (other than termination benefits) which fall due wholly within twelve months after the end of the period in which the employees render the related service.

1.23 – Provisions

Provisions are recognized as per the requirements of IAS 37, Provisions, Contingent Liabilities and Contingent Assets.

1.24 – Research and development

Development expenses are capitalized to the extent that the recognition criteria set up by IAS 38, Intangible Assets, are met. Considering the uncertainties inherent to the development of new key products, Clariant does not capitalize the associated development costs. Experience has proven that the structure of research and development in the industries that Clariant engages in makes it difficult to demonstrate how single intangible assets (patents) will generate probable future economic benefits.

Laboratory buildings and equipment included in property, plant and equipment are depreciated over their estimated useful lives in accordance with the Group guidelines of note 1.11.

1.25 – Segment reporting

Segment information is presented in the same manner as in the internal reporting to the chief operating decision maker. The chief operating decision maker, responsible for strategic decisions, for the assessment of the segments' performance and for the allocation of resources to the segments, is the Executive Committee.

Clariant has seven Business Units (BU), two of which were reclassified to Discontinued Operations on 30 June 2019, as a result of the Group's decision to dispose of the Business Units Masterbatches and Pigments. A sale within the next twelve months was deemed highly probable. For external reporting purposes the remaining five Business Units are grouped into three Business Areas (BA) (reportable segments), in accordance with IFRS 8, Operating Segments:
- Care Chemicals (BU ICS)
- Catalysis (BU Catalysts)
- Natural Resources (BU Oil & Mining Services, BU Functional Minerals, BU Additives)

The five Business Units were grouped into Business Areas in a manner that they reflect, in Management's opinion, the similar economic characteristics of certain BU's and common traits regarding products, markets, technologies and cyclicality.
These Business Areas have full responsibility for their operating results.

The Business Area **Care Chemicals** comprises the BU Industrial & Consumer Specialties (ICS), food additives as well as the future Industrial Biotechnology business. It demonstrates a clear focus on highly attractive, high-margin, and low-cyclicality segments. The BA follows a lifestyle-driven megatrend and strengthens Clariant's image of being a supplier of green and sustainable products.

The Business Area **Catalysis** develops, manufactures, and sells a wide range of catalyst products for the chemical, fuel and automotive industries. This BA is the smallest within Clariant but is highly profitable with a cyclicality in line with the investment cycle of the petrochemical industry.

The Business Area **Natural Resources** comprising the BUs Oil & Mining Services, Functional Minerals and Additives is characterized by high growth and low cyclicality as well as strong megatrend orientation. Main drivers are the rising demand for high-value added specialty chemicals used in the oil, mining, food and packaging industries, the increased consumption of oil, gas and base metals and the increasing use of plastics with tailor-made properties in applications such as mobile phones, cars, construction, driven by the fast-growing economies.

Discontinued Operations comprise Business Units Masterbatches and Pigments

Corporate: Income and expenses relating to Corporate include the costs of the Corporate headquarters and some of corporate coordination functions in major countries. In addition, Corporate includes certain items of income and expense, which are not directly attributable to specific Business Areas, like central R&D costs.

The Group's Business Areas are segments offering a large variety of products. The segments are managed separately because they manufacture, distribute and sell distinct products, which require differing technologies and marketing strategies. These products are also subject to risks and returns that are different from those of other segments.

Segment sales are sales reported in the Group's income statement directly attributable to a segment and the relevant portion of the company income that can be allocated on a reasonable basis to a segment, whether from sales to external customers or from transactions with other segments.

Segment operating expenses are expenses resulting from the operating activities of a segment directly attributable to the segment and the relevant portion of an expense that can be allocated on a reasonable basis, including expenses relating to sales to external customers and expenses relating to transactions with other segments. Inter-segment transactions are entered into under the normal circumstances and terms and conditions that would also be available to unrelated third parties.
The segment net assets consist of segment assets, primarily property, plant and equipment, intangible assets, inventories and receivables, less segment liabilities. Usually no allocation of Corporate items is made to the segments. Corporate assets and liabilities principally consist of net liquidity (cash, cash equivalents and other current financial assets less financial debts) and deferred and current income taxes.

The Executive Committee assesses the performance of the operating segments based on income statement parameters like third-party sales, EBITDA, operating result and cashflow. Interest income, interest expense and taxes are not allocated to the segments.
The return on the capital invested in each segment is measured by the Return on Invested Capital (ROIC).

1.26 – Share capital and other reserves

All issued shares are ordinary shares and as such are classified as equity. Incremental costs, directly attributable to the issue of new shares or options, are shown in equity as a deduction, net of tax, from the proceeds.

Written put options, where Clariant Ltd shares are the underlying, are reported as obligations to purchase Clariant Ltd shares if the number of shares is fixed and physical settlement for a fixed amount of cash is required, in case the option is exercised.

At inception, the obligation is recorded at the present value of the settlement amount of the option and the corresponding effect is recognized in shareholders' equity.

The liability is measured subsequently at amortized costs using the effective interest method. Upon settlement of such written put options, the liability is extinguished and the charge to equity is reclassified to the treasury shares.

Clariant Ltd shares, subject to such put options, are not considered to be outstanding for the purpose of basic earnings per share calculations, but are considered for the dilutive earnings per share calculations to the extent that they are dilutive.

Other reserves comprise the following items:

- **Share premium:** The share premium comprises the excess price paid over the par value of the share at the time of issuance of the share capital.

- **Cumulative translation reserves:** The translation reserves comprise the foreign exchange differences arising on the translation of the financial statements of the foreign subsidiaries stated in a currency other than the Group's functional currency. In addition, the cumulative translation reserves comprise the foreign exchange differences arising on the translation of financial liabilities denominated in a currency other than the functional currency of the parent company Clariant Ltd, which are at the same time designated as a hedge of a net investment in a foreign entity.

1.27 – Treasury shares

Treasury shares are deducted from equity at their par value of CHF 3.70 per share. Differences between this amount and the amount paid for acquiring, or received for disposing of treasury shares are recorded in retained earnings.

1.28 – Financial debt

Financial debt is recognized based on the requirements of IFRS 9, Financial Instruments: Recognition and Measurement.

All financial liabilities are valued at amortized cost.

1.29 – Financial assets

Financial assets are classified, recognized, measured and if necessary, impaired based on the requirements of IFRS 9, Financial Instruments.

Financial assets are valued at amortized cost if there is the intention to hold them in order to collect the contractual cash flow and this cash flow is only for the principal and interest.

Financial assets are valued at fair value through Other comprehensive income when they are held with the intention of getting the contractual cash flow, but also with the intention of eventually selling the asset.

Equity investments are measured at fair value through Other comprehensive income based on the Group's irrevocable election at initial recognition.

There are currently no financial assets at fair value though profit and loss.

Loss allowances are recognized for expected credit losses. If at the reporting date the credit risk on a financial instrument has not significantly increased since the initial recognition the loss allowance is measured at an amount equal to the 12-month-expected credit loss. If at the reporting date the credit risk on a financial asset has increased significantly since initial recognition the loss allowance is measured at an amount equal to the lifetime-expected credit loss. If in the previous period the loss allowance was measured at the lifetime-expected credit loss but at the reporting date it is determined that the credit risk is no longer significantly higher than at initial recognition then at the reporting date the loss allowance is again measured at an amount equal to the 12-month expected credit loss. Changes in the measurement of the loss allowance are recognized in profit and loss.

Purchases and sales of financial assets are recognized on settlement date, which is the date on which the Group receives or delivers the assets.

1.30 – Business combinations

The Group applies the acquisition method to account for business combinations in accordance with IFRS 3, Business Combinations, and recognizes any non-controlling interests in the acquiree at fair value (full goodwill method).

Acquisition-related costs are expensed as incurred.

2. Enterprise Risk Management Identification, Assessment and Management

In the framework of Enterprise Risk Management, risk assessments are prepared by Business Units, Service Units, Corporate Functions and Regions to assess threats that will impact the achievement of the objectives set for Clariant overall. These objectives are a result of the overall strategy of the Group as set by the Board of Directors and implemented by the Executive Committee.

The Executive Committee is responsible for monitoring the risk assessments for relevance and consistency. The Executive Committee has formed a subcommittee »Ethics and Risk Management«, which maintains an up-to-date understanding of areas where Clariant is, or may be, exposed to risk issues and seeks to ensure that management is effectively addressing those issues. The Ethics and Risk Management Committee meets on a quarterly basis.

The short- and long-term objectives are set in the fourth quarter of the year. These objectives and threats are subject to scrutiny by the Executive Committee during meetings with each Business Unit. Also reviewed and discussed are the proposed measures to reduce or contain threats. In that context, responsibilities are assigned. All stakeholders are required to report significant changes to existing identified risks and new threats as they arise.

Risk registers are maintained using financial and reputational impact and probability assessments to score and rank all identified risks. The assessment also addresses the measures in place to manage the risk identified with dates for completion of the measures. Effectiveness of the measures is also assessed.

When threats have been identified and quantified, they are delegated to qualified individuals who are required to deliver effective risk management. Depending on the nature of the risks identified, specific skill sets may be required for the management of those particular risks. The assessments are shared between the stakeholders on a regular basis.

A summary risk assessment is submitted annually to the Executive Committee, the Audit Committee and the Board of Directors for review. In the case of new or changed risks, the reporting procedure is accelerated.

To support functional responsibility, certain functions have access to risk assessments to assist them in their roles.

Examples of such functions are Environmental Safety & Health Affairs (ESHA) to identify key sites for their property risk survey program or Group Procurement to ensure reliable and compliant supply of raw materials.

Examples of identified risks included in the Risk Register:

2.1 – Regulation & Compliance:

Clariant is subject to many rules and regulations as well as compliance standards. These include chemical industry, country, government and customer requirements as well as the European Union's (EU) Regulations on Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) or similar regulations in other countries.

The function Global Product Stewardship is responsible to ensure that all relevant legal requirements are met. Certain specific matters are delegated to other functions.

2.2 – Sites and locations

This includes manufacturing plants and equipment important for the production of Clariant products for sale to customers. Also addressed are country and culture issues that could create threats to business objectives. The aim is to maintain high-quality and safe production facilities. ESHA and Regional Services are responsible for the management of the associated risks.

2.3 – Economic development

The achievement of corporate targets depends on the economic development, which is therefore continuously monitored in all markets. Should a market not develop in line with expectations, the organization will be adjusted accordingly. The global trade uncertainty arising from the currently looming conflicts around trade and tariffs could adversely affect economic development.

2.4 – Digital interconnection

Successful performance of the Clariant group depends on properly working information systems. Cyber attacks may result in the loss of data, knowledge, facilities, or money, leading to interruptions in manufacturing and product deliveries. Such attacks might cause significant economic damages as well as loss of trust.

3. Financial risk management

3.1 – Financial risk factors

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk, liquidity risk, counterparty risk, (re-)financing and funding risk, and also settlement risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to reduce potential adverse effects on the Group's financial performance at reasonable hedging costs. The Group uses derivative financial instruments, non-derivative financial instruments and operating strategies to hedge certain risks.

Financial risk management is carried out by the central treasury department (Corporate Treasury) under policies approved by the Executive Committee and the Board of Directors. Corporate Treasury identifies, evaluates and hedges financial risks in close cooperation with the Group's operating units and functions. Written principles for the management of overall foreign exchange risk, credit risk for the use of derivative financial instruments, non-derivative financial instruments and investing excess liquidity (counterparty risk) are in place.

3.1.1 – Market risk

3.1.1.1 – Foreign exchange risk

- **Exposure to foreign exchange risk:** The Group operates internationally and is exposed to foreign exchange risks arising from various currency exposures, primarily with respect to the euro and the US-dollar and to some extent the currencies of emerging countries. Foreign exchange risks arise from future commercial transactions, recognized assets and liabilities and net investments in foreign operations, when they are denominated in a currency that is not the respective subsidiary's functional currency.

- **Foreign exchange risk management:** To manage the foreign exchange risk arising from future commercial transactions and recognized assets and liabilities, entities in the Group use spot transactions, FX forward contracts, FX options and FX swaps according to the Group's foreign exchange risk policy. Corporate Treasury is responsible, in close coordination with the Group's operating units, for managing the net position in each foreign currency and for putting in place the appropriate hedging actions.

  The Group's foreign exchange risk management policy is to selectively hedge net transaction exposures in major foreign currencies.

  Currency exposures arising from the net assets of the Group's foreign operations are managed primarily through borrowings denominated in the relevant foreign currency.

  Detailed information regarding foreign exchange management is provided in note 30.

- **Foreign exchange risk sensitivity:** The estimated percentage change of the following foreign exchange rates used in this calculation is based on the historical foreign exchange rate volatility for a term of 360 days.

  At 31 December 2019, if the euro had strengthened/weakened by 4 % (2018: 5 %) against the Swiss franc with all other variables held constant, pre-tax profit for the year would have been CHF 4 million higher/lower (2018: CHF 7 million higher/lower), mainly as a result of foreign exchange gains/losses on translation of the euro-denominated financing, cash and cash equivalents, intragroup financing and third-party trade receivables and payables. Equity would have been CHF 31 million lower/higher (2018: CHF 57 million lower/higher), arising mainly from foreign exchange gains/losses on translation of the euro-denominated hedging instruments.

  At 31 December 2019, if the US-dollar had strengthened/weakened by 6 % (2018: 7 %) against the Swiss franc with all other variables held constant, pre-tax profit for the year would have been CHF 23 million higher/lower (2018: CHF 19 million higher/lower) mainly as a result of foreign exchange gains/losses on translation of US-dollar-denominated cash and cash equivalents, intragroup financing and trade receivables. Equity would have been CHF 15 million lower/higher (2018: CHF 18 million lower/higher), arising mainly from foreign exchange gains/losses on the translation of the US-dollar-denominated hedging instruments.

3.1.1.2 – Interest rate risk

- **Exposure to interest rate risk:** Financial debt issued at variable rates and cash and cash equivalents expose the Group to cash flow interest rate risk; the net exposure as per 31 December 2019 was not significant. Financial debt issued at fixed rates does not expose the Group to fair value interest rate risk because it is recorded at amortized costs. At the end of 2019 and 2018, 100 % of the net financial debt was at fixed rates.

- **Interest rate risk management:** It is the Group's policy to manage the costs of interest using fixed and variable rate debt and interest-related derivatives. Corporate Treasury monitors the net debt fix-to-float mix on an ongoing basis.

- **Interest rate risk sensitivity:** To calculate the impact of a potential interest rate shift on profit and loss, a weighted average interest rate change was determined, based on the terms of the financial debt issued at variable rates, fix-term deposits and the movements of the corresponding interest rates (interest rates comparison between end of 2019 and end of 2018).

  At 31 December 2019, if the euro interest rates on net current financial debt issued at variable interest rates had been 1 basis point higher/lower with all other variables held constant, pre-tax profit for the year would have been below CHF 0.02 million higher/lower (2018: CHF 0.001 million higher/lower for a euro interest rate shift of 1 basis points).

3.1.2 – Other price risks

With regard to the financial statements as per 31 December 2019 and 2018, the Group was not exposed to other price risks in the sense of IFRS 7, Financial Instruments: Disclosures.

3.1.2.1 – Credit risk

- **Exposures to credit risk:** Credit risk arises from deposits of cash and cash equivalents, from entering into derivative financial instruments and from deposits with banks and financial institutions, as well as from credit exposures to wholesale and retail customers, including outstanding receivables and committed transactions with suppliers. Customer credit risk exposure is triggered by customer default risk and country risk. As per 31 December 2019, the Group had a diversified portfolio with more than 30 300 active credit accounts (2018: more than 31 500), with no significant concentration neither due to size of customers nor due to country risk.

- **Credit risk management:** Clariant has a Group credit risk policy in place to ensure that sales are made to customers only after an appropriate credit risk rating and credit line allocation process. Procedures are standardized within a customer credit risk policy and supported by the IT system with respective credit management tools. Credit lines are partially backed by credit risk insurance.

Ageing balance of trade receivables	31.12.2019	31.12.2018
Not due yet	90%	90%
Total overdue	10%	10%
– less than 30 days	7%	7%
– more than 30 days	3%	3%

Net trade receivables per Group internal risk category	31.12.2019	31.12.2018
A – low credit risk	26%	24%
B – low to medium credit risk	31%	33%
C – medium to above-average risk	28%	30%
D – high credit risk	15%	13%
N – customers awaiting rating	0%	0%

Financial instruments contain an element of risk that the counterparty may be unable to either issue securities or to fulfill the settlement terms of a contract. Clariant therefore – whenever possible – only cooperates with counterparties or issuers that are at least rated »BB-« when it comes to entering into deposits with such counterparties. The cumulative exposure to these counterparties is constantly monitored by Corporate Treasury. There is no expectation of a material loss due to counterparty risk.
The Group maintains a large cash pooling structure with a leading European bank, over which most European subsidiaries execute their cash transactions denominated in euro. As a result of this cash pool the Group at certain times has substantial current financial assets and at other times substantial current financial liabilities.

In view of the bank being rated »BBB+« (2018: BBB+) by the most important rating agencies, Clariant does not consider this to pose any particular counterparty risk.

At the balance sheet date 69% (2018: 75%) of the total cash and cash equivalents and short-term deposits were held with five banks (2018: five banks), each with a position between CHF 55 million and CHF 278 million (2018: between CHF 49 million and CHF 312 million). All of these banks are rated »BBB+« (2018: »BBB+«) and better.

The table below shows in percentage of total cash and cash equivalents the share deposited with each of the three major counterparties at the balance sheet date (excluding the bank managing the euro cash pool):

Counterparty	Rating	31.12.2019
Bank A	A+	16%
Bank B	BBB+	9%
Bank C	A-	8%

Counterparty	Rating	31.12.2018
Bank 1	A	8%
Bank 2	A+	19%
Bank 3	A+	11%

3.1.3 – Liquidity risk

- **Liquidity risk management:** Cash flow forecasting is performed in the subsidiaries of the Group and in aggregate by Corporate Treasury. Corporate Treasury monitors the forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet its operational needs while maintaining sufficient headroom on its undrawn borrowing facilities. At all times the Group aims to meet the requirements set by the covenants of any of its borrowing facilities. Corporate Management therefore takes into consideration the Group's debt financing plans and financing options.

Cash which is not needed in the operating activities of the Group is invested in short-term money market deposits or marketable securities, if an interest income higher than the one on a regular bank deposit can be achieved. At 31 December 2019, the Group held money market funds of CHF 408 million (2018: CHF 142 million), thereof CHF 304 million with an initial tenor of more than 90 days (2018: CHF 26 million).

The following table analyzes the maturity profile of the Group's financial liabilities. The amounts disclosed are the contractual undiscounted cash flows and therefore do not reconcile with the financial liabilities presented in the consolidated balance sheets.

At 31 December 2019 CHF m	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Borrowings	587	327	744	414
Interest on borrowings	33	27	43	9
Lease liabilities	62	50	94	103
Trade payables and other liabilities	1 205	7	11	50
Derivative financial instruments	—	—	– 6	—

At 31 December 2018 CHF m	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Borrowings	529	410	816	485
Interest on borrowings	76	27	43	4
Finance lease liabilities	3	3	8	16
Trade payables and other liabilities	1 266	7	18	47
Derivative financial instruments	–	–	–4	–

The Group covers its liabilities out of generated operating cash flow, liquidity reserves in form of cash and cash equivalents including money market deposits (31 December 2019: CHF 942 million vs. 31 December 2018: CHF 859 million), out of uncommitted open cash pool limits and bank credit lines (31 December 2019: CHF 65 million vs. 31 December 2018: CHF 104 million), as well as out of additional uncommitted net working capital facilities and through issuance of capital market instruments.

Since 16 December 2016, Clariant Ltd has an agreement for a CHF 500 million five-year multi-currency revolving credit facility (RCF) with two one-year extension options. The RCF is structured as a club deal with ten key relationship banks with equal stakes and contains an accordion option for an increase up to CHF 600 million. The RCF is structured as a »back-stop« facility for rating purposes to maintain Clariant's liquidity headroom. It contains customary covenants such as negative pledge, cross default, ownership change and restriction on disposals, mergers and subsidiary debt. The Group is required to maintain one financial covenant (debt leverage) that is tested at the end of each financial half year. The RCF has been extended until 16 December 2023.

3.2 – Fair value measurement

IFRS 13, Fair Value Measurement, requires the disclosure of fair value measurements for financial instruments measured at fair value in the balance sheets in accordance with the fair value measurement hierarchy.

The fair value hierarchies are defined as follows:
- **Level 1:** Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- **Level 2:** Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- **Level 3:** Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

3.2.1 – Valuation methods

As per 31 December 2019, the open derivative financial instruments held were valued using the following valuation methods:

Forward exchange rate contracts: The valuation of forward exchange rate contracts are based on the discounted cash flow model, using observable inputs such as interest curves and spot rates.

Exchange rate options: FX options are valued based on a Black-Scholes model, using major observable inputs such as volatility and exercise prices.

Equity investments valued at fair value through OCI: These are usually classified at Level 3. Their valuation is based on multiples of projected earnings and discounted cash flows.

The financial instruments measured at fair value through profit or loss were all classified as Level 2 (see note 30). There were no transfers between the levels in 2019 and 2018.

3.3 – Hedge Accounting

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as either:
- Hedges of a particular risk associated with the cash flows of recognized assets and liabilities and highly probable forecast transactions (cash flow hedges)
- Hedges of a net investment in a foreign operation (net investment hedges).

At the inception of the hedge relationship, the Group documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. The group documents its risk management objective and strategy for undertaking its hedge transactions.

The fair values of derivative financial instruments designated in hedge relationships are disclosed in note 30. Movements in the hedging reserve in shareholders' equity are shown in note 30. The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. Trading derivatives are classified as a current asset or liability.

- **Cash flow hedges:** The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized within equity. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss. As long as the hedged cash flow item is probable the cumulative gain or loss on the respective hedge remains in equity and does not get recycled.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss, as follows:
- The gain or loss relating to the effective portion of the interest rate/cross currency swaps hedging variable rate or fixed rate borrowings is recognized in profit or loss within finance cost at the same time as the interest expense on the hedged borrowings.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, the cumulative gain or loss that was reported in equity is immediately reclassified to profit or loss.

- **Hedges of net investments** in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognized in other comprehensive income and accumulated within equity. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

Gains and losses accumulated in equity are reclassified to profit or loss when the foreign operation is partially disposed of or sold.

3.4 – Capital risk management

The Group's objectives when managing capital are to safeguard the ability to continue as a going concern in order to provide returns for the shareholders and benefits for other stakeholders and to maintain a capital structure suitable to optimize the cost of capital. This includes aspects of the credit rating.

In order to maintain or adjust the capital structure, the Group may adjust the amount of payouts to the shareholders, return capital to the shareholders, issue new shares, or sell assets to reduce debt.

The Group monitors capital on the basis of invested capital as part of the return on invested capital concept. Invested capital is calculated as the sum of total equity as reported in the consolidated balance sheets plus current and non-current financial liabilities as reported in the consolidated balance sheets plus estimated liabilities from operating leases, plus estimated cash needed for operating purposes, less cash and cash equivalents and short-term deposits not needed for operating purposes.

Invested capital for the Group was as follows on 31 December 2019 and 2018 respectively:

CHF m	**2019**	2018
Total equity	2677	2970
Total current and non-current financial liabilities (incl. lease liabilities)[2]	2318	2240
Estimated operating lease liabilities	–	251
Less cash and cash equivalents and short-term deposits[1]	–942	–859
Cash needed for operating purposes	131	132
Invested capital	**4188**	**4734**

[1] Short-term deposits represent deposits over 90 days.

[2] On 31 December 2019 financial liabilities comprised lease liabilities in the amount of CHF 246 million accounted for under IFRS 16, whereas in 2018 financial liabilities comprised finance lease obligations in the amount of CHF 17 million accounted for under IAS 17.

At the end of 2019, Clariant considers the invested capital to be adequate.

4. Critical accounting estimates and judgments
Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations on future events that are believed to be reasonable under the circumstances.

The Group makes estimates and takes assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

4.1 – Estimated impairment of goodwill, intangibles, and property, plant and equipment
The Group tests annually whether goodwill has suffered any impairment in accordance with the requirements of IAS 36, Impairment of Assets. The recoverable amounts of all cash generating units have been determined based on value-in-use calculations reported in continuing operations. The recoverable amounts of all cash generating units classified as discontinued operations have been valued at fair value less cost to sell.

The recoverable value of intangibles and property, plant and equipment is also assessed applying value-in-use calculations. These calculations require the use of estimates, in particular in relation to the expected growth of sales, the discount rates, the development of raw material prices and the success of restructuring measures implemented (see notes 5 and 6).

4.2 – Environmental liabilities
The Group is exposed to environmental regulations in numerous jurisdictions. Significant judgment is required in determining the worldwide provision for environmental remediation. The Group constantly monitors its sites to ensure compliance with legislative requirements and to assess the liability arising from the need to adapt to changing legal demands. The Group recognizes liabilities for environmental remediation based on the latest assessment of the environmental situation of the individual sites and the most recent requirements of the respective legislation. Where the final remediation results in expenses that differ from the amounts previously recorded, such differences impact the income statement in the period in which such determination is made (see notes 21 and 34).

4.3 – Income tax and other taxes
The Group is subject to income tax and other taxes in numerous jurisdictions. Significant judgment is required in determining the worldwide provision for income tax and other taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain at the time a liability must be recorded.
The Group recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts initially recorded, such differences impact the income tax and deferred tax provisions in the period in which such determination is made (see note 10). As a substantial part of Clariant's activities are based in Germany, this is where the largest tax risks arise. Some subsidiaries generate tax losses. Often these can be used to offset taxable gains of subsequent periods. The Group constantly monitors the development of such tax loss situations. Based on the business plans for the subsidiaries concerned, the recoverability of such tax losses is determined. In the case that a tax loss is deemed to be recoverable, the capitalization of a deferred tax asset for such a tax loss is then decided.

4.4 – Estimates for the accounting for employee benefits
IAS 19, Employee Benefits, requires that certain assumptions are made in order to determine the amount to be recorded for retirement benefit obligations and pension plan assets, in particular for defined benefit plans. These are mainly actuarial assumptions such as expected future salary increases, long-term increase in health care costs, average life expectancy and discount rates. Substantial changes in the assumed development of any of these variables may significantly change the Group's retirement benefit obligation and pension assets (see note 20).

4.5 – Provisions and Contingencies
Clariant is regularly confronted with situations where possible obligations arising from past events will only be confirmed by the occurrence or non-occurrence of future events not wholly within the control of the Group or where the amount of the obligation cannot be reliably estimated. Clariant reviews such situations at each balance sheet date and makes judgments based on all information available to determine if an outflow of resources can be reliably estimated or not. If this is not possible a contingency is reported for each material case.

4.6 – Assets held for sale and liabilities directly associated with assets held for sale
As a result of the decision to divest two of its Business Units, Clariant reclassified the assets and liabilities pertaining to those activities to »held for sale« in accordance with IFRS 5 (see note 1.03). In distinguishing between the assets and liabilities pertaining to continuing operations and those pertaining to discontinued operations judgment had to be applied, as a part of those assets and liabilities are used by both types of activities.

All assets and liabilities exclusively pertaining to one Business Unit were allocated to that Business Unit. In all other cases a critical assessment was conducted as to whether it could be reasonably expected that the asset or liability concerned would be transferred in a disposal. For Masterbatches, where a disposal contract already exists, this contract was used as a basis. For Pigments this assessment was made based on past experience and most recent market developments. The allocation made may have to be adjusted when the disposals are actually consummated.

5. Property, plant and equipment

in CHF m	Land	Buildings	Machinery and equipment	Furniture, vehicles, computer hardware	Assets under construction	**Total 2019**
Cost						
Balance 31 December 2018	405	1 493	2 924	410	207	5 439
Changes in accounting policy [1]	–10	–14	–2	–13	–	–39
As per 1 January	395	1 479	2 922	397	207	5 400
Additions	1	14	53	19	186	273
Reclassified to held for sale (see note 25)	–43	–309	–827	–89	–32	–1 300
Disposals	–	–31	–147	–31	–4	–213
Reclassifications	2	23	67	9	–101	–
Exchange rate differences	–15	–48	–87	–9	–8	–167
At 31 December	**340**	**1 128**	**1 981**	**296**	**248**	**3 993**
Accumulated depreciation and impairment						
Balance 31 December 2018	–111	–863	–2 070	–314	–	–3 358
Changes in accounting policy [1]	2	8	1	4	–	15
As per 1 January	–109	–855	–2 069	–310	–	–3 343
Reclassified to held for sale (see note 25)	–	149	706	75	–	930
Disposals	–	16	117	28	–	161
Depreciation	–	–41	–130	–29	–	–200
Exchange rate differences	4	31	66	7	–	108
At 31 December	**–105**	**–700**	**–1 310**	**–229**	**–**	**–2 344**
Net book value	**235**	**428**	**671**	**67**	**248**	**1 649**

[1] Impact of the introduction of IFRS 16, Leases

Impairments recognized in the income statement amounted to less than CHF 1 million in 2019. No impairment losses were recorded in 2018.

As at 31 December 2019, commitments for the purchase of property, plant and equipment concerned various projects mainly in Romania, Germany and in China and totalled CHF 182 million (2018: CHF 73 million).

In 2019, IFRS 16 Leases became effective and the accounting policy was changed accordingly. The adoption of IFRS 16 affected the net book value of property, plant and equipment by a decrease of CHF 17 million acquired by way of finance lease and by a decrease of CHF 7 million of leasehold land. See also Accounting Policies, section 1.12 and Note 7.

Disposals of 2019 include CHF 48 million of assets (net book value) which are part of the sale of the Healthcare Packaging Business (see note 25).

Disposals of 2018 include CHF 85 million of the assets (net book value) which are part of the sale of Infrapark Baselland AG (see note 26).

in CHF m	Land	Buildings	Machinery and equipment	Furniture, vehicles, computer hardware	Assets under construction	Total 2018
Cost						
As per 1 January	421	1 945	3 121	429	234	6 150
Additions	2	15	54	21	145	237
Disposals	–4	–446	–254	–38	–8	–750
Reclassifications	1	42	102	12	–157	—
Exchange rate differences	–15	–63	–99	–14	–7	–198
At 31 December	**405**	**1 493**	**2 924**	**410**	**207**	**5 439**
Accumulated depreciation and impairment						
As per 1 January	–116	–1 256	–2 207	–321	—	–3 900
Disposals	1	404	219	32	—	656
Depreciation	—	–51	–157	–37	—	–245
Exchange rate differences	4	40	75	12	—	131
At 31 December	**–111**	**–863**	**–2 070**	**–314**	**—**	**–3 358**
Net book value	**294**	**630**	**854**	**96**	**207**	**2 081**

Investment properties (Clariant as a lessor in operating leases)
As a result of the continuous efforts to increase efficiency and to optimize the structure of its facilities sometimes production or adminstrative sites are vacated. In order to minimize expenses Clariant seeks to find tenants for these facilities.

As a consequence such facilities, which generate income exclusively from rental contracts, are considered as investment property in line with the requirements of IAS 40, Investment Property. All investment property is valued at cost less depreciation.

Investment property in Clariant is almost entirely located in Switzerland and Germany. The gross book value of investment property amounted to CHF 600 million on 31 December 2019 (CHF 627 million on 31 December 2018).
Accumulated depreciation on investment property amounted to CHF 438 million on 31 December 2019 (CHF 457 million on 31 December 2018).
The net book value amounted to CHF 162 million on 31 December 2019 (CHF 170 million on 31 December 2018).
Depreciation amounted to CHF 1 million in 2019 (CHF 1 million in 2018).

Income from investment properties amounted to CHF 11 million in 2019 (CHF 11 million in 2018) and is recorded in SG&A in the segment Corporate.

Expected minimum lease income varies between CHF 7 million and CHF 8 million (2018: CHF 8 million and CHF 10 million) per annum for the next five years and amounts to CHF 199 million for later periods (2018: CHF 144 million).

Since all investment property consists of industrial and administrative sites which have been in use for several decades there is no active market which would give information on possible market prices, if such sites were to be sold to a third party. The fair values of the investment properties were therefore determined by way of external appraisals and value-in-use calculations. As of December 31 2019, the estimated fair value of investment property amounted to CHF 204 million (CHF 211 million on 31 December 31 2018).

6. Intangible assets

in CHF m	Goodwill	Technology	Customer relationships	Trade names	Other	**Total 2019**
Cost						
As per 1 January	1 303	252	414	110	368	2 447
Additions	—	—	—	—	16	16
Disposals	–127	–10	–15	–9	–25	–186
Reclassified to held for sale (see note 25)	–77	—	–4	–13	–61	–155
Exchange rate differences	–30	–4	–8	–1	–6	–49
At 31 December	**1 069**	**238**	**387**	**87**	**292**	**2 073**
Accumulated amortization and impairment						
As per 1 January	**–42**	**–175**	**–233**	**–94**	**–221**	**–765**
Disposals	—	8	6	7	15	36
Reclassified to held for sale (see note 25)	17	—	3	12	38	70
Amortization	—	–12	–20	–6	–34	–72
Exchange rate differences	1	2	1	1	4	9
At 31 December	**–24**	**–177**	**–243**	**–80**	**–198**	**–722**
Net book value	**1 045**	**61**	**144**	**7**	**94**	**1 351**

in CHF m	Goodwill	Technology	Customer relationships	Trade names	Other	**Total 2018**
Cost						
As per 1 January	1 322	256	418	111	365	2 472
Additions	—	—	—	—	20	20
Disposals	—	—	—	—	–4	–4
Exchange rate differences	–19	–4	–4	–1	–13	–41
At 31 December	**1 303**	**252**	**414**	**110**	**368**	**2 447**
Accumulated amortization and impairment						
As per 1 January	–42	–161	–217	–86	–191	–697
Disposals	—	—	—	—	3	3
Amortization	—	–16	–17	–8	–39	–80
Exchange rate differences	—	2	1	—	6	9
At 31 December	**–42**	**–175**	**–233**	**–94**	**–221**	**–765**
Net book value	**1 261**	**77**	**181**	**16**	**147**	**1 682**

Amortization is allocated to the line in the income statement, which represents the function to which the intangible asset pertains.

In 2019 and 2018 no impairment losses were recognized.

As per end of 2019, other intangible assets include the carrying value in the amount of CHF 36 million (2018: CHF 57 million) capitalized in connection with the REACH regulation and CHF 18 million (2018: CHF 37 million) of capitalized internally generated intangibles.

Disposals of 2019 include CHF 146 million of assets (net book value) which are part of the sale of the Healthcare Packaging Business (see note 25).

Impairment test for goodwill. Goodwill is allocated to the Group's cash generating units (CGU). Cash generating units consist of Business Units which are for external reporting purposes reported under the corresponding Business Areas (reportable segments, see note 1.25).

Goodwill is allocated to the following CGUs:

in CHF m	**31.12.2019**	31.12.2018
Industrial & Consumer Specialties	65	67
Masterbatches	47	176
Pigments	12	12
Functional Minerals	141	146
Catalysts	675	694
Oil & Mining Services	164	166
Total net book value	**1 104**	**1 261**
Thereof reclassified to held for sale:		–
Masterbatches	–47	–
Pigments	–12	–
Total as reported in the balance sheet	**1 045**	**1 261**

Continuing operations
The recoverable amount for CGUs reported as continued operations is determined based on their value-in-use. The value-in-use calculations use cash flow projections based on financial plans approved by the Board of Directors covering a period up to 2021. Beyond this period, growth assumptions of the CGU management are applied for 2022 to 2024. For the terminal value market growth (2.25 %) is assumed. The main assumptions used for cash flow projections are EBITDA in percent of sales and sales growth. The assumptions regarding these two variables are based on Management's past experience and future expectations of business performance. The pre-tax discount rates used are based on the Group's weighted average cost of capital. The assumed pre-tax discount rate was 11.59 % for all cash generating units (2018: 11.57 %). As all CGUs operate in similar geographic areas, have the same source of funds and a similar risk pattern a uniform discount rate is applied to all of them.

For all CGUs it was assumed that they achieve sales growth in line with or higher than market growth, based on the specific strategic plans for the respective CGUs. It was also assumed that the EBITDA in percent of sales will improve over present performance as a result of the continuous improvement measures implemented. The conclusion was that the net present value of the expected cash flows exceeds the carrying amount of the net assets allocated on a value-in-use basis of all CGU's.

Discontinued operations
The estimated recoverable amount of the CGU's classified as discontinued operations was determined on a fair value less cost to sell basis. For the Business Unit Masterbatches the signed sale and purchase contract was used to determine this value. The fair value of the Business Unit Pigments was determined estimating an EBITDA multiple based on the business plan for the Business Unit and also comparing this value with the prices achieved in similar transactions in recent years. Costs to sell were estimated based on past experience. Based on these calculations, the fair value less cost to sell of these two CGUs exceed their book values. For further details on discontinued operations, see note 25.

7. Leases

in CHF m	31.12.2019	01.01.2019
Right-of-use assets - net book value		
Leasehold land[1]	21	18
Buildings	175	180
Machinery and equipment	25	19
Furniture, vehicles, computer hardware	32	39
Total	**253**	**256**
Reclassified to held for sale (see note 25)	–34	–
Total as reported in the balance sheet	**219**	**256**
Lease liabilities		
Non-current lease liabilities	195	187
Current lease liabilities	51	62
Total	**246**	**249**
Reclassified to held for sale (see note 25)	–29	–
Total as reported in the balance sheet	**217**	**249**

[1] Leasehold land includes right-of-use assets, which was previously recognized as a part of property, plant and equipment (see note 5).

Additions to the right-of-use assets during 2019 were CHF 65 million.

Consolidated income statements include the following amounts relating to leases:

in CHF m	2019
Depreciation expense	
Leasehold land	–2
Buildings	–32
Machinery and equipment	–8
Furniture, vehicles, computer hardware	–16
Total depreciation	**–58**
Interest expense, included in finance costs	–12
Expense relating to short-term leases	–16
Expense relating to leases of low-value assets	–7
Expense relating to variable lease payments not included in lease liabilities	–
Total	**–93**
Thereof reported under discontinued operations	2
Total continuing operations	**–91**

The total cash outflow for leases in 2019 was CHF 70 million.

There are no significant commitments for leases not commenced at year-end.

On adoption of IFRS 16, the Group recognized lease liabilities in relation to leases which had been previously classified as operating leases under IAS 17 Leases.

The potential future cash outflows in the amount of CHF 1 million that are not reflected in the measurement of lease liabilities as at 31 December 2019 arising only from the extension option.

The reconciliation from operating lease commitments under IAS 17 as at 31 December 2018 to lease liabilities under IFRS 16 as at 1 January 2019 is as follows:

in CHF m	01.01.2019
Obligation from operating leases as at 31 December 2018	260
Effect of discounting	-35
Carrying amount of finance lease liabilities as at 31 December 2018	17
Short-term leases and low-value leases recognized on a straight-line basis as expense	-7
Adjustments as a result of a different treatment of extension and termination options	15
Other adjustments	-1
Total	**249**

The weighted-average incremental borrowing rate for lease liabilities initially recognized as of 1 January 2019 was approximately 3.4 %.

8. Investments in associates and joint ventures

in CHF m	2019	2018
As per 1 January	**368**	**508**
Change in the scope of consolidation	1	23
Additions	1	2
Disposals	–10	–43
Share in profit	52	71
Revaluation to fair value	–	45
Share in other comprehensive income of associates and joint ventures	–9	–
Dividends received	–42	–50
Reclassified to Financial assets (see note 9)	–	–173
Reclassified to held for sale (see note 25)	–101	–
Exchange rate differences	–12	–15
At 31 December	**248**	**368**
Thereof joint ventures	109	108

The key financial data of the Group's principal associates is as follows:

INVESTMENTS IN ASSOCIATES:

	Stahl Lux 2 SA		Infraserv GmbH & Co. Höchst KG		Infraserv GmbH & Co. Gendorf KG		Infraserv GmbH & Co. Knapsack KG		Others	
	Luxembourg		Germany		Germany		Germany			
in CHF m	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Summarized financial information										
Interest held %	15%	15%	33%	33%	50%	50%	21%	21%	–	–
Revenue	–	1 008	1 025	1 200	246	254	256	248	174	222
Total comprehensive income	–	71	34	72	24	25	13	13	14	26
Net income	–	71	57	72	29	25	13	13	14	26
Other comprehensive income	–	–	-23	–	-5	–	–	–	–	–
Current assets	–	–	287	334	91	87	58	64	84	176
Non-current assets	–	–	678	628	184	184	122	121	26	23
Current liabilities	–	–	–198	–232	–83	–86	–54	–58	–31	–90
Non-current liabilities	–	–	–505	–437	–67	–65	–36	–35	–4	–22
Net assets	**–**	**–**	**262**	**293**	**125**	**120**	**90**	**92**	**75**	**87**
Reconciliation of book value										
Book value beginning of period	**–**	**159**	**95**	**98**	**60**	**59**	**19**	**20**	**86**	**60**
Additions			–	–	–	–	–	–	1	2
Disposals	–	–43	–	–	–	–	–	–	–10	–
Change in the scope of consolidation	–	–	–	–	–	–	–	–	1	23
Share in profit for the period	–	16	19	24	15	13	3	3	2	8
Revaluation to fair value	–	45	–	–	–	–	–	–	–	–
Share in other comprehensive income	–	–	–7	–	–2	–	–	–	–	–
Dividends received	–	–	–17	–24	–8	–9	–3	–3	–5	–6
Reclassified to Financial assets (see note 9)	–	–173	–	–	–	–	–	–	–	–
Foreign exchange rate differences	–	–4	–4	–3	–2	–3	–1	–1	–2	–1
Book value end of the period	**–**	**–**	**86**	**95**	**63**	**60**	**18**	**19**	**73**	**86**
Group's Share in net assets	**–**	**–**	**86**	**97**	**63**	**60**	**19**	**19**	**73**	**86**
Taxes, Minorities and other adjustments	–	–	–	–2	–	–	–1	–	–	–
Book value at the end of the period	**–**	**–**	**86**	**95**	**63**	**60**	**18**	**19**	**73**	**86**
Reclassified to held for sale (see note 25)			86						15	

In December 2018 Clariant sold 5 % of it's 19.7 % stake of its participation in Stahl Lux 2 SA, which was classified as an associate until this point in time. Subsequently the remaining stake in Stahl LUX 2 was revalued with a gain to the fair market value of CHF 173 million and reclassified to Financial Assets.

The Infraserv companies were set up by the former Hoechst group to cater to the infrastructure needs of its subsidiaries in Germany prior to 1997. The shareholdings in associates summarized under »Others« concern mainly companies specializing in selling Clariant products.

On 31 December 2019, accumulated unrecognized losses amounted to CHF 1 million (2018: CHF 4 million).

The key financial data of the Group's principal joint ventures is as follows:

INVESTMENTS IN JOINT VENTURES:

	Scientific Design Company Inc. USA		Global Amines group	
in CHF m	**2019**	2018	**2019**	2018
Summarized financial information				
Interest held %	50%	50%	50%	50%
Revenue	131	73	188	195
Total comprehensive income	18	14	5	6
Net income	18	14	7	11
Other comprehensive income	–	–	–2	–4
Current assets	80	87	84	70
Non-current assets	32	30	66	87
Current liabilities	–20	–20	–74	–82
Non-current liabilities	–8	–7	–28	–31
Net assets	**84**	**90**	**48**	**44**
Reconciliation of book value				
Book value beginning of period	**108**	**112**	**–**	**–**
Share in profit for the period	12	7	1	–
Share of other comprehensive income	–	–	–	–
Dividends received	–9	–8	–	–
Foreign exchange rate differences	–3	–3	–	–
Book value end of the period	**108**	**108**	**1**	**–**
Group's Share in net assets at the end of the period	**42**	**45**	**24**	**22**
Fair value adjustment/Goodwill	66	66	–	–
Impairment	–	–	–23	–23
Taxes, Minorities and other adjustments	–	–3	–	1
Book value at the end of the period	**108**	**108**	**1**	**–**

Scientific Design Company Inc. is a producer of ethylene and oxide catalysts headquartered in the United States and has around 140 employees. Co-owner is the Saudi Arabia-based Sabic group.

Global Amines group is a joint venture of Clariant and Wilmar International Limited, a leading Asian agribusiness group, headquartered in Singapore and serves as a global platform for the production and sale of fatty amines and selected amine derivatives. It also has worldwide sales, distribution and production facilities. The joint venture has existed since 26 October 2012 and is operated as part of the Business Unit ICS.

9. Financial assets

in CHF m	**2019**	2018
As per 1 January	211	50
Changes in accounting policies (IFRS 9)	–	–5
Additions	3	2
Fair value adjustment	16	2
Reclassified from Investments in associates and joint ventures (see note 8)	–	173
Repayments and disposals	–4	–6
Exchange rate differences	–8	–5
At 31 December	**218**	**211**

Financial assets include loans to joint ventures and a number of small-scale participations in companies, mostly in Germany and in Switzerland, engaged in activities closely related to the ones of Clariant.

In 2019, Clariant acquired a 10% stake in Plant Advanced Technologies SA, which develops plant-based active ingredients for cosmetics. The purchase price amounted to CHF 2 million.

In 2019 loans extended amounted to CHF 9 million (2018: CHF 13 million). Participations amounted to CHF 209 in 2019 (CHF 198 million in 2018).

In 2019, loans to associates in the amount of CHF 4 million (2018: CHF 5 million) were repaid.

In December 2018, Clariant sold 5 % of it’s 19.7 % stake in the company Stahl Lux 2 SA, which was classified as an associate until this time. Subsequent to the transaction the remaining shareholdings were reclassified to Financial Assets.

While loans are carried at amortized cost participations are valued at fair value through OCI using »Level 3« methods.

The valuation of participations is based on multiples of projected earnings and discounted cash flows. The change in participation value was mainly driven by the fair value estimation performed in 2019 and resulting in an increase of CHF 16 million. The gain on the revaluation, amounting to CHF 14 million net of tax, was recognized in Other comprehensive income.

The key unobservable inputs used in the fair value estimation of the most material participation that constitutes 85% of these shareholdings are as follows: long-term revenue growth rate 1%, long-term pre-tax operating margin 16.8% and weighted average cost of capital 8%. The sensitivity analysis shows that if the long-term growth rate had been higher/lower by 1% with all other variables held constant, the fair value would have been CHF 22 million higher/CHF 16 million lower. If the long-term pre-tax operating margin had been higher/lower by 1% with all other variables held constant, the fair value would have been CHF 7 million higher/lower. If the weighted average cost of capital had been higher/lower by 0.5% with all other variables held constant, the fair value would have been CHF 10 million higher/CHF 8 million lower.

10. Taxes

in CHF m	**2019**	2018
Current income taxes	–120	–133
Deferred income taxes	–20	24
Total taxes	**–140**	**–109**
Thereof reported under discontinued operations	35	41
Total continuing operations	**–105**	**–68**

The main elements contributing to the difference between the Group’s overall expected tax expense/rate and the effective tax expense/rate are:

	2019 in CHF m	in %	2018 in CHF m	in %
Income before taxes from continuing operations	71		281	
Income before taxes from discontinued operations	107		184	
Income before taxes total	**178**		**465**	
Expected tax expense/rate[1]	**–44**	**24.7**	**–113**	**24.3**
Effect of taxes on items not tax-deductible	–114	64.0	–34	7.3
Effect of utilization and changes in recognition of tax losses and tax credits	–38	21.3	1	–0.2
Effect of tax losses and tax credits of current year not recognized	–5	2.8	–6	1.3
Effect of adjustments to taxes recognized in prior periods	2	–1.1	–3	0.6
Effect of tax exempt income	73	–41.0	50	–10.8
Effect of other items	–14	7.9	–4	0.9
Effective tax expense/rate	**–140**	**78.7**	**–109**	**23.4**
Thereof reported under discontinued operations	35	32.7	41	22.3
Effective tax expense/rate continuing operations	**–105**	**147.9**	**–68**	**24.2**

[1] Calculated based on the income before tax of each subsidiary (weighted average).

In 2019 the recorded tax expense was adversely impacted by the non-recognition of deferred tax assets on tax losses as their recoverability was not considered probable, the US minimum tax BEAT and further one-time events. These effects and the fact that no further tax assets were capitalized in France and Switzerland as in the prior year let to a higher effective tax rate from continuing operations before the provision for the EU-investigation.

On May 19, 2019 the Swiss public voted to adopt the Federal Act on Tax Reform and AHV Financing (»TRAF«) confirming the reform of corporate taxation in Switzerland. The tax reform brings the replacement of certain preferential tax regimes with a new set of internationally accepted measures. The legislative changes align with the broad reduction of the cantonal corporate taxes. As at January 1, 2020 new regulations concerning Group taxation have become effective. The most relevant changes for the Group include a gradual decrease in the Basel-Land effective tax rate from 20.7 % to 13.45 % by 2025 and the abolishment of special tax regimes. The effective tax rate for Clariant Ltd will increase from 7.8 % to 13.45 % over that period. Based on these changes the Group has remeasured its deferred tax positions on the balance sheet as at December 31, 2019. The cumulative impact is a net increase in deferred tax assets of CHF 8 million, of which CHF 7 million are related to actuarial gains/losses to Swiss pension plans and were recorded in other comprehensive income. The remaining adjustment of CHF 1 million was recorded in the income statement. The deferred tax effects recorded in the 2019 consolidated financial statement do not impact current tax payments.

The movement of the net deferred income tax balance is as follows:

in CHF m	PPE, RoU assets and intangible assets	Retirement benefit obligations	Tax losses and tax credits	Other liabilities and provisions	Total	Thereof offset within the same jurisdiction	Total
Deferred tax assets at 31 December 2017	192	131	123	108	554	–287	267
Deferred tax liabilities at 31 December 2017	–169	–11	–	–172	–352	287	–65
Net deferred tax balance at 1 January 2018	**23**	**120**	**123**	**–64**	**202**	**–**	**202**
Change in accounting policies (IFRS 9)	–	–	–	1	1	–	1
Net deferred tax balance at 1 January 2018 (adjusted)	**23**	**120**	**123**	**–63**	**203**		**203**
Charged/credited to income	–35	–1	–13	62	13		
Effect of disposals	11	–	–	–	11		
Total charged/credited to income statement	**–24**	**–1**	**–13**	**62**	**24**		
Charged/credited to other comprehensive income	–	–	–	–1	–1		
Exchange rate differences	–	–4	–2	2	–4		
Net deferred tax balance at 31 December 2018	**–1**	**115**	**108**	**–**	**222**	**–**	**222**
Deferred tax assets at 31 December 2018	187	118	108	20	433	–164	269
Deferred tax liabilities at 31 December 2018	–188	–3	–	–20	–211	164	–47
Net deferred tax balance at 1 January 2019	**–1**	**115**	**108**	**–**	**222**	**–**	**222**
Charged/credited to income statement	26	–15	–39	6	–22		
Effect of disposals	2				2		
Total charged/credited to income statement	**28**	**–15**	**–39**	**6**	**–20**		
Charged/credited to other comprehensive income	–	37	–	–2	35		
Effect of disposals	–15	–2	–2	–1	–20		
Reclassified to held for sale (see note 25)	–	–22	–	–	–22		
Exchange rate differences	1	–5	–1	1	–4		
Net deferred tax balance at 31 December 2019	**13**	**108**	**66**	**4**	**191**	**–**	**191**
Deferred tax assets at 31 December 2019	242	110	66	29	447	–213	234
Deferred tax liabilities at 31 December 2019	–229	–2	–	–25	–256	213	–43
Net deferred tax balance at 31 December 2019	**13**	**108**	**66**	**4**	**191**	**–**	**191**

Of the deferred tax assets capitalized on tax losses, CHF 39 million refer to tax losses of the US subsidiaries (2018: CHF 53 million), CHF 5 million to tax losses of the Spanish subsidiaries (2018: CHF 7 million), CHF 7 million to tax losses of the Canadian subsidiaries (2018: CHF 6 million) and CHF 10 million to tax losses of the Indian subsidiaries (2018: CHF 10 million). Clariant considers it probable that these tax losses can be recovered.

Deferred income tax liabilities have not been established for withholding tax and other taxes that would be payable on the unremitted earnings of certain foreign subsidiaries, as such amounts are currently regarded as permanently reinvested. These unremitted earnings totaled CHF 2 663 million at the end of 2019 (2018: CHF 2 559 million).

The change compared to the prior year is primarily the result of Group-internal transactions.

The tax losses on which no deferred tax assets are recognized are reviewed for recoverability at each balance sheet date.

The largest part of these tax losses arose in France (with a tax rate of 31 %) and in China (with a tax rate of 25%). At present their recoverability is not considered probable.

Tax losses on which no deferred tax assets were recognized are as follows:

in CHF m	**31.12.2019**	31.12.2018
EXPIRY BY:		
2019	–	9
2020	24	25
2021	25	26
2022	13	14
2023	13	–
after 2023 (2018: after 2022)	310	333
Total	**385**	**407**
Unrecognized tax credits	1	–

Tax credits amounting to CHF 7 million were recognized in 2019. They expire in and after 2025.

Temporary differences on which no deferred tax was recognized amount to CHF 710 million in 2019 (2018: CHF 672 million).

11. Inventories

in CHF m	31.12.2019	31.12.2018
Raw material, consumables, work in progress	414	404
Finished products	556	614
Total	**970**	**1 018**
Reclassified to held for sale (see note 25)	–319	–
Total as reported in the balance sheet	**651**	**1 018**

in CHF m	2019	2018
Movements in write-downs of inventories		
As per 1 January	–47	–41
Additions	–15	–18
Reversals	20	10
Exchange rate differences	2	2
At 31 December	**–40**	**–47**
Thereof reclassified to held for sale	–17	–

As at 31 December 2019 and 2018, no inventories were pledged as collateral for liabilities.

The costs for raw materials and consumables recognized as an expense and included in »Costs of goods sold« amounted to CHF 1769 million (2018: CHF 1845 million) for continuing business.

12. Trade receivables

in CHF m	31.12.2019	31.12.2018
Gross accounts receivable – trade	963	996
Gross accounts receivable – associates and joint ventures	25	26
Less: provision for doubtful accounts receivable	–5	–5
Total trade receivables – net	**983**	**1 017**
Reclassified to held for sale (see note 25)	–303	–
Total as reported in the balance sheet	**680**	**1 017**

The following summarizes the movement in the provision for doubtful accounts receivable:

in CHF m	2019	2018
As per 1 January	–5	–16
Charged to the income statement	–7	–13
Amounts used	3	4
Unused amounts reversed	3	18
Exchange rate differences	1	2
At 31 December	**–5**	**–5**
Reclassified to held for sale (see note 25)	–1	–

There is no concentration of credit risk with respect to trade receivables, as the Group has a large number of internationally dispersed customers.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses, which uses a lifetime expected loss allowance for all trade receivables within stage 1 and 2. The estimated expected loss rates are based on historical credit losses and are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. The Group recognizes impairment of trade receivables in »Selling, general and administrative costs« in the income statement.

The maximum credit risk on trade receivables is equal to their fair value.

Collaterals are only required in rare cases (2019: CHF 2 million, 2018: CHF 2 million).

The loss allowance for trade receivables as at 31 December 2019 and 2018 was determined as follows:

in CHF m	Current	30–60 days overdue	61–90 days overdue	More than 90 days overdue	Individu-ally im-paired	Total
31 December 2019						
Expected loss rate (in %)	0.41	1.95	2.12	4.06		
Gross carrying amount trade receivables	948	18	9	13	–	988
Loss allowance	**4**	**–**	**–**	**1**	**–**	**5**

in CHF m	Current	30–60 days overdue	61–90 days overdue	More than 90 days overdue	Individu-ally im-paired	Total
31 December 2018						
Expected loss rate (in %)	0.34	1.64	1.77	2.66		
Gross carrying amount trade receivables	947	12	6	57	–	1 022
Loss allowance	**3**	**–**	**–**	**2**	**–**	**5**

The carrying amounts of the Group's trade receivables are denominated in the following currencies:

in CHF m	**31.12.2019**	31.12.2018
EUR	337	384
USD	330	300
CNY	63	64
BRL	46	45
JPY	25	35
INR	36	39
Other	146	150
Total trade receivables – net	**983**	**1 017**
Reclassified to held for sale (see note 25)	–303	–
Total as reported in the balance sheet	**680**	**1 017**

As of 31 December 2019, »Total trade receivables – net« include an amount of CHF 110 million (2018: CHF 145 million) past due, but not impaired. These relate to a number of customers for whom there is no recent history of default.

13. Other current assets

Other current assets include the following:

in CHF m	**31.12.2019**	31.12.2018
Other receivables	275	248
Current financial assets	64	66
Prepaid expenses and accrued income	62	52
Total	**401**	**366**
Reclassified to held for sale (see note 25)	–64	–
Total as reported in the balance sheet	**337**	**366**

Other receivables include, among others, staff loans, deposits and advances, VAT and sales tax receivable.

Other receivables are recognized at amortized cost in the balance sheet.

Current financial assets are mainly made up of notes receivables and short-term loans. These are recognized at amortized cost in the balance sheet. The book value of current financial assets equals their fair value.

Other receivables and other current financial assets are also subject to the impairment requirements of IFRS 9. The identified impairment loss for other receivables was immaterial.

There was no impairment of current financial assets in 2019 and 2018.

Other receivables are denominated in the following currencies:

in CHF m	**31.12.2019**	31.12.2018
CHF	14	11
EUR	84	92
USD	12	13
JPY	3	3
BRL	28	17
CNY	11	11
INR	37	32
Other	86	69
Total	**275**	**248**
Thereof reclassified to held for sale	61	–

Current financial assets are denominated in the following currencies:

in CHF m	**31.12.2019**	31.12.2018
CHF	41	38
USD	6	11
CNY	16	15
EUR	–	1
Other	1	1
Total	**64**	**66**

The maximum exposure to credit risk of other current assets at the reporting date is their fair value.

14. Short-term deposits

Short-term deposits have an original maturity between 90 and 365 days.

They are denominated in the following currencies:

in CHF m	**31.12.2019**	31.12.2018
EUR	130	–
USD	162	15
INR	12	11
Total	**304**	**26**

15. Cash and cash equivalents

in CHF m	**31.12.2019**	31.12.2018
Cash at bank and on hand	534	716
Short-term bank deposits	104	117
Total	**638**	**833**

Cash and cash equivalents are denominated in the following currencies:

in CHF m	**31.12.2019**	31.12.2018
EUR	173	336
USD	173	171
CHF	122	159
GBP	19	15
CNY	4	3
JPY	15	5
INR	48	50
BRL	7	9
Other	77	85
Total	**638**	**833**

The effective average annual interest rate on short-term bank deposits in Swiss francs was –0.65 % (2018: –0.38 %), these deposits have an average maturity of 34 days (2018: 36 days).

The effective average annual interest rate on short-term bank deposits in euros was 0 % (2018: 0 %); these deposits have an average maturity of 32 days (2018: 0 days).

The effective average annual interest rate on short-term bank deposits in US-dollars was 2.58 % (2018: 2.32 %), these deposits have an average maturity of 30 days (2018: 32 days).

There were no material short-term bank deposits denominated in currencies other than the euro and the US-dollar at the end of the reporting period.

The maximum exposure to credit risk on cash and cash equivalents is equal to their book value.

16. Cash flow from operating activities

for the years ended 31 December 2019 and 2018	Notes		2019 in CHF m		2018 in CHF m
Net income			**38**		**356**
Adjustment for:					
Depreciation of property, plant and equipment and right-of-use assets	5, 7	258		245	
Amortization of intangible assets	6	72		80	
Impairment of working capital		21		23	
Income from associates and joint ventures		–52		–130	
Tax expense	10	140		109	
Net financial income and costs	28	85		81	
Gain/loss from disposals not qualifying as discontinued operations	26	–2		54	
Gain on disposals of discontinued operations	25	–48		—	
Other non-cash items		9		–24	
Total reversal of non-cash items			**483**		**438**
Dividends received from associates and joint ventures	8		42		50
Payments for restructuring	27		–29		–42
Cash flow before changes in net working capital and provisions			**534**		**802**
Changes in inventories			–13		–156
Changes in trade receivables			–23		71
Changes in trade payables			–19		121
Changes in other current assets and liabilities			–66		–39
Changes in provisions (excluding payments for restructuring)			217		–52
Cash generated from operating activities			**630**		**747**
Income taxes paid			–121		–217
Net cash generated from operating activities			**509**		**530**

17. Changes in share capital and treasury shares and changes in non-controlling interests

Registered shares each with a par value of CHF 3.70 (2018: CHF 3.70)	Number of shares 2019	Par value 2019 in CHF m	Number of shares 2018	Par value 2018 in CHF m
Share capital as per 1 January	**331 939 199**	**1 228**	**331 939 199**	**1 228**
Share capital at 31 December	**331 939 199**	**1 228**	**331 939 199**	**1 228**
Treasury shares	–2 586 765	–10	–2 250 664	–8
Outstanding share capital at 31 December	**329 352 434**	**1 218**	**329 688 535**	**1 220**

Treasury shares (number of shares)	2019	2018
Holdings as per 1 January	2 250 664	2 641 579
Shares purchased at market value	572 000	—
Shares transferred to employees	–235 899	–390 915
Holdings at 31 December	**2 586 765**	**2 250 664**

All shares are duly authorized and fully paid in.

Dividends are paid out as and when declared equally on all shares, excluding treasury shares. The information concerning payments per share to the shareholders are disclosed in the notes to the financial statements of Clariant Ltd.

In accordance with article 5 of the company's Articles of Incorporation, no limitations exist with regard to the registration of shares which are acquired in one's own name and on one's own account. Special rules exist for nominees.

In accordance with article 13 of the company's Articles of Incorporation, each share has the right to one vote.

Distribution to shareholders

On 1 April 2019 the Annual General Meeting of Clariant AG approved a distribution from the confirmed capital contribution reserves of CHF 0.55 per share. This was paid out on 8 April 2019 reducing the capital contribution reserves by CHF 181 million.

Significant shareholders of 3 % or more of total share capital

Based on the notifications received by Clariant and published by SIX Exchange Regulation, as at 31 December 2019 the following shareholders held more than 3 % of voting rights in Clariant Ltd:

Shareholders	Voting rights
SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia	25.67 % [1]
APG Asset Management N.V., Amsterdam, Netherlands	5.01 %
Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Strasslach-Dingharting (Germany) and Maple Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82057 Icking (Germany) [2]	3.49 %
Citadel Multi-Strategy Equities Master Fund Ltd., George Town, Cayman Islands Citadel Securities Financial Trading (Ireland) DAC, Dublin,Ireland Citadel Global Equities (Ireland) DAC, Dublin, Ireland Citadel Global Equities Master Fund Ltd., George Town, Cayman Islands Citadel Multi-Strategy Equities (Ireland) DAC, Dublin, Ireland Citadel Quantitative Strategies Master Fund Ltd., George Town, Cayman Islands [3]	3.285 %
Millennium Partners LP, George Town, Cayman Islands Integrated Core Strategies Asia Pte.Ltd., Singapore [4]	3.04 %

[1] SABIC acquired 24.99 % of the shares of Clariant Ltd on 17 September 2018. The difference between this figure and the above-mentioned 25.67% corresponds to the amount of treasury shares held by Clariant Ltd which have to be aggregated to the shares held by SABIC solely for regulatory disclosure purposes due to the Governance Agreement entered into by SABIC and Clariant on 17 September 2018.

[2] According to a disclosure notification published on 18 December 2018, a group consisting of Konstantin Winterstein, 80333 Munich, Germany, and Elisabeth Prinzessin zu Sayn-Wittgenstein, 80333 Munich, Germany, was formed.

[3] Beneficial owner is Kenneth C. Griffin, c/o Citadel GP LLC, Chicago, USA.

[4] Beneficial owner Israel Englander, New York, United States.

Disclosure notifications during the financial year 2019 reported to the Stock Exchange Disclosure Office pursuant to Art. 120 of the Financial Markets Infrastructure Act (FMIA) as well as further information in relation to disclosure notifications can be found on the SIX Swiss Exchange reporting platform: www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html

On 31 December 2018, the following shareholders held a participation of 3 % or more of the total share capital: SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia 25.67 %; Group of former shareholders of Süd-Chemie AG: 13.96 %, thereof (as a separate sub-group): Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Grossdingharting (Germany), and Maple Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Grossdingharting (Germany): 3.49 %; APG Asset Management N.V., Amsterdam, Netherlands: 5.01 %.

On 31 December 2019, Clariant AG itself held 2 586 765 shares in treasury, corresponding to 0.78 % of the share capital.

Non-controlling interests

At 31 December 2019, non-controlling interests reported are primarily made up of those of the four following companies. They amount to more than 85 % of the minority shares reported:

Clariant Huajin Catalysts (Panjin) Ltd, reported sales in the amount of CHF 29 million in the reporting period and total assets in the amount of CHF 41 million as per 31 December 2019. The non-controlling interests of 40 % of the shares outstanding is held by Northern Huajin Chemical Industry Group Co. Ltd.

Clariant Chemicals (India) Ltd reported sales in the amount of CHF 149 million in the reporting period and CHF 130 million of total assets as per 31 December 2019. The non-controlling interests of 49 % of the shares outstanding is traded on the Bombay Stock Exchange (BSE) in Mumbai.

Clariant Catalysts (Japan) K.K. reported sales in the amount of CHF 172 million in the reporting period and CHF 98 million of total assets as per 31 December 2019. The non-controlling interests of 38.6 % of the shares outstanding are held by Nissan Chemicals Industries Ltd.

Süd-Chemie India Ltd (SCIL) reported sales in the amount of CHF 141 million and as per 31 December 2019 total assets of CHF 223 million, thereof current assets of CHF 129 million and non-currents assets of CHF 94 million. Total liabilities amounted to CHF 38 million, thereof current liabilities of CHF 29 million and non-current liabilities of CHF 9 million.

As per 31 December 2019 total equity amounted to CHF 185 million. The non-controlling interests of 50% of the shares outstanding are owned by private shareholders in India.

18. Non-current financial debts

in CHF m	Interest rate in %	Term	**Notional amount**	**Net amount 31.12.2019**	Net amount 31.12.2018
Straight bond	3.250	2012-2019	285 CHF m	–	285
Certificate of indebtedness	mixed	2015-2020	150 EUR m	163	169
Certificate of indebtedness	1.012	2016-2020	157 EUR m	170	176
Certificate of indebtedness	6 m EURIBOR +1.05	2016-2020	55 EUR m	60	63
Certificate of indebtedness	0.779	2016-2021	55 EUR m	60	63
Certificate of indebtedness	3 m LIBOR +1.5	2016-2021	166 USD m	160	163
Certificate of indebtedness	2.618	2016-2021	111 USD m	107	109
Straight bond	3.500	2012-2022	175 CHF m	174	174
Certificate of indebtedness	mixed	2015-2023	150 EUR m	163	169
Certificate of indebtedness	6 m EURIBOR +1.1	2016-2023	13 EUR m	14	15
Certificate of indebtedness	1.137	2016-2023	27 EUR m	29	30
Certificate of indebtedness	1.501	2016-2023	73 EUR m	80	83
Straight bond	2.125	2014-2024	160 CHF m	160	160
Certificate of indebtedness	1.194	2018-2024	92 EUR m	100	104
Certificate of indebtedness	1.548	2018-2025	102 EUR m	111	115
Certificate of indebtedness	6 m EURIBOR +0.95	2018-2025	54 EUR m	58	60
Certificate of indebtedness	2.010	2016-2026	15 EUR m	16	16
Straight bond	1.125	2019-2026	200 CHF m	200	–
Certificate of indebtedness	2.087	2018-2028	17 EUR m	18	19
Total straight bonds and certificates of indebtedness				**1 843**	**1 973**
Liabilities to banks and other financial institutions				**35**	**6**
Obligations under finance leases				**–**	**17**
Subtotal				**1 878**	**1 996**
Less: current portion (see note 23)				**–393**	**–285**
Total				**1 485**	**1 711**
Breakdown by maturity					
			2020	–	410
			2021	327	344
			2022	174	174
			2023	286	–
			after 2023 (2018: after 2022)	698	783
Total				**1 485**	**1 711**
Breakdown by currency			EUR	649	1 092
			CHF	541	336
			USD	267	279
			Others	28	4
Total				**1 485**	**1 711**
Fair value comparison (including current portion)					
Straight bonds				574	651
Certificates of indebtedness				1 309	1 354
Others				35	23
Total				**1 918**	**2 028**
Total net book value of assets pledged as collateral for financial debts				**15**	**–**
Total collateralized financial debts				7	–

On 15 April 2019 new bonds in the amount of CHF 200 million were launched with a term of 7 years and an interest rate of 1.125% p.a. fixed.

On 24 April 2019 a bond issued in 2012 in the amount of CHF 285 million reached maturity and was repaid.

On 25 September 2018, Clariant issued four certificates of indebtedness with a total amount of EUR 265 million (CHF 299 million). These certificates have the following terms: EUR 92 million for 5.5 years at a fixed interest rate of 1.194 % p.a., EUR 102 million for 7 years at a fixed interest rate of 1.548 % p.a., EUR 54 million for 7 years at a variable interest rate (6-months-Euribor + 0.95 % p.a.), EUR 17 million for 10 years at a fixed interest rate of 2.087 % p.a.

On 26 September 2018, a bond issued in 2012 in the amount of CHF 250 million reached maturity and was repaid.

Valuation. Non-current financial debt is recognized initially at fair value, net of transaction costs incurred. Financial debt is subsequently stated at amortized cost. There are no long-term financial liabilities valued at fair value through profit and loss.

Fair values of straight bonds are determined by quoted market prices (Level 1 in the fair value hierarchy).

Certificates of indebtedness and other financial debts are recorded at notional amounts, which are a reasonable approximation of the fair values.

Covenants. For the covenants please refer to note 3.1.3 Financial risk factors.

Exposure of the Group's borrowings to interest rate changes

- **Bonds:** the interest rates of all bonds are fixed.

- **Certificates of indebtedness:** the major part of the existing certificates of indebtedness has a fixed coupon.

- **Liabilities to banks and other financial institutions** consist of bank loans with fixed interest rates mainly.

Collateral. In 2019, property plant & equipment amounting to CHF 15 million were pledged as collateral. In 2018 no assets were pledged as collateral.

19. Reconciliation of net debt

in CHF m	31.12.2018	Adoption of IFRS 16 (see note 7)	Movements in Cash flow	Reclassified to held for sale (see note 25)	Exchange rate differences	Other non-cash movements	31.12.2019
Cash and cash equivalents	833		–185		–10		638
Short-term deposits	26		283		–5		304
Financial instruments with positive fair values	7		–3		–		4
Total cash and liquid investments	**866**	**–**	**95**	**–**	**–15**	**–**	**946**
Non-current financial debt	–1 711		–208	–	41	393	–1 485
Current financial debt	–529		310	–	25	–393	–587
Lease liabilities	–	–249	70	29	6	–73	–217
Borrowings and other financial liabilities	**–2 240**	**–249**	**172**	**29**	**72**	**–73**	**–2 289**
Net debt	**–1 374**	**–249**	**267**	**29**	**57**	**–73**	**–1 343**

in CHF m	31.12.2017	Movements in Cash flow	Effect of Business Combinations	Reclassified to held for sale (see note 25)	Exchange rate differences	Other non-cash movements	31.12.2018
Cash and cash equivalents	701	152	–		–20	–	833
Short-term deposits	47	–20	–		–1	–	26
Financial instruments with positive fair values	7	–	–		–	–	7
Total cash and cash equivalent	**755**	**132**	**–**		**–21**	**–**	**866**
Non-current financial debt	–1 727	–299	–		30	285	–1 711
Current financial debt	–567	303	–		20	–285	–529
Borrowings and other financial liabilities	**–2 294**	**4**	**–**		**50**	**–**	**–2 240**
Net debt	**–1 539**	**136**	**–**		**29**	**–**	**–1 374**

20. Retirement benefit obligations

Apart from the legally required social security schemes, the Group has numerous independent pension plans. The assets are principally held externally. For certain Group companies however, no independent assets exist for the pension and other non-current employee benefit obligations. In these cases the related liability is included in the balance sheet as part of the non-current liabilities.

Defined benefit post-employment plans. Defined benefit pensions and termination plans cover the majority of the Group's employees. Future obligations and the corresponding assets of those plans considered as defined benefit plans under IAS 19 are reappraised annually and reassessed at least every three years by independent actuaries. Assets are valued at fair value.

Pension assets for funded defined benefit pension plans are managed according to local rules and legislation in each country.

The actual asset allocation is determined by current and expected economic and market conditions and in consideration of specific asset class risks in the risk profile. For this purpose Asset Liability Matching studies are conducted by third party experts on a regular basis to ensure that investment strategies for pension assets are in line with the structure of the plan members of the pension plan concerned.

In all countries with funded defined benefit plans the body governing the investment policy is constituted in accordance with local legal requirements. To the extent legally permitted Clariant Corporate exercises influence to ensure that the investment policy is set in a way to serve best the needs of the pension plan and its members.

The largest defined benefit plans are operated in Switzerland, the United Kingdom, the United States and Germany. These plans make up 93.7% of the total defined benefit obligation.

The most important German plan is unfunded and covers the supplementary pension liabilities for plan members whose salaries exceed the level of the German mandatory social security coverage. Contributions are made primarily by the employer and vary depending on the salary level of the plan members. Benefits are paid out as annual pensions amounting to 20% of total contributions. Lump sum payments to employees are possible to the extent of the voluntary contributions. For employees having joined or joining in 2011 and later there exists a funded pension plan. Contributions are primarily paid into the plan by the employer and vary depending on the income of the individual plan member. Employees contribute to the plan up to 2% of pensionable earnings on a voluntary basis, to which the employer contributes an equal amount on top of the regular contributions. Pensions paid by this plan are principally based on the return on plan assets (contributions paid in plus interest), apart from a minimal interest. In addition there exists a smaller, similarly structured funded defined benefit plan for former employees of the Süd-Chemie group, acquired in 2011. All other pension liabilities regarding German staff members are covered by a funded multi-employer plan which is accounted for as a defined contribution plan.

The defined benefit obligation in the United Kingdom is a funded plan covering the pension liabilities of UK employees who joined the company before 31 December 2001 and was closed to further accruals in April 2016. All staff members are now covered by a defined contribution plan. The defined benefit pension plan is fully funded according to legal requirements. Yet, in view of the high number of non-active plan members, additional contributions may be necessary in future years.

In the United States Clariant operates a funded defined benefit pension plan covering the pension liabilities of employees who joined the company before 31 December 2000. Contributions are paid by the employer exclusively. Benefits are paid out as lifetime pensions determined on the basis of a final/career average calculation. Staff members who joined on 1 January 2001 or later are covered by a defined contribution plan. For members of Management whose annual salaries exceed the amount of CHF 275 000 an additional pension scheme is in place in the form of an unfunded defined benefit obligation, which covers the part exceeding this amount. The US pension plan is currently underfunded according to local legal requirements. Additional funding measures in the amount of up to CHF 24 million are scheduled over the next four years.

US-employees transferred to Clariant with the Hoechst Specialty Chemicals business remain insured with Hoechst for their pension claims incurred prior to 30 June 1997.

In Switzerland, Clariant operates a funded defined benefit pension plan that covers the pension liabilities of all employees of the Swiss Clariant companies up to a salary level of CHF 200 000. Both the employer and the employees contribute to the plan, the employer paying two thirds of the total contributions. The pension plan provides lifetime pensions determined based on cumulative savings of the individual plan member and converted into an annual pension at a fixed conversion rate. Lump sum payments are possible to up to 100 percent of the total individual cumulative savings. The Swiss pension plan is marked by a shrinking operating basis, and as a result, an increasing share of retired members. Additional funding measures in the amount of CHF 21 million are therefore scheduled over the next six years.

For members of Management whose annual salaries exceed the amount of CHF 200 000, an additional pension scheme is in place in the form of a funded defined benefit obligation. Any shortfalls in funded provisions for pension commitments to members of the Executive Committee are accounted for as an unfunded defined benefit obligation.

Mortality tables
The following mortality tables were used to determine the defined pension obligation of the most important pension plans:

Switzerland	BVG 2015 generation table
Germany	Richttafeln 2018G by Prof. Dr. Klaus Heubeck
UK	SAPS S2 series amount tables (base table)
	CMI Model (2018) (future improvements)
USA	Pri 2012 mortality table with projection scale MP-2018

Post-employment medical benefits. The Group operates a number of post-employment medical benefit schemes in the United States, Canada and France. The method of accounting for the liabilities associated with these plans is largely equal to the one used for defined benefit pension schemes. These plans are not externally funded, but are recognized as provisions in the balance sheets of the Group companies concerned.

Expenses for net benefits are recorded in the same line and function in which the personnel costs are recorded.

Changes in the present value of defined benefit obligations are as follows:

in CHF m	Pension plans (funded and unfunded)		Post-employment medical benefits (unfunded)	
	2019	2018	**2019**	2018
As per 1 January	2 439	2 767	80	87
Current service cost	32	40	1	1
Past service cost/gain including curtailments	5	–16	–2	—
Gain/loss on settlements	1	—	—	—
Interest costs on obligation	50	47	3	3
Contributions to plan by employees	9	11	—	—
Benefits paid out to personnel in reporting period	–117	–126	–4	–5
Remeasurements:				
Actuarial gain/loss arising from changes in demographic assumptions	–14	7	—	—
Actuarial gain/loss arising from changes in financial assumptions	297	–108	9	–5
Actuarial gain/loss due to experience adjustments	32	–19	–8	–1
Effect of disposals	–4	–138	–2	—
Effect of liabilities extinguished on settlements	–14	1	—	—
Exchange rate differences	–30	–27	–2	—
At 31 December	**2 686**	**2 439**	**75**	**80**

Changes in the fair value of plan assets are as follows:

in CHF m	**2019**	2018
As per 1 January	1 771	2 073
Interest income on plan assets	35	35
Contributions to plan by employees	9	11
Contributions to plan by employer	48	44
Benefits paid out to personnel in reporting period	–91	–100
Remeasurements:		
Return on plan assets (excluding amount included in interest expense)	219	–149
Effect of assets distributed in settlements	–5	—
Effect of disposals	–1	–128
Exchange rate differences	–4	–15
At 31 December	**1 981**	**1 771**

As at 31 December 2019 and 2018, the pension plan assets did not include any directly held registered shares or bonds issued by Clariant Ltd.

The amounts recognized in the balance sheets are as follows:

in CHF m	Defined benefit pension plans		Post-employment medical benefits		Total	
	31.12.2019	31.12.2018	**31.12.2019**	31.12.2018	**31.12.2019**	31.12.2018
Present value of funded obligations	–2 021	–1 848	–	–	–2 021	–1 848
Fair value of plan assets	1 981	1 771	–	–	1 981	1 771
Overfunding/Deficit	**–40**	**–77**	**–**	**–**	**–40**	**–77**
Present value of unfunded obligations	–665	–591	–75	–80	–740	–671
Net liabilities, total	**–705**	–668	**–75**	–80	**–780**	–748
Reclassified to held for sale (see note 25)	148	–	–	–	148	–
Net liabilities in the balance sheet	**–557**	**–668**	**–75**	**–80**	**–632**	**–748**

Thereof recognized in:

in CHF m	**31.12.2019**	31.12.2018	**31.12.2019**	31.12.2018	**31.12.2019**	31.12.2018
Retirement benefit obligations	–746	–698	–75	–80	–821	–778
Reclassified to held for sale (see note 25)	148	–		–	148	–
Retirement benefit obligations in the balance sheet	**–598**	–698	**–75**	–80	**–673**	–778
Prepaid pension assets	41	30	–	–	41	30
Net liabilities in the balance sheet for defined benefit plans	**–557**	**–668**	**–75**	**–80**	**–632**	**–748**

The amounts recognized in the income statement and in other comprehensive income are as follows:

in CHF m	Defined benefit pension plans		Post-employment medical benefits		Total	
	2019	2018	**2019**	2018	**2019**	2018
Current service cost	–32	–40	–1	–1	–33	–41
Net interest cost	–15	–12	–3	–3	–18	–15
Past service cost/gain including curtailments	–5	16	2	–	–3	16
Gain/loss on settlements	–1	–	–	–	–1	–
Components of defined benefit expense reported in the income statement	**–53**	**–36**	**–2**	**–4**	**–55**	**–40**
in CHF m						
Actuarial gain/loss arising from changes in demographic assumptions	14	–7	–	–	14	–7
Actuarial gain/loss arising from changes in financial assumptions	–297	108	–9	5	–306	113
Actuarial gain/loss due to experience adjustments	–32	19	8	1	–24	20
Return on plan assets (excluding amount included in net interest expense)	219	–149	–	–	219	–149
Components of defined benefit expense reported in other comprehensive income	**–96**	**–29**	**–1**	**6**	**–97**	**–23**
Total defined benefit expense	**–149**	**–65**	**–3**	**2**	**–152**	**–63**

The fair value of the plan assets is split into the major assets categories as follows:

in CHF m	**31.12.2019**	31.12.2018
Equities	373	310
thereof based on quoted market prices	*369*	*291*
Bonds	583	586
thereof based on quoted market prices	*338*	*406*
Cash	138	102
thereof based on quoted market prices	*138*	*102*
Property	336	242
thereof based on quoted market prices	*268*	*176*
Alternative investments	551	531
thereof based on quoted market prices	*179*	*160*
Total fair value of plan assets	**1 981**	**1 771**

The principal actuarial assumptions at the balance sheet dates in percent are as follows:

		2019 in %					2018 in %				
		Group	**Most important countries**				**Group**	**Most important countries**			
		Weighted average	Switzer-land	United Kingdom	United States	Germany	Weighted average	Switzer-land	United Kingdom	United States	Germany
Discount rate		1.2	0.1	2.1	3.1	1.1	2.0	0.8	2.9	4.4	2.1
Future salary increases		1.8	1.5	–	3.5	2.5	1.9	1.5	–	3.5	2.5
Long-term increase in health care costs		5.6	–	–	6.4	–	6.9	–	–	8.0	–
Current average life expectancy for a 65 year old male	in years	19	22	22	21	20	18	22	22	21	19
Current average life expectancy for a 65 year old female	in years	21	23	24	23	24	21	23	24	23	24

A one percentage-point change in health care cost trend rates would have the following effects on the obligation for post-employment medical benefits:

2019 in CHF m	**One percentage point increase**	**One percentage point decrease**
Effect on the aggregate of the service cost and interest cost	1	–1
Effect on defined benefit obligation	6	–5

2018 in CHF m	**One percentage point increase**	**One percentage point decrease**
Effect on the aggregate of the service cost and interest cost	1	–1
Effect on defined benefit obligation	6	–5

A 25 basis-point change in discount rate would have the following effects on the obligation for pension plans:

in CHF m	25 basis point increase		25 basis point decrease	
	2019	2018	**2019**	2018
Effect on defined benefit obligation	–92	–80	97	83

If life expectancy increased by one year, the defined benefit obligation would increase by CHF 92 million (2018: CHF 98 million).

Defined contribution post-employment plans. In 2019, CHF 28 million were charged to the income statement as contributions to defined contribution plans (2018: CHF 26 million).

In Germany, approximately 4 900 Clariant employees are insured in a defined benefit plan which is a multi-employer plan and as such is accounted for as a defined contribution plan. The reason for this accounting practice is that the plan exposes the participating Clariant companies to actuarial risks associated with the current and former employees of other companies which are members of the same pension plan. There is no consistent or reliable basis for allocating the obligation, plan assets and cost to individual companies participating in the plan.

Based on the statutory actuarial calculation of 2019, the pension fund's obligations are fully funded. Also for 2020, it is anticipated that the pension plan liabilities are covered by the respective assets.

In the case where the multi-employer plan faces a situation in which the pension plan liabilities exceed the assets, this can be remedied either by increasing the employer's contributions to the pension plan or by reducing the benefits paid out to the entitled parties. In the case of a reduction of the benefits this must be compensated by the employer according to German legislation. If the pension plan were unwound the remaining funds would be distributed among the plan members. In case there are no plan members left, the remaining funds would be transferred to social institutions.

If Clariant withdrew from the pension fund, all rights and obligations of the employer against the pension plan would remain in force as long as the pension plan continues to render pension services to the group's plan members. Based on the number of plan members (active and passive) Clariant's share in the pension plan amounts to approximately 8 percent.

Clariant's contribution to this pension plan amounted to CHF 20 million in 2019 (CHF 16 million in 2018) and is expected to be CHF 20 million in 2020.

The multi-employer plan originates in the pension plan scheme of the German companies of the former Hoechst group, to which a part of the activities of Clariant pertained until 1997. Several of the companies which were formerly part of the Hoechst Group continue to participate in this multi-employer plan.

in CHF m		Pension plans	Post-employment medical benefits	
	2019	2018	**2019**	2018
Clariant Group regular and supplemental contributions (employer's contributions):				
Actual contributions in 2018		44	–	–
Actual contributions in 2019 (2018: estimated)	48	36	–	–
Estimated contributions in 2020	36	36	–	–
Estimated contributions in 2021	36	37	–	–
Estimated contributions in 2022	36	37	–	–
Estimated contributions in 2023	36	32	–	–
Estimated contributions in 2024	31	–		
Payments to beneficiaries:				
Actual payments in 2018		–126		–4
Actual payments in 2019 (2018: estimated)	–117	–121	–4	–6
Estimated payments in 2020	–156	–114	–5	–6
Estimated payments in 2021	–140	–117	–5	–6
Estimated payments in 2022	–141	–118	–5	–6
Estimated payments in 2023	–151	–119	–5	–6
Estimated payments in 2024	–161	–	–6	
Allocation of defined benefit obligation to plan members (in CHF m):				
Active members	766	670	29	32
Deferred members	316	287	5	8
Retired members	1 604	1 482	41	40
Total funded and unfunded obligations at 31 December	**2 686**	**2 439**	**75**	**80**
Weighted average duration of the defined benefit obligation at the end of reporting period (in years):				
At 31 December	13.2	13.6	10.8	10.5

21. Movements in provisions

in CHF m	Environmental provisions	Personnel provisions	Restructuring provisions	Other provisions	**Total provisions 2019**	Total provisions 2018
As per 1 January	114	174	39	69	396	486
Additions	15	156	22	306	499	245
Disposals	—	–1	—	—	–1	–2
Reclassified to held for sale (see note 25)	–2	–31	–7	–12	–52	—
Amounts used	–14	–132	–29	–41	–216	–245
Unused amounts reversed	–1	–30	–8	–13	–52	–70
Changes due to the passage of time and changes in discount rates	3	1	—	—	4	3
Exchange rate differences	–4	–7	–1	–9	–21	–21
At 31 December	**111**	**130**	**16**	**300**	**557**	**396**
Of which						
– Current portion	20	81	12	280	393	271
– Non-current portion	91	49	4	20	164	125
Total provisions	**111**	**130**	**16**	**300**	**557**	**396**
Expected outflow of resources						
Within 1 year	20	81	12	280	393	271
Between 1 and 3 years	35	17	3	3	58	53
Between 3 and 5 years	16	2	1	3	22	24
Over 5 years	40	30	—	14	84	48
Total provisions	**111**	**130**	**16**	**300**	**557**	**396**

Environmental provisions. Provisions for environmental liabilities are made when there is a legal or constructive obligation for the Group which will result in an outflow of economic resources. It is difficult to estimate the action required by Clariant in the future to correct the effects on the environment of prior disposals or release of chemical substances by Clariant or other parties and the associated costs, pursuant to environmental laws and regulations.

The material components of the environmental provisions consist of the costs to fully clean and refurbish contaminated sites and to treat and contain contamination at sites where the environmental exposure is less severe. The Group's future remediation expenses are affected by a number of uncertainties which include, but are not limited to, the method and extent of remediation and the percentage of material attributable to Clariant at the remediation sites relative to that attributable to other parties.

The environmental provisions reported in the balance sheet concern a number of different obligations, mainly in Germany, Brazil, the United States and in Switzerland.

Provisions are made for remedial work where there is an obligation to remedy environmental damage, as well as for containment work where required by environmental regulations. All provisions relate to environmental liabilities arising in connection with activities that occurred prior to the date when Clariant took control of the relevant site. At each balance sheet date, Clariant critically reviews all provisions and makes adjustments where required.

Personnel provisions. Personnel provisions include holiday entitlements, compensated absences such as sabbatical leave, jubilee, annual leave or other long-service benefits, profit sharing and bonuses. Such provisions are established in proportion to the services rendered by the employee concerned.

Restructuring provisions. Restructuring provisions are established where there is a legal or constructive obligation for the Group that will result in the outflow of economic resources. The term restructuring refers to the activities that have as a consequence staff redundancies and the shutdown of production lines or entire sites. When the Group has approved a formal plan and has either started to implement the plan or announced its main features to the public, a restructuring provision is created.

The restructuring provisions newly added in 2019 concern site closures and headcount reductions in various countries with the largest amounts incurred in Germany and in France.

For further information regarding restructuring measures refer to note 27.

Other provisions. Additionally other provisions include provisions for obligations relating to tax (other than income tax) and legal cases and other items in various countries for which the amount can be reliably estimated.

In 2017 the European Commission (Antitrust) initiated an investigation on Clariant and some of its competitors active in the ethylene purchasing sector in some members states. The investigation is still ongoing. Based on the currently available information and the resulting assessment of the expected outcome of the investigation Clariant has set up a provision of CHF 231 million for this case in 2019.

All non-current provisions are discounted to reflect the time value of money where material. Discount rates reflect current market assessments of the time value of money and the risk specific to the provisions in the respective countries.

22. Trade payables and other liabilities

in CHF m	**31.12.2019**	31.12.2018
Trade payables	704	750
Contract liabilities	73	65
Payables to associates and joint ventures	54	74
Accruals	199	203
Other liabilities	243	246
Total trade payables and other liabilities	**1 273**	**1 338**
Reclassified to non-current liabilities	–68	–72
Reclassified to held for sale (see note 25)	–330	—
Total as reported in the balance sheet	**875**	**1 266**

The amount recognized for trade payables is equal to their fair value. Contract liabilities are short term and will be recognized as revenues in the next reporting period.

23. Current financial debts

in CHF m	**31.12.2019**	31.12.2018
Banks and other financial institutions	194	244
Current portion of non-current financial debts (see note 18)	393	285
Total	**587**	**529**
Breakdown by maturity:		
in CHF m	**31.12.2019**	31.12.2018
Up to three months after the balance sheet date	166	227
Three to six months after the balance sheet date	176	297
Six to twelve months after the balance sheet date	245	5
Total	**587**	**529**
Reclassified to held for sale	—	—
Total current financial debts as reported in the balance sheet	**587**	**529**

On 24 April 2019 a bond issued in 2012 in the amount of CHF 285 million reached maturity and was repaid.

Two certificates of indebtness issued in 2015 with nominal value of EUR 150 million and two certificates of indebtness issued in 2016 with nominal value of EUR 212 million will fall due in 2020 and were therefore reclassified to current financial debts.

Current financial debt is recognized initially at fair value, net of transaction costs incurred. Financial debt is subsequently stated at amortized cost. Except for the derivatives, there are no current financial liabilities valued at fair value through profit and loss.

The fair value of financial debt at banks and other financial institutions approximates its carrying amount due to the short-term nature of these instruments.

24. Segment information

In 2019 Clariant set out to rearange its portfolio of business activities. In October 2019 Clariant sold its Business Line Healthcare Packaging, operated as as part of the Business Unit Masterbatches to US-based Arsenal Capital Partners. In December 2019 a contract was signed with the US-based PolyOne Corporation to sell the Business Unit Masterbatches. The project to sell the Business Unit Pigments is under way. For these reasons all these Business Units are reported as discontinued operations in the financial report (see also note 25 Discontinued Operations).

As a result Clariant has grouped its remaining activities into three Business Areas (reportable segments): Care Chemicals (BU ICS), Catalysis (BU Catalysts), Natural Resources (BU Oil & Mining Services, BU Functional Minerals, BU Additives). Prior year information has been restated accordingly.

Intersegment transactions are entered into under the normal circumstances and terms and conditions that would also be available to unrelated third parties.

Segment assets consist of property, plant and equipment, goodwill, intangible assets, inventories, receivables and investments in associates. They exclude deferred tax assets, financial assets and operating cash. Segment liabilities comprise trade payables. They exclude items such as tax liabilities, provisions, pension liabilities and corporate borrowings. Capital expenditure comprises additions to property, plant and equipment and intangibles.

SEGMENTS
in CHF m

	Care Chemicals		Catalysis		Natural Resources		Corporate		Total Group	
	2019	2018	**2019**	2018	**2019**	2018[4]	**2019**	2018	**2019**	2018
Segment sales	1 615	1 681	925	862	1 894	1 902	—	—	4 434	4 445
Sales to other segments	–15	–16	—	–1	–20	–24	—	—	–35	–41
Total sales (continuing operations)	**1 600**	**1 665**	**925**	**861**	**1 874**	**1 878**	**—**	**—**	**4 399**	**4 404**
Operating expenses	–1 389	–1 414	–785	–750	–1 666	–1 684	–394	–208	–4 234	–4 056
Thereof:										
Income from associates and joint ventures[3]	16	29	11	17	7	25	–1	13	33	84
Gain/loss from disposals not qualifying as discontinued operations	—	—	–1	—	—	—	3	–54	2	–54
Restructuring, impairment and transaction-related costs	–3	–2	–5	–14	–3	–22	–39	–40	–50	–78
Provision for EU investigation							–231	—	–231	—
Operating income	**211**	**251**	**140**	**111**	**208**	**194**	**–394**	**–208**	**165**	**348**
Net financial expenses and taxes									–199	–135
Net result from continuing operations									–34	213
Result from discontinued operations									72	143
Net income									**38**	**356**
Segment assets	1 160	1 158	1 722	1 724	1 571	1 522	—		4 453	4 404
Segment liabilities	–218	–252	–152	–159	–194	–200	—		–564	–611
Net operating assets	**942**	**906**	**1 570**	**1 565**	**1 377**	**1 322**	**—**	**—**	**3 889**	**3 793**
Segment assets reported as assets held for sale	—	7	5	5	—	—	—		5	12
Corporate assets reported as assets held for sale							2	1	2	1
Segment assets of discontinued operations reported as assets held for sale									1 298	1 454
Assets held for sale	**—**	**7**	**5**	**5**	**—**	**—**	**2**	**1**	**1 305**	**1 467**
Segment liabilities of discontinued operations reported as liabilities associated with assets held for sale									–559	–241
Liabilities directly associated with assets held for sale									**–559**	**–241**
Corporate assets without cash							1 275	1 244	1 275	1 244
Corporate liabilities without financial liabilities							–1 890	–1 919	–1 890	–1 919
Net debt (see note 19)							–1 343	–1 374	–1 343	–1 374
Total net assets	**942**	**913**	**1 575**	**1 570**	**1 377**	**1 322**	**–1 956**	**–2 048**	**2 677**	**2 970**
Thereof:										
Investments in PPE and intangibles for the period	68	61	81	56	78	70	13	23	240	210
Investments in associates and joint ventures at the end of the period	91	87	108	118	46	37	3	3	248	245
Reconciliation of key figures										
Operating income	211	251	140	111	208	194	–394	–208	165	348
Add: systematic depreciation of PPE	54	56	52	55	50	53	19	27	175	191
Add: impairment	—	—	—	—	—	—	—	—	—	—
Add: depreciation of RoU assets	10	—	5	—	21	—	18	—	54	—
Add: amortization of intangible assets	7	7	15	19	26	24	19	18	67	68
EBITDA[1]	**282**	**314**	**212**	**185**	**305**	**271**	**–338**	**–163**	**461**	**607**
Add: restructuring, impairment and transaction-related costs	3	2	5	14	3	22	39	40	50	78
Add: Provision for EU investigation							231	—	231	—
Less: gain/loss from disposals not qualifying as discontinued operations[2]	—	—	1	—	—	—	–3	54	–2	54
Adjusted EBITDA	**285**	**316**	**218**	**199**	**308**	**293**	**–71**	**–69**	**740**	**739**
Operating income	211	251	140	111	208	194	–394	–208	165	348
Add: restructuring, impairment and transaction-related costs	3	2	5	14	3	22	39	40	50	78
Add: Provision for EU investigation							231	—	231	—
Less: gain/loss from disposals not qualifying as discontinued operations	—	—	1	—	—	—	–3	54	–2	54
Adjusted operating income	**214**	**253**	**146**	**125**	**211**	**216**	**–127**	**–114**	**444**	**480**

[1] EBITDA is earning before interest, tax, depreciation and amortization.

[2] Not including the result of the partial disposal and revaluation of the participation in Stahl in 2018.

[3] Includes the effect of the partial disposal and revaluation of the participation in Stahl in 2018 in the amount of CHF 59 million with the allocation to Business Areas as follows: CHF 15 million to Care Chemicals, CHF 8 million to Catalysis, CHF 13 million to Natural Resources and CHF 23 million to Plastics & Coatings.

[4] Restated for the allocation of the Business Unit Additives to the Business Area Natural Ressources.

Reconciliation of segment assets to total assets in CHF m	**31.12.2019**	31.12.2018
Segment assets	4 453	4 404
Segment assets reported as assets held for sale	5	12
Corporate assets reported as assets held for sale	2	1
Segment assets of discontinued operations reported as assets held for sale	1 298	1 454
Corporate assets without cash	1 275	1 244
Cash and cash equivalents	638	833
Short-term deposits	304	26
Financial instruments with positive fair values	4	7
Total Assets	**7 979**	**7 981**

in CHF m		Sales[1]		Non-current assets[2]
	2019	2018[3]	**31.12.2019**	31.12.2018
EMEA	1 826	1 874	1 962	2 275
of which Germany	*507*	*532*	*1 264*	*1 391*
of which Switzerland	*23*	*27*	*431*	*490*
of which MEA	*338*	*337*	*25*	*55*
North America	862	890	1 031	1 205
of which USA	*802*	*838*	*1 015*	*1 187*
Latin America	556	560	178	226
of which Brazil	*234*	*239*	*106*	*124*
Asia / Pacific	1 155	1 080	513	636
of which China	*399*	*410*	*151*	*177*
of which India	*134*	*109*	*149*	*200*
Total	**4 399**	**4 404**	**3 684**	**4 342**

1 Allocated by region of third-party sales destination. Continuing operations.
2 Non-current assets excluding deferred tax assets and pension plan assets.
3 Restated - see note 1.03.

All of the Group's segments generate their revenues to the largest extent from the sale of products. These come in such a great variety that a meaningful grouping below the segment information is not possible.

Revenue from services recognized in 2019 amounted to CHF 100 million (2018: CHF 89 million) and mostly were incurred in Business Area Natural Resources.

For a description of the Business Units see note 1.25.

25. Discontinued operations and assets held for sale

In 2019 Clariant announced its intention to sell the Business Units Pigments and Masterbatches and the Business Line Healthcare Packaging, which operated as a part of the Business Unit Masterbatches. As a result these activities were reclassified to discontinued operations in June 2019. Income and expenses of the activities concerned have been reclassified to »Discontinued operations« in the consolidated income statement and the assets and liabilities pertaining to these activities have been reclassified as »assets held for sale« and »Liabilities directly associated with assets held for sale« in the consolidated balance sheet, according to IFRS 5, Non-current assets held for sale and discontinued operations.

On 31 October 2019, Clariant sold its Healthcare Packaging business to Arsenal Capital Partners, a private equity firm located in New York, USA. The final total consideration of the sale amounted to CHF 310 million and the after tax gain to CHF 51 million.

In December 2019 a contract was signed with the US-based PolyOne Corporation to sell the Business Unit Masterbatches.

Clariant considers it highly probable that the Business Unit Pigments will be sold within the next twelve months.

For a description of the Business Units please refer to note 1.25.

Other assets held for sale

An amount of CHF 7 million relates to plant and equipment held for sale in Italy and in China (2018: CHF 15 million).

DISCONTINUED OPERATIONS in CHF m	Plastics & Coatings (discontinued)[1]		Corporate		Total discontinued operations	
	2019	2018	**2019**	2018	**2019**	2018
Sales	2 127	2 219	–	–	2 127	2 219
Operating expenses	–1 978	–2 033	–92	–33	–2 070	–2 066
Income from associates and joint ventures	19	45	–	–	19	45
Operating result	**168**	**231**	**–92**	**–33**	**76**	**198**
Financial result					–17	–14
Result from discontinued operations before taxes					**59**	**184**
Taxes					–38	–41
Result from discontinued operations after taxes					**21**	**143**
Gain on the disposal of discontinued operations	48				48	–
Taxes (current and deferred)	3				3	–
Net result from discontinued operations					**72**	**143**
Currency translation differences of discontinued operations					–39	–49
Other items					6	9
Other comprehensive income/loss from discontinued operations	**–**	**–**	**–**	**–**	**–33**	**–40**
Operating cash flows	107		–12		95	–
thereof: payments for restructuring	–8				–8	–
Investing cash flows	-49				-49	–
Total cash flow	**58**	**–**	**–12**	**–**	**46**	**–**
Cash flow from disposals:						
Gross proceeds	310				310	
Less cash and cash equivalents transferred	–15				–15	
Net proceeds from disposal	**295**	**–**	**–**	**–**	**295**	**–**
Net assets held for sale:						
Property, plant and equipment	370				370	–
Right-of-use assets	34				34	
Intangible assets	85				85	
Investments in associates and joint ventures	101				101	
Deferred tax assets	22				22	–
Inventories	319				319	–
Trade receivables	303				303	–
Other assets	64				64	
Total assets held for sale	**1 298**	**–**	**–**	**–**	**1 298**	**–**
Trade payables	–330				–330	–
Retirement benefit obligations	–148				–148	–
Provisions	–52				–52	–
Lease liabilities	–29				–29	
Total liabilities directly associated with assets held for sale	**–559**	**–**	**–**	**–**	**–559**	**–**
Total net assets held for sale	**739**	**–**	**–**	**–**	**739**	**–**

[1] Including the Business Line Healthcare Packaging (10 months for 2019 and 12 months 2018).

Cumulative exchange rate differences recognized in equity for discontinued operations amounted to CHF 189 million on 31 December 2019.

The result of the disposal of discontinued operations can be reconciled as follows:

in CHF m	2019
Total cash proceeds received as of 31 October 2019	310
Less cash and cash equivalents transferred	–15
Total consideration for the sale	**295**
Net assets sold including disposal related expenses	–232
Gain on the disposal from discontinued operations	**63**
Effect of the reclassification of foreign exchange differences related to disposal of discontinued operations	–15
Gain on the disposal from discontinued operations before taxes	**48**
Taxes (current and deferred)	3
Gain on the disposal from discontinued operations after taxes	**51**

26. Disposals

Activities not qualifying as discontinued operations

In this section, disposals of subsidiaries, associates and activities are reported that do not qualify as discontinued operations in the sense of IFRS 5.

The following disposal took place in 2019 and 2018:

On 30 April 2019 Clariant sold its 25% stake of GTC associates in the United States for a net consideration of CHF 8 million and a net loss of CHF 1 million to the Swiss base Sulzer group.

On 27 December 2018 Clariant sold its 100% shares in Infrapark Baselland AG to GETEC heat & power GmbH for a net consideration of CHF 38 million. The loss recorded on the transaction in 2018 amounted to CHF 54 million gross and to CHF 43 million net of tax. In 2019 an additional payment in the amount of CHF 3 million was received.

The result from disposals not qualifying as discontinued operations is reported under »Selling, general and administrative costs« in the income statement.

27. Restructuring, impairment and transaction-related costs

in CHF m	2019	2018
Restructuring expenses	**–14**	**–14**
Payments for restructuring	–29	–42
Impairment loss	**—**	**—**
Transaction-related costs	**–129**	**–79**
Total restructuring, impairment and transaction-related costs	**–143**	**–93**
thereof reported under discontinued operations (see note 25)	–93	–15
Total continuing operations	–50	–78

In order to increase profitability over a sustained period, Clariant implements measures designed to improve the Group's performance. The aim of these efforts is to increase the Group's operating result and to reduce net working capital. The changes made to the processes and structures result in a reduction of headcount across the Group.

Restructuring. In 2019, Clariant recorded expenses for restructuring in the amount of CHF 14 million (2018: CHF 14 million). This concerned restructuring measures mainly in France and Germany.

Impairment. No impairment losses were recorded in 2019 and 2018.

Transaction-related costs comprise expenses incurred in connection with acquisition or disposal projects and also costs incurred in connection with the implementation of internal reorganizational measures.

The total amount pertaining to continuing operations of CHF 50 million of Restructuring, impairment and transaction-related costs (2018: CHF 78 million) is reported in the income statement from continuing operations as follows: CHF 9 million in Cost of goods sold (2018: CHF 10 million), CHF 43 million in Selling, general and administrative costs (2018: CHF 67 million), CHF 2 million income in Research & Development costs (2018: CHF 1 million expenses).

28. Finance income and costs

FINANCE INCOME

in CHF m	**2019**	2018
Interest income	15	12
thereof interest on loans, receivables and deposits	*15*	*12*
Other financial income	8	7
Total finance income	**23**	**19**

FINANCE COSTS

in CHF m	**2019**	2018
Interest expense	–96	–88
thereof effect of discounting of non-current provisions	*–4*	*–3*
thereof net interest component of pension provisions	*–18*	*–15*
thereof interest on lease liabilities	*–12*	*—*
Other financial expenses	–12	–12
Total finance costs before currency result	**–108**	**–100**
Currency result, net	–26	—
Total finance costs	**–134**	**–100**
thereof reported under discontinued operations	–17	–14
Total continuing operations	**–117**	**–86**

Other financial expenses include bank charges and miscellaneous financial expenses.

In 2019 and 2018, no foreign exchange gains pertaining to the ineffective part of hedges on net investments were recognized in the income statement.

Interest expense, other than the effect of discounting non-current provisions and the interest component of pension provisions, pertain to financial debts measured at amortized cost.

Interest costs capitalized on qualifying assets for 2019 amounted to CHF 1 million (2018: less than CHF 1 million).

29. Earnings per share (EPS)

Earnings per share are calculated by dividing the Group net income by the average number of outstanding shares (issued shares less treasury shares).

	2019	2018
Net income/loss attributable to shareholders of Clariant Ltd undiluted and diluted (in CHF m)		
Continuing operations	–57	196
Discontinued operations	67	141
Total	**10**	**337**
Weighted average number of shares outstanding		
As per 1 January	329 613 975	328 310 895
Effect of transactions with treasury shares on weighted average number of shares outstanding	–18 978	1 303 080
Weighted average number of shares outstanding at 31 December	**329 594 997**	**329 613 975**
Adjustment for granted Clariant shares	882 428	833 033
Weighted average diluted number of shares outstanding at 31 December	**330 477 425**	**330 447 008**
Basic earnings/loss per share attributable to shareholders of Clariant Ltd (CHF/share)		
Continuing operations	–0.17	0.59
Discontinued operations	0.20	0.43
Total	**0.03**	**1.02**
Diluted earnings/loss per share attributable to shareholders of Clariant Ltd (CHF/share)		
Continuing operations	–0.17	0.59
Discontinued operations	0.20	0.43
Total	**0.03**	**1.02**

The dilution effect is triggered by the effect of Clariant shares granted as part of the share-based payment plan, which have not yet vested. To calculate this dilutive potential it is assumed that they vested on 1 January of the respective period.

The effect of the services still to be rendered during the vesting period were taken into consideration.

Diluted earnings/losses per share are calculated adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares.

In 2019, a payout of CHF 0.55 per share was made out of the capital contribution reserves (see note 17).

30. Derivative financial instruments

Risk management (hedging) instruments and off-balance sheet risks. Clariant uses forward foreign exchange rate and option contracts, currency options as well as other financial instruments to hedge the Group's risk exposure to volatility in interest rates, currencies and prices and to manage the return on cash and cash equivalents. Risk exposures from existing assets and liabilities as well as anticipated transactions are managed centrally.

Interest rate management. It is the Group's policy to manage the costs of interest using fixed and variable rate debt and interest-related derivatives.

Foreign exchange management. To manage the exposure to the fluctuations in foreign currency exchange rates, the Group follows a strategy of hedging both balance sheet and revenue risk, partially through the use of forward contracts and currency swaps in various currencies. In order to contain costs, the Group does not hedge the entire exposure.

The following tables show the contract or underlying principal amounts and the respective fair value of derivative financial instruments by type at the year-end.

The contract or underlying principal amounts indicate the volume of business outstanding at the balance sheet date and do not represent the amount at risk.

DERIVATIVE FINANCIAL INSTRUMENTS

in CHF m	Contract or underlying principal amount		Positive fair values		Negative fair values	
	31.12.2019	31.12.2018	**31.12.2019**	31.12.2018	**31.12.2019**	31.12.2018
Interest rate related instruments						
Interest rate swaps	160	163	2	6	–	–
Cross Currency Swaps	165	172	–	–	–6	–1
Currency related instruments						
Forward foreign exchange rate contracts	212	112	2	1	–1	–1
Total derivative financial instruments	**537**	**447**	**4**	**7**	**–7**	**–2**

The fair value of these derivative financial instruments is recorded in Other current assets in the balance sheet in the case of a positive value or in Current financial debts in the case of a negative value and if the instruments expire within the next twelve months.

If the remaining lifetime exceeds twelve months, the value is recorded in Financial assets in case it is positive and in Non-current financial debts in case it is negative.

DERIVATIVE FINANCIAL INSTRUMENTS BY MATURITY

in CHF m	**31.12.2019**	31.12.2018
Breakdown by maturity:		
Up to one month after the balance sheet date	18	34
More than one and up to three months after the balance sheet date	31	61
More than three and up to twelve months after the balance sheet date	163	16
More than one and up to five years after the balance sheet date	325	336
Total derivative financial instruments	**537**	**447**

DERIVATIVE FINANCIAL INSTRUMENTS BY CURRENCY

in CHF m	**31.12.2019**	31.12.2018
USD	367	266
EUR	164	172
JPY	6	9
Total derivative financial instruments	**537**	**447**

FINANCIAL INSTRUMENTS EFFECTIVE FOR HEDGE-ACCOUNTING PURPOSES

in CHF m	**31.12.2019**	31.12.2018
Interest rate swaps	**2**	**6**
Notional amount (USD)	160	163
Maturity date	05.08.2021	05.08.2021
Hedge ratio	1:1	1:1
Change in fair value of hedging instruments since 1st January	–4	1
Change in fair value of hedged item	4	–1
Cross Currency Swaps	**–2**	**—**
Notional amount (EUR)	56	56
Maturity date	25.03.2024	25.03.2024
Hedge ratio	1:1	1:1
Change in fair value since 1 January	–2	—
Change in fair value of hedged item	2	—
Cross Currency Swaps	**–4**	**–1**
Notional amount (EUR)	116	116
Maturity date	25.09.2025	25.09.2025
Hedge ratio	1:1	1:1
Change in fair value since 1 January	–3	–1
Change in fair value of hedged item	3	1
Notional amount of hedges of net investments in foreign entities:		
Borrowings denominated in foreign currencies	–973	–1 354
EUR amount	–706	–1 082
USD amount	–267	–272
Hedge Ratio	1:1	1:1

In 2015, Clariant issued four certificates of indebtedness amounting to EUR 300 million (see note 18). As per 1 January 2019 EUR 51 million and as per 30 September 2019 EUR 50 million of the certificates of indebtnedness were dedesignated. As per 31 December 2019 EUR 199 million were designated as a hedge of a net investment in some of Clariant's European subsidiaries. The unrealized foreign exchange rate gain resulting from the translation of these certificates of indebtedness into Swiss francs amounted to CHF 11 million for 2019 (2018: CHF 13 million gain) and is recorded in the cumulative translation difference in shareholders' equity.

In 2016, Clariant issued seven certificates of indebtedness amounting to EUR 395 million and two certificates of indebtedness amounting to USD 277 million (see note 18). As per 1 January 2019 EUR 55.5 million of these certificates of indebtedness were dedesignated. As per 31 December 2019 EUR 339.5 million of these certificates were designated as a hedge of a net investment in some of Clariant's European and USD 277 million in some US-American subsidiaries.

The unrealized foreign exchange rate result calculated from the translation of these certificates of indebtedness into Swiss francs amounted to a gain of CHF 14 million (2018: CHF 17 million gain) for the EUR position and to a gain of CHF 5 million (2018: CHF 2 million loss) for the USD position and is recorded in the cumulative translation difference in shareholders' equity.

In 2018, Clariant issued four more certificates of indebtedness amounting to EUR 265 million (see note 18). EUR 112.5 million of these certificates were designated as a hedge of a net investment in some of Clariant's European subsidiaries. The rest of EUR 152.5 million were exchanged with a Cross Currency Swap into CHF. The unrealized foreign exchange rate result calculated from the translation of the certificates of indebtedness into Swiss francs amounted in 2019 to a gain of CHF 5 million (2018: CHF 0.2 million gain)and is recorded in the cumulative translation difference in shareholders' equity.

Clariant is hedging the interest rate risk resulting from the certificates of indebtedness in the amount of USD 277 million issued at a variable interest rate. For this purpose interest rate swaps amounting to USD 166 million have been established in 2018. Their clean price amounted to a positive CHF 1.5 million for 2019 (2018: positive CHF 6 million). They are accounted for as a cash flow hedge and as a consequence the result was recorded in other comprehensive income.

The hedge effectiveness is assessed at the beginning of the hedging relationship, and by recurring prospective effectiveness tests. Thus it is ensured, that there exists an economic relationship between the underlying transaction and the hedging instrument.

The group enters into interest rate and cross currency swaps that have identical critical terms as the hedged item, such as reference rate, reset dates, payment dates, maturities and notional amount. The group does not hedge 100% of its loans, therefore the hedged item is identified as a proportion of the outstanding loans up to the notional amount of the swaps. As all critical terms matched during the year, the economic relationship was 100% effective.

Hedge ineffectiveness for interest rate/cross currency swaps is assessed using the following principles:
The focus is on the credit value/debit value adjustment on the interest rate/cross currency swaps which is not matched by the loan, and differences in critical terms between the interest rate/cross currency swaps and loans.

The Cross-Currency basis spread as per end of December 2019 was CHF 887 091 (2018: CHF 1 173 002).

There was no ineffectiveness during 2019 in relation to the interest rate/cross currency swaps. Clariant has chosen the cost of hedging approach for the newly entered cash flow hedging relationship.
The cross-currency basis spread is not part of the hedging relationship.

31. Employee participation plans

Under the Group Senior Management – Long Term Incentive Plan (GSM-LTIP) a certain percentage of the actual bonus is granted to the plan participants in the form of registered shares of Clariant Ltd (investment shares). These shares vest immediately upon grant, but are subject to a three-year blocking period. Shares were granted for the first time in 2011, based on the performance achieved in the base year 2010. Similar plans were launched in all subsequent years. In the years 2013 to 2018 the plan participants also received an additional share free of cost (matching share) for each investment share held at the end of the blocking period. The number of shares not yet vested and thus disclosed are the matching shares already granted.

For the first time in 2013, the Performance Share Unit (PSU) Plan was introduced for all senior managers. The term of Clariant's Performance Share Unit Plan is a three-year vesting period. The vesting is conditional upon achievement of the performance targets at the end of the vesting period. If the performance targets are achieved, each PSU will be converted into one Clariant share. The PSUs that would have vested in 2019 were not awarded as the performance targets were not achieved.

In 2019, the new Clariant Long-Term Incentive Plan (CLIP) was introduced with the first grants in April 2019. The CLIP represents an equity-based award in the form of Performance Share Units with a three-year vesting period. The review of the target achievements (vesting criteria) for this plan will be held in summer 2022 and vesting is scheduled to take place in September 2022.

The expense recorded in the income statement and in equity spreads the costs of each grant over the measurement period and the vesting period. Assumptions are made concerning the forfeiture rate which is adjusted during the vesting period so that at the end of the vesting period there is only a charge for the vested amounts.

In 2019, CHF 4 million were debited to the income statement for equity-settled share-based payments (2018: income of CHF 3 million).

As of 31 December 2019, the total carrying value of liabilities arising from equity-settled share-based payments, entirely recognized in equity, is CHF 20 million (2018: CHF 14 million).

SHARES FOR MEMBERS OF MANAGEMENT AND THE EXECUTIVE COMMITTEE

Base year	Granted	Vesting in		Fair value at grant date	**Number 31.12.2019**	Number 31.12.2018
2015	2016	2019		16.98	–	192 237
2016	2016	2019		16.84	–	469 603
2016	2016	2019		16.87	–	5 000
2016	2017	2020		18.67	153 224	186 293
2017	2017	2020		22.11	338 458	376 974
2017	2017	2020		18.74	12 831	12 831
2017	2017	2020		19.15	11 799	11 799
2017	2018	2021		22.82	119 141	136 409
2018	2018	2021		23.58	333 715	369 349
2018	2018	2021		21.47	3 960	3 960
2018	2018	2021		24.11	2 074	2 074
2018	2018	2022		20.38	8 587	8 587
2018	2018	2020		20.38	8 587	8 587
2019	2019	2022		15.91	1 090 988	–
Total					**2 083 364**	**1 783 703**

	Weighted average exercise price	Shares 2019	Weighted average exercise price	Shares 2018
Shares outstanding at 1 January	18.09	1 783 703	16.50	2 053 801
Granted		1 218 725		801 436
Exercised/distributed		–186 057		–390 915
Cancelled/forfeited		–733 007		–680 619
Outstanding at 31 December	**21.60**	**2 083 364**	**18.09**	**1 783 703**
Exercisable at 31 December				
Fair value of shares outstanding in CHF		45 000 652		32 267 178

The fair value of shares granted during 2019 is CHF 17 million (2018: CHF 10 million) calculated based on market value of shares at grant date.

No options were granted in 2019 and 2018.

32. Personnel expenses

in CHF m	2019	2018
Wages and salaries	–1 121	–1 114
Social welfare costs	–242	–295
Shares and options granted to directors and employees	–4	3
Pension costs – defined contribution plans	–28	–26
Pension costs – defined benefit plans	–37	–24
Other post-employment benefits	1	–1
Total personnel expenses	**–1 431**	**–1 457**
thereof reported under discontinued operations	394	402
Total continuing operations	**–1 037**	**–1 055**

33. Related party transactions

Clariant maintains business relationships with related parties. One group consists of the associates and joint ventures, of which the most important ones are described in note 8. The most important business with these companies is the purchase of services by Clariant (e.g. energy and rental of land and buildings) in Germany and the rendering of services to the Global Amines group.

The second group of related parties is key management comprising the Board of Directors and the Executive Committee. The information required by the ordinance against excessive compensation in stock exchange-listed companies regarding the emoluments for the members of the Board of Directors and the Executive Committee is disclosed in the Compensation Report.

More information on the relationship with the Board of Directors is given in the **Corporate Governance report** (non-audited).

The third group of related parties are the pension plans of major subsidiaries. Clariant provides services to its pension plans in Switzerland, the United Kingdom, and the United States. These services comprise mainly administrative and trustee services. The total costs in 2019 of these services is CHF 1 million (2018: CHF 1 million), of which approximately half is charged back to the pension plans. The number of full-time employees corresponding to these is approximately four (2018: approximately four).

The fourth group of related parties are all companies pertaining to the SABIC group, who is a 25.67 % shareholder of Clariant (see note 17). The most important business done with these companies is the sale and purchase of chemical products.

TRANSACTIONS WITH RELATED PARTIES

in CHF m	**2019**	2018
Income from the sale of goods to related parties	85	88
thereof to joint ventures	*7*	*1*
thereof to associates	*13*	*37*
thereof to SABIC companies	*65*	*50*
Income from the rendering of services to related parties	55	41
thereof to joint ventures	*29*	*—*
thereof to associates	*26*	*41*
Expenses from the purchase of goods from related parties	–31	–34
thereof from joint ventures	*–14*	*—*
thereof from associates	*–6*	*–22*
thereof from SABIC companies	*–11*	*–12*
Expenses from services rendered by related parties	–224	–220
thereof by joint ventures	*–29*	*—*
thereof by associates	*–194*	*–220*
Expense from the purchase of property, plant and equipment from related parties	–10	–6
thereof from associates	*–10*	*–6*
Expense from lease contracts with related parties	–7	–7
thereof with associates	*–7*	*–7*

PAYABLES AND RECEIVABLES WITH RELATED PARTIES

in CHF m	**31.12.2019**	31.12.2018
Receivables from related parties	25	26
thereof from joint ventures	*5*	*-*
thereof from associates	*7*	*14*
thereof from SABIC companies	*13*	*12*
Payables to related parties	54	70
thereof to joint ventures	*6*	*-*
thereof to associates	*44*	*65*
thereof to SABIC companies	*4*	*5*
Loans to related parties	23	12
thereof to joint ventures	*7*	*-*
thereof to associates	*16*	*12*
Loans from related parties	–1	-
thereof from associates	*–1*	*-*
Guarantees to third parties on behalf of related parties[1]	63	74
thereof on behalf of joint ventures	*63*	*74*

[1] The guarantee extended on behalf of a related party concerns a bank loan to a US joint venture.

TRANSACTIONS WITH KEY MANAGEMENT

in CHF m	**2019**	2018
Salaries and other short-term benefits	8	11
Termination benefit	2	—
Post-employment benefits	1	3
Share-based payments	2	2
Total	**13**	**16**

There are no outstanding loans by the Group to any members of the Board of Directors or Executive Committee.

34. Commitments and contingencies

Guarantees. No guarantees on behalf of third parties were issued in 2019 and 2018.

Purchase commitments. In the regular course of business, Clariant enters into relationships with suppliers whereby the Group commits itself to purchase certain minimum quantities of materials in order to benefit from better pricing conditions. These commitments are not in excess of current market prices and reflect normal business operations.

Clariant is engaged in contracts to buy a minimum quantity of ethylene for the next six years and in two contracts to buy a minimum quantity of propylenoxide in the year 2020, and other materials in 2020 and 2021. This implies a total purchase commitment of about CHF 0.90 billion (2018: CHF 1.20 billion).

Contingencies. Clariant operates in countries where political, economic, social, legal, and regulatory developments can have an impact on the operational activities. The effects of such risks on the company's results, which arise during the normal course of business, are not foreseeable and are therefore not included in the accompanying financial statements.

In the aftermath of the procedure to acquire subsequent to the acquisition of Süd-Chemie, the 1.36 % of shares still in possession of third parties (squeeze-out) at the time, several minority shareholders initiated appraisal proceedings to reassess the adequacy of the cash compensation paid to the minority shareholders. After a court decision the case was settled with payments in the total amount of CHF 1.6 million in 2019.

In the ordinary course of business, Clariant is involved in lawsuits, claims, investigations and proceedings, including product liability, intellectual property, commercial, environmental and health and safety matters. Although the outcome of any legal proceedings cannot be predicted with certainty management is of the opinion that, apart from those cases where a provision has already been recognized, there are no such matters pending which would likely have any material adverse effect in relation to its business, financial position or results of operations.

Environmental risks. Clariant is exposed to environmental liabilities and risks relating to its past operations, principally in respect of remediation costs. Provisions for non-recurring remediation costs are made when there is a legal or constructive obligation and the costs can be reliably estimated. It is difficult to estimate the action required by Clariant in the future to correct the effects on the environment of prior disposal or release of chemical substances by Clariant or other parties, and the associated costs, pursuant to environmental laws and regulations. The material components of the environmental provisions consist of costs to fully clean and refurbish contaminated sites and to treat and contain contamination at sites where the environmental exposure is less severe.

35. Exchange rates of principal currencies

Rates used to translate the consolidated balance sheets (closing rate):

	31.12.2019	31.12.2018
1 USD	0.97	0.98
1 EUR	1.08	1.13
1 BRL	0.24	0.25
1 CNY	0.14	0.14
100 INR	1.35	1.41
100 JPY	0.89	0.90

Sales-weighted average exchange rates used to translate the consolidated income statements and consolidated statements of cash flows:

	2019	2018
1 USD	0.99	0.98
1 EUR	1.11	1.15
1 BRL	0.25	0.27
1 CNY	0.14	0.15
100 INR	1.41	1.43
100 JPY	0.91	0.89

36. Important subsidiaries

Country	Company name	Currency	Share-/paid in capital (in thousands)	Participation[1] in %	Holding/ Finance/ Service	Sales	Production	Research
Argentina	Clariant (Argentina) SA, Lomas de Zamora	ARS	54 605	100.0		■	■	
	Clariant Plastics & Coatings (Argentina), Lomas de Zamora	ARS	1 090	100.0		■	■	
Australia	Clariant (Australia) Pty Ltd, Notting Hill	AUD	1 902	100.0	■	■	■	
	Clariant Plastics & Coatings Australia Pty Ltd, Notting Hill	AUD	2 500	100.0	■	■		
Belgium	Clariant Plastics & Coatings Belgium SA, Louvain-La-Neuve	EUR	1 000	100.0		■	■	
Brazil	Clariant S.A., São Paulo	BRL	184 863	100.0	■	■	■	
	Clariant Administração de Bens Ltda., São Paulo	BRL	7 696	100.0	■	■	■	
	Companhia Brasileira de Bentonita Ltda, São Paulo	BRL	17 470	100.0		■	■	
	Consórcio CCPN, Rio de Janeiro	BRL	26 113	100.0		■	■	
	Clariant Plastics & Coatings Brasil Indústria Química Ltda., São Paulo	BRL	100 850	100.0		■	■	■
Canada	Clariant (Canada) Inc., Toronto	CAD	10 415	100.0		■	■	
	Clariant Plastics & Coatings Canada Inc., Toronto	CAD	1	100.0		■	■	
Chile	Clariant (Chile) Ltda., Maipú-Santiago de Chile	CLP	15	100.0		■	■	
	Clariant Plastics & Coatings (Chile) Ltda. Maipú-Santiago de Chile	CLP	3 842	100.0		■	■	
China	Clariant (China) Ltd., Hong Kong	HKD	414 788	100.0	■			
	Clariant Bohai Pigments Preparations (Tianjin) Ltd., Tianjin	CNY	49 176	90.0		■	■	
	Clariant Chemicals (China) Ltd., Shanghai	CNY	210 014	100.0		■	■	■
	Clariant Chemicals (Guangzhou) Ltd., Guangzhou	CNY	70 345	100.0		■	■	
	Clariant Chemicals (Huizhou) Ltd., Daya Bay, Huizhou	CNY	183 039	100.0		■	■	
	Clariant China Holding Limited, Hong Kong	HKD	67 251	100.0	■			
	Clariant Huajin Catalysts (Panjin) Ltd., Panjin City	CNY	69 511	60.0		■	■	
	Clariant Masterbatches (Beijing) Ltd., Beijing	CNY	55 059	100.0			■	
	Clariant Masterbatches (Shanghai) Ltd., Shanghai	CNY	26 087	100.0		■	■	
	Clariant Redhill Bentonite (Liaoning) Ltd., Jianping	CNY	28 525	100.0		■	■	
	Clariant Specialty Chemicals (Zhenjiang) Co., Ltd., Zhenjiang	CNY	149 503	100.0		■	■	
	Clariant Bentonite (Jiangsu) Co., Ltd., Zhenjiang	CNY	79 058	100.0		■	■	
	Clariant Coatings (Shanghai) Ltd., Shanghai	CNY	245 393	100.0		■	■	
	Clariant Chemicals Technology (Shanghai) Ltd., Shanghai	CNY	13 810	100.0	■			
Colombia	Clariant Colombia S.A., Cota (Cundinamarca)	COP	2 265	100.0		■	■	
	Clariant Plastics & Coatings (Colombia), S.A.S., Cota (Cundinamarca)	COP	21 506	100.0		■	■	
Finland	Clariant Masterbatches (Finland) Oy, Vantaa	EUR	169	100.0		■		
France	Clariant Plastics & Coatings (France), Choisy le Roi	EUR	1 561	100.0		■	■	
	Clariant Production (France), Choisy le Roi	EUR	6 273	100.0		■	■	■
	Clariant Services (France), Choisy le Roi	EUR	21 200	100.0	■			
Germany	Navigance GmbH, Frankfurt a.M.	EUR	102	100.0		■	■	■
	Clariant Plastics & Coatings (Deutschland) GmbH, Frankfurt a.M.	EUR	149	100.0	■	■	■	■
	Clariant Produkte (Deutschland) GmbH, Frankfurt a.M.	EUR	9 348	100.0	■	■	■	■
	Clariant SE, Frankfurt a.M.	EUR	916	100.0	■	■	■	
	Clariant Verwaltungsgesellschaft mbH, Frankfurt a.M.	EUR	2 560	100.0	■			
	Süd-Chemie IP GmbH & Co. KG, Munich	EUR	803	100.0	■			
Great Britain	Clariant Distribution UK Limited, Yeadon, Leeds	GBP	500	100.0	■			
	Clariant Plastics & Coatings (UK) Ltd, Yeadon, Leeds	GBP	500	100.0		■		
	Clariant Oil Services UK Ltd, Yeadon, Leeds	GBP	400	100.0		■	■	■
	Clariant Production UK Ltd, Yeadon, Leeds	GBP	500	100.0	■	■	■	
	Clariant Services UK Ltd, Yeadon, Leeds	GBP	500	100.0	■			
Greece	Süd-Chemie Hellas Monoprosopi EPE, Adamas, Milos	EUR	548	100.0		■	■	
Guatemala	Clariant (Guatemala) S.A., Guatemala City	GTQ	14 000	100.0		■	■	
	Clariant Specialties (Guatemala), S.A., Guatemala City	GTQ	100	100.0		■		

Country	Company name	Currency	Share-/paid in capital (in thousands)	Partici-pation[1] in %	Holding/ Finance/ Service	Sales	Production	Research
India	Clariant Chemicals (India) Ltd, Thane	INR	230 818	51.0		■	■	
	Clariant India Private Limited, New Delhi	INR	7 735	100.0	■	■	■	
	Süd-Chemie India Pvt. Ltd., Binanipuram	INR	9 623	50.0		■		■
Indonesia	PT. Clariant Indonesia, Tangerang	IDR	267 577	100.0	■	■	■	
	PT. Clariant Kujang Süd-Chemie Catalysts, Cikampek	USD	3 447	76.9		■		
	PT. Clariant Plastics & Coatings Indonesia, Cibodas	USD	96 220	100.0		■	■	
	PT. Clariant Plastics & Coatings, Cibodas	USD	10 282	100.0		■		
	PT. Clariant Specialties Indonesia, Tangerang	IDR	4 803	100.0		■		
	PT. Clariant Adsorbents Indonesia, Cileungsi, Bogor	IDR	12 375	–		■	■	
Ireland	Clariant Plastics & Coatings (Ireland) Limited, Naas	EUR	411	100.0		■	■	
Italy	Clariant (Italia) S.p.A., Milano	EUR	36 000	100.0	■			
	Clariant Plastics & Coatings (Italia) S.p.A., Milano	EUR	3 000	100.0		■	■	■
	Clariant Prodotti (Italia) S.p.A., Milano	EUR	1 000	100.0		■	■	■
	Società Sarda di Bentonite S.r.l., Santa Giusta	EUR	2 050	100.0		■	■	
Japan	Clariant (Japan) K.K., Tokyo	JPY	450	100.0		■	■	■
	Clariant Catalysts (Japan) K.K., Tokyo	JPY	544	61.5	■	■	■	■
	Clariant Plastics & Coatings (Japan) K.K., Tokyo	JPY	250	100.0		■	■	■
Korea	Clariant Plastics & Coatings (Korea) Ltd., Pohang, Gyeongbuk	KRW	707	100.0		■	■	
	Clariant (Korea) Ltd., Pohang, Gyeongbuk	KRW	6 361	100.0		■	■	
Luxemburg	Clariant Finance (Luxembourg) S.A., Luxemburg	EUR	82 030	100.0	■			
Malaysia	Clariant (Malaysia) Sdn Bhd, Kuala Lumpur	MYR	12 347	100.0		■		
	Clariant Masterbatches (Malaysia) Sdn Bhd, Petaling Jaya	MYR	2 000	60.0		■	■	
	Clariant Oil Services (Malaysia) Sdn Bhd, Selangor	MYR	411	48.9		■		
	Clariant Specialty Chemical (M) Sdn Bhd, Shah Alam	MYR	3 300	100.0	■	■		
Mexico	Clariant (Mexico) S.A. de C.V., Ecatepec de Morelos	MXN	22 189	100.0	■	■	■	■
	Clariant Productos Químicos, S.A. de C.V., Ecatepec de Morelos	MXN	2 475	100.0	■			
	Clariant Plastics & Coatings México, S.A. de C.V., Ecatepec de Morelos	MXN	916	100.0	■	■	■	■
	Clariant Servicios Integrales México, S.A. de C.V., Ecatepec de Morelos	MXN	3	100.0	■			
Morocco	Clariant (Maroc) S.A., Casablanca	MAD	4 000	100.0		■		
Netherlands	Clariant Participations (The Netherlands) B.V., Maastricht	EUR	20	100.0	■	■		
New Zealand	Clariant (New Zealand) Limited, Auckland	NZD	1 000	100.0		■	■	
Norway	Clariant Oil Services Scandinavia AS, Bergen	NOK	4 725	100.0		■		
Pakistan	Clariant Chemical Pakistan (Pvt) Ltd, Karachi-Korangi	PKR	1 130 226	100.0		■	■	
Peru	Clariant (Perú) S.A., Lima	PEN	20 454	100.0	■	■	■	
	Clariant Plastics & Coatings (Perú) S.A.C., Lima	PEN	2 010	100.0		■		
Poland	Clariant Plastics & Coatings (Polska) Spolka z o.o., Konstantynów Łódzki	PLN	29 000	100.0		■	■	
	Clariant Poland Spolka z.o.o., Konstantynów Łódzki	PLN	3 000	100.0		■		
	Clariant Services (Poland) SP. z o.o., Łódź	PLN	10 000	100.0	■			
Qatar	Clariant Qatar W.L.L., Mesaieed	QAR	60 000	65.0		■	■	
Romania	Clariant Products Ro Srl, Bucarest	RON	105 261	100.0	■	■		
Russia	Clariant (RUS) LLC, Moscow	RUB	16 200	100.0		■		
Saudi Arabia	Clariant Masterbatches (Saudi Arabia) Ltd, Riyadh	SAR	50 000	53.0		■	■	
Singapore	Clariant (Singapore) Pte. Ltd., Singapore	SGD	3 500	100.0	■	■	■	■
	Clariant South East Asia Pte. Ltd., Singapore	SGD	1 560	100.0	■	■		■
South Africa	Clariant Sasol Catalysts Ltd., Chloorkop, Gauteng	ZAR	1 417	80.0		■		
	Clariant Southern Africa (Pty) Ltd. Chloorkop, Gauteng	ZAR	6	100.0	■	■	■	
	Clariant Plastics & Coatings Southern Africa (Pty) Ltd., Chloorkop, Gauteng	ZAR	70 000	100.0		■	■	
Spain	Clariant Ibérica Producción S.A., El Prat de Llobregat	EUR	6 023	100.0	■	■	■	■
	Clariant Ibérica Servicios S.L., El Prat de Llobregat	EUR	358	100.0	■			
	Clariant Masterbatch Ibérica S.A., Sant Andreu de la Barca	EUR	2 525	100.0		■	■	■

Country	Company name	Currency	Share-/paid in capital (in thousands)	Partici-pation[1] in %	Holding/ Finance/ Service	Sales	Production	Research
Sweden	Clariant Plastics & Coatings Nordic AB, Malmö	SEK	3 200	100.0		■	■	
	Clariant Production Sweden AB, Mölndal	SEK	500	100.0		■	■	
Switzerland	Clariant Consulting AG, Muttenz	CHF	200	100.0	■			
	Clariant Chemical Consulting AG, Muttenz	CHF	100	100.0	■			
	Clariant International AG, Muttenz	EUR	92 181	100.0	■	■	■	
	Clariant Oil Services AG, Muttenz	CHF	300	100.0	■			
	Clariant Reinsurance AG, Muttenz	CHF	3 000	100.0	■			
	EBITO Chemiebeteiligungen AG, Muttenz	CHF	202	100.0	■			
	Clariant Produkte (Schweiz) AG, Muttenz	CHF	5 000	100.0	■	■	■	
	Clariant Additives AG, Muttenz	CHF	5 000	100.0		■	■	
	Clariant Plastics&Coatings AG, Muttenz	EUR	18 961	100.0	■	■	■	
	Colorants International AG, Muttenz	EUR	17 254	100.0	■			
	Performance Masterbatches Switzerland AG	EUR	100	100.0	■			
Taiwan	Clariant Chemicals (Taiwan) Co., Ltd., Taipei	TWD	23 888	100.0		■		
	Clariant Specialty Chemicals (Taiwan) Co., Ltd., Taipei	TWD	36 000	100.0		■		
Thailand	Clariant (Thailand) Ltd., Bangkok	THB	250 000	100.0		■		
	Clariant Masterbatches (Thailand) Ltd., Chonburi	THB	325 000	100.0		■	■	■
Turkey	Clariant (Türkiye) A.S., Gebze	TRY	17 538	100.0		■	■	
	Clariant (Türkiye) Boya Ve Kimyevi Sanayi Ve Ticaret A.S., Gebze	TRY	8 562	100.0		■	■	
UAE	Clariant (Gulf) FZE, Jebel Ali, Dubai	AED	1 000	100.0		■		
	Clariant Plastics & Coatings (UAE) FZE, Jebel Ali, Dubai	AED	45 000	100.0	■	■		
Ukraine	Clariant Ukraine LLC, Severodonetsk	UAH	28 688	100.0		■	■	
USA	Clariant Corporation, Charlotte, NC	USD	749 500	100.0	■	■	■	■
	Clariant Plastics & Coating USA Inc., Charlotte, NC	USD	50	100.0		■	■	■
Venezuela	Clariant Venezuela, S.A., Maracay	VES	1	100.0		■	■	
	Clariant Plastics & Coatings Venezuela, S.A., Maracay	VES	1	100.0		■	■	

[1] The participation in % reflects the captital and voting rights in %.

37. Events subsequent to the balance sheet date

There were no major events subsequent to the balance sheet date.

Report of the statutory auditor

to the General Meeting of Clariant Ltd

Muttenz

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of Clariant Ltd and its subsidiaries (the Group), which comprise the consolidated balance sheets as at 31 December 2019 and the consolidated income statements, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements (pages 1 to 65) give a true and fair view of the consolidated financial position of the Group as at 31 December 2019 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRS) and comply with Swiss law.

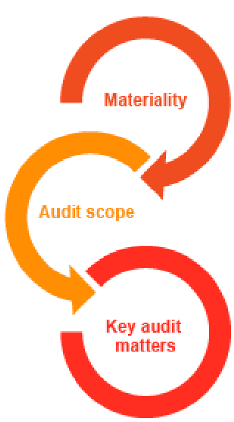
Basis for opinion

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements" section of our report.

We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, as well as the IESBA Code of Ethics for Professional Accountants, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our audit approach

Overview



Overall Group materiality: CHF 32 million

We concluded full scope audit work at 19 reporting units in nine countries. Our audit scope addressed over 68% of the Group's revenue, including discontinued operations. In addition, specified procedures were performed on a further two reporting units in two countries representing a further 1% of the Group's revenue.

As key audit matters the following areas of focus have been identified:

- Management's assumptions and estimates used in the impairment test for goodwill
- Cut-off for revenue recognition
- Investigation by the European Commission in the ethylene purchasing market

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Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the consolidated financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall Group materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the consolidated financial statements as a whole.

Overall Group materiality	CHF 32 million
How we determined it	2.5% of the Group's EBITDA (including discontinued operations) weighted at 75%, and 1% of the Group's total assets weighted at 25%
Rationale for the materiality benchmark applied	We chose EBITDA as the benchmark because management assesses its profitability mainly on the basis of this measure of profit and we took the Group's assets into consideration since the chemical industry, being highly capital intensive, has a more volatile net profit margin than other industries.

We agreed with the Audit Committee that we would report to them misstatements above CHF 1.6 million identified during our audit as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

Audit scope

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

From 132 reporting units, we identified 19 reporting units (components) as the largest contributors to the Group's financial statements (amounting to 68% of the Group's revenue including discontinued operations, and addressing all geographical areas of the Group's business). These reporting units were subject to a full scope audit by local PwC network firms. In addition to in-person meetings, we held regular calls during all phases of the audit to discuss material audit topics with the component auditors of the most significant reporting units. Further audit procedures were performed by the central Group audit team on certain Group functions (addressing, among other topics, taxation, treasury, ongoing investigations and litigation, and information technology) and the Group consolidation. Of the Group's revenue, 1% was addressed through specified audit procedures. In addition, two PwC network firms performed specific audit procedures related to sales and procurement and to the financial closing cycle at the Group's shared service centres on behalf of PwC Switzerland, and with the assistance of other PwC network firms.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Management's assumptions and estimates used in the impairment test for goodwill

Key audit matter	How our audit addressed the key audit matter
The valuation of goodwill depends on the forecast results of the businesses and the discount rates applied to cash flow forecasts. We consider its valuation to be a key audit matter because of the significant scope for judgement involved in the assumptions on which these forecasts are based. In particular, we focussed on goodwill relating to the	We evaluated and challenged management's assumptions as presented on page 19 (Critical accounting estimates and judgments, 4.1 Estimated impairment of goodwill and property, plant and equipment) in the notes to the consolidated financial statements.

Catalysts business unit, which amounts to CHF 675 million, as the risk of impairment is higher for this unit than for other business units. Please refer to page 19 (Critical accounting estimates and judgments, 4.1 Estimated impairment of goodwill, intangibles, and property, plant and equipment), and page 24 (Goodwill allocation) in the notes to the consolidated financial statements.	Management followed a clearly documented process for forecasting future cash flows, which was subject to timely oversight and challenges by the Board of Directors. We compared the actual results of the year under review with the figures used to make the forecasts in the prior year in order to assess with hindsight whether any of the assumptions underlying the forecasts might have been too optimistic. In some cases, actual performance was found to be lower than forecast. Management analysed the underlying drivers, considered actual revenue growth rates and operating margins against those in the business plans prepared in the year under review and included the actual rates and margins in the new business plans. We discussed with the business unit leaders management's assumptions regarding revenue, long-term growth rates and profit margins. We involved PwC's own valuation specialists to assess the model and the weighted average cost of capital (WACC) used. The WACC was assessed on the basis of comparable industry peers and data available from external sources. In addition, we assessed for reasonableness the expectations of movements in working capital and of investments in property, plant and equipment. We found the assumptions to be balanced and reasonable. We re-performed thorough sensitivity analyses on the key assumptions to ascertain the extent of change in those assumptions that either individually or collectively would be required for the goodwill to be impaired. We discussed the results of our audit work as well as the headroom of the sensitivity analyses with management, the Audit Committee and the Board of Directors. On the basis of the procedures performed and the evidence obtained, we identified no significant issues with respect to the process applied by management and the Board of Directors in the impairment test for goodwill.

Cut-off for revenue recognition

Key audit matter	How our audit addressed the key audit matter
There is a risk that revenue is not recognised in accordance with the requirements of IFRS, mainly with regard to the timing of revenue recognition, which depends on the transfer of control of the goods. Invoices are usually raised by the systems when the goods are shipped, which may not be in line with the detailed contractual terms for the transfer of control. Management has a standardised process in place to identify sales transactions where control is transferred after the balance sheet date. This process allowed management to recognise revenue in the appropriate period. We consider the cut-off for revenue recognition to be a key audit matter due to the number of large transactions that	We tested management's approach for recognising revenue in the appropriate period. We tested revenue transactions and the timing of these transactions by examining third party documents and the contractual delivery terms. We tested the system and the related inputs that support management's approach to ensuring that revenue transactions are recorded in the appropriate period.

occur close to year-end and the potential impact of the cut-off date of these transactions on the consolidated financial statements.	On the basis of the procedures performed and the evidence obtained, we identified no significant issues in management's approach with respect to revenue cut-off.

Investigation by the European Commission in the ethylene purchasing market

Key audit matter	How our audit addressed the key audit matter
Since 2017, Clariant has been party to an ongoing competition law investigation by the European Commission relating to the ethylene purchasing market. The investigation is ongoing and Clariant recorded a provision of CHF 231 million in 2019 based on the information available at the time to management and the Board of Directors. The outcome of the investigation is uncertain both in terms of the future course of the proceedings and the size of any fines which might be imposed. Please refer to page 19 (Critical accounting estimates and judgments, 4.5 Provisions and Contingencies), and pages 46 to 47 (Movements in provisions) in the notes to the consolidated financial statements.	We discussed the status of the ongoing investigation with in-house and external legal counsel and considered the relevant correspondence and minutes of the Board of Directors' and management meetings. We obtained letters from external legal counsel to confirm our understanding of the status and of their assessment of the investigation. We also used internal PwC legal specialists to assist us in assessing the status of the investigation and the appropriateness of the approach taken and the provision recorded by management and the Board of Directors. We discussed our assessment with management, the Audit Committee and the Board of Directors and we obtained written representations from the company in relation to the case. As set out in the notes to the financial statements, the outcome of the pending investigation depends on the outcome of future developments and therefore the exposure to risk of Clariant, as assessed by management and the Board of Directors, is subject to inherent uncertainty. On the basis of the procedures performed and the information obtained, we are satisfied that the approach taken by management and the Board of Directors was appropriate.

Other information in the integrated report

The Board of Directors is responsible for the other information in the integrated report. The other information comprises all information included in the integrated report, but does not include the consolidated financial statements, the stand-alone financial statements and the compensation report of Clariant Ltd and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information in the integrated report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the integrated report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors for the consolidated financial statements

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS and the provisions of Swiss law, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the website of EXPERTsuisse: http://expertsuisse.ch/en/audit-report-for-public-companies. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Rolf Johner	Michael Scheibli
Audit expert Auditor in charge	Audit expert

Basel, 11 February 2020

Review of trends

FIVE-YEAR GROUP OVERVIEW 2015 – 2019

		2019[2]	2018[3]	2018	2017	2016	2015
Segment sales	CHF m	**4 434**	**4 445**	**6 682**	**6 429**	**5 883**	**5 827**
Change relative to preceding year							
in Swiss francs	%	0	–	4	9	1	–5
in local currency	%	3	–	5	9	2	3
Group sales[1]	CHF m	**4 399**	**4 404**	**6 623**	**6 377**	**5 847**	**5 807**
Change relative to preceding year							
in Swiss francs	%	0	–	4	9	1	–5
in local currency	%	3	–	5	9	2	3
Adjusted operating income	CHF m	**444**	**480**	**693**	**673**	**622**	**596**
Change relative to preceding year	%	–7	–29	3	8	4	2
as a % of sales		10.1	10.9	10.5	10.6	10.6	10.3
Operating income	CHF m	**165**	**348**	**546**	**496**	**512**	**496**
Change relative to preceding year	%	–53	–30	10	–3	3	–6
as a % of sales		3.8	7.9	8.2	7.8	8.8	8.5
EBITDA	CHF m	**461**	**607**	**871**	**813**	**785**	**767**
Change relative to preceding year	%	–24	–25	7	4	2	–17
as a % of sales		10.5	13.8	13.2	12.7	13.4	13.2
Adjusted EBITDA	CHF m	**740**	**739**	**1 018**	**974**	**887**	**853**
Change relative to preceding year	%	0	–24	5	10	4	–2
as a % of sales		16.8	16.8	15.4	15.3	15.2	14.7
Net income	CHF m	**38**	**356**	**356**	**302**	**263**	**239**
Change relative to preceding year	%	–89	18	18	15	10	10
as a % of sales		0.9	8.1	5.4	4.7	4.5	4.1
Investment in property, plant and equipment[4]	CHF m	**273**	**237**	**237**	**248**	**297**	**374**
Change relative to preceding year	%	15	–4	–4	–16	–21	21
as a % of sales		6	5	4	4	5	6
Personnel costs[4]	CHF m	**1 431**	**1 457**	**1 457**	**1 460**	**1 383**	**1 345**
Change relative to preceding year	%	–2	–	–	6	3	–6
as a % of sales		33	33	22	23	24	23
Employees at year-end[4]	number	17 223	17 901	17 901	18 135	17 442	17 213
Change relative to preceding year	%	–4	–1	–1	4	1	1

[1] Including trading.
[2] Continuing operations
[3] Restated for discontinued operations – see note 1.03
[4] Including discontinued operations

Financial statements of Clariant Ltd, Muttenz

BALANCE SHEETS OF CLARIANT LTD

at 31 December 2019 and 2018

	Notes	**31.12.2019** in CHF	in %	31.12.2018 in CHF	in %
Assets					
Current assets					
Cash and cash equivalents	3	226 347 902		430 800 195	
Short-term deposits	3	130 143 600		14 760 000	
Other short-term receivables	4	34 533 505		94 393 774	
Accrued income and prepaid expenses		2 368 133		4 133 901	
Total current assets		**393 393 140**	**7.3**	**544 087 870**	**6.8**
Non-current assets					
Loans to Group companies		2 974 169 841		3 317 144 872	
Other financial assets		922 320		783 840	
Shareholdings in Group companies	5	1 992 699 302		1 918 488 220	
Intangible assets		7 598 141		11 925 337	
Total non-current assets		**4 975 389 604**	**92.7**	**5 248 342 269**	**93.2**
Total assets		**5 368 782 744**	**100.0**	**5 792 430 139**	**100.0**
Liabilities and Equity					
Liabilities					
Current liabilities					
Other current non-interest-bearing liabilities	6	73 696 526		157 549 349	
Other current interest-bearing liabilities	7	407 346 090		358 706 814	
Current provision		111 413 099		105 766 882	
Accrued expenses		5 483 403		5 240 846	
Total current liabilities		**597 939 118**	**11.2**	**627 263 891**	**7.8**
Non-current liabilities					
Non-current interest-bearing liabilities to third parties	12	1 471 357 780		1 689 219 203	
Non-current interest-bearing liabilities to Group companies	12	–		588	
Total non-current interest-bearing liabilities	**12**	**1 471 357 780**	**27.4**	**1 689 219 791**	**30.6**
Total liabilities		**2 069 296 898**		**2 316 483 682**	
Equity					
Share capital	**8, 11**	**1 228 175 036**		**1 228 175 036**	
Reserves from capital contribution[1]	9, 11	2 094 200 965		2 275 558 464	
thereof from capital contribution reserves (other)		1 506 664 792		1 688 022 291	
thereof from capital contribution reserves (foreign)		587 536 173		587 536 173	
Reserves from retained earnings[2]	9, 11	–1 264 297 991		–1 264 297 991	
Total statutory capital reserves	**11**	**829 902 974**		**1 011 260 473**	
Voluntary retained earnings	11	1 277 300 539		1 096 660 186	
Total reserves	**9, 11**	**2 107 203 513**		**2 107 920 659**	
Profit for the financial year		11 295 791		180 640 353	
Treasury shares	**10, 11**	**–47 188 494**		**–40 789 591**	
Total equity		**3 299 485 846**	**61.4**	**3 475 946 457**	**61.6**
Total equity and liabilities		**5 368 782 744**	**100.0**	**5 792 430 139**	**100.0**

[1] In 2012, the Swiss Federal Tax Administration confirmed qualifying capital contribution reserves of approximately CHF 1.7 billion (as at 31 December 2019 due to distributions still amounting to approximately CHF 0.8 billion). For further information, see also note 9 to the financial statements of Clariant Ltd.

[2] This amount corresponds to capital contribution reserves formerly offset with losses. For further information, see also note 9 to the financial statements of Clariant Ltd.

INCOME STATEMENTS OF CLARIANT LTD

for the years ended 31 December 2019 and 2018

	Notes	**2019** in CHF	2018 in CHF
Income			
Income from shareholdings in Group companies		63 684 441	255 470 345
Income from interest on loans to Group companies		66 487 459	70 189 485
Other financial income		10 993 377	9 307 141
Reversal of devaluations on shareholdings and other income related to Group Companies	5	134 703 181	170 399 000
Other income		48 169 291	15 057 211
Total income		**324 037 749**	**520 423 182**
Expenses			
Financial expenses		44 748 897	50 479 234
Administrative expenses		71 251 329	59 804 521
Devaluations of shareholdings and other expenses related to Group companies	5	154 081 709	224 935 908
Exchange rate differences net		35 679 937	471 720
Other expenses		6 041 951	3 078 337
Taxes		938 135	1 013 109
Total expenses		**312 741 958**	**339 782 829**
Profit for the financial year		**11 295 791**	**180 640 353**

Notes to the financial statements of Clariant Ltd

1. Accounting policies

Introduction. The statutory financial statements of Clariant Ltd comply with the regulations on financial accounting of the Swiss Code of Obligations.

Revenue recognition. Interest income is recognized on a time proportion basis, taking into account the principal outstanding and the effective rate over the period to maturity, when it is determined that such income will accrue to the company. Dividends are recognized when the right to receive payment is established.

Exchange rate differences. Balance sheet items denominated in foreign currencies are converted at year-end exchange rates. Realized exchange gains and losses as well as unrealized exchange losses are recorded in the income statement.

Intangible assets. Patents are capitalized at cost and amortized on a straight-line basis to the income statement over their estimated useful lives with a maximum of 20 years. Capital increase costs are directly charged to the income statement.

The Board of Directors approved the stand-alone financial statements of Clariant Ltd for issue on 11 February 2020. It will be subject to approval by the Annual General Meeting of Shareholders scheduled for 30 March 2020.

2. Basis of preparation

The statutory financial statements of Clariant Ltd have been prepared according to the provisions of the Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations).

Clariant Ltd has no employees, except the members of the Board of Directors of the Clariant Group.

3. Cash and cash equivalents and short-term deposits

Cash and cash equivalents amounts to CHF 226 347 902 at the end of 2019 compared with CHF 430 800 195 at the end of 2018 and comprise cash in hand denominated mainly in euro, US-dollar and in Swiss francs and to a lesser extent in other currencies.
Short-term deposits amount to CHF 130 143 600 at the end of 2019 compared to CHF 14 760 000 at the end of 2018 and include short-term deposits with an original maturity between 90 and 365 days.

4. Other short-term receivables

Other short-term receivables amount to CHF 34 533 505 at the end of 2019 compared to CHF 94 393 774 at the end of 2018. They comprise third-party receivables of CHF 273 512 (compared to CHF 294 570 at the end of 2018) and intragroup receivables of CHF 34 259 993 (compared with CHF 94 099 204 at the end of 2018).

5. Shareholdings in Group companies

Shareholdings in Group companies are reviewed on a yearly basis to assess their cash generating capabilities by applying either a mixed calculation method based on the equity value and the net result or, alternatively, the discounted cash flow model. In that review, the investments are classified and grouped in terms of sales and Business Areas.

The following shareholdings in group companies were valued using the discounted cash flow method: Clariant S.A. (Brazil), Clariant Finance (Luxembourg) S.A and Clariant Corporation (USA).

At the end of 2019, shareholdings in Group companies amount to CHF 1 992 699 302 compared to CHF 1 918 488 220 at the end of 2018. After this review, the following was recorded in the income statement: A reversal of devaluation of CHF 134 703 181 (2018: CHF 170 399 000) in »Reversal of devaluations on shareholdings and other income related to Group Companies« and a devaluation of CHF 154 081 709 (2018: CHF 224 935 908) in »Devaluations of shareholdings and other expenses related to Group Companies«.

On 14 December 2018 Clariant Ltd received as a distribution in kind from the capital contribution reserves of its' subsidiary Clariant Plastics & Coatings Ltd the 100% participation in Clariant Plastics & Coatings USA Inc. with a value of CHF 156 883 039. These shareholdings were subsequently invested in Clariant Corporation as a capital contribution in kind.

In the year 2019, CHF 75 million of hidden reserves were reversed (2018: CHF 82 million).

The table below shows the shareholdings directly held by Clariant Ltd.

Country	Company name		Capital interest (%)	Voting rights (%)	Capital interest (%)	Voting rights (%)
			2019	**2019**	**2018**	**2018**
Brazil	Clariant S.A.	São Paulo	46.32%	46.32%	46.32%	46.32%
Canada	Clariant (Canada) Inc.	Toronto	100.00%	100.00%	100.00%	100.00%
China	Clariant (China) Ltd.	Hong Kong	100.00%	100.00%	100.00%	100.00%
Colombia	Clariant (Colombia) S.A.	Cota (Cundinamarca)	5.13%	5.13%	5.13%	5.13%
Ecuador	Clariant (Ecuador) S.A.	Quito	0.03%	0.03%	0.03%	0.03%
France	Clariant Services (France)	Choisy-le-Roi	43.00%	43.00%	43.00%	43.00%
Germany	Clariant Verwaltungsgesellschaft mbH	Frankfurt a.M.	100.00%	100.00%	100.00%	100.00%
Great Britain	Clariant Services UK Ltd	Yeadon, Leeds	100.00%	100.00%	100.00%	100.00%
Guatemala	Clariant Specialties (Guatemala) S.A.	Guatemala City	10.00%	10.00%	10.00%	10.00%
Japan	Clariant (Japan) K.K.	Tokyo	100.00%	100.00%	100.00%	100.00%
	Clariant Catalysts (Japan) K.K.	Tokyo	61.45%	61.45%	61.45%	61.45%
Korea	Clariant Plastics & Coatings (Korea) Ltd.	Pohang, Gyeongbuk	17.50%	17.50%	17.50%	17.50%
	Clariant (Korea) Ltd.	Pohang, Gyeongbuk	17.50%	17.50%	17.50%	17.50%
Luxembourg	Clariant Finance (Luxembourg) S.A.	Luxembourg	100.00%	100.00%	100.00%	100.00%
Morocco	Clariant (Maroc) S.A.	Casablanca	0.05%	0.05%	0.05%	0.05%
Mexico	Clariant (Mexico) S.A. de C.V.	Ecatepec de Morelos	99.99%	99.99%	99.99%	99.99%
	Clariant Plastics & Coatings Mexico S.A. de C.V.	Ecatepec de Morelos	0.00%	0.00%	99.99%	99.99%
Norway	Clariant Oil Services Scandinavia AS	Bergen	100.00%	100.00%	100.00%	100.00%
Peru	Clariant (Perú) S.A.	Lima	0.23%	0.23%	0.23%	0.23%
Singapore	Clariant South East Asia Pte. Ltd.	Singapore	100.00%	100.00%	100.00%	100.00%
South Africa	Clariant Southern Africa (Pty) Ltd.	Chloorkop, Gauteng	100.00%	100.00%	100.00%	100.00%
Spain	Clariant Ibérica Servicios S.L.	El Prat de Llobregat	85.03%	85.03%	85.03%	85.03%
	Clariant Ibérica Produccion S.A.	El Prat de Llobregat	35.00%	35.00%	35.00%	35.00%
Sweden	Clariant Production Sweden AB	Mölndal	100.00%	100.00%	100.00%	100.00%
Switzerland	Clariant Plastics & Coatings AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant Reinsurance AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant International AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant Oil Services AG	Muttenz	80.00%	80.00%	80.00%	80.00%
	Clariant Chemical Consulting AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant Prime AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant Pro AG	Muttenz	100.00%	100.00%	–	–
	Colorants International AG	Muttenz	100.00%	100.00%	–	–
Thailand	Clariant (Thailand) Ltd.	Bangkok	100.00%	100.00%	100.00%	100.00%
Turkey	Clariant (Türkiye) A.S.	Gebze	100.00%	100.00%	100.00%	100.00%
UAE	Clariant (Gulf) FZE	Dubai	100.00%	100.00%	100.00%	100.00%
USA	Clariant Corporation	Charlotte	100.00%	100.00%	100.00%	100.00%

For further details on shareholdings indirectly held by Clariant Ltd, see note 36, Important subsidiaries of this report.

6. Other current non-interest-bearing liabilities

Other current non-interest bearing liabilities amount to CHF 73 696 526 at the end of 2019 compared to CHF 157 549 349 at the end of 2018. They comprise third party liabilities of CHF 14 468 449 (compared to CHF 29 081 357 at the end of 2018) and intragroup liabilities of CHF 59 228 077 (compared with CHF 128 467 992 at the end of 2018).

Liabilities to other Group companies mainly comprise shareholder costs payable to Clariant International Ltd and Clariant Plastics & Coatings Ltd.

7. Other current interest-bearing liabilities

Other current interest bearing liabilities amount to CHF 407 346 090 at the end of 2019 compared to CHF 358 706 814 at the end of 2018. They comprise third party liabilities of CHF 395 307 100 (compared to CHF 285 000 000 at the end of 2018) and intragroup liabilities of CHF 12 038 990 (compared with CHF 73 706 814 at the end of 2018).

On 24 April 2019 a bond issued in 2012 in the amount of CHF 285 million reached maturity and was repaid.

Two certificates of indebtness issued in 2015 with nominal value of EUR 150 million and two certificates of indebtness issued in 2016 with nominal value of EUR 212 million will fall due in 2020 and were therefore reclassified to current financial debts.

On 26 September 2018, a bond issued in 2012 with a nominal value of CHF 250 million fell due and was repaid.

Since 16 December 2016, Clariant Ltd has an agreement for a CHF 500 million five-year multi-currency revolving credit facility (RCF) with two one-year extension options. The RCF is structured as a club deal with ten key relationship banks with equal stakes and contains an accordion option for an increase up to CHF 600 million. The RCF is structured as a »back-stop« facility for rating purposes to maintain Clariant's liquidity headroom. It contains customary covenants such as negative pledge, cross default, ownership change and restriction on disposals, mergers and subsidiary debt. The Group is required to maintain one financial covenant (debt leverage) that is tested at the end of each financial half year. The RCF has an expiry date of 16 December 2023.

The intragroup liabilities comprise the cash pool accounts and current accounts between Group companies.

8. Share capital

Capital issued	31.12.2019	31.12.2018
Number of registered shares each with a par value of CHF 3.70 (2018: CHF 3.70)	331 939 199	331 939 199
In CHF	1 228 175 036	1 228 175 036

Conditional capital	31.12.2019	31.12.2018
Number of registered shares each with a par value of CHF 3.70 (2018: CHF 3.70)	3 811 886	3 811 886
In CHF	14 103 978	14 103 978

9. Reserves

General reserves must be at least 20 % of the share capital of Clariant Ltd as this is the minimum amount required by the Swiss Code of Obligations. As from 2011, if certain conditions are met, qualifying capital contributions made to Clariant Ltd by its shareholders since 1997 can be distributed without being subject to Swiss withholding tax. Qualifying capital contribution reserves of approximately CHF 1.7 billion are confirmed by the Swiss Federal Tax Administration (SFTA).

The SFTA is of the opinion that capital contribution reserves which were formerly offset with losses of CHF 1.26 billion will not qualify as capital contribution reserves anymore (even if compensated with newly generated retained earnings). The Swiss Administrative Court confirmed the SFTA's view in a particular case (decision of 4 June 2015, A-6072/2013), whilst the Swiss Supreme Court (as the highest Swiss court level) has up to now not dealt with this question. Clariant Ltd does not unconditionally share the above mentioned opinion. This is why potential capital contribution reserves are also documented as capital contribution reserves in the balance sheet.

10. Treasury shares

	2019	2018
Holdings at 1 January	**2 250 664**	**2 641 579**
Shares purchased at fair market value	572 000	–
Shares transferred to employees and Board of Directors	–235 899	–390 915
Holdings on 31 December	**2 586 765**	**2 250 664**

Each registered share has a par value of CHF 3.70 (2018: CHF 3.70).

The average price of shares bought in 2019 was CHF 18.14. In 2018 no shares were bought.

In 2019 and 2018 no shares were sold.

The profit or loss from the sale of own shares is recorded in the income statement as other finance income or other expenses.

11. Reconciliation of equity

in CHF	Share capital	Statutory capital reserves		Voluntary retained earnings	Treasury shares	Net income	Total
		from capital contribution[1]	from retained earnings[2]				
Balance 31 December 2018	**1 228 175 036**	**2 275 558 464**	**–1 264 297 991**	**1 096 660 186**	**–40 789 591**	**180 640 353**	**3 475 946 457**
Reclassification of profit carryforward to voluntary retained earnings				180 640 353		–180 640 353	–
Reclassification		–181 357 499		181 357 499			–
Distribution				–181 357 499			–181 357 499
Changes in treasury shares					–6 398 903		–6 398 903
Profit for the financial year						11 295 791	11 295 791
Balance 31 December 2019	**1 228 175 036**	**2 094 200 965**	**–1 264 297 991**	**1 277 300 539**	**–47 188 494**	**11 295 791**	**3 299 485 846**

1 In 2012, the Swiss Federal Tax Administration confirmed qualifying capital contribution reserves of approximately CHF 1.7 billion (as per 31 December 2019 due to distributions still amounting of approximately CHF 0.8 billion). For further information see also note 9 to the financial statements of Clariant Ltd.

2 This amount corresponds to capital contribution reserves formerly offset with losses. For further information see also note 9 to the financial statements of Clariant Ltd.

12. Financial liabilities

in CHF	Interest rate	Term	**Amount 31.12.2019**	Amount 31.12.2018
Non-current interest bearing liabilities to third parties				
Straight bond	3.250	2012-2019	–	285 000 000
Certificate of indebtedness	mixed	2015-2020	162 679 500	169 083 496
Certificate of indebtedness	1.012	2016-2020	171 727 450	176 409 004
Certificate of indebtedness	6 m EURIBOR+1.05	2016-2020	60 900 150	62 560 476
Certificate of indebtedness	0.779	2016-2021	60 191 415	62 560 872
Certificate of indebtedness	2.618	2016-2021	107 503 240	108 740 800
Certificate of indebtedness	3 m LIBOR +1.5	2016-2021	161 498 080	163 354 136
Straight bond	3.500	2012-2022	175 000 000	175 000 000
Certificate of indebtedness	mixed	2015-2023	162 679 500	169 080 925
Certificate of indebtedness	6m EURIBOR +1.1	2016-2023	14 098 890	14 653 856
Certificate of indebtedness	1.137	2016-2023	28 740 045	29 871 285
Certificate of indebtedness	1.501	2016-2023	80 651 550	82 849 245
Straight bond	2.125	2014-2024	160 000 000	160 000 000
Certificate of indebtedness	1.194	2018-2024	103 868 000	103 703 407
Certificate of indebtedness	1.548	2018-2025	115 722 500	115 539 055
Certificate of indebtedness	6m EURIBOR+0.95	2018-2025	60 401 500	60 305 799
Certificate of indebtedness	2.010	2016-2026	15 910 850	16 344 289
Straight bond	1.125	2019-2026	200 000 000	–
Certificate of indebtedness	2.087	2018-2028	19 193 000	19 162 558
Total straight bonds and certificates of indebtedness			**1 860 765 670**	**1 974 219 203**
Other non-current interest-bearing liabilities to banks and other financial institutions			5 899 210	–
Total interest bearing liabilities			**1 866 664 880**	**1 974 219 203**
Less: Other current interest bearing liabilities			–395 307 100	–285 000 000
Total non-current interest bearing liabilities to third parties			**1 471 357 780**	**1 689 219 203**
Non-current interest bearing liabilities to Group Companies				
Financial liabilities to Clariant Oil Service Ltd	0.750	–	–	588
Non-current interest bearing liabilities to Group Companies			**–**	**588**
Total non-current interest bearing liabilities			**1 471 357 780**	**1 689 219 791**
Breakdown by maturity				
one to five years			1 056 169 145	1 214 164 683
more than five years			415 188 635	475 055 108
Total non-current interest bearing liabilities			**1 471 357 780**	**1 689 219 791**

On 15 April 2019 a new bonds in the amount of CHF 200 million were launched with a term of 7 years and a fixed interest rate of 1.125% p.a.

On 24 April 2019 a bond issued in 2012 in the amount of CHF 285 million reached maturity and was repaid.

On 25 September 2018 Clariant issued four certificates of indebtedness with a total amount of EUR 265 million (CHF 299 million). These certificates have the following terms: EUR 92 million for 5.5 years at a fixed interest rate of 1.194 % p.a., EUR 102 million for 7 years at a fixed interest rate of 1.548 % p.a., EUR 54 million for 7 years at a variable interest rate (6-months Euribor + 0.95 % p.a.), EUR 17 million for 10 years at a fixed interest rate of 2.087 % p.a.

Two certificates of indebtness issued in 2015 with nominal value of EUR 150 million and two certificates of indebtness issued in 2016 with nominal value of EUR 212 million will fall due in 2020 and were therefore reclassified to current financial debts.

On 26 September 2018, a bond issued in 2012 in the amount of CHF 250 million reached maturity and was repaid.

13. Contingent liabilities

in CHF m	**Outstanding liabilities 31.12.2019**	Outstanding liabilities 31.12.2018
Outstanding liabilities as guarantees in favor of Group companies	407	379

Clariant Ltd belongs to the Swiss value-added tax (VAT) group of Clariant, and thus carries joint liability to the Swiss federal tax authority for value-added tax.

In 2017 the European Commission (Antitrust) initiated an investigation on Clariant and some of its competitors active in the ethylene purchasing sector in some members states. The investigation is still ongoing. Based on the currently available information and the resulting assessment of the expected outcome of the investigation, one of Clariant Ltd's subsidiaries has set up a provision of CHF 231 million for this case in 2019.

14. Shareholdings of members of the Board of Directors and the Executive Committee

1. Board of Directors

SHARES HELD

Name	**Number of shares granted**	**Value of shares granted**	Number of shares granted[1]	Value of shares granted[1]	**Number of privately held shares**	Number of privately held shares
	for 2019	**for 2019**	for 2018	for 2018	**31.12.2019**	31.12.2018
Hariolf Kottmann	13 953	300 000	6 483[2]	137 504	430 750[5]	404 267
Günter von Au	4 651	100 000	5 992	127 090	64 499	58 507
Evelin Saupper	4 651	100 000	4 715	100 005	20 024	15 309
Carlo G. Soave	4 651	100 000	4 715	100 005	40 778	36 063
Peter Steiner	4 651	100 000	4 715	100 005	14 024	9 309
Claudia Suessmuth Dyckerhoff	4 651	100 000	4 715	100 005	15 124	10 409
Susanne Wamsler	4 651	100 000	4 715	100 005	1 175 286[3]	976 741[3]
Konstantin Winterstein	4 651	100 000	4 715	100 005	6 082 539	6 077 824
Abdullah Mohammed Alissa	4 651	100 000	2 161	45 835	2 161	–
Dr. Khaled Homza Nahas	5 581	120 000	2 594	55 019	2 594	–
Calum MacLean	4 651	100 000	2 161	45 835	2 161	–
Geoffery Merszei	4 651	100 000	2 161	45 835	2 161	–
Former member[4]	–	–	–	175 000	–	–
Total	**66 044**	**1 420 000**	**49 842**	**1 232 148**	**7 852 101**	**7 588 429**

[1] The number of shares granted for the period from annual general meeting to annual general meeting (April to March) as part of the BoD share program will be determined after the balance sheet date. The number disclosed is based on the amount of an estimated fair value of the shares at the grant date. Therefore corrections for the prior-year period were necessary.

[2] Pro rata as of 16 October 2018 in his function as Chairman of the BoD.

[3] Thereof: 240 271 held by the »Honoré T. Wamsler Trust«.

[4] Former BoD members include Rudolf Wehrli and Peter Chen who left 16 October 2018. Pro rata cash payment for 2018 instead of shares

[5] Additionally 8 624 shares in vesting on 31.12.2019 resulting from previous years' participation in LTI plans as CEO..

No options were granted to members of the Board of Directors for the years 2019 and 2018, nor did any member of the Board of Directors hold any options in those years.

For detailed information regarding emoluments of the Board of Directors and the Executive Committee, please refer to the Compensation Report.

2. Executive Committee

SHARES HELD

Name	**Number of shares granted**	**Value of shares granted**	Number of shares granted	Value of shares granted	**Number of shares within vesting period**	Number of shares within vesting period	**Number of privately held shares**	Number of privately held shares
	for 2019	**for 2019**	for 2018	for 2018	**31.12.2019**	31.12.2018	**31.12.2019**	31.12.2018
Bernd Hoegemann[1]	—	—	—	—	26 758	—	56 899	—
Hans Bohnen	47 141	750 013	—	—	62 259	25 084	100 625	87 247
Patrick Jany	47 141	750 013	14 844	373 772	94 052	79 368	417 686	394 713
Former Members[2]	21 556	324 183	15 386	387 420	NA	108 663	NA	320 853
Total	**115 838**	**1 824 209**	**30 230**	**761 192**	**183 069**	**213 115**	**575 210**	**802 813**

[1] Bernd Hoegemann became EC member in November 2019, therefore no shares granted as EC member for 2019. Number of shares within vesting period result from prior LTIP grants in senior leadership roles at Clariant.

[2] Former members include Ernesto Occhiello (CEO) and Christian Kohlpaintner with pro rated grants due to resignation in 2019; 2018 values also include Hariolf Kottmann who retired as CEO in 2018; Hariolf Kottmann did not receive any shares in his role as Executive Chairman in 2019 (see Board of Directors overview).

No options were granted to members of the Executive Committee for the years 2019 and 2018, nor did any member of the Executive Committee hold any options in those years.

For detailed information regarding emoluments of the Board of Directors and the Executive Committee, please refer to the Compensation Report.

15. Voting and legal registration limitations

In accordance with article 5 of the Articles of Incorporation, no limitations exist with regard to registration of shares which are acquired in one's own name and on one's own account. Special rules exist for nominees.

In accordance with article 13 of the Articles of Incorporation, each share has the right to one vote.

16. Significant shareholdings of 3 % or more of total share capital

Based on the notifications received by Clariant and published by SIX Exchange Regulation, as at 31 December 2019 the following shareholders held more than 3 % of voting rights in Clariant Ltd:

Shareholders	Voting rights
SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia	25.67 % [1]
APG Asset Management N.V., Amsterdam, Netherlands	5.01 %
Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Strasslach-Dingharting (Germany) and Maple Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82057 Icking (Germany) [2]	3.49 %
Citadel Multi-Strategy Equities Master Fund Ltd., George Town, Cayman Islands Citadel Securities Financial Trading (Ireland) DAC, Dublin,Ireland Citadel Global Equities (Ireland) DAC, Dublin, Ireland Citadel Global Equities Master Fund Ltd., George Town, Cayman Islands Citadel Multi-Strategy Equities (Ireland) DAC, Dublin, Ireland Citadel Quantitative Strategies Master Fund Ltd., George Town, Cayman Islands [3]	3.285 %
Millennium Partners LP, George Town, Cayman Islands Integrated Core Strategies Asia Pte.Ltd., Singapore [4]	3.04 %

[1] SABIC acquired 24.99 % of the shares of Clariant Ltd on 17 September 2018. The difference between this figure and the above-mentioned 25.67% corresponds to the amount of treasury shares held by Clariant Ltd which have to be aggregated to the shares held by SABIC solely for regulatory disclosure purposes due to the Governance Agreement entered into by SABIC and Clariant on 17 September 2018.

[2] According to a disclosure notification published on 18 December 2018, a group consisting of Konstantin Winterstein, 80333 Munich, Germany, and Elisabeth Prinzessin zu Sayn-Wittgenstein, 80333 Munich, Germany, was formed.

[3] Beneficial owner is Kenneth C. Griffin, c/o Citadel GP LLC, Chicago, USA.

[4] Beneficial owner Israel Englander, New York, United States.

Disclosure notifications during the financial year 2019 reported to the Stock Exchange Disclosure Office pursuant to Art. 120 of the Financial Markets Infrastructure Act (FMIA) as well as further information in relation to disclosure notifications can be found on the SIX Swiss Exchange reporting platform: www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html

On 31 December 2018, the following shareholders held a participation of 3 % or more of the total share capital: SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia 25.67 %; Group of former shareholders of Süd-Chemie AG: 13.96 %, thereof (as a separate sub-group): Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Grossdingharting (Germany), and Maple Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Grossdingharting (Germany): 3.49 %; APG Asset Management N.V., Amsterdam, Netherlands: 5.01 %.

At 31 December 2019, Clariant AG itself held 2 586 765 shares in treasury, corresponding to 0.78 % of the share capital.

17. Events subsequent to the balance sheet date

There were no major events subsequent to the balance sheet date.

Appropriation of available earnings

The Board of Directors proposes to appropriate the profit of 2019 of Clariant Ltd in the amount of CHF 11 295 791 as follows.

Annual result	in CHF
Carried forward from previous year	–
Profit for the year 2019	11 295 791
Total available earnings	**11 295 791**

Appropriation	in CHF
Voluntary retained earnings as at Dec. 31, 2019	1 277 300 539
Transfer to voluntary retained earnings	11 295 791
Voluntary retained earnings as at Jan. 1, 2020	1 288 596 330
Balance to be carried forward	0

Proposed distribution through capital reduction by way of a par value reduction

The Board of Directors proposes (in place of a dividend) a distribution through capital reduction by way of a par value reduction of CHF 0.55 per registered share, as a result of a reduction of the par value reduction from CHF 3.70 to CHF 3.15 per registered share. The proposed payout would reduce the share capital by CHF 182 566 559.45. The proposed payout of the par value reduction of CHF 0.55 is subject to approval by the ordinary General Meeting of shareholders and subject to the fulfillment of the necessary requirements and the entry of the share capital reduction in the Commercial Register of the Canton of Baselland.

If approved by the Annual General Meeting the payment will be made as soon as practicable, following the expiry of the two-month-period pursuant to article 733 Swiss Code of Obligations and the subsequent registration of the share capital reduction in the Commercial Register.

Proposed extraordinary distribution (conditional resolution)

Appropriation after extraordinary distribution if capital contribution reserves (foreign) have been confirmed by the Swiss Federal Tax Administration	in CHF
Voluntary retained earnings as at Jan. 1, 2020	1 288 596 330.00
Reclassification of voluntary retained earnings into statutory reserves	–220 000 000.00
Reclassification of capital contribution reserves (foreign) into voluntary retained earnings	587 532 382.20[1]
Reclassification of capital contribution reserves (other) into voluntary retained earnings	204 142 607.40[1]
Proposed distribution from capital contribution reserves (after reclassification)	–791 674 989.60[1]
Proposed distribution from voluntary retained earnings	–204 142 607.40[1]
Voluntary retained earnings after extraordinary distribution	**864 453 722.60**

[1] Based on the number of shares issued on the day of the invitation. Treasury shares held by Clariant Ltd or its subsidiaries are not eligible for distribution and will not be taken into account.

The composition of the extraordinary distribution (confirmed capital contribution reserves (foreign and other) and voluntary retained earnings) is subject to definitive and formal approval by the Swiss Federal Tax Administration (on Form 170 new version). If such approval shall not be given by the Swiss Federal Tax Administration by the time of the extraordinary distribution, the extraordinary distribution may otherwise be paid as follws:

Appropriation after extraordinary distribution if capital contribution reserves (foreign) have not been confirmed by the swiss federal tax administration	in CHF
Voluntary retained earnings as at Jan. 1, 2020	1 288 596 330.00
Reclassification of voluntary retained earnings into statutory reserves	–220 000 000.00
Reclassification of capital contribution reserves (foreign) into voluntary retained earnings	254 265 426.43[1]
Reclassification of capital contribution reserves (other) into voluntary retained earnings	243 643 372.07[1]
Proposed distribution from capital contribution reserves (after reclassification)	–497 908 798.50[1]
Proposed distribution from voluntary retained earnings	–497 908 798.50[1]
Voluntary retained earnings after extraordinary distribution	**570 687 531.50**

[1] Based on the number of shares issued on the day of the invitation. Treasury shares held by Clariant Ltd or its subsidiaries are not eligible for distribution and will not be taken into account.

This extraordinary distribution shall be subject to the condition precedent that the closing of the share purchase agreement by and between Clariant Ltd and PolyOne Corporation regarding the sale and purchase of Clariant's global Masterbatches business (excluding India) shall have occurred. The Board of Directors shall inform the shareholders by press release about the satisfaction of this condition precedent.

The Board of Directors shall set the ex-date, the record date and the payment date of the extraordinary distribution. Payment shall be made as soon as practicable following the satisfaction of the condition precedent.

Report of the statutory auditor

to the General Meeting of Clariant Ltd

Muttenz

Report on the audit of the financial statements

Opinion

We have audited the financial statements of Clariant Ltd, which comprise the balance sheet as at 31 December 2019, income statement and notes for the year then ended, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 72 to 82) as at 31 December 2019 comply with Swiss law and the company's articles of incorporation.

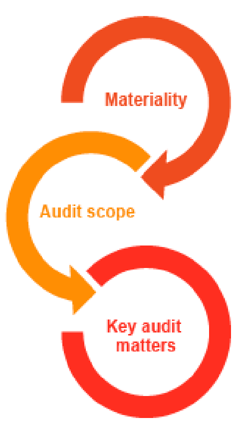
Basis for opinion

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the financial statements" section of our report.

We are independent of the entity in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our audit approach

Overview



Overall materiality: CHF 21 million

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the financial statements as a whole, taking into account the structure of the entity, the accounting processes and controls, and the industry in which the entity operates.

As key audit matters the following areas of focus have been identified:

- Investigation by the European Commission in the ethylene purchasing market
- Valuation of shareholdings in and loans to Group companies

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Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the financial statements as a whole.

Overall materiality	CHF 21 million
How we determined it	0.4% of total assets
Rationale for the materiality benchmark applied	We chose total assets as the benchmark because, in our view, it is the most relevant measure for the activities of Clariant Ltd as a holding company.

We agreed with the Audit Committee that we would report to them misstatements above CHF 1 million identified during our audit as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

Audit scope

We designed our audit by determining materiality and assessing the risks of material misstatement in the financial statements. In particular, we considered where subjective judgements were made; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Investigation by the European Commission in the ethylene purchasing market

Key audit matter	How our audit addressed the key audit matter
Since 2017, Clariant has been party to an ongoing competition law investigation by the European Commission relating to the ethylene purchasing market. The investigation is ongoing, and a subsidiary of Clariant Ltd recorded a provision of CHF 231 million in 2019 based on the information available at the time to management and the Board of Directors. The outcome of the investigation is uncertain both in terms of the future course of the proceedings and the size of any fines which might be imposed. Please refer to page 79 (Contingent liabilities, note 13) in the notes to the financial statements.	We discussed the status of the ongoing investigation with in-house and external legal counsel and considered the relevant correspondence and minutes of the Board of Directors' and management meetings. We obtained letters from external legal counsel to confirm our understanding of the status and of their assessment of the investigation. We also used internal PwC legal specialists to assist us in assessing the status of the investigation and the appropriateness of the approach taken and the provision recorded by management and the Board of Directors. We discussed our assessment with management, the Audit Committee and the Board of Directors, and we obtained written representations from the company in relation to the case. As set out in the notes to the financial statements, the outcome of the pending investigation depends on future developments and therefore the exposure to risk of Clariant Ltd, as assessed by management and the Board of Directors, is subject to inherent uncertainty.

	On the basis of the procedures performed and the information obtained, we are satisfied that the approach taken by management and the Board of Directors was appropriate.

Valuation of shareholdings in and loans to Group companies

Key audit matter	How our audit addressed the key audit matter
We consider the valuation of shareholdings in and loans to Group companies to be a key audit matter owing to the significant scope for judgement involved with respect to the assumptions and the discount rates applied for the valuations of the shareholdings as well as to the significance of these shareholdings and loans on the balance sheet. Please refer to pages 74 to 75 (Shareholdings in Group companies, note 5) in the notes to the financial statements.	We evaluated and challenged management's assumptions and the discount rates applied for the valuations of the shareholdings. We assessed management's process in grouping together certain shareholdings and the application of generally accepted valuation methods to calculate their value. We tested the calculation method and we compared the input figures used with the Group's accounting records. We also compared the actual results of the year under review with the figures included in the forecasts made in the prior year in order to assess with hindsight whether any of the assumptions underlying the forecasts might have been too optimistic. We assessed the assumptions relating to the forecasts and found them to be consistent with actual developments and reasonable. We involved PwC valuation specialists to assess the discount rate by comparing the rates with market information. We also tested the valuations of the loans to group companies based on these companies' financial positions. On the basis of work performed, we consider the approach, assumptions and discount rate used by management to support the carrying value of the shareholdings in and loans to Group companies to be reasonable.

Responsibilities of the Board of Directors for the financial statements

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located at the website of EXPERTsuisse: http://expertsuisse.ch/en/audit-report-for-public-companies. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of reserves complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Rolf Johner	Michael Scheibli
Audit expert Auditor in charge	Audit expert

Basel, 11 February 2020

Forward-looking statements

Forward-looking statements contained herein are qualified in their entirety as there are certain factors that could cause results to differ materially from those anticipated. Investors are cautioned that all forward-looking statements involve risks and uncertainty. In addition to the factors discussed above, among the factors that could cause actual results to differ materially are the following: the timing and strength of new product offerings; pricing strategies of competitors; the company's ability to continue to receive adequate products from its vendors on acceptable terms, or at all, and to continue to obtain sufficient financing to meet its liquidity needs; and changes in the political, social and regulatory framework in which the company operates or in economic or technological trends or conditions, including currency fluctuations, inflation and consumer confidence, on a global, regional, or national basis.

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