HALF-YEAR FINANCIAL REPORT

2019 EDITION

SANOFI

Empowering Life

2019 HALF-YEAR FINANCIAL REPORT

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1. CONDENSED HALF-YEAR CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED BALANCE SHEETS – ASSETS

(€ million)	Note	June 30, 2019	December 31, 2018
Property, plant and equipment	**B.2.**	9,606	9,651
Right-of-use assets [(a)]		1,105	—
Goodwill	**B.3.**	44,418	44,235
Other intangible assets	**B.3.**	19,098	21,889
Investments accounted for using the equity method	**B.5.**	3,536	3,402
Other non-current assets	**B.6.**	2,261	2,971
Deferred tax assets		5,137	4,613
Non-current assets		**85,161**	**86,761**
Inventories		8,423	7,477
Accounts receivable	**B.7.**	7,229	7,260
Other current assets		2,920	2,917
Cash and cash equivalents	**B.9.**	6,742	6,925
Current assets		**25,314**	**24,579**
Assets held for sale or exchange		70	68
TOTAL ASSETS		**110,545**	**111,408**

(a) See Note A.1.2.

The accompanying notes on pages 10 to 50 are an integral part of the condensed half-year consolidated financial statements.

CONSOLIDATED BALANCE SHEETS — SHAREHOLDERS' EQUITY AND LIABILITIES

(€ million)	Note	June 30, 2019	December 31, 2018
Equity attributable to equity holders of Sanofi		56,353	58,876
Equity attributable to non-controlling interests		165	159
Total equity	**B.8.**	**56,518**	**59,035**
Long-term debt	**B.9.**	21,087	22,007
Non-current lease liabilities [(a)]		958	—
Non-current liabilities related to business combinations and to non-controlling interests	**B.11.**	739	963
Non-current provisions and other non-current liabilities	**B.12.**	9,099	8,613
Deferred tax liabilities		2,938	3,414
Non-current liabilities		**34,821**	**34,997**
Accounts payable		5,082	5,041
Current liabilities related to business combinations and to non-controlling interests	**B.11.**	273	341
Current provisions and other current liabilities		9,200	9,361
Current lease liabilities [(a)]		240	—
Short-term debt and current portion of long-term debt	**B.9.**	4,411	2,633
Current liabilities		**19,206**	**17,376**
Liabilities related to assets held for sale or exchange		—	—
TOTAL EQUITY AND LIABILITIES		**110,545**	**111,408**

(a) See Note A.1.2.

The accompanying notes on pages 10 to 50 are an integral part of the condensed half-year consolidated financial statements.

CONSOLIDATED INCOME STATEMENTS

(€ million)	Note	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Net sales	**B.20.**	**17,019**	**16,074**	**34,463**
Other revenues		674	533	1,214
Cost of sales		(5,385)	(5,265)	(11,435)
Gross profit		**12,308**	**11,342**	**24,242**
Research and development expenses		(2,972)	(2,755)	(5,894)
Selling and general expenses		(4,835)	(4,819)	(9,859)
Other operating income	**B.15.**	273	323	484
Other operating expenses	**B.15.**	(466)	(165)	(548)
Amortization of intangible assets	**B.3.**	(1,116)	(999)	(2,170)
Impairment of intangible assets	**B.4.**	(1,840)	(101)	(718)
Fair value remeasurement of contingent consideration	**B.6. - B.11.**	190	10	117
Restructuring costs and similar items	**B.16.**	(747)	(607)	(1,480)
Other gains and losses, and litigation	**B.17.**	317	(67)	502
Operating income		**1,112**	**2,162**	**4,676**
Financial expenses	**B.18.**	(244)	(202)	(435)
Financial income	**B.18.**	94	97	164
Income before tax and investments accounted for using the equity method		**962**	**2,057**	**4,405**
Income tax expense	**B.19.**	(13)	(297)	(481)
Share of profit/(loss) from investments accounted for using the equity method		116	75	499
Net income excluding the exchanged/held-for-exchange Animal Health business		**1,065**	**1,835**	**4,423**
Net income/(loss) of the exchanged/held-for-exchange Animal Health business		—	—	(13)
Net income		**1,065**	**1,835**	**4,410**
Net income attributable to non-controlling interests		15	57	104
Net income attributable to equity holders of Sanofi		**1,050**	**1,778**	**4,306**
Average number of shares outstanding (million)	**B.8.7.**	1,247.2	1,247.8	1,247.1
Average number of shares after dilution (million)	**B.8.7.**	1,254.7	1,254.9	1,255.2
– Basic earnings per share (in euros)		0.84	1.42	3.45
– Basic earnings per share excluding the exchanged/held-for-exchange Animal Health business (in euros)		0.84	1.42	3.46
– Diluted earnings per share (in euros)		0.84	1.42	3.43
– Diluted earnings per share excluding the exchanged/held-for-exchange Animal Health business (in euros)		0.84	1.42	3.44

The accompanying notes on pages 10 to 50 are an integral part of the condensed half-year consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(€ million)	Note	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Net income		**1,065**	**1,835**	**4,410**
Attributable to equity holders of Sanofi		*1,050*	*1,778*	*4,306*
Attributable to non-controlling interests		*15*	*57*	*104*
Other comprehensive income:				
. Actuarial gains/(losses)	**B.8.8.**	(535)	118	201
· Change in fair value of equity instruments included in financial assets	**B.8.8.**	34	(213)	(537)
. Tax effects	**B.8.8.**	117	12	31
Sub-total: items not subsequently reclassifiable to profit or loss (A)		**(384)**	**(83)**	**(305)**
· Change in fair value of debt instruments included in financial assets	**B.8.8.**	28	(1)	(4)
· Change in fair value of cash flow hedges	**B.8.8.**	(15)	5	3
· Change in currency translation differences	**B.8.8.**	410	804	1,194
. Tax effects	**B.8.8.**	17	(2)	71
Sub-total: items subsequently reclassifiable to profit or loss (B)		**440**	**806**	**1,264**
Other comprehensive income for the period, net of taxes (A+B)		**56**	**723**	**959**
Comprehensive income		**1,121**	**2,558**	**5,369**
Attributable to equity holders of Sanofi		*1,105*	*2,504*	*5,269*
Attributable to non-controlling interests		*16*	*54*	*100*

The accompanying notes on pages 10 to 50 are an integral part of the condensed half-year consolidated financial statements.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(€ million)	Share capital	Additional paid-in capital and retained earnings	Treasury shares	Stock options and other share-based payments	Other comprehensive income	Attributable to equity holders of Sanofi	Attributable to non-controlling interests	Total equity
Balance at January 1, 2017 [a]	**2,584**	**51,475**	**(1,503)**	**3,032**	**1,964**	**57,552**	**170**	**57,722**
Other comprehensive income for the period	—	(117)	—	—	(2,548)	(2,665)	(15)	(2,680)
Net income for the period [a]	—	8,416	—	—	—	8,416	121	8,537
Comprehensive income for the period [a]	**—**	**8,299**	**—**	**—**	**(2,548)**	**5,751**	**106**	**5,857**
Dividend paid out of 2016 earnings (€2.96 per share)	—	(3,710)	—	—	—	(3,710)	—	(3,710)
Payment of dividends to non-controlling interests	—	—	—	—	—	—	(99)	(99)
Share repurchase program [b]	—	—	(2,159)	—	—	(2,159)	—	(2,159)
Reductions in share capital	(94)	(3,554)	3,648	—	—	—	—	—
Share-based payment plans:								
. Exercise of stock options	8	215	—	—	—	223	—	223
. Issuance of restricted shares	7	(7)	—	—	—	—	—	—
. Employee share ownership plan	3	103	—	—	—	106	—	106
. Value of services obtained from employees	—	—	—	263	—	263	—	263
. Tax effects of the exercise of stock options	—	—	—	3	—	3	—	3
Other changes arising from issuance of restricted shares [c]	—	16	—	—	—	16	—	16
Change in non-controlling interests without loss of control	—	25	—	—	—	25	(1)	24
Change in non-controlling interests arising from divestment	—	—	—	—	—	—	(7)	(7)
Balance at December 31, 2017 [a]	**2,508**	**52,862**	**(14)**	**3,298**	**(584)**	**58,070**	**169**	**58,239**

(€ million)	Share capital	Additional paid-in capital and retained earnings	Treasury shares	Stock options and other share-based payments	Other comprehensive income	Attributable to equity holders of Sanofi	Attributable to non-controlling interests	Total equity
Balance at January 1, 2018 [a]	**2,508**	**52,862**	**(14)**	**3,298**	**(584)**	**58,070**	**169**	**58,239**
First-time application of IFRS 9 [d]	—	839	—	—	(852)	(13)	—	(13)
Other comprehensive income for the period	—	(83)	—	—	809	726	(3)	723
Net income for the period	—	1,778	—	—	—	1,778	57	1,835
Comprehensive income for the period	**—**	**1,695**	**—**	**—**	**809**	**2,504**	**54**	**2,558**
Dividend paid out of 2017 earnings (€3.03 per share)	—	(3,773)	—	—	—	(3,773)	—	(3,773)
Payment of dividends to non-controlling interests	—	—	—	—	—	—	(51)	(51)
Share repurchase program [b]	—	—	(729)	—	—	(729)	—	(729)
Reductions in share capital	(14)	(498)	512	—	—	—	—	—
Share-based payment plans:					—	—	—	—
. Exercise of stock options	—	6	—	—	—	6	—	6
. Issuance of restricted shares and vesting of existing restricted shares [e]	4	(83)	79	—	—	—	—	—
. Value of services obtained from employees	—	—	—	151	—	151	—	151
. Tax effects of the exercise of stock options	—	—	—	7	—	7	—	7
Other changes arising from issuance of restricted shares [c]	—	13	—	—	—	13	—	13
Change in non-controlling interests without loss of control	—	(39)	—	—	—	(39)	(8)	(47)
Balance at June 30, 2018	**2,498**	**51,022**	**(152)**	**3,456**	**(627)**	**56,197**	**164**	**56,361**
Other comprehensive income for the period	—	(222)	—	—	459	237	(1)	236
Net income for the period	—	2,528	—	—	—	2,528	47	2,575
Comprehensive income for the period	**—**	**2,306**	**—**	**—**	**459**	**2,765**	**46**	**2,811**
Payment of dividends to non-controlling interests	—	—	—	—	—	—	(46)	(46)
Share repurchase program [b]	—	—	(371)	—	—	(371)	—	(371)
Reductions in share capital	(10)	(358)	368	—	—	—	—	—
Share-based payment plans:								
. Exercise of stock options	2	51	—	—	—	53	—	53
. Issuance of restricted shares and vesting of existing restricted shares [e]	—	(1)	1	—	—	—	—	—
. Employee share ownership plan	5	115	—	—	—	120	—	120
. Proceeds from sale of treasury shares on exercise of stock options	—	—	1	—	—	1	—	1
. Value of services obtained from employees	—	—	—	133	—	133	—	133
. Tax effects of the exercise of stock options	—	—	—	7	—	7	—	7
Change in non-controlling interests without loss of control	—	(29)	—	—	—	(29)	11	(18)
Change in non-controlling interests arising from divestment	—	—	—	—	—	—	(16)	(16)
Balance at December 31, 2018	**2,495**	**53,106**	**(153)**	**3,596**	**(168)**	**58,876**	**159**	**59,035**

(€ million)	Share capital	Additional paid-in capital and retained earnings	Treasury shares	Stock options and other share-based payments	Other comprehensive income	Attributable to equity holders of Sanofi	Attributable to non-controlling interests	Total equity
Balance at December 31, 2018	**2,495**	**53,106**	**(153)**	**3,596**	**(168)**	**58,876**	**159**	**59,035**
Other comprehensive income for the period	—	(384)	—	—	439	55	1	56
Net income for the period	—	1,050	—	—	—	1,050	15	1,065
Comprehensive income for the period	**—**	**666**	**—**	**—**	**439**	**1,105**	**16**	**1,121**
Dividend paid out of 2018 earnings (€3.07 per share)	—	(3,834)	—	—	—	(3,834)	—	(3,834)
Payment of dividends to non-controlling interests	—	—	—	—	—	—	(10)	(10)
Share repurchase program [(b)]	—	—	(12)	—	—	(12)	—	(12)
Share-based payment plans:								
. Exercise of stock options	2	42	—	—	—	44	—	44
. Issuance of restricted shares and vesting of existing restricted shares [(e)]	7	(160)	153	—	—	—	—	—
. Proceeds from sale of treasury shares on exercise of stock options	—	—	3	—	—	3	—	3
. Value of services obtained from employees	—	—	—	131	—	131	—	131
. Tax effects of the exercise of stock options	—	—	—	3	—	3	—	3
Other changes arising from issuance of restricted shares [(c)]	—	30	—	—	—	30	—	30
Change in non-controlling interests arising from divestment	—	7	—	—	—	7	—	7
Balance at June 30, 2019	**2,504**	**49,857**	**(9)**	**3,730**	**271**	**56,353**	**165**	**56,518**

(a) Includes the effects of first-time application of IFRS 15 on revenue recognition (see Note A.2.1.1. to the consolidated financial statements for the year ended December 31, 2018).
(b) See Note B.8.2.
(c) Issuance of restricted shares to former employees of the Animal Health business and the European Generics business subsequent to the date of divestment.
(d) See Note A.2.1.2. to the consolidated financial statements for the year ended December 31, 2018.
(e) This line includes restricted share awards fulfilled using existing shares.

The accompanying notes on pages 10 to 50 are an integral part of the condensed half-year consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(€ million)	Note	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Net income attributable to equity holders of Sanofi		**1,050**	**1,778**	**4,306**
Net (income)/loss of the exchanged/held-for-exchange Animal Health business		—	—	13
Non-controlling interests, excluding BMS [(b)]		15	15	22
Share of undistributed earnings from investments accounted for using the equity method		(82)	(59)	(471)
Depreciation, amortization and impairment of property, plant and equipment, right-of-use assets and intangible assets [(a)]		3,779	1,779	4,279
Gains and losses on disposals of non-current assets, net of tax [(c)]		(63)	(217)	(797)
Net change in deferred taxes		(818)	(330)	(727)
Net change in non-current provisions and other non-current liabilities [(d)]		(27)	(56)	(265)
Cost of employee benefits (stock options and other share-based payments)		131	152	284
Impact of the workdown of acquired inventories remeasured at fair value		3	100	114
Other profit or loss items with no cash effect		(12)	119	69
Operating cash flow before changes in working capital and excluding the exchanged/held-for-exchange Animal Health business		**3,976**	**3,281**	**6,827**
(Increase)/decrease in inventories		(934)	(627)	(701)
(Increase)/decrease in accounts receivable		90	571	(35)
Increase/(decrease) in accounts payable		(49)	(219)	270
Net change in other current assets and other current liabilities		96	(1,232)	(814)
Net cash provided by/(used in) operating activities excluding the exchanged/held-for-exchange Animal Health business [(e)]		**3,179**	**1,773**	**5,547**
Acquisitions of property, plant and equipment and intangible assets	**B.2. – B.3.**	(841)	(823)	(1,977)
Acquisitions of consolidated undertakings and investments accounted for using the equity method [(f)]	**B.1.**	(134)	(12,784)	(12,857)
Acquisitions of other equity investments		(24)	(32)	(137)
Proceeds from disposals of property, plant and equipment, intangible assets and other non-current assets, net of tax [(g)]	**B.6.**	867	486	2,163
Net change in other non-current assets		(33)	67	(58)
Net cash provided by/(used in) investing activities excluding the exchanged/held-for-exchange Animal Health business		**(165)**	**(13,085)**	**(12,866)**
Net cash inflow/(outflow) from the exchange of the Animal Health business for BI's Consumer Healthcare business		**—**	**5**	**(6)**
Issuance of Sanofi shares	**B.8.1.**	58	19	177
Dividends paid:				
. to shareholders of Sanofi		(3,834)	(3,773)	(3,773)
. to non-controlling interests, excluding BMS [(b)]		(9)	(10)	(14)
Payments received/(made) on changes of ownership interest in a subsidiary without loss of control		—	(45)	(77)
Additional long-term debt contracted	**B.9.1.**	1,994	9,674	9,677
Repayments of long-term debt	**B.9.1.**	(1,261)	(25)	(787)
Repayment of lease liabilities [(a)]		(135)	—	—
Net change in short-term debt		(13)	3,383	(168)
Acquisitions of treasury shares	**B.8.2**	(12)	(730)	(1,101)
Disposals of treasury shares		3	—	—
Net cash provided by/(used in) financing activities excluding the exchanged/held-for-exchange Animal Health business		**(3,209)**	**8,494**	**3,934**

(€ million)	Note	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Impact of exchange rates on cash and cash equivalents		**12**	**(9)**	**1**
Net change in cash and cash equivalents		**(183)**	**(2,822)**	**(3,390)**
Cash and cash equivalents, beginning of period		**6,925**	**10,315**	**10,315**
Cash and cash equivalents, end of period	**B.9.**	**6,742**	**7,493**	**6,925**

(a) See Note A.1.2.
(b) See Note C.2. to the financial statements for the year ended December 31, 2018.
(c) Includes non-current financial assets.
(d) This line item includes contributions paid to pension funds (see Note B.12.).
(e) Of which:

– Income tax paid	(724)	(1,061)	(2,058)
– Interest paid	(202)	(161)	(313)
– Interest received	56	31	72
– Dividends received from non-consolidated entities	1	—	1

(f) This line item includes payments made in respect of contingent consideration identified and recognized as a liability in business combinations.
(g) This line item includes proceeds from disposals of investments in consolidated entities and of other non-current financial assets. For the year ended December 31 2018, it includes an amount of €1,598 million (net of transaction costs) for the divestment of the European Generics business (see Note D.1.1 to the consolidated financial statements for the year ended December 31, 2018). In the first half of 2019 it includes the divestment of Sanofi's entire equity interests in Alnylam and MyoKardia.

NOTES TO THE CONDENSED HALF-YEAR CONSOLIDATED FINANCIAL STATEMENTS AS OF JUNE 30, 2019

INTRODUCTION

Sanofi, together with its subsidiaries (collectively "Sanofi" or "the Company"), is a global healthcare leader engaged in the research, development and marketing of therapeutic solutions focused on patient needs.

Sanofi is listed in Paris (Euronext: SAN) and New York (Nasdaq: SNY).

The condensed consolidated financial statements for the six months ended June 30, 2019 were reviewed by the Sanofi Board of Directors at the Board meeting on July 26, 2019.

A/ BASIS OF PREPARATION OF THE HALF-YEAR FINANCIAL STATEMENTS AND ACCOUNTING POLICIES

A.1. INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)

The half-year consolidated financial statements have been prepared and presented in condensed format in accordance with IAS 34 (Interim Financial Reporting). The accompanying notes therefore relate to significant events and transactions of the period, and should be read in conjunction with the consolidated financial statements for the year ended December 31, 2018.

The accounting policies used in the preparation of the consolidated financial statements as of June 30, 2019 comply with international financial reporting standards (IFRS) as endorsed by the European Union and as issued by the International Accounting Standards Board (IASB). IFRS as endorsed by the European Union as of June 30, 2019 are available via the following web link:

https://www.efrag.org/Endorsement

With the exception of the lease accounting policies described in Note A.1.1, the accounting policies applied effective January 1, 2019 are identical to those presented in the consolidated financial statements for the year ended December 31, 2018.

An amendment has been made to IAS 19, requiring an entity that remeasures a pension obligation due to an event (plan amendment, curtailment or settlement) to use the new assumptions available as of the date of that event in determining service cost and net interest cost with effect from that date. Applying this amendment did not have a material impact on the condensed consolidated half-year financial statements.

The other standards and interpretations issued by the IASB and endorsed by the European Union that became applicable on January 1, 2019 had no impact on the Sanofi consolidated financial statements.

Sanofi early adopted IFRIC 23 (Uncertainty over Income Tax Treatments) effective January 1, 2018. As described in Note B.12., "Non-current provisions and other non-current liabilities", tax exposures relating to corporate income taxes, which were previously classified as provisions, are presented separately within ***Other non-current liabilities*** effective January 1, 2018.

A.1.1. UPDATE TO SIGNIFICANT ACCOUNTING POLICIES EFFECTIVE JANUARY 1, 2019

IFRS 16 became applicable on January 1, 2019, requiring Sanofi to update its lease accounting policies as described below. Most of the leases contracted by Sanofi relate to industrial and office premises, cars and various items of plant and equipment, with Sanofi as the lessee.

Sanofi recognizes a right-of-use asset and a lease liability for all of its lease contracts, except for (i) leases relating to low-value assets and (ii) short-term leases (12 months or less). Payments made in respect of leases not recognized on the balance sheet are recognized as an operating expense on a straight line basis over the lease term.

On inception of a lease, the liability for future lease payments is discounted at the incremental borrowing rate, which is a risk-free rate adjusted to reflect the specific risk profile of each Sanofi entity. Because lease payments are spread over the lease term, Sanofi applies a discount rate based on the duration of those payments.

The payments used to determine the liability for future lease payments exclude non-lease components, but include fixed payments that Sanofi expects to make to the lessor over the probable lease term (limited to the period within which Sanofi has a unilateral right to extend the lease without the lessor's consent).

After inception of the lease, the liability for future lease payments is reduced by the amount of the lease payments made, and increased to reflect interest on the liability. In the event of a reassessment or amendment of future lease payments, the lease liability is remeasured.

After inception of the lease, the right-of-use asset – which is initially measured at cost – is depreciated on a straight line basis over the lease term, and tested for impairment as required.

Sanofi recognizes deferred taxes in respect of right-of-use assets and lease liabilities.

Note that fixtures are depreciated over their economic life, which is no greater than the lease term as determined under IFRS 16.

A.1.2 IMPACTS OF THE FIRST-TIME APPLICATION OF IFRS 16

Under IAS 17, most of the leases contracted by Sanofi were classified as operating leases in which Sanofi was the lessee.

For most of those leases, the first-time application of IFRS 16 effective January 1, 2019 has resulted in the recognition on the balance sheet of (i) a liability for future lease payments and (ii) a right-of-use asset. IFRS 16 has also led to the following changes in presentation:

- Balance sheet: Sanofi now presents right-of-use assets, non-current lease liabilities and current lease liabilities as separate line items.
- Income statement: the rental expense previously recognized as a component of ***Operating income*** is now presented partly as ***depreciation expense*** (within ***Operating income***), and partly as interest expense within ***Financial expenses***.
- In the statement of cash flows: the rental payments previously presented within ***Net cash provided by/(used in) operating activities*** are now presented within ***Net cash provided by/(used in) financing activities*** to the extent that those payments are allocated to repayment of the lease liability.

Sanofi has elected the simplified retrospective method for first-time application of IFRS 16, which involves recognizing a right-of-use asset equal to the amount of the lease liability. Under that method, comparative periods are not restated.

Consequently, for all leases (other than short-term leases and leases of low-value assets), a right-of-use asset was recognized on the balance sheet for an amount equal to the liability for future lease payments, adjusted by the amount of any prepaid or accrued lease payments. Amounts previously recognized in the financial statements for leases classified as finance leases under IAS 17 have remained unchanged. However, they have been reclassified from ***Property, plant and equipment*** to ***Right-of-use assets***.

The lease liability recognized as of January 1, 2019 has been discounted at an average incremental borrowing rate of 3.5%.

Sanofi has applied the following practical expedients available under IFRS 16 at the transition date:

- Leases with a lease term that ends between January 1, 2019 and December 31, 2019 have been treated as short-term leases and have not been capitalized, except for vehicle fleet leases.
- Initial direct costs have been excluded from the initial measurement of the right-of-use asset.
- The carrying amount of the right-of-use asset has not been subject to impairment testing under IAS 36, because it is regarded as having already been tested as part of the review of onerous contracts conducted under IAS 37 in 2018.

Finally, Sanofi has not identified any material embedded leases within service or supply contracts.

Impact on the balance sheet at the transition date [(a)]

(€ million)	December 31, 2018 as published	Impact of first-time application of IFRS 16		January 1, 2019
	(IAS 17)	Reclassification	Initial recognition	(IFRS 16)
Property, plant and equipment	9,651	(23)	-	9,628
Right-of-use assets	-	(66)	1,252	1,186
Other current and non-current assets	5,888	(11)	-	5,877
Short-term debt and long-term debt	(24,640)	22	-	(24,618)
Current and non-current lease liabilities	-	(22)	(1,252)	(1,274)
Provisions and other current and non-current liabilities	(17,974)	100	-	(17,874)

(a) Debits are shown as positive amounts and credits as negative amounts.

Reconciliation between lease commitments under IAS 17 and lease liabilities under IFRS 16

(€ million)	
Undiscounted lease commitments as of December 31, 2018	**2,427**
Leases contracted in 2018 but taking effect after 2018 [(a)]	(1,011)
Impact of renewal options	114
Short-term leases and leases of low-value assets	(21)
Other	(21)
Undiscounted future lease payments as of January 1, 2019	**1,488**
Effect of discounting	(236)
Finance leases	22
Lease liabilities as of January 1, 2019	**1,274**

(a) Mainly relates to a new lease contracted in the United States.

Repayments of the (undiscounted) lease liability break down as follows: 19% within less than 1 year, 45% between 1 and 5 years, 36% after more than 5 years.

There has been no material change in right-of-use assets between January 1, 2019 and June 30, 2019.

A.2. USE OF ESTIMATES

The preparation of financial statements requires management to make reasonable estimates and assumptions based on information available at the date the financial statements are finalized. Those estimates and assumptions may affect the reported amounts of assets, liabilities, revenues and expenses in the financial statements, and disclosures of contingent assets and contingent liabilities as of the date of the review of the financial statements. Examples of estimates and assumptions include:

- amounts deducted from sales for projected sales returns, chargeback incentives, rebates and price reductions;
- impairment of property, plant and equipment, intangible assets, and investments accounted for using the equity method;
- the valuation of goodwill and the valuation and useful life of acquired intangible assets;
- the measurement of contingent consideration receivable in connection with asset divestments;
- the measurement of equity investments in unquoted entities;
- the amount of post-employment benefit obligations;
- the amount of provisions for restructuring, litigation, and environmental risks;
- liabilities relating to uncertain tax positions;
- the amount of deferred tax assets resulting from tax losses available for carry-forward and deductible temporary differences; and
- the measurement of contingent consideration liabilities.

Actual results could differ from these estimates.

For half-year financial reporting purposes, and as allowed under IAS 34, Sanofi has determined income tax expense on the basis of an estimate of the effective tax rate for the full financial year. That rate is applied to business operating income plus financial income and minus financial expenses, and before (i) the share of profit/loss of investments accounted for using the equity method and (ii) net income attributable to non-controlling interests. The estimated full-year effective tax rate is based on the tax rates that will be applicable to projected pre-tax profits or losses arising in the various tax jurisdictions in which Sanofi operates.

A.3. SEASONAL TRENDS

Sanofi's activities are not subject to significant seasonal fluctuations.

A.4. CONSOLIDATION AND FOREIGN CURRENCY TRANSLATION OF THE FINANCIAL STATEMENTS OF SUBSIDIARIES IN HYPERINFLATIONARY ECONOMIES

In 2019, Sanofi is continuing to account for subsidiaries based in Venezuela using the full consolidation method, on the basis that the criteria for control as specified in IFRS 10 (Consolidated Financial Statements) are still met. In 2018, the Venezuelan government made further changes to the foreign exchange system, replacing the "DICOM" rate with the "PETRO" rate (with a floating US dollar/bolivar parity) and the strong bolivar ("VEF") with a new currency known as the sovereign bolivar ("VES"), reflecting a 1-for-100,000 devaluation. Consequently, the contribution of the Venezuelan subsidiaries to the Sanofi consolidated financial statements is immaterial.

In Argentina, the cumulative rate of inflation over the last three years is in excess of 100%, based on a combination of indices used to measure inflation in that country. Consequently, Sanofi has treated Argentina as a hyperinflationary economy from July 1, 2018 onwards, and applies IAS 29. The impact of adjustments required for the application of IAS 29 to Argentinean hyperinflation as of June 30, 2019 is immaterial.

A.5 FAIR VALUE OF FINANCIAL INSTRUMENTS

Under IFRS 13 (Fair Value Measurement) and IFRS 7 (Financial Instruments: Disclosures), fair value measurements must be classified using a hierarchy based on the inputs used to measure the fair value of the instrument. This hierarchy has three levels:

- Level 1: quoted prices in active markets for identical assets or liabilities (without modification or repackaging);
- Level 2: quoted prices in active markets for similar assets or liabilities, or valuation techniques in which all important inputs are derived from observable market data;
- Level 3: valuation techniques in which not all important inputs are derived from observable market data.

The table below shows the disclosures required under IFRS 7 relating to the measurement principles applied to financial instruments.

Note	Type of financial instrument	Measurement principle	Level in fair value hierarchy	Valuation technique	Method used to determine fair value			
						Market data		
					Valuation model	Exchange rate	Interest rate	Volatilities
B.6.	Financial assets measured at fair value (quoted equity instruments)	Fair value	1	Market value	Quoted market price	N/A		
B.6.	Financial assets measured at fair value (quoted debt instruments)	Fair value	1	Revenue-based approach	Quoted market price	N/A		
B.6.	Financial assets measured at fair value (unquoted equity instruments)	Fair value	3	Amortized cost/ Peer comparison (primarily)	If cost ceases to be a representative measure of fair value, an internal valuation based primarily on peer comparison is used.			
B.6.	Financial assets at fair value (contingent consideration receivable):	Fair value	3	Revenue-based approach	Under IFRS 9, contingent consideration receivable on a divestment is a financial asset. The fair value of such assets is determined by adjusting the contingent consideration at the end of the reporting period using the method described in Note D.7. to the consolidated financial statements for the year ended December 31, 2018.			
B.6.	Long-term loans and advances and other non-current receivables	Amortized cost	N/A	N/A	The amortized cost of long-term loans and advances and other non-current receivables at the end of the reporting period is not materially different from their fair value.			
B.6.	Financial assets recognized under the fair value option[(a)]	Fair value	1	Market value	Net asset value	N/A		
B.10.	Forward currency contracts	Fair value	2	Revenue-based approach	Present value of future cash flows	Mid Market Spot	< 1 year: Mid Money Market > 1 year: Mid Zero Coupon	N/A
B.10.	Interest rate swaps	Fair value	2		Present value of future cash flows	Mid Market Spot	< 1 year: Mid Money Market and LIFFE interest rate futures > 1 year: Mid Zero Coupon	N/A
B.10.	Cross-currency swaps	Fair value	2		Present value of future cash flows	Mid Market Spot	< 1 year: Mid Money Market and LIFFE interest rate futures > 1 year: Mid Zero Coupon	N/A
B.9.	Investments in mutual funds	Fair value	1	Market value	Net asset value	N/A		
B.9.	Negotiable debt instruments, commercial paper, instant access deposits and term deposits	Amortized cost	N/A	N/A	Because these instruments have a maturity of less than 3 months, amortized cost is regarded as an acceptable approximation of fair value as disclosed in the notes to the consolidated financial statements.			
B.9.	Debt	Amortized cost[(b)]	N/A	N/A	In the case of debt with a maturity of less than 3 months, amortized cost is regarded as an acceptable approximation of fair value as reported in the notes to the consolidated financial statements. For debt with a maturity of more than 3 months, fair value as reported in the notes to the consolidated financial statements is determined either by reference to quoted market prices at the end of the reporting period (quoted instruments) or by discounting the future cash flows based on observable market data at the end of the reporting period (unquoted instruments).			
A.1.2.	Lease liabilities	Amortized cost	N/A	N/A	Future lease payments discounted by using the incremental borrowing rate			
B.11.	Liabilities related to business combinations and to non-controlling interests (CVRs)	Fair value	1	Market value	Quoted market price	N/A		
B.11.	Liabilities related to business combinations and to non-controlling interests (other than CVRs)	Fair value[(c)]	3	Revenue-based approach	Under IAS 32, contingent consideration payable in a business combination is a financial liability. The fair value of such liabilities is determined by adjusting the contingent consideration at the end of the reporting period using the method described in Note B.11.			

(a) These assets are held to fund a deferred compensation plan offered to certain employees.
(b) In the case of debt designated as a hedged item in a fair value hedging relationship, the carrying amount in the consolidated balance sheet includes changes in fair value attributable to the hedged risk(s).
(c) For business combinations completed prior to application of the revised IFRS 3, contingent consideration is recognized when payment becomes probable. See Note B.3.1. to the financial statements for the year ended December 31, 2018.

A.6. NEW PRONOUNCEMENTS ISSUED BY THE IASB AND APPLICABLE FROM 2020 OR LATER

Sanofi does not expect a material impact from the application of the amendments issued by the IASB in 2018 and 2019 and applicable from January 1, 2020 subject to endorsement by the European Union. Sanofi will not early adopt those amendments.

B/ SIGNIFICANT INFORMATION FOR THE FIRST HALF OF 2019

B.1. CHANGES IN THE SCOPE OF CONSOLIDATION DUE TO ACQUISITIONS AND DIVESTMENTS

The impacts of the acquisitions made during the first half of 2019 are not material for Sanofi.
Sanofi did not divest any material operations or entities during the period.

B.2. PROPERTY, PLANT AND EQUIPMENT

The table below sets forth acquisitions and capitalized interest by operating segment for the first half of 2019:

(€ million)	June 30, 2019	December 31, 2018
Acquisitions	**517**	**1,459**
Pharmaceuticals	318	1,014
Industrial facilities	*265*	*769*
Other	*53*	*245*
Vaccines	196	440
Consumer Healthcare	3	5
Capitalized interest	**7**	**21**

Impairment losses of €50 million were charged against property, plant and equipment in the first half of 2019, primarily in the Pharmaceuticals segment.

Firm orders for property, plant and equipment stood at €469 million as of June 30, 2019.

B.3. GOODWILL AND OTHER INTANGIBLE ASSETS

Movements in intangible assets other than goodwill during the first half of 2019 were as follows:

(€ million)	Acquired R&D	Products, trademarks and other rights	Software	Total other intangible assets
Gross value at January 1, 2019	**7,422**	**61,800**	**1,559**	**70,781**
Acquisitions and other increases	71	9	71	151
Disposals and other decreases	(13)	(108)	(33)	(154)
Currency translation differences	34	400	5	439
Transfers [(a)]	(1,813)	1,804	(3)	(12)
Gross value at June 30, 2019	**5,701**	**63,905**	**1,599**	**71,205**
Accumulated amortization and impairment at January 1, 2019	**(2,678)**	**(45,228)**	**(986)**	**(48,892)**
Amortization expense	—	(1,126)	(66)	(1,192)
Impairment losses, net of reversals [(b)]	(517)	(1,323)	(13)	(1,853)
Disposals and other decreases	7	87	33	127
Currency translation differences	(12)	(283)	(5)	(300)
Transfers [(a)]	2	—	1	3
Accumulated amortization and impairment at June 30, 2019	**(3,198)**	**(47,873)**	**(1,036)**	**(52,107)**
Carrying amount at January 1, 2019	**4,744**	**16,572**	**573**	**21,889**
Carrying amount at June 30, 2019	**2,503**	**16,032**	**563**	**19,098**

(a) This line mainly represents the bringing into commercial use of Cablivi® effective February 1, 2019. Cablivi® has been marketed in the United States and Europe since obtaining marketing authorizations from the relevant healthcare authorities, and is henceforth being amortized over its estimated useful life of 14 years.
(b) See Note B.4.

Acquisitions of other intangible assets (excluding software) in the first half of 2019 totaled €80 million. The principal items were upfront and milestone payments within the Vaccines segment and by Sanofi Genzyme. The item "Products, trademarks and other rights" mainly comprises:

- marketed products, with a carrying amount of €15.4 billion as of June 30, 2019 (versus €15.5 billion as of December 31, 2018) and a weighted average amortization period of approximately 10 years;
- trademarks, with a carrying amount of €0.1 billion as of June 30, 2019 (versus €0.1 billion as of December 31, 2018) and a weighted average amortization period of approximately 12 years.

The table below provides information about the principal marketed products, which represented approximately 94% of the carrying amount of that item as of June 30, 2019:

(€ million)	Gross value	Accumulated amortization & impairment	Carrying amount June 30, 2019	Amortization period (years) [(a)]	Residual amortization period (years) [(b)]	Carrying amount December 31, 2018
Aventis	33,798	(33,493)	305	9	4	409
Genzyme	10,628	(8,018)	2,610	10	5	2,988
Bioverativ	6,883	(1,990)	4,893	13	12	6,385
Boehringer Ingelheim Consumer Healthcare	3,726	(610)	3,116	16	14	3,237
Ablynx	2,279	(166)	2,113	13	13	376
Chattem	1,284	(556)	728	23	15	748
Protein Sciences	807	(117)	690	13	11	715
Total: principal marketed products	**59,405**	**(44,950)**	**14,455**			**14,858**

(a) Weighted averages. The amortization periods for these products vary between 1 and 25 years.
(b) Weighted averages.

Goodwill amounted to €44,418 million as of June 30, 2019, versus €44,235 million as of December 31, 2018. Movements during the first half of 2019 were mainly due to currency translation differences.

The final amounts of goodwill arising on the acquisitions of Bioverativ on March 8, 2018 and Ablynx on May 14, 2018 are €2,676 million and €1,360 million, respectively.

B.4. IMPAIRMENT OF INTANGIBLE ASSETS

The results of impairment tests on other intangible assets led to the recognition of a net impairment loss of €1,840 million in the first half of 2019.

During the first half of 2019, Sanofi observed a decline in sales of Eloctate® (especially in the US market), and management updated the long-term prospects for this franchise. Coupled with the increased competition from new products entering the

hemophilia A market, this led Sanofi to conduct an impairment test in accordance with IAS 36 (Impairment of Assets). As of June 30, 2019, these assets had a carrying amount of €5,226 million.

The recoverable amount of these assets was determined on the basis of discounted cash flow projections over their economic lives (see Note B.6.1. to the consolidated financial statements for the year ended December 31, 2018). Based on the results of the impairment test, an impairment loss of €1,609 million was recognized against the Eloctate® franchise assets. An increase of one-half of a percentage point in the discount rate used to determine the recoverable amount (after-tax rates of 7.25% for the Eloctate® cash flow projections and 8.25% for the BIVV001 cash flow projections) would require an additional impairment loss of €160 million to be recognized.

The valuation model used builds in a probability for the successful development and approval of BIVV001, an extended-action Factor VIII intended to replace Eloctate® and currently in Phase III.

If the BIVV001 development project were to fail, the recoverable amount would be €2,814 million. If it were to succeed, the projected sales used in the impairment test could be reduced by approximately 9% before any additional impairment loss would need to be recognized.

The other impairment losses recognized during the period mainly relate to development projects in the Pharmaceuticals segment.

B.5. INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Investments accounted for using the equity method consist of associates and joint ventures (see Note B.1. to the consolidated financial statements for the year ended December 31, 2018), and comprise:

(€ million)	% interest	June 30, 2019	December 31, 2018
Regeneron Pharmaceuticals, Inc.	21.4	3,157	3,055
Onduo LLC	50.0	130	108
Infraserv GmbH & Co. Höchst KG [(a)]	30.0	66	73
Entities and companies managed by Bristol-Myers Squibb [(b)]	49.9	37	40
Other investments	—	146	126
Total		**3,536**	**3,402**

(a) Joint venture.
(b) Under the terms of the agreements with BMS (see Note C.2. to the consolidated financial statements for the year ended December 31, 2018), Sanofi's share of the net assets of entities majority-owned by BMS is recorded in ***Investments accounted for using the equity method***.

The market values of Sanofi's investment in Regeneron as of June 30, 2019 and December 31, 2018, based on the quoted stock market price per share in US dollars, are shown below:

	June 30, 2019	December 31, 2018
Quoted stock market price per share ($)	313.00	373.50
Market value of investment in Regeneron ($ million)	7,363	8,835
Market value of investment in Regeneron (€ million)	6,476	7,702

The financial statements include commercial transactions between Sanofi and some equity-accounted investments that are classified as related parties. The principal transactions and balances with related parties are summarized below:

(€ million)	June 30, 2019	June 30, 2018	December 31, 2018
Sales	16	16	35
Royalties and other income [(a)]	153	66	116
Accounts receivable and other receivables [(a)]	160	35	89
Purchases and other expenses (including research expenses) [(a)]	608	385	1,143
Accounts payable and other payables [(a)]	373	221	544

(a) These amounts mainly comprise transactions with Regeneron.

B.6. OTHER NON-CURRENT ASSETS

Other non-current assets comprise:

(€ million)	June 30, 2019	December 31, 2018
Equity instruments at fair value through other comprehensive income	221	1,037
Debt instruments at fair value through other comprehensive income	387	359
Other financial assets at fair value through profit or loss	791	733
Pre-funded pension obligations	70	77
Long-term prepaid expenses	122	126
Long-term loans and advances and other non-current receivables	627	620
Derivative financial instruments	43	19
Total	**2,261**	**2,971**

Equity instruments at fair value through other comprehensive income amounted to €221 million as of June 30, 2019. The main changes in this line item during the period are described below:

- Further to the announcement on April 8, 2019 of amendments to the terms of the agreement governing Sanofi's equity interest in Alnylam, on May 2, 2019 Sanofi divested its entire holding of 10.6 million Alnylam shares, representing approximately 10% of that company's capital. Proceeds from the divestment amounted to €706 million, net of taxes. The loss on the divestment was recognized in full in ***Other comprehensive income***. This equity interest had a carrying amount of €671 million as of December 31, 2018.
- The entire equity interest held by Sanofi in MyoKardia, Inc. was divested during the first half of 2019. Proceeds from the divestment amounted to €118 million, net of taxes. The gain arising on the divestment was recognized in full in ***Other comprehensive income***. This equity interest had a carrying amount of €178 million as of December 31, 2018.

Changes in the line item ***Other financial assets at fair value through profit or loss*** during the first half of 2019 mainly comprise:

- Contingent consideration receivable by Sanofi following the dissolution of the Sanofi Pasteur MSD joint venture (see Note D.7. to the consolidated financial statements for the year ended December 31, 2018). The amount of that receivable as of June 30, 2019 was €415 million, €336 million of which was non-current (compared with €373 million and a non-current portion of €309 million as of December 31, 2018). The fair value of the MSD contingent consideration is determined by applying the royalty percentage stipulated in the contract to discounted sales projections. The change in fair value recognized during the first half of 2019 was due primarily to a reassessment of the commercial prospects for MSD products, less the impact of payments received during the period. Changes in the fair value of the receivable are reported separately in the income statement, in the line item ***Fair value remeasurement of contingent consideration*** (see Note A.5.). The change in fair value recorded within this line item in the six months ended June 30, 2019 was €116 million, compared with €31 million in the six months ended June 30, 2018 and €80 million in the year ended December 31, 2018.

B.7. ACCOUNTS RECEIVABLE

Accounts receivable break down as follows:

(€ million)	June 30, 2019	December 31, 2018
Gross value	7,395	7,430
Allowances	(166)	(170)
Carrying amount	**7,229**	**7,260**

The impact of allowances against accounts receivable in the first half of 2019 was a net gain of €2 million (versus a net expense of €3 million for the first half of 2018).

The table below shows the aging profile of overdue accounts receivable, based on gross value:

(€ million)	Overdue accounts gross value	Overdue by <1 month	Overdue by 1-3 months	Overdue by 3-6 months	Overdue by 6-12 months	Overdue by > 12 months
June 30, 2019	550	164	122	93	43	128
December 31, 2018	547	257	172	36	21	61

Some Sanofi subsidiaries have assigned receivables to factoring companies or banks without recourse. The amount of receivables that met the conditions described in Note B.8.7. to the consolidated financial statements for the year ended December 31, 2018 and hence were derecognized was €497 million as of June 30, 2019 (versus €385 million as of December 31, 2018). The residual guarantees relating to those transfers were immaterial as of June 30, 2019.

B.8. CONSOLIDATED SHAREHOLDERS' EQUITY

B.8.1. SHARE CAPITAL

As of June 30, 2019, the share capital was €2,504,039,842 and consisted of 1,252,019,921 shares (the total number of shares outstanding) with a par value of €2.

Treasury shares held by Sanofi are as follows:

	Number of shares (million)	% of share capital for the period
June 30, 2019	0.02	0.002%
December 31, 2018	1.9	0.15%
June 30, 2018	2.0	0.16%
January 1, 2018	0.2	0.01%

A total of 920,312 shares were issued in the first half of 2019 as a result of the exercise of Sanofi stock subscription options.

A total of 5,703,266 shares vested under Sanofi restricted share plans during the first half of 2019, either by issuance of new shares or by the definitive award of existing restricted shares.

B.8.2. REPURCHASE OF SANOFI SHARES

On April 30, 2019, the Annual General Meeting of Sanofi shareholders authorized a share repurchase program for a period of 18 months. Sanofi did not use that authorization during the first half of 2019.

On May 2, 2018, the Annual General Meeting of Sanofi shareholders authorized a share repurchase program for a period of 18 months. Under that program (and that program alone), Sanofi repurchased 147,793 of its own shares during the first half of 2019 for a total amount of €12 million.

B.8.3. REDUCTIONS IN SHARE CAPITAL

No decision to cancel treasury shares was made by the Sanofi Board of Directors during the first half of 2019.

B.8.4. RESTRICTED SHARE PLANS

Restricted share plans are accounted for in accordance with the policies described in Note B.24.3. to the consolidated financial statements for the year ended December 31, 2018. The principal features of the plans awarded in 2019 are set forth below:

	2019
Type of plan	Performance share plan
Date of Board meeting approving the plan	April 30, 2019
Total number of shares subject to a 3-year service period	3,797,582
Fair value per share awarded [(a)]	67.90
Fair value of plan at the date of grant (€ million)	258

(a) Quoted market price per share at the date of grant, adjusted for dividends expected during the vesting period.

The total expense recognized for all restricted share plans, and the number of restricted shares not yet fully vested, are shown in the table below:

	June 30, 2019	June 30, 2018
Total expense for restricted share plans (€ million)	128	118
Number of shares not yet fully vested	11,251,318	13,756,202
Under 2019 plans	*3,797,582*	-
Under 2018 plans	*4,252,339*	*4,388,361*
Under 2017 plans	*3,201,397*	*3,408,614*
Under 2016 plans	-	*3,759,373*
Under 2015 plans	-	*2,208,854*

B.8.5. CAPITAL INCREASES

There were no capital increases reserved for employees in the first half of 2019.

The meeting of the Sanofi Board of Directors held on March 6, 2018 decided to award an employee share ownership plan by offering Sanofi employees the possibility of subscribing to a capital increase at a subscription price of €52.66. A total of 2,298,783 shares were subscribed, and a further 102,401 shares were issued by way of employer's upfront contribution. An expense of €32 million was recognized for this plan in the six months ended June 30, 2018.

B.8.6. STOCK SUBSCRIPTION OPTION PLANS

The stock option plan granted by Sanofi in 2019 is summarized below, with the assumptions used to determine its fair value:

	2019
Date of Board meeting approving the plan	April 30, 2019
Total number of options granted	220,000
Exercise price (€)	76.71
Vesting period	4 years
Plan expiry date	April 30, 2029
Fair value of the plan (€ million)	2
Fair value per option (€)	7.80
Assumptions used to determine fair value	
Dividend yield	4.31%
Volatility of Sanofi shares, computed on a historical basis	22.48%
Risk-free interest rate	0.145%
Plan maturity	8 years

The table below shows, for each of the periods reported, the expense recognized through equity for stock option plans:

(€million)	June 30, 2019	June 30, 2018
Expense recognized through equity	3	1

The table below provides summary information about options outstanding and exercisable as of June 30, 2019:

	Outstanding			Exercisable	
Range of exercise prices per share	Number of options	Weighted average residual life (years)	Weighted average exercise price per share (€)	Number of options	Weighted exercise price per share (€)
From €30.00 to €40.00 per share	—	—	—	—	—
From €40.00 to €50.00 per share	—	—	—	—	—
From €50.00 to €60.00 per share	2,797,758	1.08	54.34	2,797,758	54.34
From €60.00 to €70.00 per share	440,000	9.35	66.87	—	—
From €70.00 to €80.00 per share	1,652,264	4.85	73.61	1,295,514	72.98
From €80.00 to €90.00 per share	763,359	6.91	89.18	388,464	89.38
Total	**5,653,381**			**4,481,736**	

B.8.7. NUMBER OF SHARES USED TO COMPUTE DILUTED EARNINGS PER SHARE

Diluted earnings per share is computed using the number of shares outstanding plus stock options with dilutive effect and restricted shares.

(million)	June 30, 2019	June 30, 2018	December 31, 2018
Average number of shares outstanding	1,247.2	1,247.8	1,247.1
Adjustment for stock options with dilutive effect	1.0	1.2	1.3
Adjustment for restricted shares	6.5	5.9	6.8
Average number of shares used to compute diluted earnings per share	**1,254.7**	**1,254.9**	**1,255.2**

As of June 30, 2019, 1.1 million stock options were not taken into account in computing diluted earnings per share because they had no dilutive effect, compared with 2.5 million as of December 31, 2018 and 2.8 million as of June 30, 2018.

B.8.8. OTHER COMPREHENSIVE INCOME

Movements within other comprehensive income are shown below:

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Actuarial gains/(losses):			
· Actuarial gains/(losses) excluding investments accounted for using the equity method	(535)	118	201
· Actuarial gains/(losses) of investments accounted for using the equity method, net of taxes	—	—	—
. Tax effects	155	(38)	(69)
Equity instruments included in financial assets:			
· Change in fair value (excluding investments accounted for using the equity method)	19	(213)	(529)
· Change in fair value (investments accounted for using the equity method, net of taxes)	15	—	(8)
. Tax effects	(38)	50	100
Items not subsequently reclassifiable to profit or loss	**(384)**	**(83)**	**(305)**
Debt instruments included in financial assets:			
· Change in fair value (excluding investments accounted for using the equity method) [(a)]	28	(1)	(4)
· Change in fair value (investments accounted for using the equity method, net of taxes)	—	—	—
. Tax effects	(5)	—	—
Cash flow hedges:			
· Change in fair value (excluding investments accounted for using the equity method) [(b)]	(15)	5	3
· Change in fair value (investments accounted for using the equity method, net of taxes)	—	—	—
. Tax effects	4	(2)	(1)
Change in currency translation differences:			
· Currency translation differences on foreign subsidiaries (excluding investments accounted for using the equity method) [(b)]	462	737	1,273
· Currency translation differences (investments accounted for using the equity method)	(75)	67	106
· Hedges of net investments in foreign operations	23	—	(185)
. Tax effects	18	—	72
Items subsequently reclassifiable to profit or loss	**440**	**806**	**1,264**

(a) There were no reclassifications to profit or loss in the first half of 2019 or in 2018.
(b) Includes reclassifications to profit or loss: €20 million in the first half of 2019, €(7) million in 2018, and an immaterial amount in the first half of 2018.

B.9. DEBT, CASH AND CASH EQUIVALENTS

Changes in financial position during the period were as follows:

(€ million)	June 30, 2019	December 31, 2018
Long-term debt	21,087	22,007
Short-term debt and current portion of long-term debt	4,411	2,633
Interest rate and currency derivatives used to manage debt	(51)	(54)
Total debt	**25,447**	**24,586**
Cash and cash equivalents	(6,742)	(6,925)
Interest rate and currency derivatives used to manage cash and cash equivalents	—	(33)
Net debt [a]	**18,705**	**17,628**

(a) With effect from January 1, 2019 (following first-time application of IFRS 16), net debt does not include lease liabilities (see Note A.1.2).

B.9.1. NET DEBT AT VALUE ON REDEMPTION

A reconciliation of the carrying amount of net debt in the balance sheet to value on redemption as of June 30, 2019 is shown below:

				Value on redemption	
(€ million)	Carrying amount at June 30, 2019	Amortized cost	Adjustment to debt measured at fair value	June 30, 2019	December 31, 2018
Long-term debt	21,087	111	(66)	21,132	22,071
Short-term debt and current portion of long-term debt	4,411	(2)	(10)	4,399	2,613
Interest rate and currency derivatives used to manage debt	(51)	—	47	(4)	(12)
Total debt	**25,447**	**109**	**(29)**	**25,527**	**24,672**
Cash and cash equivalents	(6,742)	—	—	(6,742)	(6,925)
Interest rate and currency derivatives used to manage cash and cash equivalents	—	—	—	—	(33)
Net debt [a]	**18,705**	**109**	**(29)**	**18,785**	**17,714**

(a) With effect from January 1, 2019 (following first-time application of IFRS 16), net debt does not include lease liabilities (see Note A.1.2).

"Net debt" is a financial indicator used by management and investors to measure Sanofi's overall net indebtedness.

The table below shows an analysis of net debt by type, at value on redemption:

	June 30, 2019			December 31, 2018		
(€ million)	non-current	current	Total	non-current	current	Total
Bond issues	21,078	3,880	24,958	21,983	2,181	24,164
Other bank borrowings	43	203	246	57	176	233
Finance lease obligations [(a)]	—	—	—	18	4	22
Other borrowings	12	13	25	13	3	16
Bank credit balances	—	302	302	—	249	249
Interest rate and currency derivatives used to manage debt	(1)	(3)	(4)	—	(12)	(12)
Total debt	**21,132**	**4,395**	**25,527**	**22,071**	**2,601**	**24,672**
Cash and cash equivalents	—	(6,742)	(6,742)	—	(6,925)	(6,925)
Interest rate and currency derivatives used to manage cash and cash equivalents	—	—	—	—	(33)	(33)
Net debt	**21,132**	**(2,347)**	**18,785**	**22,071**	**(4,357)**	**17,714**

(a) On the first-time application of IFRS 16, the finance lease obligation as of January 1, 2019 was reclassified to ***Lease liabilities*** in the balance sheet.

Principal financing and debt reduction transactions during the period

In March 2019, Sanofi carried out a €2 billion bond issue under its Euro Medium Term Notes (EMTN) program, in three tranches:

- €850 million of fixed-rate bonds maturing March 2022, with annual coupons and bearing interest at an annual rate of 0.000%;
- €650 million of fixed-rate bonds maturing March 2029, with annual coupons and bearing interest at an annual rate of 0.875%;
- €500 million of fixed-rate bonds maturing March 2034, with annual coupons and bearing interest at an annual rate of 1.250%;

Two bond issues were redeemed on maturity during the first half of 2019:

- a September 2015 floating-rate bond issue of €750 million, which matured March 22, 2019;
- an April 2016 fixed-rate bond issue of €500 million, which matured April 5, 2019.

Sanofi had the following arrangements in place as of June 30, 2019 to manage its liquidity in connection with current operations:

- a syndicated credit facility of €4 billion, drawable in euros and in US dollars, due to expire on December 17, 2020 following the exercise of a second extension option in November 2015; and
- a syndicated credit facility of €4 billion, drawable in euros and in US dollars, due to expire on December 3, 2021 following the exercise of a second extension option in November 2016.

Sanofi has no further extension options for those credit facilities. As of June 30, 2019, there were no drawdowns under either facility.

Sanofi also has a €6 billion Negotiable European Commercial Paper program in France and a $10 billion Commercial Paper program in the United States. During the first half of 2019 only the US program was used, with an average drawdown of $3.2 billion.

The financing in place as of June 30, 2019 at the level of the holding company (which manages most of Sanofi's financing needs centrally) is not subject to any financial covenants, and contains no clauses linking credit spreads or fees to the credit rating.

B.9.2. MARKET VALUE OF NET DEBT

The market value of Sanofi's debt, net of cash and cash equivalents and derivatives and excluding accrued interest, is as follows:

(€ million)	June 30, 2019	December 31, 2018
Market value	19,854	18,003
Value on redemption	18,785	17,714

B.10. DERIVATIVE FINANCIAL INSTRUMENTS

B.10.1. CURRENCY DERIVATIVES USED TO MANAGE OPERATING RISK EXPOSURES

The table below shows operating currency hedging instruments in place as of June 30, 2019. The notional amount is translated into euros at the relevant closing exchange rate.

			Of which derivatives designated as cash flow hedges			Of which derivatives not eligible for hedge accounting	
June 30, 2019 (€ million)	Notional amount	Fair value	Notional amount	Fair value	Of which recognized in equity	Notional amount	Fair value
Forward currency sales	**3,218**	**3**	**—**	**—**	**—**	**3,218**	**3**
of which US dollar	*1,123*	*9*	—	—	—	*1,123*	*9*
of which Chinese yuan renminbi	*552*	*3*	—	—	—	*552*	*3*
of which Singapore dollar	*315*	—	—	—	—	*315*	—
of which Japanese yen	*181*	—	—	—	—	*181*	—
of which Russian rouble	*108*	*(2)*	—	—	—	*108*	*(2)*
Forward currency purchases	**1,419**	**(4)**	**—**	**—**	**—**	**1,419**	**(4)**
of which Singapore dollar	*516*	*1*				*516*	*1*
of which US dollar	*381*	*(5)*	—	—	—	*381*	*(5)*
of which Chinese yuan renminbi	*90*	—	—	—	—	*90*	—
of which Russian rouble	*77*	—	—	—	—	*77*	—
of which Brazilian real	*50*	—	—	—	—	*50*	—
Total	**4,637**	**(1)**	**—**	**—**	**—**	**4,637**	**(1)**

The above positions mainly hedge material foreign-currency cash flows arising after the end of the reporting period in relation to transactions carried out during the six months ended June 30, 2019 and recognized in the balance sheet at that date. Gains and losses on hedging instruments (forward contracts) are calculated and recognized in parallel with the recognition of gains and losses on the hedged items. Due to this hedging relationship, the commercial foreign exchange difference on those items (hedging instruments and hedged transactions) will be immaterial in the second half of 2019.

B.10.2. CURRENCY AND INTEREST RATE DERIVATIVES USED TO MANAGE FINANCIAL EXPOSURE

The cash pooling arrangements for foreign subsidiaries outside the euro zone, and some of Sanofi's financing activities, expose certain Sanofi entities to financial foreign exchange risk (i.e. the risk of changes in the value of loans and borrowings denominated in a currency other than the functional currency of the lender or borrower).

That foreign exchange exposure is hedged using derivative instruments (currency swaps or forward contracts) that alter the currency split of Sanofi's debt once those instruments are taken into account.

The table below shows financial currency hedging instruments in place as of June 30, 2019. The notional amount is translated into euros at the relevant closing exchange rate.

(€ million)	June 30, 2019		
	Notional amount	Fair value	Maximum expiry date
Forward currency sales	**7,016**	**32**	
of which US dollar	*5,052*[(a)]	*34*	*2019*
of which Japanese yen	*514*	*(3)*	*2020*
of which Pound sterling	*215*	*3*	*2020*
Forward currency purchases	**11,611**	**(49)**	
of which US dollar	*8,519*	*(48)*	*2020*
of which Singapore dollar	*2,008*	*(1)*	*2020*
of which Chinese yuan renminbi	*372*	*(1)*	*2019*
Total	**18,627**	**(17)**	

(a) Includes forward sales with a notional amount of $3,615 million expiring in 2019, designated as a hedge of Sanofi's net investment in Bioverativ. As of June 30, 2019, the fair value of these forward contracts represented an asset of €28 million; the opposite entry was recognized in ***Other comprehensive income***, with the impact on financial income and expense being immaterial.

To optimize the cost of debt or reduce the volatility of debt, Sanofi uses derivative instruments (interest rate swaps and cross currency swaps) to alter the fixed/floating rate split of its net debt.

The table below shows instruments of this type in place as of June 30, 2019:

(€ million)							Of which designated as fair value hedges			Of which designated as cash flow hedges		
	2019	2020	2021	2022	2023	Total	Fair value	Notional amount	Fair value	Notional amount	Fair value	Of which recognized in equity
Interest rate swaps												
pay capitalized Eonia / receive 1.58%	*1,550*	—	—	—	—	1,550	27	1,550	27	—	—	—
pay capitalized Eonia / receive 0.06%	—	—	—	*2,000*	—	2,000	39	2,000	39	—	—	—
pay 1.81% / receive 3-month US dollar Libor	—	440	—	—	—	440	(1)	—	—	440	(1)	—
pay 3-month US dollar Libor / receive 2.22%	—	440	—	—	—	440	4	440	4	—	—	—
receive capitalized Eonia / pay 1.48% [(a)]	—	—	—	42	57	99	(6)	99	(6)	—	—	—
Total	**1,550**	**880**	**—**	**2,042**	**57**	**4,529**	**63**	**4,089**	**64**	**440**	**(1)**	**—**

(a) These interest rate swaps hedge fixed-rate bonds with a nominal of €99 million held in a Professional Specialized Investment Fund dedicated to Sanofi and recognized within "Loans, advances and other long-term receivables".

B.11. LIABILITIES RELATED TO BUSINESS COMBINATIONS AND TO NON-CONTROLLING INTERESTS

For a description of the nature of the liabilities reported in the line item ***Liabilities related to business combinations and to non-controlling interests***, refer to Note B.8.4. to the consolidated financial statements for the year ended December 31, 2018.

The liabilities related to business combinations and to non-controlling interests shown in the table below are level 3 instruments under the IFRS 7 fair value hierarchy (see Note A.5.) except for the CVRs issued in connection with the acquisition of Genzyme which are level 1 instruments.

Movements in liabilities related to business combinations and to non-controlling interests during the first half of 2019 are shown below:

(€ million)	Liabilities related to non-controlling interests & other items	CVRs issued in connection with the acquisition of Genzyme [(a)]	Bayer contingent consideration arising from the acquisition of Genzyme	MSD contingent consideration (European Vaccines business)	Other	Total [(b)]
Balance at January 1, 2019	**22**	**99**	**472**	**410**	**301**	**1,304**
Payments made	—	—	(66)	(69)	(2)	(137)
Fair value remeasurements through profit or loss: (gain)/loss (including unwinding of discount) [(c)]	—	8	(140)	18	40	(74)
Other movements	(22)	—	—	—	(70)	(92)
Currency translation differences	—	1	6	4	—	11
Balance at June 30, 2019	**—**	**108**	**272**	**363**	**269**	**1,012**
Of which:						
· Current portion						**273**
· Non-current portion						**739**

(a) Based on the quoted market price per CVR of $0.52 as of June 30, 2019 and $0.48 as of December 31, 2018.
(b) As of January 1, 2019, this comprised a non-current portion of €963 million and a current portion of €341 million.
(c) Amounts reported within the income statement line item ***Fair value remeasurement of contingent consideration.***

As of June 30, 2019, ***Liabilities related to business combinations and to non-controlling interests*** mainly comprised:

The Bayer contingent consideration liability arising from the acquisition of Genzyme in 2011. As of June 30, 2019, Bayer was still entitled to receive the following potential payments:

- a percentage of sales of alemtuzumab up to a maximum of $1,250 million or over a maximum period of ten years, whichever is achieved first;
- milestone payments based on specified levels of worldwide sales of alemtuzumab beginning in 2021, unless Genzyme exercises its right to buy out those milestone payments by making a one-time payment not exceeding $900 million.

The fair value of this liability was measured at €272 million as of June 30, 2019, versus €472 million as of December 31, 2018. The fair value of the Bayer liability is determined by applying the above contractual terms to sales projections which have been weighted to reflect the probability of success, and discounted. If the discount rate were to fall by one percentage point, the fair value of the Bayer liability would increase by approximately 2%.

B.12. NON-CURRENT PROVISIONS AND OTHER NON-CURRENT LIABILITIES

Non-current provisions and other non-current liabilities break down as follows:

(€ million)	June 30, 2019	June 30, 2018 [a]	December 31, 2018
Non-current provisions	7,401	7,024	6,883
Other non-current liabilities	1,698	1,925	1,730
Total	**9,099**	**8,949**	**8,613**

(a) Restated for the first-time application of IFRIC 23 (see Note A.1.).

The table below shows movements in provisions:

(€ million)	Provisions for pensions & other post-employment benefits	Provisions for other long-term benefits	Restructuring provisions	Other provisions	Total
Balance at January 1, 2019	**3,522**	**761**	**632**	**1,968**	**6,883**
Increases in provisions and other liabilities	97	116	364 [a]	208	785
Provisions utilized	(52)	(60)	—	(93)	(205)
Reversals of unutilized provisions	(58)	—	(2)	(443) [b]	(503)
Transfers	(8)	(1)	(168) [c]	10	(167)
Net interest related to employee benefits, and unwinding of discount	42	3	1	9	55
Currency translation differences	10	3	—	5	18
Actuarial gains and losses on defined-benefit plans	535	—	—	—	535
Balance at June 30, 2019	**4,088**	**822**	**827**	**1,664**	**7,401**

(a) Charges to restructuring provisions relate mainly to headcount adjustment plans in Europe and the United States.
(b) Reversals during the first half of 2019 relate mainly to provisions for products, litigation and other liabilities.
(c) This movement includes transfers between current and non-current, and adjustments to right-of-use assets in respect of the provision for onerous contracts as of the IFRS 16 transition date.

Provisions for pensions and other post-employment benefits

For an analysis of the sensitivity of obligations in respect of pensions and other employee benefits, and the assumptions used as of December 31, 2018, see Note D.19.1. to the consolidated financial statements for the year ended December 31, 2018.

The principal assumptions used (in particular, changes in discount and inflation rates and in the market value of plan assets) for the euro zone, the United States and the United Kingdom were reviewed as of June 30, 2019 to take into account changes during the first half of the year.

Actuarial gains and losses arising on pensions and other post-employment benefits and recognized in equity are as follows (amounts reported before tax):

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Actuarial gains/(losses) on plan assets	655	(162)	(450)
Actuarial gains/(losses) on benefit obligations	(1,190) [a]	280 [b]	651

(a) Includes the effect of changes in discount rates (in a range between -0.65% and -1.00%) and in the United Kingdom inflation rate (+0.05%) in the first half of 2019.
(b) Includes the effect of changes in discount rates (in a range between +0.25% and +0.50%) and in the euro zone inflation rate (+0.25%) in the first half of 2018.

B.13. OFF BALANCE SHEET COMMITMENTS

Off balance sheet commitments to third parties arise under collaboration agreements entered into by Sanofi (see Note D.21.1. to the consolidated financial statements for the year ended December 31, 2018).

Agreements signed during the first half of 2019 gave rise to the following new commitments:

- Payments associated with projects in the research phase: €0.2 billion.
- Payments contingent on the attainment of specified sales targets once a product reaches the market: €0.3 billion.
- Potential milestone payments relating to development projects under collaboration agreements: €0.3 billion.

The principal commitments entered into, amended or discontinued during the period are described below:

- On April 8, 2019, Sanofi and Alnylam concluded the research and option phase of the companies' RNAi therapeutics alliance in rare genetic diseases. The material collaboration terms for patisiran, vutrisiran (ALN-TTRsc02) and fitusiran, as previously announced, continue unchanged.
- In June 2019, Sanofi and Voyager Therapeutics Inc. decided to pursue their program to discover, develop and commercialize new gene therapies in various therapeutic fields outside the collaboration agreement entered into by the two companies in 2015, thereby ending that collaboration.

B.14. LITIGATION AND ARBITRATION PROCEEDINGS

Sanofi and its affiliates are involved in litigation, arbitration and other legal proceedings. These proceedings typically are related to product liability claims, intellectual property rights (particularly claims against generic companies seeking to limit the patent protection of Sanofi products), competition law and trade practices, commercial claims, employment and wrongful discharge claims, tax assessment claims, waste disposal and pollution claims, and claims under warranties or indemnification arrangements relating to business divestitures.

The matters discussed below constitute the most significant developments since publication of the disclosures concerning legal proceedings in the Company's financial statements for the year ended December 31, 2018.

B.14.1. PRODUCTS

PLAVIX® PRODUCT LITIGATION IN THE US

As of June 30, 2019, there were three pending lawsuits seeking recovery under US state law for personal injuries allegedly sustained in connection with the use of Plavix®. They involve three total plaintiffs (all of whom are ingesting plaintiffs). No cases or plaintiffs remain in other jurisdictions.

TAXOTERE® PRODUCT LITIGATION IN THE US

As of June 30, 2019, there were approximately 12,000 plaintiffs in courts across the country. The first bellwether trial is anticipated to occur in September 2019. Subsequent trials are scheduled in 2020.

DEPAKINE® PRODUCT LITIGATION IN FRANCE

Sanofi's French affiliate has rejected the opinions issued by the indemnification Committee of the public fund which has upheld Sanofi's liability. Consequently, the ONIAM (*Office National d'Indemnisation des Accidents Médicaux*) has indemnified the claimants and is now seeking for reimbursement from Sanofi by means of delivering payment enforcement orders.

In July 2019, the French affiliate of Sanofi filed several legal actions against the ONIAM and the French Ministry of Health before the Administrative Court of Montreuil (France) to oppose these payment enforcement orders.

DENGVAXIA® CASES IN THE PHILIPPINES

In the Dengvaxia® cases filed in the Philippines by parents of deceased children whose deaths were allegedly due to vaccination with Dengvaxia®, several criminal actions have been filed in court after the Department of Justice (DoJ) found probable cause for the cases to proceed. A motion for reconsideration was filed by the Sanofi Pasteur Inc. (Philippines) respondents with the DoJ and remains pending.

B.14.2. PATENTS

PRALUENT® (ALIROCUMAB)-RELATED AMGEN PATENT LITIGATION IN THE US

Post-trial briefing is now complete. A hearing on Amgen's request for a permanent injunction took place before the District Court for the District of Delaware in June 2019. Sanofi awaits rulings from the District Court (i) on Sanofi and Regeneron's motion to overturn the parts of the jury verdict of February 2019 that were favorable to Amgen, (ii) Sanofi and Regeneron's motion for a new trial and (iii) Amgen's motion for a permanent injunction.

PRALUENT® (ALIROCUMAB)-RELATED AMGEN PATENT LITIGATION IN EUROPE

In the Praluent® patent litigation in Germany, on July 11, 2019, the Regional Court of Düsseldorf ruled, finding infringement, and issued an injunction which requires Sanofi and Regeneron to stop marketing, selling, and manufacturing Praluent® in Germany.

Sanofi and Regeneron appealed. Amgen enforced the injunction and Sanofi and Regeneron complied. On July 23, 2019, the Higher Regional Court ordered a temporary stay of the injunction until it rules on Sanofi's and Regeneron's requests for a stay of the injunction during the pendency of main appeal.

PRALUENT® (ALIROCUMAB)-RELATED AMGEN OPPOSITION AND PATENT LITIGATION IN JAPAN

In the Intellectual Property High Court (IPHC) proceeding against Amgen concerning the patent infringement of two of Sanofi's Japanese patents following the December 2018 decision confirming Amgen's patent validity, Sanofi filed an appeal to the Supreme Court in February 2019.

DUPIXENT® (DUPILUMAB)-RELATED AMGEN PATENT OPPOSITION AND REVOCATION IN EUROPE

In the European Patent Office (EPO) proceeding revoking Immunex/Amgen's European patent EP2990420 (a divisional of the EP2292665 patent), Immunex filed a notice of appeal in May 2019.

DUPIXENT® (DUPILUMAB)-RELATED AMGEN INTER PARTES REVIEWS AND PATENT LITIGATION IN THE US

In April 2019, Immunex appealed the Patent Trial and Appeal Board (PTAB)'s decision invalidating all 17 claims of US Patent No. 8,679,487 to the Federal Circuit. Also in April 2019, Sanofi and Regeneron appealed the PTAB's decision that the challenged claims of the '487 Patent are not invalid as anticipated by Immunex's '132 Publication.

PLAVIX® LITIGATION (COMMONWEALTH) IN AUSTRALIA

A decision of the Federal Court of Australia related to Commonwealth's claim on damages related to the preliminary injunction obtained by Sanofi in 2007 is expected during the second half of 2019.

B.14.3 CONTINGENCIES ARISING FROM CERTAIN BUSINESS DIVESTITURES

LLRICE601 AND LLRICE604 – ARBITRATION

On July 11, 2019, the DIS (German Arbitral Tribunal) rendered its final decision under which it dismissed Bayer CropScience's (BCS) claims in their entirety and awarded Sanofi reimbursement of all its legal costs.

B.15. OTHER OPERATING INCOME AND EXPENSES

Other operating income amounted to €273 million in the first half of 2019 (versus €323 million in the first half of 2018), and ***Other operating expenses*** to €466 million (versus €165 million in the first half of 2018).

The main items included in ***Other operating income*** in the first half of 2019 were income from pharmaceutical partners of €36 million (versus €11 million in the first half of 2018), of which €30 million came from Regeneron; and gains on disposals of assets and operations of €71 million (versus €226 million in the first half of 2018), of which €25 million came from disposals of Regeneron shares.

Other operating expenses for the first half of 2019 included €241 million of commercialization expenses incurred by Regeneron (versus €64 million in the first half of 2018). This reflects Regeneron's share of losses from the commercialization of monoclonal antibodies (€17 million) net of commercialization-related expenses incurred by Regeneron (€217 million), along with Regeneron's €7 million share of losses generated by the commercialization of Zaltrap® (versus losses of €8 million in the first half of 2018). It also includes expenses of €18 million relating to other pharmaceutical partners (versus €4 million in the first half of 2018).

B.16. RESTRUCTURING COSTS AND SIMILAR ITEMS

Restructuring costs and similar items comprise the following:

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Employee-related expenses	667	206	517
Expenses related to property, plant and equipment and to inventories	39	80	162
Compensation for early termination of contracts (other than contracts of employment)	3	4	352
Decontamination costs	1	—	5
Other restructuring costs	37	317	444
Total	**747**	**607**	**1,480**

Restructuring costs in the first half of 2019 mainly reflect employee-related expenses associated with headcount adjustment plans, mainly in Europe and the United States.

B.17. OTHER GAINS AND LOSSES, AND LITIGATION

Other gains and losses, and litigation for the first half of 2019 comprise a net gain of €317 million (compared with a net loss of €67 million in the first half of 2018), mainly relating to litigation.

B.18. FINANCIAL EXPENSES AND INCOME

An analysis of financial expenses and income is set forth below:

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Cost of debt [(a)]	(171)	(195)	(396)
Interest income [(b)]	82	57	123
Cost of net debt	(89)	(138)	(273)
Non-operating foreign exchange gains/(losses)	3	4	6
Unwinding of discounting of provisions [(c)]	(12)	(13)	(24)
Net interest cost related to employee benefits	(45)	(36)	(75)
Gains/(losses) on disposals of financial assets	—	63	63
Impairment losses on financial assets, net of reversals	(15)	—	—
Net interest expense on lease liabilities [(d)]	(20)	—	—
Other	28	15	32
Net financial income/(expenses)	**(150)**	**(105)**	**(271)**
comprising: Financial expenses	**(244)**	**(202)**	**(435)**
Financial income	**94**	**97**	**164**

(a) Includes net gain/(loss) on interest rate and currency derivatives used to manage debt: €83 million in the first half of 2019, €17 million in the first half of 2018, and €75 million over the whole of 2018.
(b) Includes net gain/(loss) on interest rate and currency derivatives used to manage cash and cash equivalents: €27 million in the first half of 2019, €26 million in the first half of 2018, and €51 million over the whole of 2018.
(c) Primarily on provisions for environmental risks, restructuring provisions, and provisions for product-related risks (see Note B.12.).
(d) Impact of first-time application of IFRS 16 (see Note A.1.2)

The impact of the ineffective portion of hedging relationships was not material in either 2019 or 2018.

B.19. INCOME TAX EXPENSE

Sanofi has elected for tax consolidations in a number of countries, principally France, Germany, the United Kingdom and the United States.

The table below shows the allocation of income tax expense between current and deferred taxes:

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Current taxes	(828)	(625)	(1,212)
Deferred taxes	815	328	731
Total	**(13)**	**(297)**	**(481)**
Income before tax and investments accounted for using the equity method	**962**	**2,057**	**4,405**

The difference between the effective tax rate (on income before tax and investments accounted for using the equity method) and the standard corporate income tax rate applicable in France is explained as follows:

(as a percentage)	June 30, 2019 (6 months) [(a)]	June 30, 2018 (6 months) [(a)]	December 31, 2018 (12 months)
Standard tax rate applicable in France	34.4	34.4	34.4
Difference between the standard French tax rate and the rates applicable to Sanofi [(b)]	(13.7)	(19.0)	(16.5)
Impact of commitments arising from business divestitures	(12.1)	—	—
Revisions to tax exposures and settlements of tax disputes	4.5	1.2	(1.4)
Fair value remeasurement of contingent consideration liabilities	(3.0)	0.9	0.2
Impact of US tax reform [(c)]	—	(5.0)	(4.3)
Other [(d)]	(8.8)	1.9	(1.5)
Effective tax rate	**1.3**	**14.4**	**10.9**

(a) Rate calculated on the basis of the estimated effective tax rate for the full financial year (see Note A.2.).
(b) The difference between the French tax rate and tax rates applicable to foreign subsidiaries reflects the fact that Sanofi has operations in many countries, most of which have lower tax rates than France.
(c) For 2018, this line comprises an adjustment of €102 million to the estimated tax charge on deemed repatriation attributable to the accumulated earnings of non-US operations.
(d) For 2019, the percentage on the "Other items" line is impacted by the reduction in ***Income before tax and investments accounted for using the equity method***. For 2018, this line includes the net tax effect of taxable temporary differences associated with holdings in Sanofi subsidiaries. In determining the amount of the deferred tax liability for 2018, Sanofi took into account changes in the ownership structure of certain subsidiaries.

B.20. SEGMENT INFORMATION

As indicated in Note B.26. to the consolidated financial statements for the year ended December 31, 2018, Sanofi has three operating segments: Pharmaceuticals, Consumer Healthcare and Human Vaccines (Vaccines).

The Pharmaceuticals segment comprises the commercial operations of the following global franchises: Specialty Care (Rare Diseases, Multiple Sclerosis, Oncology, Immunology and Rare Blood Disorder), Diabetes & Cardiovascular and Established Prescription Products, together with research, development and production activities dedicated to our Pharmaceuticals segment. This segment also includes all associates whose activities are related to pharmaceuticals, in particular Regeneron.

The Consumer Healthcare segment comprises, for all geographical territories, the commercial operations for our Consumer Healthcare products, together with research, development and production activities dedicated to those products.

The Vaccines segment comprises, for all geographical territories (including certain European territories), the commercial operations of Sanofi Pasteur, together with research, development and production activities dedicated to vaccines.

Inter-segment transactions are not material.

The costs of Sanofi's global functions (Medical Affairs, External Affairs, Finance, Human Resources, Legal Affairs, Information Solutions & Technologies, Sanofi Business Services, etc.) are managed centrally at group-wide level. The costs of those functions are presented within the "Other" category. That category also includes other reconciling items such as retained commitments in respect of divested activities.

B.20.1. SEGMENT RESULTS

(€ million)		Europe	United States	Other countries	June 30, 2019	Europe	United States	Other countries	June 30, 2018
Pharmaceuticals		**3,364**	**4,204**	**5,158**	**12,726**	**3,781**	**3,612**	**4,806**	**12,199**
Total Diabetes		**608**	**906**	**1,070**	**2,584**	**648**	**1,059**	**1,015**	**2,722**
of which	Lantus®	298	568	666	1,532	355	816	631	1,802
	Toujeo®	163	139	129	431	142	171	101	414
Total Cardiovascular		**81**	**179**	**23**	**283**	**62**	**196**	**15**	**273**
of which	Praluent®	61	44	17	122	41	61	9	111
	Multaq®	20	135	6	161	21	135	6	162
Established Prescription Products		**1,608**	**384**	**2,920**	**4,912**	**2,086**	**427**	**2,910**	**5,423**
of which	Lovenox®	375	18	297	690	471	20	277	768
	Plavix®	69	—	697	766	76	—	685	761
	Generics	61	79	396	536	367	48	422	837
Specialty Care		**1,067**	**2,735**	**1,145**	**4,947**	**985**	**1,930**	**866**	**3,781**
of which	Aubagio®	203	645	55	903	184	541	50	775
	Cerezyme®	123	88	152	363	134	83	139	356
	Myozyme®/Lumizyme®	192	162	100	454	188	133	84	405
	Jevtana®	86	101	50	237	78	84	40	202
	Dupixent®	82	669	74	825	26	246	11	283
Consumer Healthcare		**680**	**588**	**1,131**	**2,399**	**706**	**541**	**1,106**	**2,353**
of which	Allergy, Cough & Cold	163	187	261	611	167	173	240	580
	Pain	254	93	283	630	254	78	296	628
	Digestive	167	103	278	548	163	95	238	496
	Nutritionals	62	19	233	314	62	18	250	330
Vaccines		**307**	**609**	**978**	**1,894**	**271**	**524**	**727**	**1,522**
of which	Polio/Pertussis/Hib Vaccines	151	192	645	988	139	176	419	734
	Influenza Vaccines	2	4	111	117	1	4	122	127
Total net sales		**4,351**	**5,401**	**7,267**	**17,019**	**4,758**	**4,677**	**6,639**	**16,074**

Sanofi reports segment results on the basis of “Business operating income”. This indicator is used internally by Sanofi’s chief operating decision maker to measure the performance of each operating segment and to allocate resources.

Business operating income is derived from ***Operating income***, adjusted as follows:

- the amounts reported in the line items ***Restructuring costs and similar items***, ***Fair value remeasurement of contingent consideration*** and ***Other gains and losses, and litigation*** are eliminated;
- amortization and impairment losses charged against intangible assets (other than software and other rights of an industrial or operational nature) are eliminated;
- the share of profits/losses from investments accounted for using the equity method is added;
- net income attributable to non-controlling interests is deducted;
- other acquisition-related effects (primarily the workdown of acquired inventories remeasured at fair value at the acquisition date, and the impact of acquisitions on investments accounted for using the equity method) are eliminated;
- restructuring costs relating to investments accounted for using the equity method are eliminated; and
- depreciation expense on right-of-use assets (IFRS 16) is eliminated, and rental expense (IAS 17) is deducted. Because Sanofi has elected first-time application of IFRS 16 using the simplified retrospective method, this adjustment ensures comparability of segment results between the six months ended June 30, 2019 and comparative periods.

Segment results are shown in the table below:

(€ million)	June 30, 2019 (6 months)				
	Pharmaceuticals	Consumer Healthcare	Vaccines	Other	Total
Net sales	**12,726**	**2,399**	**1,894**	**—**	**17,019**
Other revenues	129	1	544	—	674
Cost of sales	(3,242)	(773)	(1,259)	(111)	(5,385)
Research and development expenses	(2,306)	(70)	(302)	(295)	(2,973)
Selling and general expenses	(2,654)	(777)	(358)	(1,053)	(4,842)
Other operating income and expenses	(234)	105	(6)	(58)	(193)
Share of profit/(loss) from investments accounted for using the equity method	169	—	—	—	169
Net income attributable to non-controlling interests	(9)	(6)	—	—	(15)
Business operating income	**4,579**	**879**	**513**	**(1,517)**	**4,454**

(€ million)	June 30, 2018 (6 months)				
	Pharmaceuticals	Consumer Healthcare	Vaccines	Other	Total
Net sales	**12,199**	**2,353**	**1,522**	**—**	**16,074**
Other revenues	134	—	399	—	533
Cost of sales	(3,230)	(763)	(1,068)	(105)	(5,166)
Research and development expenses	(2,113)	(58)	(268)	(316)	(2,755)
Selling and general expenses	(2,648)	(788)	(326)	(1,047)	(4,809)
Other operating income and expenses	132	82	—	(56)	158
Share of profit/(loss) from investments accounted for using the equity method	150	—	(1)	—	149
Net income attributable to non-controlling interests	(52)	(6)	—	—	(58)
Business operating income	**4,572**	**820**	**258**	**(1,524)**	**4,126**

(€ million)	December 31, 2018 (12 months)				
	Pharmaceuticals	Consumer Healthcare	Vaccines	Other	Total
Net sales	**24,685**	**4,660**	**5,118**	**—**	**34,463**
Other revenues	252	—	962	—	1,214
Cost of sales	(6,738)	(1,539)	(2,854)	(190)	(11,321)
Research and development expenses	(4,572)	(143)	(555)	(624)	(5,894)
Selling and general expenses	(5,431)	(1,534)	(710)	(2,156)	(9,831)
Other operating income and expenses	(37)	101	(4)	(124)	(64)
Share of profit/(loss) from investments accounted for using the equity method	425	1	(3)	—	423
Net income attributable to non-controlling interests	(96)	(10)	—	—	(106)
Business operating income	**8,488**	**1,536**	**1,954**	**(3,094)**	**8,884**

The table below, presented in compliance with IFRS 8, shows a reconciliation between "Business operating income" and ***Income before tax and investments accounted for using the equity method***:

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Business operating income	**4,454**	**4,126**	**8,884**
Share of profit/(loss) from investments accounted for using the equity method [(a)]	(169)	(149)	(423)
Net income attributable to non-controlling interests [(b)]	15	58	106
Amortization and impairment of intangible assets	(2,956)	(1,100)	(2,888)
Fair value remeasurement of contingent consideration	190	10	117
Expenses arising from the impact of acquisitions on inventories	(3)	(99)	(114)
Restructuring costs and similar items	(747)	(607)	(1,480)
Other acquisition-related expenses	—	(10)	(28)
Other gains and losses, and litigation	317	(67)	502
Impacts of first-time application of IFRS 16	11	—	—
Operating income	**1,112**	**2,162**	**4,676**
Financial expenses	(244)	(202)	(435)
Financial income	94	97	164
Income before tax and investments accounted for using the equity method	**962**	**2,057**	**4,405**

(a) Excludes (i) restructuring costs and (ii) expenses arising from the impact of acquisitions on investments accounted for using the equity method.
(b) Excludes (i) restructuring costs and (ii) other adjustments attributable to non-controlling interests.

B.20.2. OTHER SEGMENT INFORMATION

The tables below show the split by operating segment of (i) the carrying amount of investments accounted for using the equity method, (ii) acquisitions of property, plant and equipment, and (iii) acquisitions of intangible assets.

The principal investments accounted for using the equity method are in the Pharmaceuticals segment: Regeneron Pharmaceuticals, Inc., the entities majority owned by BMS until 2018 (see Note C.2. to the consolidated financial statements for the year ended December 31, 2018), and Infraserv GmbH & Co. Höchst KG.

Acquisitions of intangible assets and property, plant and equipment correspond to acquisitions paid for during the period.

	June 30, 2019			
(€ million)	Pharmaceuticals	Consumer Healthcare	Vaccines	Total
Investments accounted for using the equity method	3,484	20	32	3,536
Acquisitions of property, plant and equipment	408	3	243	654
Acquisitions of other intangible assets	124	7	56	187

	June 30, 2018			
(€ million)	Pharmaceuticals	Consumer Healthcare	Vaccines	Total
Investments accounted for using the equity method	2,918	20	26	2,964
Acquisitions of property, plant and equipment	486	2	153	641
Acquisitions of other intangible assets	138	6	38	182

	December 31, 2018			
(€ million)	Pharmaceuticals	Consumer Healthcare	Vaccines	Total
Investments accounted for using the equity method	3,352	20	30	3,402
Acquisitions of property, plant and equipment	1,046	5	364	1,415
Acquisitions of other intangible assets	434	7	121	562

B.20.3. INFORMATION BY GEOGRAPHICAL REGION

The geographical information on net sales provided below is based on the geographical location of the customer.

In accordance with IFRS 8, the non-current assets reported below exclude financial instruments, deferred tax assets, and pre-funded pension obligations.

	June 30, 2019					
(€ million)	Total	Europe	of which France	North America	of which United States	Other countries
Net sales	**17,019**	**4,351**	**1,099**	**5,685**	**5,401**	**6,983**
Non-current assets:						
· property, plant and equipment	9,606	5,781	3,120	2,791	2,250	1,034
· goodwill	44,418	—	—	—	—	—
· other intangible assets	19,098	7,439	—	9,485	—	2,174

	June 30, 2018					
(€ million)	Total	Europe	of which France	North America	of which United States	Other countries
Net sales	**16,074**	**5,784**	**1,599**	**4,985**	**4,690**	**5,305**
Non-current assets:						
· property, plant and equipment	9,470	5,779	3,133	2,657	2,224	1,034
· goodwill	44,828	—	—	—	—	—
· other intangible assets	22,436	8,147	—	11,529	—	2,760

	December 31, 2018					
(€ million)	Total	Europe	of which France	North America	of which United States	Other countries
Net sales	**34,463**	**9,434**	**2,319**	**12,193**	**11,540**	**12,836**
Non-current assets:						
· property, plant and equipment	9,651	5,871	3,163	2,719	2,238	1,061
· goodwill	44,235	—	—	—	—	—
· other intangible assets	21,889	8,058	—	11,190	—	2,641

As stated in Notes B.6.1. and D.5. to the consolidated financial statements for the year ended December 31, 2018, goodwill is not allocated by geographical region.

B.20.4. PRINCIPAL CUSTOMERS AND CREDIT RISK

Sanofi's three largest customers respectively accounted for approximately 9 %, 6 % and 4 % of consolidated net sales in the first half of 2019, mostly in the Pharmaceuticals segment (versus approximately 10 %, 6 % and 4 % in the first half of 2018).

C/ EVENTS SUBSEQUENT TO JUNE 30, 2019

On July 23, 2019, Sanofi announced the signature of an agreement with Roche for the exclusive over-the-counter (OTC) rights to Tamiflu® for the prevention and treatment of influenza (flu) in the US. Under the terms of the agreement, Sanofi will be responsible for leading FDA negotiations for the OTC switch and subsequent exclusive marketing, scientific engagement and distribution of Tamiflu® OTC in the US. Tamiflu® is currently sold in the US by Genentech, a member of the Roche Group, for prescription use.

Topline results from three Phase III trials of Zynquista™ (sotagliflozin) in adults with type 2 diabetes from the InSynchrony clinical program were announced on July 26. Given the primary endpoint results of blood sugar control (HbA1c) reduction in the SOTA-CKD3 and SOTA-CKD4 studies, Sanofi provided notice to Lexicon that it is terminating the collaboration to develop, manufacture, and commercialize Zynquista™ in all ongoing global type 1 and type 2 diabetes programs. At this time, the ongoing Phase III clinical trials will continue and there will be no immediate changes. Sanofi has expressed willingness to work with Lexicon to ensure a smooth transition of the studies. Sanofi remains committed to working and supporting the investigators and patients enrolled in the studies while next steps are discussed with Lexicon.

2. HALF-YEAR MANAGEMENT REPORT

A/ SIGNIFICANT EVENTS OF THE FIRST HALF OF 2019

A.1. FIRST-HALF OVERVIEW

In a fast-changing industry environment, Sanofi continued its transformation during the first half of 2019, as it delivers on its mission as a global healthcare leader at the cutting edge of innovation. We are refocusing our R&D activities to prioritize Specialty Care – including oncology, immunology, rare diseases and rare blood disorders – while maintaining a strong commitment to Vaccines.

On January 7, 2019, Sanofi and Regeneron announced that they had restructured their global Immuno-Oncology Discovery and Development Agreement for new cancer treatments. The 2015 agreement was due to end in mid-2020, and the restructured agreement provides for ongoing collaborative development of two clinical stage bispecific antibody programs. This gives Sanofi increased flexibility to advance its early-stage immuno-oncology pipeline independently, while Regeneron retains all rights to its other immuno-oncology discovery and development programs.

On April 8, 2019, Sanofi and Alnylam concluded the research and option phase of the companies' 2014 RNAi therapeutics alliance in rare genetic diseases. The material collaboration terms for patisiran, vutrisiran (ALN-TTRsc02) and fitusiran, as previously announced, continue unchanged. As part of this agreement, Alnylam will advance an additional investigational asset in a rare genetic disease through studies enabling the filing of an Investigational New Drug (IND) application. Sanofi will be responsible for any potential further development or commercialization of the asset. In the event of approval, Alnylam will be eligible to receive double-digit royalties on global net sales of the product.

On June 18, 2019, Sanofi and Google announced that they are establishing a new Innovation Lab with the ambition of transforming how future medicines and health services are developed by tapping into emerging technologies. The collaboration aims to change how Sanofi develops new treatments and will focus on three key objectives: to better understand patients and diseases, to increase Sanofi's operational efficiency, and to improve the experience of Sanofi's patients and customers.

Net sales for the first half of 2019 amounted to €17,019 million, 5.9% higher than in the first half of 2018. At constant exchange rates (CER)[1], net sales rose by 4.1%, mainly reflecting good performances for Dupixent®, the Rare Diseases franchise and the Vaccines segment, and more generally sales growth in emerging markets. Those effects were partially offset by lower sales for the Diabetes franchise in the United States and for Established Prescription Products, in particular following the divestment of our European generics business (Zentiva) in 2018. At constant exchange rates and on a constant structure basis (CER/CS, see definition below), net sales were up 4.8%.

Net income attributable to equity holders of Sanofi amounted to €1,050 million, down 40.9%; this was due mainly to impairment losses charged against intangible assets in the period. Earnings per share was €0.84, 40.8% lower than in the first half of 2018. Business net income[2] was €3,406 million, up 7.9% on the first half of 2018, while business earnings per share (business EPS)[3] was 7.9% higher than in the first half of 2018 at €2.73.

A.2. RESEARCH AND DEVELOPMENT

Highlights of our research and development activities in the first half of 2019 in the Pharmaceuticals segment included the entry into Phase III of **cemiplimab** (Libtayo®), as an adjuvant in the treatment of cutaneous squamous cell carcinoma; **venglustat** (GCS inhibitor), in autosomal dominant polycystic kidney disease (ADPKD); and **dupilumab** (Dupixent®) in chronic obstructive pulmonary disease. In the Vaccines segment, the following products entered Phase III: the hexavalent pediatric vaccine **Shan6** (Diphtheria, Tetanus, Pertussis, Polio, Hepatitis B, Hemophilus influenzae b); the monoclonal antibody **nirsevimab** (collaboration with Medimmune) in the treatment of Respiratory Syncytial Virus (RSV); and the vero cell rabies vaccine **VerorabVax®** (VRVg).

Sanofi obtained regulatory marketing approval for a number of products in the first half of 2019. The Democratic Republic of Congo (DRC) granted marketing approval for **fexinidazole** for the treatment of human African trypanosomiasis (HAT), more commonly known as sleeping sickness. In the United States, **Cablivi®** was approved in association with plasma exchange and immunosuppression for the treatment of acquired thrombotic thrombocytopenic purpura (aTTP) in adults. Also in the United States, **Dupixent®** was approved for the treatment of inadequately controlled moderate to severe atopic dermatitis in adolescents aged 12 to 17, and for use with other medicines in adults with inadequately controlled chronic rhinosinusitis with nasal polyposis. In Europe, Dupixent® was approved as a treatment for severe asthma. The European Commission and the US Food and Drug Administration (FDA) approved a new indication for **Praluent®** (alirocumab) to

[1] Non-GAAP financial measure: see definition in C.3., "Net sales".
[2] Non-GAAP financial measure: see definition in C.2., "Business net income".
[3] Non-GAAP financial measure: see definition in C.2., "Business net income".

reduce cardiovascular risk in adults with established atherosclerotic cardiovascular disease. In Europe, conditional approval has been granted for **Libtayo®** (cemiplimab) in the treatment of patients with metastatic or locally advanced cutaneous squamous cell carcinoma (CSCC) who are not candidates for surgery or curative radiotherapy.

For an update on our research and development pipeline, refer to Section F of this half-year management report.

A.3. OTHER SIGNIFICANT EVENTS

A.3.1. CORPORATE GOVERNANCE

On February 12, 2019, Sanofi announced the appointment of Ameet Nathwani, M.D. as Chief Digital Officer in addition to his role as Executive Vice President, Chief Medical Officer. As Chief Digital Officer, Dr. Nathwani will be responsible for enhancing Sanofi's strategy of integrating digital technologies and medical science to improve patient outcomes. His mandate will include scaling up Sanofi's ongoing portfolio of digital initiatives by developing broad external partnerships, building out internal infrastructures, and exploring new business opportunities for Sanofi in the digital space.

The Annual General Meeting of Sanofi shareholders was held on April 30, 2019, chaired by Serge Weinberg. All of the resolutions submitted to the vote were adopted by the shareholders. The meeting approved the individual company financial statements and consolidated financial statements for the year ended December 31, 2018, and resolved to distribute a cash dividend of €3.07 per share paid on May 13, 2019. The meeting also approved the reappointment of Suet-Fern Lee and Serge Weinberg as directors, and ratified the co-opting of Christophe Babule as a director. Following the meeting, the new Board of Directors still has 16 members, including six women and two employee representative directors; the majority of the Board members are independent directors. At the Board meeting that followed the Annual General Meeting, Serge Weinberg was reappointed as Chairman of the Board of Directors of Sanofi; Melanie Lee was appointed to the Appointments, Governance and CSR Committee; and Carole Piwnica was appointed to the Compensation Committee.

At a Board meeting on June 6, 2019, the Sanofi Board of Directors unanimously appointed Paul Hudson as Chief Executive Officer of Sanofi, to succeed Olivier Brandicourt who has decided to retire. Paul Hudson, who most recently was Chief Executive Officer of Novartis Pharmaceuticals and a member of the Executive Committee of Novartis, will take up his post at Sanofi on September 1, 2019. Aged 51, Paul Hudson has strong international experience, particularly in the United States, Japan and Europe. He has spent his 28-year career with major pharmaceutical companies such as Schering Plough, Astra Zeneca and Novartis. Throughout his various management positions, he has demonstrated strategic vision, strong leadership and the ability to rise to the greatest challenges, especially in the fields of innovation and digital transformation. He also has a robust track record in successful major product launches. Paul Hudson will relocate to Paris.

A.3.2. LEGAL AND ARBITRATION PROCEEDINGS

For a description of the most significant developments in legal and arbitration proceedings since publication of the financial statements for the year ended December 31, 2018, refer to Note B.14. to the condensed half-year consolidated financial statements.

The following events have occurred in respect of litigation, arbitration and other legal proceedings in which Sanofi and its affiliates are involved:

PATENTS

- **Lantus® Mylan Patent Litigation (United States)**

In the New Jersey lawsuit, trial is tentatively scheduled for January 2020.

In the proceedings relating to the ten petitions filed by Mylan before the Patent Trial and Appeal Board (PTAB) challenging the validity of five Sanofi device patents, in April 2019, the PTAB decided to move forward with the *Inter Partes Review* (IPR) on nine of these ten petitions. The PTAB oral hearing is scheduled for January 2020.

GOVERNMENT INVESTIGATIONS AND RELATED LITIGATION

In the lawsuit filed in April 2018 in the US District Court for the Southern District of New York, alleging violations of the False Claims Act and 29 state-law analogs by Sanofi US and other manufacturer and pharmacy benefit managers (PBMs) defendants regarding Lantus® and Apidra®, the Court dismissed the case in July 2019.

A putative class of diabetes patients alleging violations of the Racketeer Influenced and Corrupt Organizations Act ("RICO Act") and various state unfair/deceptive trade practices statutes in connection with the pricing of Lantus® filed a Second Amended Complaint in the Federal Court of New Jersey in March 2019 after several of their claims had previously been dismissed, and the three manufacturer defendants have filed a motion to dismiss. In the same court, the plaintiffs in *MSP Recovery Claims, Series LLC* filed a Second Amended Complaint in April 2019, and the same defendants have filed a motion to dismiss. In addition to the complaint filed by Minnesota in October 2018 in the Federal Court of New Jersey,

Kentucky filed its own complaint against the same three defendants in Kentucky state court (Franklin Country Circuit Court) in May 2019. The defendants are preparing motions to dismiss in both of these actions.

In July 2019, Sanofi US received a subpoena from the New York Attorney General's Office in connection with an inquiry related to insulin pricing. The subpoena requests the production of various documents relating to Sanofi's insulin products including documents regarding pricing, discount programs, sales and expenses, contracting, marketing materials and legal proceedings. Sanofi US is cooperating with this inquiry.

Several committees of the US Congress are pursuing inquiries focused on pharmaceutical pricing, with an emphasis on the historical pricing of insulin. For example, in January 2019, the Company received an inquiry from the U.S. House of Representatives, Committee on Oversight and Reform, seeking information about the historical pricing of Lantus® and Renvela® and in February 2019, the Company received an inquiry letter from the US Senate Committee on Finance concerning the historical pricing of Sanofi's insulin products in the US. Sanofi US is cooperating with these ongoing Congressional inquiries, which may involve hearings and/or congressional reports that may portray pharmaceutical company business activities in a negative light. While we cannot predict the outcome of these matters, they – as well as the enactment of various policy proposals that are currently pending – could affect our ability to price our drugs, and in particular our insulin products, in the US marketplace. Moreover, potential policy measures such as importation and international reference pricing could impact our business in other jurisdictions.

In France, in the claim filed in 2017 by the French *Caisse Nationale d'Assurance Maladie* (French Social Security), an oral pleading took place before the Commercial Court in June 2019 regarding the statute of limitations. Judgment is expected to be rendered on September 17, 2019.

A.3.3. OTHER EVENTS

On March 13, 2019, Sanofi announced that it had successfully placed a €2 billion bond issue under its Euro Medium Term Notes (EMTN) program, in three tranches:

- €850 million of fixed-rate bonds maturing March 2022, with annual coupons and bearing interest at an annual rate of 0.000%;
- €650 million of fixed-rate bonds maturing March 2029, with annual coupons and bearing interest at an annual rate of 0.875%; and
- €500 million of fixed-rate bonds maturing March 2034, with annual coupons and bearing interest at an annual rate of 1.250%.

This issue reduces the average cost and extends the average maturity of Sanofi's debt. Sanofi intends to use the net proceeds of those bond issues for general corporate purposes.

B/ EVENTS SUBSEQUENT TO JUNE 30, 2019

On July 23, 2019, Sanofi announced the signature of an agreement with Roche for the exclusive over-the-counter (OTC) rights to Tamiflu® for the prevention and treatment of influenza (flu) in the US. Under the terms of the agreement, Sanofi will be responsible for leading FDA negotiations for the OTC switch and subsequent exclusive marketing, scientific engagement and distribution of Tamiflu® OTC in the US. Tamiflu® is currently sold in the US by Genentech, a member of the Roche Group, for prescription use.

Topline results from three Phase III trials of Zynquista™ (sotagliflozin) in adults with type 2 diabetes from the InSynchrony clinical program were announced on July 26. Given the primary endpoint results of blood sugar control (HbA1c) reduction in the SOTA-CKD3 and SOTA-CKD4 studies, Sanofi provided notice to Lexicon that it is terminating the collaboration to develop, manufacture, and commercialize Zynquista™ in all ongoing global type 1 and type 2 diabetes programs. At this time, the ongoing Phase III clinical trials will continue and there will be no immediate changes. Sanofi has expressed willingness to work with Lexicon to ensure a smooth transition of the studies. Sanofi remains committed to working and supporting the investigators and patients enrolled in the studies while next steps are discussed with Lexicon.

C/ CONSOLIDATED FINANCIAL STATEMENTS FOR THE FIRST HALF OF 2019

Unless otherwise indicated, all financial data in this report are presented in accordance with international financial reporting standards (IFRS), including international accounting standards and interpretations (see Note A.1. to the condensed half-year consolidated financial statements).

Consolidated income statements for the six months ended June 30, 2018 and June 30, 2019

(€ million)	June 30, 2019 (6 months)	as % of net sales	June 30, 2018 (6 months)	as % of net sales
Net sales	**17,019**	**100.0%**	**16,074**	**100.0%**
Other revenues	674	4.0%	533	3.3%
Cost of sales	(5,385)	(31.6%)	(5,265)	(32.8%)
Gross profit	**12,308**	**72.3%**	**11,342**	**70.6%**
Research and development expenses	(2,972)	(17.5%)	(2,755)	(17.1%)
Selling and general expenses	(4,835)	(28.4%)	(4,819)	(30.0%)
Other operating income	273		323	
Other operating expenses	(466)		(165)	
Amortization of intangible assets	(1,116)		(999)	
Impairment of intangible assets	(1,840)		(101)	
Fair value remeasurement of contingent consideration	190		10	
Restructuring costs and similar items	(747)		(607)	
Other gains and losses, and litigation	317		(67)	
Operating income	**1,112**	**6.5%**	**2,162**	**13.5%**
Financial expenses	(244)		(202)	
Financial income	94		97	
Income before tax and investments accounted for using the equity method	**962**	**5.7%**	**2,057**	**12.8%**
Income tax expense	(13)		(297)	
Share of profit/(loss) from investments accounted for using the equity method	116		75	
Net income	**1,065**		**1,835**	
Net income attributable to non-controlling interests	15		57	
Net income attributable to equity holders of Sanofi	**1,050**	**6.2%**	**1,778**	**11.1%**
Average number of shares outstanding (million)	1,247.2		1,247.8	
Average number of shares after dilution (million)	1,254.7		1,254.9	
– Basic earnings per share (in euros)	0.84		1.42	
– Diluted earnings per share (in euros)	0.84		1.42	

C.1. SEGMENT INFORMATION

C.1.1. OPERATING SEGMENTS

In accordance with IFRS 8 (Operating Segments), the segment information reported by Sanofi is prepared on the basis of internal management data provided to the Chief Executive Officer, who is the chief operating decision maker. The performance of those segments is monitored individually using internal reports and common indicators. The operating segment disclosures required under IFRS 8 are provided in Note B.20. to the condensed half-year consolidated financial statements.

Sanofi has three operating segments: Pharmaceuticals, Consumer Healthcare and Vaccines.

The Pharmaceuticals segment comprises the commercial operations of the following global franchises: Specialty Care (Rare Diseases, Multiple Sclerosis, Oncology, Immunology and Rare Blood Disorder), Diabetes & Cardiovascular, and Established Prescription Products, together with research, development and production activities dedicated to our Pharmaceuticals segment. This segment also includes all associates whose activities are related to pharmaceuticals, in particular our share of Regeneron.

The Consumer Healthcare segment comprises, for all geographical territories, the commercial operations for our Consumer Healthcare products, together with research, development and production activities dedicated to those products.

The Vaccines segment comprises, for all geographical territories (including from January 1, 2017 certain territories previously included in the Sanofi Pasteur MSD joint venture), the commercial operations of Sanofi Pasteur, together with research, development and production activities dedicated to vaccines.

Inter-segment transactions are not material.

The costs of our global functions (Medical Affairs, External Affairs, Finance, Human Resources, Legal Affairs, Information Solutions & Technologies, Sanofi Business Services, etc.) are managed centrally at group-wide level. The costs of those functions are presented within the “Other” category. That category also includes other reconciling items such as retained commitments in respect of divested activities.

C.1.2. BUSINESS OPERATING INCOME

We report segment results on the basis of “business operating income”. This indicator is used internally by Sanofi’s chief operating decision maker to measure the performance of each operating segment and to allocate resources. For a definition of “business operating income”, and a reconciliation between that indicator and ***Income before tax and investments accounted for using the equity method***, refer to Note B.20.1 to our condensed half-year consolidated financial statements.

The impact of IFRS 16 on our business net income is reflected by (i) the elimination of the depreciation charged against right-of-use assets recognized under IFRS 16 and (ii) the inclusion of the IAS 17 lease expense. This allows for consistency of presentation with the comparative period, Sanofi having applied the simplified retrospective method on transition.

C.2. BUSINESS NET INCOME

We believe that understanding of our operational performance by our management and our investors is enhanced by reporting “business net income”. This non-GAAP financial measure represents business operating income, less net financial expenses and the relevant income tax effects.

Business net income for the first half of 2019 was €3,406 million, 7.9% higher than in the first half of 2018 (€3,156 million). That represents 20.0% of net sales, compared with 19.6% in the first half of 2018.

We also report “business earnings per share” (business EPS), a non-GAAP financial measure which we define as business net income divided by the weighted average number of shares outstanding.

Business EPS was €2.73 for the first half of 2019, 7.9% higher than the 2018 first-half figure of €2.53, based on an average number of shares outstanding of 1,247.2 million for the first half of 2019 and 1,247.8 million for the first half of 2018.

The table below reconciles our business operating income to our business net income:

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Business operating income	**4,454**	**4,126**	**8,884**
Financial income and expenses	(130)	(105)	(271)
Income tax expense	(918)	(865)	(1,794)
Business net income	**3,406**	**3,156**	**6,819**

We define business net income as ***Net income attributable to equity holders of Sanofi*** determined under IFRS, excluding the following items:

- amortization and impairment losses charged against intangible assets (other than software and other rights of an industrial or operational nature);
- fair value remeasurements of contingent consideration relating to business combinations or divestments;
- other impacts associated with acquisitions (including impacts of acquisitions on investments accounted for using the equity method);
- restructuring costs and similar items[1];
- other gains and losses (including gains and losses on major disposals of non-current assets)[2];
- the impacts of IFRS 16 on lease accounting;
- other costs and provisions related to litigation[2];
- the tax effects of the items listed above, and the impact of major tax disputes; and
- the portion attributable to non-controlling interests of the items listed above.

1 Presented in the line item ***Restructuring costs and similar items*** in the consolidated income statement.
2 Presented in the line item ***Other gains and losses, and litigation*** in the consolidated income statement.

The table below reconciles our business net income to ***Net income attributable to equity holders of Sanofi***:

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Net income attributable to equity holders of Sanofi	**1,050**	**1,778**	**4,306**
Amortization of intangible assets [(a)]	1,116	999	2,170
Impairment of intangible assets [(b)]	1,840	101	718
Fair value remeasurement of contingent consideration	(190)	(10)	(117)
Expenses arising from the impact of acquisitions on inventories	3	99	114
Other expenses related to business combinations	—	10	28
Restructuring costs and similar items	747	607	1,480
Other gains and losses, and litigation [(c)]	(317)	67	(502)
Impacts of IFRS 16 on lease accounting [(d)]	9	—	—
Tax effects of the items listed above:	(905)	(475)	(1,125)
amortization and impairment of intangible assets	*(711)*	*(275)*	*(692)*
fair value remeasurement of contingent consideration	*24*	*11*	*38*
expenses arising from the impact of acquisitions on inventories	*—*	*(23)*	*(27)*
other expenses related to business combinations	*—*	*—*	*(6)*
tax effects of restructuring costs and similar items	*(197)*	*(183)*	*(435)*
other tax effects	*(21)*	*(5)*	*(3)*
Other tax items [(e)]	—	(93)	(188)
Share of items listed above attributable to non-controlling interests	—	(1)	(2)
Investments accounted for using the equity method: restructuring costs and expenses arising from the impact of acquisitions	53	74	(76)
Items relating to the Animal Health business [(f)]	—	—	13
Business net income	**3,406**	**3,156**	**6,819**
Average number of shares outstanding (million)	1,247.2	1,247.8	1,247.1
Basic earnings per share (in euros)	0.84	1.42	3.45
Reconciling items per share (in euros)	1.89	1.11	2.02
Business earnings per share (in euros)	2.73	2.53	5.47

(a) Includes amortization expense generated by the remeasurement of intangible assets in connection with business combinations: €1,060 million in the six months ended June 30, 2019; €934 million in the six months ended June 30, 2018; and €1,957 million in the year ended December 31, 2018.
(b) Includes impairment losses of €1,609 million taken against Eloctate® franchise assets.
(c) In 2019, this line mainly comprises a gain arising from litigation. For 2018, this line consists mainly of separation costs associated with the process of disinvesting from the Generics business in Europe, before tax effects.
(d) Impacts of the new accounting standard on leases (IFRS 16), applied from January 1, 2019 using the simplified retrospective method without restatement of comparative periods. For comparative purposes, business net income continues to be reported in accordance with the lease accounting policies applicable under the previous standard (IAS 17).
(e) For 2018, this line comprises the direct and indirect impacts of US tax reform.
(f) This line shows the residual impacts of the divestment of our Animal Health business.

The most significant reconciling items between our business net income and ***Net income attributable to equity holders of Sanofi*** relate to (i) the purchase accounting effects of our acquisitions and business combinations, particularly the amortization and impairment of intangible assets (other than software and other rights of an industrial or operational nature) and (ii) the impacts of events regarded as non-recurring, where the amounts involved are particularly significant. We believe that excluding those non-cash or non-recurring charges enhances an investor's understanding of our underlying economic performance, because we do not consider that the excluded charges reflect the combined entity's ongoing operating performance. Rather, we believe that each of the excluded charges reflects the decision to acquire the businesses concerned.

The principal purchase accounting effects of acquisitions and business combinations on net income are:

- amortization and net impairment losses charged against intangible assets (other than software and other rights of an industrial or operational nature), net of taxes and non-controlling interests; and
- the incremental cost of sales incurred on the workdown of acquired inventories remeasured at fair value, net of taxes.

We believe (subject to the limitations described below) that disclosing our business net income enhances the comparability of our operating performance, for the following reasons:

- the elimination of charges related to the purchase accounting effect of our acquisitions and business combinations (particularly amortization and impairment of finite-lived intangible assets, other than software and other rights of an industrial or operational nature) enhances the comparability of our ongoing operating performance relative to our peers in the pharmaceutical industry that carry those intangible assets (principally patents and trademarks) at low book values either because they are the result of in-house research and development that has already been expensed in prior periods or because they were acquired through business combinations that were accounted for as poolings-of-interest;
- the elimination of selected items – such as the incremental cost of sales arising from the workdown of acquired inventories remeasured at fair value in business combinations, major gains and losses on disposals, and costs and provisions associated with major litigation and any other major non-recurring items – improves comparability from one period to the next; and
- the elimination of restructuring costs and similar items enhances comparability because those costs are incurred in connection with reorganization and transformation processes intended to optimize our operations.

We remind investors, however, that business net income should not be considered in isolation from, or as a substitute for, ***Net income attributable to equity holders of Sanofi*** reported in accordance with IFRS. In addition, we strongly encourage investors and potential investors not to rely on any single financial measure but to review our financial statements, including the notes thereto, carefully and in their entirety.

We compensate for the material limitations described above by using business net income only to supplement our IFRS financial reporting and by ensuring that our disclosures provide sufficient information for a full understanding of all adjustments included in business net income.

Because our business net income is not a standardized measure, it may not be directly comparable with the non-GAAP financial measures of other companies using the same or a similar non-GAAP financial measure.

C.3. NET SALES

Net sales for the first half of 2019 amounted to €17,019 million, 5.9% higher than in the first half of 2018. Exchange rate fluctuations had a positive effect of 1.8 percentage points overall, due mainly to favorable trends in the euro exchange rate against the US dollar and Japanese yen, partly offset by negative effects from the Argentinean peso and Turkish lira. At constant exchange rates (CER, see definition below), net sales rose by 4.1%, mainly reflecting good performances for Dupixent®, the Rare Diseases franchise and the Vaccines segment, and more generally sales growth in emerging markets. Those effects were attenuated by lower sales for the Diabetes franchise in the United States and for Established Prescription Products, in particular following the divestment of our European generics business (Zentiva) in 2018. At constant exchange rates and on a constant structure basis (CER/CS, see definition below), net sales were up 4.8%.

Reconciliation of net sales to net sales at constant exchange rates and on a constant structure basis

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	Change
Net sales	**17,019**	**16,074**	**+5.9%**
Effect of exchange rates	(289)		
Net sales at constant exchange rates	**16,730**	**16,074**	**+4.1%**
Impact of change in structure - Zentiva [(a)] and Bioverativ [(b)]		(112)	
Net sales at constant exchange rates and on a constant structure basis	**16,730**	**15,962**	**+4.8%**

(a) Elimination of the €312 million of net sales generated from January 1 through June 30, 2018 by Zentiva, our European generics business, divested on September 30, 2018.
(b) Add-back of the €200 million of net sales generated from January 1 through March 7, 2018 by Bioverativ, consolidated from March 8, 2018 onwards.

When we refer to changes in our net sales at constant exchange rates (CER), that means that we have excluded the effect of exchange rates by recalculating net sales for the relevant period using the exchange rates that were used for the previous period.

When we refer to changes in our net sales on a constant structure (CS) basis, that means that we eliminate the effect of changes in structure by restating the net sales for the previous period as follows:

- by including sales generated by entities or product rights acquired in the current period for a portion of the previous period equal to the portion of the current period during which we owned them, based on historical sales information we receive from the party from whom we make the acquisition;
- similarly, by excluding sales for a portion of the previous period when we have sold an entity or rights to a product in the current period; and
- for a change in consolidation method, by recalculating the previous period on the basis of the method used for the current period.

To facilitate analysis and comparisons with prior periods, some figures are given at constant exchange rates and on a constant structure basis (CER/CS).

C.3.1. NET SALES BY GLOBAL BUSINESS UNIT (GBU)

Our net sales comprise the net sales generated by our Pharmaceuticals, Consumer Healthcare and Vaccines segments.

The table below also presents net sales for our Global Business Units (GBUs). Note that emerging markets sales of Specialty Care and General Medicines products are included in the China & Emerging Markets GBU. This reflects Sanofi's decision to change the organizational structure of two of our GBUs effective January 1, 2019 so as to refocus our activities on mature markets and emerging markets. This involved creating a new General Medicines GBU which combines the product portfolio of the Diabetes & Cardiovascular GBU with the Established Prescription Products portfolio of the General Medicines and Emerging Markets GBU. The new General Medicines GBU will focus exclusively on mature markets. We have also created a second new GBU, China and Emerging Markets. This new GBU will concentrate on the distinctive characteristics and growth potential of emerging markets and especially China, our second biggest market after the United States.

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	Change on a reported basis	Change at constant exchange rates
Sanofi Genzyme (Specialty Care) [(a)(b)]	4,311	3,268	+31.9%	+25.9%
General Medicines[(a)]	4,566	5,309	-14.0%	-16.3%
China & Emerging Markets [(c)(d)]	3,849	3,622	+6.3%	+8.7%
Total Pharmaceuticals	**12,726**	**12,199**	**+4.3%**	**+2.4%**
Consumer Healthcare	**2,399**	**2,353**	**+2.0%**	**+0.8%**
Sanofi Pasteur (Vaccines)	**1,894**	**1,522**	**+24.4%**	**+22.5%**
Total net sales	**17,019**	**16,074**	**+5.9%**	**+4.1%**

(a) Does not include Emerging Markets net sales.
(b) Rare Diseases, Multiple Sclerosis, Oncology, Immunology, and Rare Blood Disorder.
(c) Includes net sales in Emerging Markets of Specialty Care and General Medicines products.
(d) Emerging markets: World excluding United States, Canada, Europe (apart from Eurasia: Russia, Ukraine, Georgia, Belarus, Armenia and Turkey), Japan, South Korea, Australia, New Zealand and Puerto Rico.

C.3.2. NET SALES BY FRANCHISE, GEOGRAPHICAL REGION AND PRODUCT

The table below sets forth our 2019 and 2018 first-half net sales by franchise, geographical region and product in order to facilitate direct comparisons with our peers. It also provides a reconciliation of sales by GBU for our Pharmaceuticals segment. Net sales for the Specialty Care GBU are obtained by aggregating sales of Specialty Care products in Europe, the United States and the Rest of the World region. Net sales for the General Medicines GBU are obtained by aggregating sales of General Medicines products in Europe, the United States and the Rest of the World region. Net sales for the China & Emerging Markets GBU are obtained by aggregating sales of all our pharmaceutical products in emerging markets.

(€ million)	Europe [a]			United States			Rest of the world [b]			Emerging Markets [c]			Total Franchise			
	June 30,		Change	June 30,		Change	June 30,		Change	June 30,		Change	June 30,		Change	
	2019	2018	CER	2019	2018	CER	2019	2018	CER	2019	2018	CER	2019	2018	Reported	CER
Aubagio	203	184	+10.3%	645	541	+11.3%	29	25	+16.0%	26	25	+12.0%	903	775	+16.5%	+11.2%
Lemtrada	63	92	-31.5%	83	93	-17.2%	6	10	-40.0%	14	12	+33.3%	166	207	-19.8%	-21.7%
Total Multiple Sclerosis	**266**	**276**	**-3.6%**	**728**	**634**	**+7.1%**	**35**	**35**	**+0.0%**	**40**	**37**	**+18.9%**	**1,069**	**982**	**+8.9%**	**+4.3%**
Cerezyme	123	134	-8.2%	88	83	-1.2%	17	19	-15.8%	135	120	+30.0%	363	356	+2.0%	+5.9%
Cerdelga	34	22	+54.5%	57	47	+12.8%	5	4	+25.0%	2	1	+200.0%	98	74	+32.4%	+28.4%
Myozyme	192	188	+2.1%	162	133	+13.5%	29	28	+3.6%	71	56	+37.5%	454	405	+12.1%	+10.9%
Fabrazyme	90	87	+3.4%	199	179	+3.9%	60	54	+7.4%	47	38	+36.8%	396	358	+10.6%	+7.8%
Aldurazyme	39	38	+2.6%	26	21	+14.3%	13	12	+8.3%	43	32	+43.8%	121	103	+17.5%	+18.4%
Other	33	33	+0.0%	44	46	-8.7%	42	42	-4.8%	25	21	+23.8%	144	142	+1.4%	-0.7%
Total Rare Diseases	**511**	**502**	**+1.8%**	**576**	**509**	**+5.7%**	**166**	**159**	**+1.3%**	**323**	**268**	**+34.3%**	**1,576**	**1,438**	**+9.6%**	**+9.2%**
Jevtana	86	78	+10.3%	101	84	+11.9%	36	29	+20.7%	14	11	+27.3%	237	202	+17.3%	+13.4%
Thymoglobulin	18	19	-5.3%	95	78	+14.1%	12	10	+10.0%	50	37	+37.8%	175	144	+21.5%	+17.4%
Eloxatin	1	1	+0.0%	-4	0	-	13	15	-13.3%	99	74	+32.4%	109	90	+21.1%	+20.0%
Mozobil	24	24	+0.0%	54	45	+11.1%	9	8	+12.5%	6	5	+40.0%	93	82	+13.4%	+9.8%
Taxotere	2	2	+0.0%	-1	1	-200.0%	14	14	-7.1%	74	67	+9.0%	89	84	+6.0%	+3.6%
Other	50	52	-3.8%	42	40	+0.0%	23	20	+15.0%	12	13	-15.4%	127	125	+1.6%	-0.8%
Total Oncology	**181**	**176**	**+2.8%**	**287**	**248**	**+8.1%**	**107**	**96**	**+8.3%**	**255**	**207**	**+22.7%**	**830**	**727**	**+14.2%**	**+11.0%**
Dupixent	82	26	+215.4%	669	246	+154.5%	65	10	+520.0%	9	1	+800.0%	825	283	+191.5%	+175.3%
Kevzara	18	5	+260.0%	48	23	+95.7%	15	2	+600.0%	1	0	-	82	30	+173.3%	+160.0%
Total Immunology	**100**	**31**	**+222.6%**	**717**	**269**	**+149.4%**	**80**	**12**	**+533.3%**	**10**	**1**	**+900.0%**	**907**	**313**	**+189.8%**	**+173.8%**
Eloctate	0	0	-	272	187	+35.8%	65	32	+90.6%	8	0	-	345	219	+57.5%	+47.5%
Alprolix	0	0	-	144	83	+62.7%	56	19	+178.9%	0	0	-	200	102	+96.1%	+84.3%
Cablivi	9	0	-	11	0	-	0	0	-	0	0	-	20	0	-	-
Total Rare Blood Disorder	**9**	**0**	**-**	**427**	**270**	**+47.8%**	**121**	**51**	**+125.5%**	**8**	**0**	**-**	**565**	**321**	**+76.0%**	**+65.4%**
Total Specialty Care	**1,067**	**985**	**+8.3%**	**2,735**	**1,930**	**+32.4%**	**509**	**353**	**+39.1%**	**636**	**513**	**+31.8%**	**4,947**	**3,781**	**+30.8%**	**+26.7%**
Lantus	298	355	-16.1%	568	816	-35.2%	113	139	-20.9%	553	492	+14.6%	1,532	1,802	-15.0%	-16.7%
Toujeo	163	142	+14.8%	139	171	-24.0%	40	36	+5.6%	89	65	+41.5%	431	414	+4.1%	+2.2%
Apidra	66	70	-5.7%	25	40	-42.5%	18	19	-5.3%	64	54	+24.1%	173	183	-5.5%	-4.9%
Amaryl	8	8	+0.0%	1	1	+0.0%	13	15	-13.3%	149	146	+1.4%	171	170	+0.6%	+0.0%
Admelog	7	2	+250.0%	136	7	-	0	1	-100.0%	0	0	-	143	10	-	-
Other	66	71	-7.0%	37	24	+45.8%	16	12	+33.3%	15	36	-58.3%	134	143	-6.3%	-7.7%
Total Diabetes	**608**	**648**	**-6.2%**	**906**	**1,059**	**-20.2%**	**200**	**222**	**-12.2%**	**870**	**793**	**+11.7%**	**2,584**	**2,722**	**-5.1%**	**-6.9%**
Praluent	61	41	+46.3%	44	61	-32.8%	8	5	+60.0%	9	4	+125.0%	122	111	+9.9%	+6.3%
Multaq	20	21	-4.8%	135	135	-6.7%	2	3	-33.3%	4	3	+33.3%	161	162	-0.6%	-6.2%
Total Cardiovascular	**81**	**62**	**+29.0%**	**179**	**196**	**-14.8%**	**10**	**8**	**+25.0%**	**13**	**7**	**+85.7%**	**283**	**273**	**+3.7%**	**-1.1%**
Plavix	69	76	-9.2%	0	0	-	100	110	-13.6%	597	575	+3.3%	766	761	+0.7%	-0.4%
Lovenox	375	471	-20.4%	18	20	-15.0%	36	41	-12.2%	261	236	+11.9%	690	768	-10.2%	-9.9%
Aprovel	54	55	-1.8%	14	5	+160.0%	39	41	-4.9%	267	242	+9.1%	374	343	+9.0%	+7.9%
Depakine	80	84	-4.8%	0	0	-	7	7	+0.0%	149	139	+7.2%	236	230	+2.6%	+2.6%
Synvisc / Synvisc one	14	13	+7.7%	103	111	-12.6%	7	7	-14.3%	31	29	+3.4%	155	160	-3.1%	-8.1%
Renagel / Renvela	26	32	-18.8%	59	121	-54.5%	16	15	+6.7%	44	33	+30.3%	145	201	-27.9%	-30.3%
Tritace	71	73	-1.4%	0	0	-	3	2	+0.0%	35	40	-10.0%	109	115	-5.2%	-4.3%
Stilnox	17	20	-15.0%	18	22	-22.7%	41	42	-9.5%	31	32	-3.1%	107	116	-7.8%	-11.2%
Allegra	6	5	+20.0%	0	0	-	76	75	-4.0%	0	0	-	82	80	+2.5%	-2.5%
Generics	61	367	-83.4%	79	48	+54.2%	74	71	+0.0%	322	351	-3.1%	536	837	-36.0%	-34.8%
Other established prescription products	835	890	-5.7%	93	100	-16.0%	191	190	-2.1%	593	632	-3.5%	1,712	1,812	-5.5%	-5.1%
Total Established Prescription Products	**1,608**	**2,086**	**-22.7%**	**384**	**427**	**-16.4%**	**590**	**601**	**-5.5%**	**2,330**	**2,309**	**+2.3%**	**4,912**	**5,423**	**-9.4%**	**-9.7%**
Total General Medicines	**2,297**	**2,796**	**-17.7%**	**1,469**	**1,682**	**-18.6%**	**800**	**831**	**-7.0%**	**3,213**	**3,109**	**+4.9%**	**7,779**	**8,418**	**-7.6%**	**-8.5%**
Total China and Emerging Markets										**3,849**	**3,622**	**+8.7%**				
Total Pharmaceuticals	**3,364**	**3,781**	**-10.9%**	**4,204**	**3,612**	**+8.6%**	**1,309**	**1,184**	**+6.8%**	**3,849**	**3,622**	**+8.7%**	**12,726**	**12,199**	**+4.3%**	**+2.4%**
Allergy, Cough & Cold	163	167	-2.4%	187	173	+0.6%	88	78	+9.0%	173	162	+7.4%	611	580	+5.3%	+2.8%
Pain	254	254	+0.4%	93	78	+11.5%	63	57	+3.5%	220	239	+0.4%	630	628	+0.3%	+2.1%
Digestive	167	162	+3.1%	103	95	+1.1%	28	28	+0.0%	250	211	+18.5%	548	496	+10.5%	+9.1%
Nutritionals	62	62	+1.6%	19	18	+0.0%	122	123	-3.3%	111	127	-11.8%	314	330	-4.8%	-5.5%
Other	34	61	-44.3%	186	177	-1.7%	17	19	-15.8%	59	62	-4.8%	296	319	-7.2%	-11.3%
Total Consumer Healthcare	**680**	**706**	**-3.4%**	**588**	**541**	**+1.5%**	**318**	**305**	**+0.7%**	**813**	**801**	**+4.2%**	**2,399**	**2,353**	**+2.0%**	**+0.8%**
Polio / Pertussis / Hib Vaccines	151	139	+7.9%	192	176	+1.7%	110	81	+29.6%	535	338	+61.5%	988	734	+34.6%	+33.5%
Travel and Other Endemics Vaccines	67	59	+13.6%	74	62	+12.9%	30	28	+7.1%	86	79	+7.6%	257	228	+12.7%	+10.5%
Meningitis/Pneumonia Vaccines	0	0	-	175	157	+4.5%	7	7	+0.0%	66	41	+68.3%	248	205	+21.0%	+17.1%
Adult Booster Vaccines	85	66	+28.8%	124	97	+19.6%	13	13	+7.7%	12	10	+20.0%	234	186	+25.8%	+22.0%
Influenza Vaccines	2	1	+100.0%	4	4	-25.0%	20	24	-12.5%	91	98	-4.1%	117	127	-7.9%	-5.5%
Other	2	6	-66.7%	40	28	+35.7%	6	5	+40.0%	2	3	+0.0%	50	42	+19.0%	+9.5%
Total Vaccines	**307**	**271**	**+12.9%**	**609**	**524**	**+8.8%**	**186**	**158**	**+13.9%**	**792**	**569**	**+42.2%**	**1,894**	**1,522**	**+24.4%**	**+22.5%**
Total Sanofi	**4,351**	**4,758**	**-8.4%**	**5,401**	**4,677**	**+7.8%**	**1,813**	**1,647**	**+6.3%**	**5,454**	**4,992**	**+11.8%**	**17,019**	**16,074**	**+5.9%**	**+4.1%**

(a) Europe excluding Eurasia (Russia, Ukraine, Georgia, Belarus, Armenia and Turkey).
(b) Japan, South Korea, Canada, Australia, New Zealand and Puerto Rico.
(c) World excluding United States, Canada, Europe (apart from Eurasia), Japan, South Korea, Australia, New Zealand and Puerto Rico.

C.3.3. PHARMACEUTICALS SEGMENT

Net sales of the **Pharmaceuticals** segment were €12,726 million in the first half of 2019, up 4.3% on a reported basis and 2.4% at constant exchange rates. At constant exchange rates and on a constant structure basis, net sales rose by 3.4%.

The year-on-year increase of €527 million reflects favorable exchange rate effects of €234 million and a net negative effect of €112 million from the divestment of our European Generics business (Zentiva) and the acquisition of Bioverativ's products. It also reflects the following effects at constant exchange rates:

- positive performances from the Immunology franchise (+€544 million), the Rare Diseases franchise (+€132 million), the Oncology franchise (+€80 million), the Multiple Sclerosis franchise (+€42 million), and the Rare Blood Disorder franchise on a constant structure basis (+€9 million); and
- lower net sales for the Diabetes franchise (-€188 million), the Cardiovascular franchise (-€3 million), and the Established Prescription Products franchise on a constant structure basis (-€211 million).

Comments on the performances of our major Pharmaceuticals segment products are provided below.

RARE DISEASES FRANCHISE

Net sales for the **Rare Diseases** franchise amounted to €1,576 million in the first half of 2019, up 9.6% on a reported basis and 9.2% at constant exchange rates. Growth was driven by medicines indicated for the treatment of Pompe disease (Myozyme®/Lumizyme®), Gaucher disease (Cerezyme® and Cerdelga®) and Fabry disease (Fabrazyme®), especially in the Emerging Markets region[1]. The franchise grew sales by 5.7% CER (to €576 million) in the United States and by 1.8% CER (to €511 million) in Europe[2] over the period. Emerging Markets sales were 34.3% higher CER at €323 million, boosted by a favorable delivery schedule.

In the first half of 2019, net sales for the **Gaucher disease franchise** (**Cerezyme**® and **Cerdelga**®) reached €461 million, up 9.8% CER, on stronger sales of Cerezyme® in Emerging Markets (+30.0% CER at €135 million) and of Cerdelga® in Europe (+54.5% CER at €34 million). Overall, sales of Cerezyme® rose by 5.9% CER to €363 million during the period, and sales of Cerdelga® by 28.4% CER to €98 million.

Net sales of **Myozyme® / Lumizyme®** in Pompe disease rose by 10.9% CER in the first half of 2019 to €454 million, driven by sales growth in Emerging Markets (+37.5% CER, at €71 million) and in the United States (+13.5% CER, at €162 million). This growth reflects the rising number of patients diagnosed with, and treated for, Pompe disease.

Fabrazyme® posted net sales growth of 7.8% CER to €396 million. Sales are advancing across all territories due to the rising number of patients diagnosed with, and treated for, Fabry disease. The product increased its sales by 36.8% CER in Emerging Markets (to €47 million) and by 3.9% CER in the United States (to €199 million).

MULTIPLE SCLEROSIS FRANCHISE

In the first half of 2019, the **Multiple Sclerosis** franchise generated net sales of €1,069 million, up 8.9% on a reported basis and 4.3% CER, as strong growth in sales of Aubagio® more than offset lower sales of Lemtrada® in mature markets.

Aubagio® achieved net sales of €903 million in the first half of 2019, up 11.2% CER, supported by growth in the United States (+11.3% CER, at €645 million) and Europe (+10.3% CER, at €203 million). Sales also rose in the Rest of the World region[3] (+16.0% CER, at €29 million) and in Emerging Markets (+12.0% CER, at €26 million).

2019 first-half net sales of **Lemtrada®** were €166 million, down 21.7% CER on lower sales in Europe (-31.5% CER, at €63 million), the United States (-17.2% CER, at €83 million), and the Rest of the World region (-40.0% CER, at €6 million). The downtrend in sales is mainly due to tougher competition, and to an update to the Summary of Product Characteristics in the European Union.

IMMUNOLOGY FRANCHISE

Dupixent® (collaboration with Regeneron) generated net sales of €825 million in the first half of 2019, an increase of 175.3% CER. In the United States, where Dupixent® is approved for the treatment of atopic dermatitis in adults and adolescents, asthma and (since the end of June 2019) nasal polyposis, the product posted sales of €669 million over the period (+154.5%). In Europe, where Dupixent® is approved for the treatment of atopic dermatitis in adults and asthma, 2019 first-half sales reached €82 million. The product recorded first-half sales of €65 million in the Rest of the World region and €9 million in Emerging Markets. By the end of the first half, Dupixent® had been launched in 28 countries, with a further 11 launches scheduled before the end of the year.

Sales of **Kevzara®** (collaboration with Regeneron) totaled €82 million in the first half of 2019 (versus €30 million in the first half of 2018), including €48 million in the United States (versus €23 million in the first half of 2018).

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1 World excluding United States, Canada, Europe (apart from Eurasia), Japan, South Korea, Australia, New Zealand and Puerto Rico.
2 Europe excluding Eurasia (Russia, Ukraine, Georgia, Belarus, Armenia and Turkey).
3 Japan, South Korea, Canada, Australia, New Zealand and Puerto Rico.

ONCOLOGY FRANCHISE

In the first half of 2019, net sales for the **Oncology** franchise amounted to €830 million, up 14.2% on a reported basis and 11.0% CER. This reflects good performances by Jevtana® across all geographies, by Thymoglobulin® in the United States and Emerging Markets, and by the whole franchise in China.

Jevtana® reported net sales of €237 million in the first half of 2019, up 13.4% CER, as sales grew across all geographies and especially in the United States (+11.9% CER, at €101 million) and Europe (+10.3% CER, at €86 million).

Sales of **Thymoglobulin**® reached €175 million (+17.4% CER), driven by the United States (+14.1% CER at €95 million) and Emerging Markets (+37.8% CER at €50 million).

Eloxatin® posted sales of €109 million in the first half of 2019 (+20.0% CER), mainly on strong growth in China (+39.0% CER, at €83 million).

Libtayo® (cemiplimab, collaboration with Regeneron) was approved in the United States in September 2018 for the treatment of patients with metastatic or locally advanced cutaneous squamous cell carcinoma (CSCC) who are not candidates for surgery or curative radiotherapy. Sales of this product in the United States are included in the consolidated sales of Regeneron under the terms of our alliance agreement with Regeneron (see Note C.2 to our consolidated financial statements for the year ended December 31, 2018, on page F-34 of our Annual Report on Form 20-F; this document is available on our corporate website, www.sanofi.com). Libtayo® was approved in Brazil in March 2019, and in Canada in April 2019. Libtayo® also obtained conditional marketing approval in Europe at the end of June 2019.

RARE BLOOD DISORDER FRANCHISE

The **Rare Blood Disorder** franchise was formed in 2018 following two acquisitions. Firstly, the acquisition of Bioverativ added two products to our portfolio: Eloctate® and Alprolix®, reference treatments for hemophilia. Secondly, the acquisition of Ablynx brought Cablivi® (caplacizumab) into our portfolio; this product was granted marketing authorization by the European Commission in September 2018 for the treatment of acquired thrombotic thrombocytopenic purpura (aTTP).

Sales of the Rare Blood Disorder franchise (consolidated by Sanofi from March 9, 2018 onwards) amounted to €565 million in the first half of 2019; of that total, €138 million was generated outside the United States, half of it in Japan. At constant exchange rates and on a constant structure basis, the franchise grew sales by 1.7%.

Sales of **Eloctate**® reached €345 million in the first half of 2019. At constant exchange rates and on a constant structure basis, sales of Eloctate® decreased by 7.7%. Sales of the product in the United States amounted to €272 million, 12.4% lower CER/CS, reflecting the competitive environment. In the Rest of the World region, sales of Eloctate® rose by 1.7% CER/CS to €65 million, with growth in Japan (+10.3% CER/CS at €45 million) offsetting lower sales in Canada following the failure of a tender bid (as previously announced).

Sales of **Alprolix**®, indicated for the treatment of hemophilia B, increased 9.3% CER/CS to €200 million; of this, €144 million was generated in the United States (+4.7% CER/CS) and €56 million in the Rest of the World Region (+23.3% CER/CS, driven largely by the product's launch in Australia).

Cablivi® generated net sales of €20 million in the first half of 2019. This comprised €9 million in Europe (where the product is on sale in Germany, Denmark and Austria), and €11 million in the United States (where the product has been on sale since the start of April 2019).

DIABETES FRANCHISE

Net sales for the **Diabetes** franchise amounted to €2,584 million in the first half of 2019, down 5.1% on a reported basis and 6.9% at constant exchange rates. This reflects a decrease in sales for the franchise in the United States (-20.2% CER, at €906 million), especially of the insulin glargines Lantus® and Toujeo®. That decrease reflects changes to the Medicare Part D welfare program and the continuing decline in average net prices of insulin glargines in the United States. Elsewhere in the world, net sales for the Diabetes franchise also decreased in Europe (-6.2% CER, at €608 million) and in the Rest of the World region (-12.2% CER, at €200 million). Conversely, in Emerging Markets the franchise grew sales by 11.7% CER to €870 million.

Net sales of **Lantus**® decreased by 16.7% CER in the first half to €1,532 million. In the United States, sales were down 35.2% CER at €568 million, for the reasons explained above. Net sales of Lantus® in Europe decreased by 16.1% CER to €298 million, due to competition from a branded product and a biosimilar of Lantus® and to the switching of patients to Toujeo®. In Emerging Markets, net sales of Lantus® rose by 14.6% in the first half to €553 million.

Toujeo® posted 2019 first-half net sales of €431 million, up 2.2% CER, driven by Emerging Markets (+41.5%, at €89 million) and Europe (+14.8%, at €163 million). However sales were lower in the United States (-24.0% CER, at €139 million), mainly as a result of a decrease in the average net selling price.

We expect a further decline in net selling prices for our insulin glargines throughout 2019 as further rebates are granted in the United States to maintain broad coverage by private insurers and Medicare.

In the first half of 2019, net sales of **Apidra**® were down 4.9% CER at €173 million. Growth in Emerging Markets (+24.1% at €64 million) was offset by lower sales in mature markets, especially the United States (-42.5% CER, at €25 million).

In the first half of 2019, net sales of **Amaryl**® were stable year-on-year at €171 million, of which €149 million was generated in Emerging Markets (+1.4% CER).

Admelog® (injectable insulin lispro 100 units/ml, in vials or the pre-filled SoloStar® pen) was launched in 2018 in the United States, and also as a biosimilar in some European countries under the name **Insulin lispro Sanofi**®. The product generated net sales of €143 million in the first half of 2019, including €136 million in the United States where sales were driven by the product's acceptance onto the Managed Medicaid program. US sales of Admelog® are expected to be lower in the second half of 2019 following a downward adjustment of 44% to the wholesale price effective July 1, 2019.

Sales of **Soliqua**® **100/33** and **Suliqua®** (insulin glargine 100 units/ml and lixisenatide 33 mcg/ml injectable) reached €50 million in the first half of 2019 (versus €26 million in the first half of 2018). In February 2019, the FDA approved an extension to the usage of Soliqua® 100/33, which can now also be prescribed for adults with type 2 diabetes not controlled by oral anti-diabetics.

CARDIOVASCULAR FRANCHISE

Sales of **Praluent**® (collaboration with Regeneron) in the first half of 2019 amounted to €122 million (+6.3% CER), driven mainly by growth in Europe (+46.3% CER at €61 million). Sales in the United States decreased by 32.8% CER to €44 million due to larger rebates. The decline in the average net selling price of Praluent® is expected to continue throughout 2019 as a result of negotiations conducted by Sanofi and Regeneron with payers during 2018 aimed at streamlining the reimbursement criteria, in order to improve patient access to the product in exchange for substantial price cuts.

In the first half of 2019, net sales of **Multaq**® were €161 million. Sales held steady year-on-year on a reported basis (-0.6%), but were down 6.2% CER. Sales were generated primarily in the United States (€135 million) and Europe (€20 million).

ESTABLISHED PRESCRIPTION PRODUCTS

Net sales of **Established Prescription Products** in the first half of 2019 amounted to €4,912 million, down 9.4% on a reported basis, largely as a result of the divestment of our European Generics business (Zentiva). At constant exchange rates and on a constant structure basis (CER/CS), sales for the franchise were down 4.1%. Sales growth in Emerging Markets (+2.3% CER, at €2,330 million) failed to offset lower net sales in mature markets (-9.4% CER/CS, at €2,582 million). In Europe, the franchise posted net sales of €1,608 million (-9.0% CER/CS), largely due to competition from generics of Lovenox®. In the Rest of the World region, net sales were down 5.5% CER at €590 million, reflecting competition from generics of Plavix® in Japan. In the United States, net sales of Established Prescription Products were down 16.4% CER at €384 million, mainly as a result of competition from generics of Renvela®/Renagel® (sevelamer).

Net sales of **Plavix**® held steady in the first half of 2019 at €766 million, of which €464 million (+4.8% CER) was generated in China. Growth in China offset lower sales in Japan (-20.3% CER at €67 million) as a result of competition from generics. Sales of Plavix® in the United States and Puerto Rico are handled by BMS under the terms of the Sanofi-BMS alliance[1].

Net sales of **Aprovel**® **/Avapro**® advanced by 7.9% CER in the first half of 2019 to €374 million, of which €267 million (+9.1% CER) was generated in Emerging Markets. In China, where the product grew sales by 11.5% CER to €176 million, implementation of the Volume Based Procurement program in key cities could lead to a deceleration in sales growth for Plavix® and Avapro®/Aprovel® over 2019 as a whole.

In the first half of 2019, net sales of **Lovenox**® totaled €690 million, down 9.9% CER; this reflects lower sales in Europe (-20.4% CER, at €375 million) due to competition from biosimilars in a number of countries. The effect was only partly offset by stronger sales in Emerging Markets (+11.9% CER, at €261 million).

Net sales of **Renvela**® **/Renagel**® in the first half of 2019 were €145 million, down 30.3% CER, due to competition from generics in the United States (-54.5% CER, at €59 million).

Generics posted net sales of €536 million in the first half of 2019, down 34.8% CER; this reflects the divestment of Zentiva, our European generics business, at the end of the third quarter of 2018. At constant exchange rates and on a constant structure basis, generics sales rose by 4.2%, driven by the United States (+54.2% CER at €79 million). Emerging Markets sales of generics were down 3.1% CER at €322 million, due to lower sales in Africa and the Middle East.

C.3.4. CONSUMER HEALTHCARE SEGMENT

Net sales of **Consumer Healthcare** products in the first half of 2019 amounted to €2,399 million, up 2.0% on a reported basis and 0.8% at constant exchange rates. Sales growth in Emerging Markets more than offset lower sales in Europe, affected by the divestments of non-strategic brands in 2018 and by tougher regulatory and quality standards. Those factors are also likely to affect our Consumer Healthcare performances over 2019 as a whole and in the first part of 2020.

[1] See Note C.2 to our consolidated financial statements for the year ended December 31, 2018, on page F-34 of our Annual Report on Form 20-F; this document is available on our corporate website, *www.sanofi.com*.

In Emerging Markets, Consumer Healthcare net sales reached €813 million in the first half of 2019 (+4.2% CER). The main growth drivers were the Digestive category (+18.5% CER, at €250 million, thanks largely to sales growth of 24.1% CER for Essentiale® in China), and the Allergy, Cough and Cold category (+7.4% CER, at €173 million).

In Europe, 2019 first-half Consumer Healthcare net sales decreased by 3.4% CER to €680 million. That mainly reflects the divestment of non-strategic brands in 2018, resulting in a drop of 44.3% (CER) in sales for the Other category to €34 million.

In the United States, sales of Consumer Healthcare products reached €588 million in the first half of 2019, a rise of 1.5% CER, driven largely by the Pain category (+11.5% CER at €93 million).

In the Rest of the World region, 2019 first-half net sales for the Consumer Healthcare segment were up 0.7% CER at €318 million, driven largely by sales in Japan (+3.8% CER at €172 million).

C.3.5. VACCINES SEGMENT

In the first half of 2019, the Vaccines segment reported net sales of €1,894 million, up 24.4% on a reported basis and 22.5% at constant exchange rates. This mainly reflects growth in sales of Polio/Pertussis/Hib vaccines in Emerging Markets and in Japan. In Emerging Markets, net sales for the Vaccines segment were up 42.2% CER at €792 million, propelled largely by Pentaxim® in China. In the United States, Vaccines sales rose by 8.8% CER to €609 million. In Europe, sales reached €307 million (+12.9% CER), driven mainly by the Adult Booster Vaccines franchise.

In the first half of 2019, net sales of **Polio/Pertussis/Hib vaccines** (including Hexaxim®, Pentacel®, Pentaxim® and Imovax®) reached €988 million (+33.5% CER), boosted by strong growth in Emerging Markets (+61.5% CER at €535 million) and especially for Pentaxim® in China, as well as in Japan (+35.0% CER at €86 million).

Travel and Other Endemics vaccines posted a 10.5% rise CER to €257 million in the first half of 2019, driven by growth in sales of rabies vaccines in the United States and Europe.

Net sales of **Meningitis/Pneumonia vaccines** (including Menactra®) reached €248 million in the first half of 2019 (+17.1% CER), mainly on further growth in the Middle East. In the United States, first-half net sales of Menactra® were up 4.5% CER at €175 million.

2019 first-half net sales of **Adult Booster Vaccines** were €234 million (+22.0% CER), driven by strong performances for the franchise in Europe (+28.8% CER at €85 million) and for Adacel® in the United States (+19.6% at €124 million).

Net sales of **Influenza vaccines** were down 5.5% CER at €117 million.

C.3.6. NET SALES BY GEOGRAPHICAL REGION

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	Change on a reported basis	Change at constant exchange rates
United States	5,401	*4,677*	+15.5 %	+7.8%
Emerging Markets [(a)]	5,454	4,992	+9.3%	+11.8%
of which Asia	*2,338*	*1,993*	*+17.3%*	*+15.7%*
of which Latin America	*1,305*	*1,298*	*+0.5%*	*+8.5%*
of which Africa and Middle East	*1,109*	*1,030*	*+7.7%*	*+6.6%*
of which Eurasia [(b)]	*634*	*597*	*+6.2%*	*+17.6%*
Europe [(c)]	4,351	*4,758*	-8.6%	-8.4%
Rest of the World [(d)]	1,813	1,647	+10.1%	+6.3%
of which Japan	*997*	*875*	*+13.9%*	*+7.7%*
of which South Korea	*217*	*206*	*+5.3%*	*+4.9%*
Total net sales	**17,019**	**16,074**	**+5.9 %**	**+4.1%**

(a) World excluding United States, Canada, Europe (apart from Eurasia), Japan, South Korea, Australia, New Zealand and Puerto Rico.
(b) Russia, Ukraine, Georgia, Belarus, Armenia and Turkey.
(c) Europe excluding Eurasia.
(d) Japan, South Korea, Canada, Australia, New Zealand and Puerto Rico.

In the **United States,** 2019 first-half net sales were €5,401 million, up 15.5% on a reported basis and 7.8% at constant exchange rates. At constant exchange rates and on a constant structure basis (to reflect Bioverativ's products, consolidated by Sanofi from March 9, 2018 onwards), net sales in the United States rose by 4.5% CER/CS. Solid performances by Dupixent®, Admelog® and Aubagio® more than offset lower sales of Lantus® (-35.2% CER at €568 million) and Renvela®/Renagel® (-54.5% CER at €59 million).

Emerging Markets net sales for the first half of 2019 reached €5,454 million, up 9.3% on a reported basis and up 11.8% CER. Sales growth was driven by Vaccines (+42.2% CER at €792 million), the Rare Diseases franchise (+34.3% CER at €323 million) and Diabetes (+11.7% CER at €870 million). In **Asia**, 2019 first-half net sales totaled €2,338 million (+15.7% CER) on a solid performance in China (+19.8 % CER at €1,507 million), especially in Vaccines (+193.0% CER at €167 million) with the resumption and growth of sales of Pentaxim®, and also growth in sales of Plavix® and Aprovel® ahead of the implementation of the Value Based Procurement program in key cities at the end of the first quarter of 2019. That program is expected to lead to a deceleration in sales growth of Plavix® and Aprovel® over 2019 as a whole. In **Latin America**, net sales for the first half of 2019 were up 8.5% CER at €1,305 million. First-half net sales in Brazil decreased by 2.6% CER to €503 million. Net sales in the **Africa & Middle East** region reached €1,109 million in the first half of 2019 (+6.6% CER) on good performances from Vaccines and the Rare Diseases franchise. Net sales in the **Eurasia** region advanced by 17.6% CER to €634 million in the first half of 2019, the strongest performers being Turkey (+24.9% CER at €234 million) and Russia (+13.0% CER at €339 million).

In **Europe**, 2019 first-half net sales were down 8.4% CER at €4,351 million, reflecting the divestment of our European generics business (Zentiva). At constant exchange rates and on a constant structure basis, net sales in Europe decreased by 2.0%, with lower sales of Lovenox® and Lantus® not fully offset by growth in sales for Dupixent® and the Vaccines segment.

In the **Rest of the World** region, net sales rose by 6.3% CER to €1,813 million. In Japan, 2019 first-half net sales amounted to €997 million (+7.7% CER), driven by growth in Vaccines and for Dupixent® and by the first-time consolidation of sales of Eloctate® and Alprolix®. At constant exchange rates and on a constant structure basis, net sales in Japan rose by 5.3%.

C.4. OTHER INCOME STATEMENT ITEMS

C.4.1. OTHER REVENUES

Other revenues advanced by 26.5% to €674 million in the first half of 2019 (versus €533 million in the first half of 2018). This line item mainly comprises VaxServe sales of non-Sanofi products (€543 million, versus €397 million for the first half of 2018, within the Vaccines segment), and revenues arising from the distribution of Eloctate® and Alprolix® (mainly in Europe) under our agreements with Swedish Orphan Biovitrum AB.

C.4.2. GROSS PROFIT

Gross profit amounted to €12,308 million in the first half of 2019, versus €11,342 million a year earlier, an increase of 8.5%. Gross margin increased year-on-year, representing 72.3% of net sales in the first half of 2019 (versus 70.6% in the first half of 2018).

For the Pharmaceuticals segment, gross margin for the first half of 2019 was 0.9 of a percentage point higher at 75.5%. Gross margin was lifted by a strong performance from the Immunology franchise, sales growth in Emerging Markets, the inclusion of Bioverativ's products and the ending of royalty payments to Bristol-Myers Squibb on sales of Plavix® (excluding the United States and Puerto Rico) and Avapro®. This more than offset lower average net selling prices for insulin glargines, and lower sales of Established Prescription Products in mature markets.

Gross margin for the Consumer Healthcare segment rose by 0.2 of a percentage point in the first half of 2019 to 67.8% of net sales, thanks largely to a good performance in Emerging Markets and a favorable product mix in Europe.

The Vaccines segment saw gross margin increase by 6.2 percentage points in the first half of 2019 to 62.2% of net sales, reflecting robust sales growth for vaccines (especially in Emerging Market) and a favorable manufacturing performance.

C.4.3. RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses (R&D expenses) amounted to €2,972 million in the first half of 2019 (versus €2,755 million in the first half of 2018) and represented 17.5% of net sales (versus 17.1% in the first half of 2018). Overall, R&D expenses increased by 7.9%, mainly due to the acquisitions of Bioverativ and Ablynx and to spending on development programs in Diabetes, Immunology, Emerging Markets and Rare Blood Disorder within the Pharmaceuticals segment. R&D spend also increased in the Vaccines segment. At constant exchange rates, R&D expenses rose by 5.2% in the first half of 2019.

C.4.4. SELLING AND GENERAL EXPENSES

Selling and general expenses were €4,835 million in the first half of 2019 (28.4% of net sales), compared with €4,819 million for the first half of 2018 (30.0% of net sales). The 2019 first-half figure includes the €7 million effect of the depreciation of right-of-use assets following application of the IFRS 16 lease accounting rules effective January 1, 2019. Excluding the effect of IFRS 16 and at constant exchange rates, selling and general expenses were 1.3% lower: the impact of the first-time consolidation of Bioverativ and Ablynx and additional marketing spend on Specialty Care products was offset by cost containment measures, especially in General Medicines products in mature markets and in our global support functions.

C.4.5. OTHER OPERATING INCOME AND EXPENSES

Other operating income amounted to €273 million in the first half of 2019 (versus €323 million in the first half of 2018), and ***Other operating expenses*** to €466 million (versus €165 million in the first half of 2018).

Overall, other operating income and expenses represented a net expense of €193 million in the first half of 2019, compared with a net gain of €158 million a year earlier, a net year-on-year negative movement of €351 million.

(€ million)	June 30, 2019	June 30, 2018	Change
Other operating income	273	323	-50
Other operating expenses	(466)	(165)	-301
Other operating income/(expenses), net	**(193)**	**158**	**-351**

The overall negative change of €351 million reflects (i) an increase in the net expense relating to our pharmaceutical partners (€223 million in the first half of 2019, versus €57 million in the first half of 2018), mainly as a result of the impact of higher sales of Dupixent® on our share of the profits due to Regeneron under our collaboration agreement (see Note C.1. to our consolidated financial statements, in our 2018 Annual Report on Form 20-F); and (ii) a reduction in the level of capital gains on disposals, which totaled €71 million in the first half of 2019 (versus €226 million in the first half of 2018, when we divested various mature products in Latin America and some Consumer Healthcare products in Europe).

C.4.6. AMORTIZATION OF INTANGIBLE ASSETS

Amortization charged against intangible assets in the first half of 2019 was €1,116 million, versus €999 million in the comparable period of 2018. This €117 million rise mainly reflects an increase in amortization expense generated by the intangible assets recognized in connection with the March 2018 acquisition of Bioverativ (€272 million, versus €161 million in the first half of 2018). This was partly offset by reductions in amortization expense on intangible assets recognized on the acquisitions of Aventis (€107 million, versus €145 million in the first half of 2018) and Genzyme (€368 million, versus €385 million in the first half of 2018) as certain products reached the end of their life cycles.

C.4.7. IMPAIRMENT OF INTANGIBLE ASSETS

This line showed a net impairment loss of €1,840 million against intangible assets in the first half of 2019, compared with €101 million a year earlier. The main factor was an impairment loss of €1,609 million taken against Eloctate® franchise assets. This line item also includes an additional impairment loss of €33 million taken against rights relating to Lemtrada®, and net write-downs of €190 million relating to in-house or collaborative development projects.

In the first half of 2018, the results of impairment tests on other intangible assets led to the recognition of an impairment loss of €101 million, mainly on Lemtrada®, a product marketed in the United States.

C.4.8. FAIR VALUE REMEASUREMENT OF CONTINGENT CONSIDERATION

Fair value remeasurements of contingent consideration assets and liabilities relating to business combinations (recognized in accordance with the revised IFRS 3) represented a net gain of €190 million in the first half of 2019 versus a net gain of €10 million in the first half of 2018.

This mainly comprises remeasurements of contingent consideration (i) payable to Bayer as a result of an acquisition made by Genzyme prior to the latter's acquisition by Sanofi (gain of €140 million in the first half of 2019, versus a gain of €33 million a year earlier and (ii) arising from the dissolution of the Sanofi Pasteur MSD joint venture (net gain of €98 million, versus a net expense of €1 million a year earlier. See Note B.11. to our condensed half-year consolidated financial statements. The above movements are partly offset by the impact of a €36 million increase in the contingent consideration arising from Sanofi's March 2018 acquisition of Bioverativ.

C.4.9. RESTRUCTURING COSTS AND SIMILAR ITEMS

Restructuring costs and similar items amounted to a charge of €747 million in the first half of 2019, compared with a charge of €607 million in the first half of 2018. In 2019, restructuring costs mainly comprised employee-related expenses arising from headcount adjustment plans in the United States and Europe.

C.4.10. OTHER GAINS AND LOSSES, AND LITIGATION

In the first half of 2019, ***Other gains and losses, and litigation*** showed a net gain of €317 million (versus a net expense of €67 million in the first half of 2018), mainly arising from litigation.

C.4.11. OPERATING INCOME

Operating income for the first half of 2019 was €1,112 million, 48.6% lower than the 2018 first-half figure of €2,162 million, mainly as a result of the impairment losses taken against intangible assets in the period.

C.4.12. FINANCIAL INCOME AND EXPENSES

Net financial expenses were €150 million for the first half of 2019, €45 million higher than the 2018 first-half figure of €105 million.

Our cost of net debt (see the definition in Section C.7., "Consolidated balance sheet" below) fell to €89 million, versus €138 million in the first half of 2018. That reduction was more than offset by the following movements in net financial expenses:

- a decrease in gains on disposals of non-current financial assets (none in the first half of 2019, versus €63 million for the first half of 2018);
- the fair value remeasurement of certain financial assets in accordance with IFRS 9, which became applicable on January 1, 2018 (negative impact of €15 million in the first half of 2019);
- interest expense on lease liabilities (€20 million in the first half of 2019), reflecting the lease accounting impacts of IFRS 16 from January 1, 2019 onwards.

C.4.13. INCOME BEFORE TAX AND INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Income before tax and investments accounted for using the equity method for the first half of 2019 was €962 million, versus €2,057 million for the first half of 2018, a decrease of 53.2%.

C.4.14. INCOME TAX EXPENSE

Income tax expense represented €13 million in the first half of 2019, versus €297 million in the first half of 2018, giving an effective tax rate (based on consolidated net income) of 1.3%, compared with 14.4% in the first half of 2018. The decrease in income tax expense is mainly due to the tax effects of the amortization and impairment of intangible assets (€711 million in the first half of 2019, versus €275 million in the first half of 2018) and of restructuring costs (€197 million in the first half of 2019, versus €183 million in the first half of 2018) as well as the positive tax effects relating to the contingencies arising from business divestitures.

The effective tax rate on our business net income is a non-GAAP financial measure. It is calculated on the basis of business operating income, minus net financial expenses and before (i) the share of profit/loss from investments accounted for using the equity method and (ii) net income attributable to non-controlling interests. We believe the presentation of this measure, used by our management, is also useful for investors as it provides a means to analyze the effective tax cost of our current business activities. It should not be seen as a substitute for the effective tax rate based on consolidated net income.

When calculated on business net income, our effective tax rate is 22% in the first half of 2019, compared with 22% in the first half of 2018 and 21,6 % for 2018 as a whole.

C.4.15. SHARE OF PROFIT/(LOSS) FROM INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Investments accounted for using the equity method contributed net income of €116 million in the first half of 2019, versus net income of €75 million in the comparable period of 2018. In the first half of 2019 this line item mainly comprises our share of the profits of Regeneron (€106 million, versus €68 million in the first half of 2018); the year-on-year rise mainly reflects an increase in the company profits of Regeneron as adjusted to reflect Sanofi accounting policies.

C.4.16. NET INCOME

Net income amounted to €1,065 million in the first half of 2019, versus €1,835 million in the first half of 2018.

C.4.17. NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTERESTS

Net income attributable to non-controlling interests for the first half of 2019 was €15 million, against €57 million for the first half of 2018. The year-on-year decrease was mainly due to the discontinuation (effective December 31, 2018) of payments by Sanofi of the share of our pre-tax profits reverting to BMS on sales of Plavix® (excluding the United States and Puerto Rico) and Avapro®/Aprovel®, in accordance with our agreement with BMS (see Note C.2. to our consolidated financial statements included in our 2018 Annual Report on Form 20-F).

C.4.18. NET INCOME ATTRIBUTABLE TO EQUITY HOLDERS OF SANOFI

Net income attributable to equity holders of Sanofi amounted to €1,050 million in the first half of 2019, compared with €1,778 million in the first half of 2018.

Basic earnings per share (EPS) was €0.84, compared with €1.42 for the first half of 2018, based on an average number of shares outstanding of 1,247.2 million for the first half of 2019 and 1,247.8 million for the first half of 2018. Diluted earnings per share was also €0.84, compared with €1.42 for the first half of 2018, based on an average number of shares after dilution of 1,254.7 million for the first half of 2019 and 1,254.9 million for the first half of 2018.

C.5. SEGMENT RESULTS

Business operating income (as defined in Note B.20.1. to the condensed half-year consolidated financial statements) amounted to €4,454 million in the first half of 2019 versus €4,126 million in the first half of 2018, an increase of 7.9%. It represented 26.2% of net sales, compared with 25.7% in the first half of 2018.

The table below shows business operating income for the six-month periods ended June 30, 2019 and 2018:

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	Change
Pharmaceuticals segment	4,579	4,572	+0.2%
Consumer Healthcare segment	879	820	+7.2%
Vaccines segment	513	258	+98.8%
Other	(1,517)	(1,524)	-0.5%
Business operating income	**4,454**	**4,126**	**+7.9%**

C.6. CONSOLIDATED STATEMENTS OF CASH FLOWS

Summarized consolidated statements of cash flows

(€ million)	June 30, 2019 (6 months)	June 30, 2018 (6 months)	December 31, 2018 (12 months)
Net cash provided by/(used in) operating activities	3,179	1,773	5,547
Net cash provided by/(used in) investing activities	(165)	(13,085)	(12,866)
Net cash inflow/(outflow) from the exchange of the Animal Health business for BI's Consumer Healthcare business	—	5	(6)
Net cash provided by/(used in) financing activities	(3,209)	8,494	3,934
Impact of exchange rates on cash and cash equivalents	12	(9)	1
Net change in cash and cash equivalents	**(183)**	**(2,822)**	**(3,390)**

Net cash provided by operating activities came to €3,179 million in the first half of 2019, against €1,773 million in the first half of 2018.

Operating cash flow before changes in working capital for the first half of 2019 was €3,976 million, versus €3,281 million in the first half of 2018. Working capital requirements rose by €798 million in the first half of 2019 (compared with a rise of €1,507 million in the first half of 2018), mainly as a result of a €934 million increase in inventories.

Net cash used in investing activities totaled €165 million in the first half of 2019, compared with €13,085 million in the first half of 2018.

Acquisitions of property, plant and equipment and intangible assets totaled €841 million, versus €823 million in the first half of 2018. There were €654 million of acquisitions of property, plant and equipment, most of which (€408 million) were in the Pharmaceuticals segment, primarily in industrial facilities. The Vaccines segment accounted for €243 million of acquisitions of property, plant and equipment during the period. Acquisitions of intangible assets (€187 million, versus €182 million in the first half of 2018) mainly comprised contractual payments for intangible rights under license and collaboration agreements.

Acquisitions of investments during the first half of 2019 totaled €158 million, net of the cash of acquired entities and after including assumed liabilities and commitments; this compares with €12,816 million in the first half of 2018. The main acquisitions in the first half of 2018 were Bioverativ (€8,932 million) and Ablynx (€3,639 million).

After-tax proceeds from disposals amounted to €867 million in the first half of 2019, and arose mainly from the sale of our equity interests in Alnylam (€706 million) and MyoKardia (€118 million). In the first half of 2018, after-tax proceeds from disposals amounted to €486 million, and arose mainly from the sale of some Consumer Healthcare products to Cooper-Vemedia (€139 million), the divestment of equity interests in Impact Therapeutics (€94 million) and the divestment of some mature products in Latin America (€44 million).

Net cash provided by/used in financing activities represented a net cash outflow of €3,209 million in the first half of 2019, compared with a net inflow of €8,494 million in the first half of 2018. The 2019 first-half figure includes the dividend payout to our shareholders of €3,834 million (versus €3,773 million in the first half of 2018), and net external debt financing raised of €585 million (versus a net amount of €13,032 million in the first half of 2018), including a €2 billion bond issue under our Euro Medium Term Notes program carried out in March 2019.

The ***net change in cash and cash equivalents*** in the first half of 2019 was a decrease of €183 million, compared with an increase of €2,822 million in the first half of 2018.

C.7. CONSOLIDATED BALANCE SHEET

Total assets were €110,545 million as of June 30, 2019, compared with €111,408 million as of December 31, 2018, an increase of €856 million.

Net debt was €18,705 million as of June 30, 2019, compared with €17,628 million as of December 31, 2018. We believe the presentation of this non-GAAP financial indicator, which is reviewed by our management, provides useful information to measure our overall liquidity and capital resources. We define "net debt" as (i) the sum total of short-term debt, long-term debt, and interest rate derivatives and currency derivatives used to manage debt, minus (ii) the sum total of cash and cash equivalents and interest rate derivatives and currency derivatives used to manage cash and cash equivalents.

(€ million)	June 30, 2019	December 31, 2018
Long-term debt	21,087	22,007
Short-term debt and current portion of long-term debt	4,411	2,633
Interest rate and currency derivatives used to manage debt	(51)	(54)
Total debt	**25,447**	**24,586**
Cash and cash equivalents	(6,742)	(6,925)
Interest rate and currency derivatives used to manage cash and cash equivalents	—	(33)
Net debt [(a)]	**18,705**	**17,628**
Total equity	56,518	59,035
Gearing ratio	**33.1%**	**29.9%**

(a) Net debt does not include lease liabilities (see Note A.1.2 to our condensed consolidated financial statements).

To assess our financing risk, we use the "gearing ratio", another non-GAAP financial measure. This ratio (which we define as the ratio of net debt to total equity) increased from 29.9% as of December 31, 2018 to 33.1% as of June 30, 2019. Analyses of our debt as of June 30, 2019 and December 31, 2018 are provided in Note B.9. to the condensed half-year consolidated financial statements. We expect that the future cash flows generated by our operating activities will be sufficient to repay our debt. The financing arrangements in place as of June 30, 2019 at the Sanofi parent company level are not subject to covenants regarding financial ratios and do not contain any clauses linking credit spreads or fees to Sanofi's credit rating.

Sanofi is applying IFRS 16, the new accounting standard on leases, effective January 1, 2019 (see Note A.1.2. to our condensed consolidated financial statements). As a result, we have recognized in our June 30, 2019 balance sheet (i) right-of-use assets totaling €1,105 million, (ii) non-current lease liabilities of €958 million, and (iii) current lease liabilities of €240 million.

Other key movements in the balance sheet are described below.

Total **equity** was €56,518 million as of June 30, 2019, versus €59,035 million as of December 31, 2018. The net change reflects the following principal factors:

- increases: our net income for the first half of 2019 (€1,065 million) and changes in currency translation differences (€410 million, mainly on the US dollar); and
- decreases: the dividend payout to our shareholders (€3,834 million), and the impact of actuarial losses recognized during the period due to a downward adjustment to discount rates (€535 million).

As of June 30, 2019 we held 0.02 million of our own shares, recorded as a deduction from equity and representing 0.002% of our share capital.

Goodwill and ***Other intangible assets*** (€63,516 million in total) decreased by €2,608 million, the main factors being:

- decreases: amortization and impairment charged during the period (€3,045 million, including the impairment loss taken against Eloctate® franchise assets); and
- increases: the change in currency translation differences (€374 million).

Investments accounted for using the equity method (€3,536 million) increased by €134 million, due mainly to the recognition of our share of Regeneron's profits.

Other non-current assets were €710 million lower at €2,261 million. The main movement during the year was the divestment of our equity interest in Alnylam.

Net deferred tax assets were €2,199 million as of June 30, 2019, compared with €1,199 million as of December 31, 2018. The increase of €1,000 million mainly reflects (i) the reversal of deferred tax liabilities relating to amortization and impairment of intangible assets, and (ii) the recognition of deferred tax assets on restructuring provisions and on provisions for pensions and other post-employment benefits (taking account of the actuarial losses recognized during the period).

Non-current provisions and other non-current liabilities (€9,099 million) rose by €486 million, mainly due to an increase in provisions for pensions and other post-employment benefits.

Liabilities related to business combinations and to non-controlling interests (€1,012 million) were reduced by €292 million. The main reasons for the change are fair value remeasurements of contingent consideration payable to Bayer as a result of an acquisition made by Genzyme prior to the latter's acquisition by Sanofi.

D/ RISK FACTORS AND RELATED PARTY TRANSACTIONS

D.1. RISK FACTORS

The risk factors to which Sanofi is exposed are described in our Annual Report on Form 20-F for the year ended December 31, 2018, filed with the US Securities and Exchange Commission on March 8, 2019. The nature of those risks has not significantly changed during the first half of 2019. All those risk factors may materialize during the second half of 2019 or during subsequent periods.

D.2. RELATED-PARTY TRANSACTIONS

Our principal related parties are defined in Note D.33. to the consolidated financial statements included in our 2018 Annual Report on Form 20-F (page F-104)[1].

Note B.5. to the condensed half-year consolidated financial statements provides a description of the principal transactions and balances for the six months ended June 30, 2019 with equity-accounted entities that qualify as related parties.

Sanofi did not enter into any transactions with key management personnel during the first half of 2019.

Financial relations with the Group's principal shareholders fall within the ordinary course of business and were immaterial in the first half of 2019.

E/ OUTLOOK

At constant exchange rates, we expect growth in 2019 full-year business earnings per share[2] (business EPS) to be approximately +5%, barring major unforeseen adverse events. The impact of exchange rates on 2019 business EPS is estimated to be approximately 1% to 2%, based on July 2019 average exchange rates applied over the rest of the year.

Full-year business net income[2] for 2018 was €6,819 million, giving business earnings per share of €5.47.

This guidance has been prepared using accounting methods consistent with those used in the preparation of our historical financial information. It draws upon assumptions defined by Sanofi and its subsidiaries, in particular regarding the following factors:

- growth in the national markets in which we operate;
- healthcare reimbursement policies, pricing reforms, and other governmental measures affecting the pharmaceutical industry;
- developments in the competitive environment, in terms of innovative products and the introduction of generics;
- respect by others for our intellectual property rights;
- progress on our research and development programs;
- the impact of our operating cost control policy, and trends in our operating costs;
- trends in exchange rates and interest rates;
- the integration of contributions from our acquisitions; and
- the average number of shares outstanding.

Some of the information, assumptions and estimates concerned are derived from or based, in whole or in part, on judgments and decisions made by Sanofi management that may be liable to change or adjustment in future.

1 This report is available on our corporate website: www.sanofi.com.
2 For a definition, see Section C.2., "Business net income" above.

FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements as defined in the US Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts. These statements include projections and estimates and their underlying assumptions, statements regarding plans, objectives, intentions and expectations with respect to future financial results, events, operations, services, product development and potential, and statements regarding future performance. Forward-looking statements are generally identified by the words “expects,” “anticipates,” “believes,” “intends,” “estimates,” “plans” and similar expressions. Although Sanofi’s management believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of Sanofi, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

These risks and uncertainties include among other things, the uncertainties inherent in research and development, future clinical data and analysis including post marketing, decisions by regulatory authorities such as the FDA or the EMA regarding whether and when to approve any drug, device or biological application that may be filed for any such product candidates as well as their decisions regarding labeling and other matters that could affect the availability or commercial potential of such product candidates, the absence of guarantee that the product candidates if approved will be commercially successful, the future approval and commercial success of therapeutic alternatives, Sanofi’s ability to benefit from external growth opportunities and/or obtain regulatory clearances, risks associated with intellectual property and current and future intellectual property litigation and the outcome thereof, trends in exchange rates and prevailing interest rates, the instability of economic conditions, the impact of cost containment initiatives and subsequent changes thereto, and the average number of shares outstanding, as well as those discussed or identified in the public filings with the Securities and Exchange Commission (SEC) and the *Autorité des marchés financiers* (AMF) made by Sanofi, including those listed under “Risk Factors” and “Cautionary Statement Regarding Forward-Looking Statements” in Sanofi’s Annual Report on Form 20-F for the year ended December 31, 2018[1] as filed with the SEC. For an update on litigation, refer to Note B.14. “Legal and arbitration proceedings” to our condensed half-year consolidated financial statements for the six months ended June 30, 2019, and to section “A.3.2. Legal and arbitration proceedings” (page 38) and section “D/ Risk factors and related party transactions” (pages 59) of this half-year management report.

Other than as required by applicable law, Sanofi does not undertake any obligation to update or revise any forward-looking information or statements.

[1] See pages 4 to 19 of our 2018 Annual Report on Form 20-F, available on our corporate website: www.sanofi.com

Immuno-inflammation
Oncology
Rare Diseases
Rare Blood Disorders
MS & Neuro
Diabetes
Cardiovascular & metabolism
Vaccines

New Molecular Entities(*)

Phase 1 (Total : 19)		Phase 2 (Total : 7)		Phase 3 (Total : 6)	Registration (Total : 2)
SAR441344(**)(1) Anti-CD40L mAb Multiple Sclerosis	**BIVV001**(**)(5) rFVIIIFc – vWF – XTEN(6) Hemophilia A	**SAR440340**(**)(12) Anti-IL33 mAb Atopic Dermatitis	**SAR422459**(**)(14) ABCA4 gene therapy Stargardt Disease	**avalglucosidase alfa** Neo GAA Pompe Disease	**isatuximab** Anti-CD38 mAb 3L RRMM (ICARIA) (U.S.,EU)
SAR408701 Maytansin-loaded anti-CEACAM5 mAb, Solid Tumors	**ST400**(**)(7) Ex Vivo ZFN Gene-Edited Cell Therapy, Beta thalassemia	**SAR156597** IL4/IL13 bispecific mAb Systemic Scleroderma	**SAR442168**(**)(15) BTK inhibitor Multiple Sclerosis	**venglustat** Oral GCS inhibitor ADPKD(16)	**SAR341402 (insulin aspart)** Rapid acting insulin Type 1/2 Diabetes (EU)
SAR439459 anti-TGFb mAb Advanced Solid Tumors	**BIVV003**(**)(7) Ex Vivo ZFN Gene-Edited Cell Therapy, Sickle Cell Disease	R **olipudase alfa** rhASM AS Deficiency(13)	**HIV** Viral vector prime & rgp120 boost vaccine	**fitusiran** RNAi targeting anti-thrombin Hemophilia A and B	
O **REGN5458**(**)(2) Anti-BCMA-CD3 bispecific mAb Relapsing Refractory MM	**SAR443060**(**)(8) RIPK1 inhibitor(9) Amyotrophic Lateral Sclerosis	**SAR339375** miRNA-21 Alport Syndrome		**sutimlimab** Anti Complement C1s mAb Cold Agglutinin Disease	
O **REGN4018**(**)(2) Anti-MUC16-CD3 bispecific mAb Ovarian Cancer	**Next Gen PCV**(**)(10) Pneumococcal Conjugate Vaccines			**efpeglenatide**(**)(17) Long-acting GLP-1 agonist Type 2 Diabetes	
SAR439859 SERD Metastatic Breast Cancer	**Herpes Simplex Virus Type 2** HSV-2 therapeutic vaccine			**nirsevimab**(**)(18) Respiratory syncytial virus Monoclonal Antibody	
SAR442720(**)(3) SHP2 inhibitor Solid Tumors	**Respiratory syncytial virus** Infants 4-month and older Vaccines				
SAR440234 T cell engaging multi spe mAb Leukemia	**SAR441169**(**)(11) RORC (ROR gamma T) antagonist, Psoriasis				
SAR441000(**)(4) Cytokine mRNA Solid tumors	**SAR441255** Trigonal GLP1R/GIPR/GCGR agonist, Obesity / T2 Diabetes				
SAR441236 Tri-specific neutralizing mAb HIV					

O : Opt-in rights products for which rights have not been exercised yet
R : Registrational Study (other than Phase 3)
(*) Phase of projects determined by clinicaltrials.gov disclosure timing
(**) Partnered and/or in collaboration – Sanofi may have limited or shared rights on some of these products

(1) Developed in collaboration with Immunext
(2) Regeneron product for which Sanofi has opt-in rights
(3) Developed in collaboration with REVOLUTION Medicines
(4) Developed in collaboration with BioNtech
(5) Sanofi product for which Sobi has opt-in rights in SOBI territories
(6) Recombinant Coagulation Factor VIII Fc – von Willebrand Factor – XTEN Fusion protein
(7) Developed in collaboration with Sangamo
(8) Developed in collaboration with Denali
(9) Receptor-interacting serine/threonine-protein kinase 1
(10) Developed in collaboration with SK
(11) Developed in collaboration with Lead Pharma
(12) Developed in collaboration with Regeneron
(13) Acid Sphingomyelinase Deficiency also known as Niemann Pick type B
(14) Identification of out-licensing partner ongoing
(15) Developed in collaboration with Principia
(16) Autosomal Dominant Polycystic Kidney Disease
(17) Developed in collaboration with Hanmi
(18) Developed in collaboration with AstraZeneca

Additional Indications(*)

Phase 1 (Total : 5)	Phase 2 (Total : 17)		Phase 3 (Total : 23)		Registration (Total : 4)
SAR439459 + cemiplimab(**)(1) Anti-TGFb mAb + PD-1 inh mAb Advanced Solid Tumors	**dupilumab(**)(1)** Anti-IL4Rα mAb Grass Immunotherapy	**isatuximab + cemiplimab(**)(1)** Anti-CD38 mAb + PD-1 inh mAb Relapsing Refractory MM	**Dupixent®(**)(1)** Anti-IL4Rα mAb Asthma 6 - 11 years old	**isatuximab** Anti-CD38 mAb Newly Diag. MM Te(9) (GMMG)	**Dupixent®(**)(1)** dupilumab AD 12 – 17 years old (EU)
O **cemiplimab(**)(1) + REGN4018(2)(**)** PD-1 inh mAb + Anti-MUC16-CD3 bispe mAb - Ovarian Cancer	R **sarilumab(**)(1)** Anti-IL6R mAb Polyarticular JIA(6)	**isatuximab + cemiplimab(**)(1)** Anti-CD38 mAb + PD-1 inh mAb Advanced Malignancies	**dupilumab(**)(1)** Anti-IL4Rα mAb Eosinophilic Esophagitis	**isatuximab** Anti-CD38 mAb 1-3L RRMM (IKEMA)	**dupilumab(**)(1)** Anti-IL4Rα mAb CRSwNP(10) (EU)
SAR439859 + palbociclib(3) SERD + CDK4/6 inh Metastatic Breast Cancer	**sarilumab(**)(1)** Anti-IL6R mAb Systemic Juvenile Arthritis	**isatuximab + cemiplimab(**)(1)** Anti-CD38 mAb + PD-1 inh mAb Lymphoma	**Dupixent®(**)(1)** dupilumab AD 6 – 11 years old	**Aubagio®** teriflunomide RMS – Pediatric	**Fluzone® QIV HD** Quadrivalent inactivated Influenza vaccine - High dos
sutimlimab Anti Complement C1s mAb ImmuneThrombocytopenic Purpura	**SAR440340(**)(1)** Anti-IL33 mAb COPD	**isatuximab + atezolizumab(7)** Anti-CD38 mAb + PD-L1 inh mAb mCRC	**Dupixent®(**)(1)** dupilumab AD 6 months - 5 years old	**Lemtrada®** alemtuzumab RRMS - Pediatric	**MenQuadfi™** Adv. Gen. Meningococcal ACYW conjugate vaccine, 2y+ (U.S.)
SAR443060(4) RIPK1 inhibitor(5) Multiple sclerosis	**dupilumab(**)(1)** Anti-IL4Rα mAb Peanut Allergy - Pediatric	**isatuximab + atezolizumab(7)** Anti-CD38 mAb + PD-L1 inh mAb Solid Tumors	**sarilumab(**)(1)** Anti-IL6R mAb Giant Cell Arteritis	**Cerdelga®** eliglustat Gaucher T1, ERT switch Pediatric	
	SAR440340(**)(1) Anti-IL33 mAb Asthma	**venglustat** Oral GCS inhibitor Fabry Disease	**sarilumab(**)(1)** Anti-IL6R mAb Polymyalgia Rheumatica	**Praluent® (**)(1)** alirocumab LDL-C reduction - Pediatric	
	R **cemiplimab(**)(1)** PD-1 inhibitor mAb 2L Basal Cell Carcinoma	**venglustat** Oral GCS inhibitor Gaucher Type 3	**dupilumab(**)(1)** Anti-IL4Rα mAb COPD	**MenQuadfi™** Adv. Gen. Meningococcal ACYW conjugate vaccine, EU 1y+, US/EU 6w+	
	isatuximab Anti-CD38 mAb 1-2L AML / ALL pediatrics	**venglustat** Oral GCS inhibitor Gaucher related Parkinson's Dis.	**cemiplimab(**)(1)** PD-1 inh mAb 1L NSCLC	**Pediatric pentavalent vaccine** DTP-Polio-Hib Japan	
		SP0173 Tdap booster US	**cemiplimab(**)(1)+ chemotherapy** PD-1 inh mAb + chemotherapy 1L NSCLC	**Shan 6** DTP-HepB-Polio-Hib Pediatric hexavalent vaccine	
			cemiplimab(**)(1) PD-1 inhibitor mAb 2L Cervical Cancer	**VerorabVax® (VRVg)** Purified vero rabies vaccine	
			cemiplimab(**)(1) PD-1 inhibitor mAb Adjuvant in CSCC	**isatuximab** Anti-CD38 mAb 1L Newly Diag. MM Ti(8) (IMROZ)	
			fitusiran RNAi targeting anti-thrombin Hemophilia A and B pediatric		

(1) Developed in collaboration with Regeneron
(2) Regeneron product for which Sanofi has opt-in rights
(3) Pfizer product (palbociclib)
(4) Developed in collaboration with Denali
(5) Receptor-interacting serine/threonine-protein kinase 1
(6) JIA: Juvenile Idiopathic Arthritis
(7) Studies in collaboration with Roche (atezolizumab)
(8) Transplant ineligible
(9) Transplant eligible
(10) Chronic rhinosinusitis with nasal polyps
(*) Phase of projects determined by clinicaltrials.gov disclosure timing
(**) Partnered and/or in collaboration - Sanofi may have limited or shared rights on some of these products

O : Opt-in rights products for which rights have not been exercised yet
R : Registrational Study (other than Phase 3)

3. STATUTORY AUDITORS' REVIEW REPORT ON THE HALF-YEARLY FINANCIAL INFORMATION

Period from January 1 to June 30, 2019*

To the Shareholders,

In compliance with the assignment entrusted to us by your annual general meetings and in accordance with the requirements of article L. 451-1-2 III of the French monetary and financial code (*Code monétaire et financier*), we hereby report to you on:

- the review of the accompanying condensed half-yearly consolidated financial statements of Sanofi, for the period from January 1 to June 30, 2019;
- the verification of the information contained in the half-yearly management report.

These condensed half-yearly consolidated financial statements are the responsibility of the board of directors. Our role is to express a conclusion on these financial statements based on our review.

1. Conclusion on the financial statements

We conducted our review in accordance with professional standards applicable in France. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with professional standards applicable in France and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Based on our review, nothing has come to our attention that causes us to believe that the accompanying condensed half-yearly consolidated financial statements are not prepared, in all material respects, in accordance with IAS 34 – the standard of IFRSs as adopted by the European Union applicable to interim financial information.

Without qualifying our conclusion, we draw your attention to the note A.1.2 regarding the impact of the first implementation of IFRS 16.

2. Specific verification

We have also verified the information presented in the half-yearly management report on the condensed half-yearly consolidated financial statements subject to our review.

We have no matters to report as to its fair presentation and consistency with the condensed half-yearly consolidated financial statements.

Neuilly-sur-Seine and Paris-La Défense, July 29, 2019

The statutory auditors
French original signed by

PricewaterhouseCoopers Audit		ERNST & YOUNG et Autres	
Stéphane Basset	Philippe Vogt	Alexis Hurtrel	Pierre Chassagne

* This is a free translation into English of the statutory auditors' review report issued in French and is provided solely for the convenience of English-speaking users. This report includes information relating to the specific verification of information given in the group's half-yearly management report. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

4. RESPONSIBILITY STATEMENT OF THE CERTIFYING OFFICER – HALF-YEAR FINANCIAL REPORT

"I hereby certify that, to the best of my knowledge, the condensed half-year consolidated financial statements have been prepared in accordance with the applicable accounting standards and present fairly the assets and liabilities, the financial position and the income of the Company and the entities included in the scope of consolidation, and that the half-year management report starting on page 37 provides an accurate overview of the significant events of the first six months of the financial year with their impact on the half-year consolidated financial statements, together with the major transactions with related parties and a description of the main risks and uncertainties for the remaining six months of the financial year."

Paris, July 29, 2019

Olivier Brandicourt

Chief Executive Officer

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