Creditreform Corporate Issuer / Issue Rating

Sanofi S.A.

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Rating object	Rating information	
Sanofi S.A. Creditreform ID: 400980982 Incorporation: 20 August 2004 (by acquisition) (Main) Industry: pharmaceutical company CEO: Olivier Brandicourt List of rating objects: Long-term Corporate Issuer Rating: Sanofi S.A. (Group) Long-term Local Currency Senior Unsecured Issues	Corporate Issuer Rating: **A+ / stable**	Type: Initial rating Unsolicited
	LT LC Senior Unsecured Issues: **A+**	Other: **n.r.**
	Rating Date: 30 November 2018 Monitoring until: Withdrawal of the rating Publication: 11 December 2018 Rating methodology: CRA "Corporate Issuer Ratings" CRA "Non-financial Corporate Issue Ratings" Rating history: www.creditreform-rating.de	

Content

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Abstract

Company

Sanofi S.A. (hereafter referred to as "Sanofi", "the Group" or "the Company") is one of the worldwide major multinational pharmaceutical companies established originally in 1973 and headquartered in Paris, France. The Company provides therapeutic solutions in more than 170 countries and has 79 manufacturing sites in 36 countries. The main activities of Sanofi are the research and development, manufacturing and marketing of pharmaceutical products in the therapeutic areas cardiovascular, diabetes, central nervous system, oncology, internal medicine, thrombosis and vaccines. The Company focuses mainly on prescription medications, but also develops under-the-counter drugs.

Sanofi is the fifth largest global pharmaceutical company by sales, and competes in its different market activities primarily with other global companies, such as Pfizer, Roche, Novartis, Novo Nordisk, Merck and Eli Lilly. Sanofi is one of the global top four players in the vaccine business, together with Pfizer, Merck and GlaxoSmithKline.

In 2017, the Group – featuring a workforce of more than 100,000 employees – generated a total revenue of EUR 35,055 million (2016: EUR 33,821 million) and a net income of EUR 8,555 million (2016: EUR 4,800 million). The net income includes a one-off net gain of EUR 4,643 million resulting from the divestment of its Animal Health business through its swap with Boehringer Ingelheim's (BI) Consumer Health Care (CHC) business. In 2018, Sanofi acquired Ablynx and Bioverativ, both innovative biopharmaceutical companies, for a total of EUR 12.7 billion. The former is engaged in the discovery and development of Nanobodies and the latter is focused on therapies for hemophilia and other rare blood disorders. In October 2018, the divestiture of Zentiva to Advent for EUR 1.9 billion was completed.

Rating result

This initial rating attests Sanofi a highly satisfactory level of creditworthiness, which represents a low default risk. Our rating assessment is based on Sanofi's leading position on the global pharmaceutical market, its low exposure to overall economic fluctuations, and its diversified product portfolio. Sanofi's portfolio includes solutions for such widespread diseases as diabetes and cardiovascular disease as well for a range of rare diseases, although some of the established drugs have recorded declines in sales and profitability. Furthermore, our rating takes into consideration the negative changes in the financial figures as a result of the acquisitions of Ablynx and Bioverativ, in particular with a view to the significant increase of financial leverage. Nevertheless, we expect an amelioration of the financials from 2019 onwards, against the background of the strong product pipeline and a range of newly launched products and drugs which have reached final stages before registration and market launch,

together with established products and improved over-the-counter business as a basis for deleveraging.

Outlook

The one-year outlook of the rating is stable. We expect a stabilization of the revenues due to new products, which should have a balancing effect on the declining of revenues from some flagship products such as Lantus, so that the Company will be able to repay its increased debt on schedule.

Rating-relevant factors

Table 1: Financials of Sanofi S.A. I Source: Sanofi annual report 2017, standardized by CRA

Financial ratios' extract Basis: consolidated annual report as per 31/12 (IFRS)	CRA standardized figures[1]	
	2016	2017
Revenues	EUR 33,821 m	EUR 35,055 m
EBITDA	EUR 9,835 m	EUR 9,489 m
EBIT	EUR 6,534 m	EUR 5,803 m
EAT	EUR 4,709 m	EUR 8,434 m
Total assets	EUR 76,536 m	EUR 75,989 m
Equity ratio[2]	41.65%	47.41%
Capital lock-up period	46.37 days	48.24 days
Short-term capital lock-up	37.42%	29.25%
Net debt / EBITDA adj.	3.5	3.12
Return on investment	7.39%	11.62%

Excerpts from the financial ratios analysis 2017

\+ Increased revenues
\+ Reduction of net debt
\+ Increased equity ratio
\+ Decrease of Net debt / EBITDA adj.

\- Influence of non-recurring effects
\- Decrease of operating income

General rating factors

Suggestion:
General Rating Factors summarize the key issues that – in the view of the analysts as per the date of the rating –have a significant or long-term impact on the rating, positive (+) as well as negative (-).

Current Rating Factors are the key factors that have, in addition to the Underlying Rating Factors, an impact on the current rating.

Prospective Rating Factors are factors and possible events that – in the view of the analysts as per the date of the rating – would most likely have a stabilizing or positive effect (+) and a weakening or negative effect (-) on future ratings, if they occurred. This is not a full list of possible future events with potential relevance for future ratings. Circumstances can arise that are not included in the list of prospective factors whose effects are impossible to assess at the time of the rating, either because these effects are uncertain or because the underlying events are deemed unlikely to occur.

\+ Global presence
\+ Low sensitivity to economic cycles
\+ A global leader in all its strategic business areas
\+ Diversified product portfolio with a focus on widespread diseases and over-the-counter drugs as well as on rare diseases, where the Company has a relatively strong pricing power
\+ Good access to financial markets
\+ Generally stable, significant cash flows from operating activities
\+ High entry barriers

\- Life cycle of patent drugs with decrease of margins after the expiration of patent protection
\- High investments in R&D necessary to maintain the leading market position
\- High level of regulation in all the relevant markets
\- Currency risks
\- Relatively high disbursements and share-buybacks create additional pressure on the cash flows
\- Concentration on the US market

Current factors (rating 2018)

\+ Decrease of net debt as of 31 December 2017

[1] For analytical purposes, CRA adjusted the original values in the financial statements in the context of the financial ratio analysis.

[2] After the deduction of the goodwill shown on the balance sheet from the equity by 50%

+ High liquidity reserves and sufficient undrawn credit facilities
+ Strong pipeline of newly registered and newly launched products as well as of products acquired through Bioverativ
+ Recovery of revenues in the third quarter 2018

– Decreasing revenues and profitability in 2017 and 2018 for a range of flagship products, especially in diabetes and cardiovascular
– Significant increase in financial leverage after two major acquisitions in 2018

Prospective rating factors

+ Growth potential in Emerging Markets
+ Further product launches and development of the product pipeline through acquisitions

– Increasingly strict regulatory requirements
– Negative immediate financial effects after acquisitions
– High costs of market launches

Best case scenario

Best case: A+

Worst case: A-

In our best-case scenario for one year, we assume a rating of A+. This would be the case if the market launch of the new products proves sufficient to compensate the decreased revenues from some of the flagship products, and will be a solid basis to repay the increased debt. We expect a deterioration of the financials as of 31.12.2018 as a result of the increased leverage. This fact restrains our assessment for the best-case scenario.

Note:
The scenarios are based on the information available at the time of the rating. Within the forecast horizon, some circumstances could occur that would lead to a rating change out of the indicated range.

Worst case scenario

In our worst-case scenario for one year we assume a rating of A. This might be the case if the profitability of the Group does not improve despite the new market launches, or if the costs of those market launches, together with possible high disbursements, is too high, resulting in significant deterioration of cash flow margins and of the net debt / EBITDA ratio.

Business development and outlook

During the financial year 2017, the Company managed to generate net sales of EUR 35,055 million, an increase of 3.6% compared to 2016 (EUR 33,821 million). The adjusted net sales before influence of exchange rates increased by 5.6% and includes the acquisition of BI's Healthcare business and the first-time consolidation of the European vaccines business. The growth of net sales at constant exchange rates and Group structure basis amounted to 0.5%. The main growth factors were the vaccines, the sales growth of the multiple sclerosis franchise and of Dupixent, as well as a generally positive development of emerging markets.

Table 2: Net sales by geographical regions I Source: Sanofi

EUR million	2016	2017	Change
United States	12,391	11,855	-4.3%
Emerging Markets	9,593	10,258	+6.9%
Europe	8,679	9,525	+9.7%
Rest of the world	3,158	3,417	+8.2%

The biggest market remains the United States, albeit with currently shrinking net sales, in particular due to the decrease in flagship diabetes product Lantus. These effects were offset by the growth in

all other regions. Emerging markets, which include Asia, Latin America, Africa, the Middle East and Eurasia, are of increasing importance for the Group's development.

A range of key products is impacted by the introduction of generic and biosimilar products in some of Sanofi's important markets (see the Chapter Business Risks). The total revenues from these products on the markets with generic competition amounted to EUR 5,997 million in 2017 (2016: EUR 7,567 million), a reduction of 20.7%. The Company expected further deterioration of revenues for these products in 2018. Taking into consideration Sanofi's strong pipeline with a range of products ready to be commercialized or newly launched, we hold the view that the Company will be able to offset the current decrease of revenues.

The Company achieved an operating income of EUR 5,803 million, a decrease of 11.2% (2016: EUR 6,534 million). This situation was mainly attributable to increases in cost of sales, R&D expenses, selling and general expenses and amortization and impairment of intangible assets. The net income amounted to EUR 8,434 million in 2017, 79% over the previous year (EUR 4,709 million) due to the gain on divestment of the Animal Health business and the effects of US tax reform.

To ensure a better understanding of its performance, the Company uses non-GAAP financial measures "business operating income" and "business net income". These measures are derived from the reported net income and exclude non-recurring effects and accounting effects associated with acquisitions and business combinations, which partly do not affect the liquidity of the Company, as well as the tax impact of these effects. According to these measures, the Company generated a business operating income before financial effects and income tax expense of EUR 9,343 million in 2017 (2016: EUR 9,285 million), and business net income of EUR 6,964 million (2016: EUR 7,308 million). The main positions eliminated in 2017 constitute items relating to the Animal Health business, the amortization and impairment of intangible assets (EUR 2,159 million, 2016: EUR 1,884 million), restructuring costs (EUR 731 million, 2016: EUR 879 million) and the associated tax effects.

All of Sanofi's business segments made a positive contribution to the Group's business operating income. The following table illustrates the business development of individual divisions in 2017. Other segments comprise administrative services for the entire Group.

Table 3: Segment results, selected figures I Source: Sanofi

EUR million	Pharmaceuticals	Consumer Healthcare	Vaccines	Other	Total Sanofi
Net sales	25,122	4,832	5,101	-	35,055
Other revenues	287	-	862	-	1,149
Cost of sales	(6,728)	(1,648)	(2,798)	(271)	(11,445)
Research and development expenses	(4,056)	(123)	(557)	(736)	(5,472)
Business operating income	9,025	1,543	1,804	(3,029)	9,343

The Company's strategy, which was announced in November 2015, comprises four main objectives for the perspective until 2020: reshape the portfolio, deliver outstanding launches, sustain innovation in R&D, and simplify the organization. Targeted acquisitions and the policy of securing research and development alliances remain significant elements of the Group's strategy. As a part of portfolio reshaping, the Company has strengthened its Consumer Healthcare (CHC) through the swap of its Animal Health and Boehringer Ingelheim's (BI) CHC-businesses. With Toujeo, Soliqua/Suliqua the successor products for Lantus have been launched. Further products in cardiovascular, oncology and immunology, including products developed in cooperation with other pharmaceutical companies (for instance Regeneron) are also either in the pipeline or have been already registered. Sanofi is a market leader in solutions for rare diseases, and strives to sustain and develop this position. Finally, Sanofi's activities in emerging markets remain the focus of its strategy. Through the reorganization of business unit structure, operational improvements in production process, and the reshaping of product portfolio, the Company managed to realize cost savings of EUR 1.5 billion between 2015 and 2017.

Development in the second quarter was restrained due to the loss of exclusivity for a few key products on the US market. However, during the third quarter, performance recovered. The Company delivered strong results with double-digit growth in Specialty Care and emerging markets. The business division Vaccines recorded a high single-digit increase in sales. The Company managed to obtain approvals for a number of new Special Care products and to extend the approval of Dupixent for asthma. During the nine months of 2018, Sanofi achieved net sales of EUR 25,466 million (9M 2016: 26,380 million), a gross profit of EUR 18,054 million (9M 2017: EUR 18,715 million) and a net income of EUR 4,139 million (9M 2017, excluding the gain from its Animal Health business: EUR 3,897 million). The net income was favourably influenced by lower income tax expenses in 2018.

We consider the Company's strategy of expansion through new franchises such as the Rare Blood Disorder franchise, and the continued execution of roll-outs of new products such as Dupixent, to be sound and to be a key to ensuring the improvement of the Company's financial position after the major acquisitions made in 2018.

Structural risks

Sanofi S.A. is a limited company incorporated under the French law. Its shares are listed on Euronext Paris and the New York Stock Exchange. The main shareholders as of 31 December 2017 were L'Oréal with 9.43% and Black Rock with 5.68% of shares. 1.54% belonged to the employees, and 0.45% represented treasury shares. 82.90% of the shares are free float.

Sanofi's corporate governance institutions are the Board of Directors and the Executive Committee. The Board of Directors is composed of 16 members, two of whom are employee representatives. The members are appointed for a maximum term of four years. 11 board members are independent. The Executive Committee consists of 15 permanent members and is chaired by the Chief Executive Officer.

The whole Group currently comprises over 300 companies worldwide with Sanofi S.A. at the head. The Company's structure has been transformed through numerous acquisitions since 2009. In September 2009 Sanofi acquired Merial (Animal Health business), which was subsequently exchanged for Boehringer Ingelheim's Consumer Healthcare business in 2017. In April 2011 Sanofi took over Genzyme, a US biotechnology company focused on recombinant human enzymes which treat enzyme deficiency conditions. In 2018 two other significant acquisitions followed, Ablynx and Bioverativ, as well as the divestiture of the European generic business, Zentiva, to Advent group. The acquisition transactions were mainly financed through bond emissions in March 2018.

The company has a few joint ventures with local partners worldwide, as well as collaboration agreements In collaboration with Regeneron, the Company developed Praluent (treatment of high cholesterol), Dpuixent (atopic dermatitis), and Kevzara (rheumathoid artritis) which, in our view, have promising market potential.. One of Sanofi's flagship products, Plavix, an antiplatelet medication, used to reduce the risk of heart disease and stroke, was also created in collaboration with BMS.

Since the divestiture of its Animal Health business, Sanofi has had three principal operating segments: Pharmaceuticals, Consumer Healthcare and Vaccines via Sanofi Pasteur.

The operating segment Pharmaceuticals comprises a range of franchises in the following medical areas: rare diseases, multiple sclerosis, oncology, immunology, diabetes, and cardiovascular. The activities connected to established prescription products and generics are also part of the Pharmaceuticals segment.

The Consumer Healthcare comprises products in the categories Allergy Cough & Cold, Pain, and Digestive and Nutritionals, which are sold over-the-counter. The most of the products were taken over after the swap of Sanofi's Animal Health and Boehringer Ingelheim's Consumer Healthcare businesses.

Sanofi Pasteur is a leading manufacturer in the areas of pediatric vaccines, influenza vaccines, meningitis vaccines, and travel and endemic vaccines.

We believe that the Group's organizational structure provides an appropriate framework for the continued positive development of its corporate business.

Business risks

The Company's wide product portfolio and international business activities expose Sanofi to a range of external and internal risks. The Group combats these risks through a prudent business policy and comprehensive risk management.

Taking into consideration the ageing and growing population as well as unhealthy lifestyles in the Company's primary markets, we see the general market environment as favourable for the Company. Its performance is not susceptible to any cyclical economic developments or crises. On the other hand, the life span of pharmaceuticals are subject to cyclical developments associated with patent protection. In most countries, patent protection extends for approximately 20 years after the registration of a new molecule. The research and development (R&D) process can generally take up to 15 years. By the time marketing authorization is obtained, a significant portion of the patent has usually already passed, making the effective time of patent protection substantially shorter. After the expiry of a patent protection, generic and biosimilars producers have the right to bring their products to market, which is associated with price concessions and downward margin pressure on original products. Against this background, the decrease of revenues and profitability due to patent expirations can only be compensated by a strong pipeline and a high-quality portfolio of new products. For this reason, continued innovation and R&D are particularly important for retaining a strong market position. In 2017, Sanofi's R&D expenditures amounted to EUR 5,472 million, representing 15.6% of net sales (2016: EUR 5,172, 15.3%). Currently, Sanofi has 13 products in its pipeline, of which 8 products have already reached phase III or are in the registration process[3].

A substantial part of the Company's revenues is generated from the sale of a few key flagship products. Some of them have been suffering sales deteriorations due to patent expiry and competition from generics and biosimilars. Particularly critical is the decrease of revenues in the key diabetes product Lantus after the launchof its biosimilar from Eli Lilly, and of follow-on insulins by Merck and Mylan in Europe and USA as well as resulting from granted rebates and the exclusion from the formulary by a few American healthcare system payers. The product generated revenues of EUR 5,714 million in 2016, representing 16.9% of Sanofi's net sales for the year. In 2017, Lantus' sales amounted to EUR 4,622 million or 13.2% of the net sales, a reduction of 19%. A range of other established flagship medicines has also been affected by generic and biosimilar competition. According to the annual report 2017, the net sales loss for affected products amounted to EUR 1,570 million. During 2017 and 2018 the Company managed to obtain regulatory approvals and to launch a range of new products: Dupixent (atopic dermatitis), Kevzara (rheumatoid arthritis), Soliqua/Suliqua (diabetes), Toujeo (diabetes, successor of Lantus), Praluent (cholesterol-lowering drug).

We hold the view that the Company's product pipeline, as well as new products developed by Sanofi or obtained in the course of the acquisitions, have a real potential to outweigh the negative impact of the patent expiry of the established flagship products, and ensures a healthy balance between established and new products, although the market launches are generally associated with higher costs.

The business activities of the Group are subject to strong government regulation in all relevant markets. The Group, in order to keep its authorizations, must ensure that its structure, procedures, management and employees comply with strict requirements set by supervisory authorities. Any changes to the Company's environmental, regulatory and policy framework, pricing, data privacy, could adversely affect its financial position.

Financial risks

CRA adjusted the original values in the financial statements for the purposes of the financial ratio analysis. Contrary to our normal practice, we deducted the goodwill shown on the balance sheet from the equity by 50%, suggesting a certain recoverability of the goodwill. The following descriptions and indicators are based solely on these adjustments.

[3] The product development is divided into three stages; the Phase III is intended to confirm the therapeutic effects and the safety of a drug, identified in the course of Phases I and II. It is and is a precursor before registration.

As of 31.12.2018, the structured total assets amounted to EUR 75,989 million (2016: EUR 76,536 million). Equity increased from EUR 31,880 million to EUR 36,026 million. The changes in equity were significantly influenced by disbursement and by the share repurchase programme. Sanofi repurchased its own shares for a total amount of EUR 2,155 million (2016: EUR 2,905 million) and paid EUR 3,710 million to its shareholders (2016: EUR 3,759 million).

We hold the view that the capital structure of the Company is stable and well-balanced, taking into consideration its adjusted equity ratio of 47.4% as of 31 December 2017 and the predominantly long- and medum-term character of its liabilities, which accounted for 61% of total liabilities. In our view, the solid asset coverage ratio of 103.43% emphasises the good balance structure.

As of 31 December 2017 the Company reduced its net financial debt significantly to EUR 5,229 million from EUR 8,206 million, mainly due to the receipt of balancing cash payments of EUR 4,207 million as part of the deal with BI[4]. The Net debt to EBITDA adj. ratio was at the solid level of 3.12 (2016: 3.50). Sanofi did not issue any bonds during the financial year 2017 and managed to repay the following three substantial borrowings: a bond issue of USD 1.5 billion (prematurely in September 2017 instead of April 2018), a EUR 428 million bank loan and a fixed-rate bond issue of EUR 750 million.

The Group finances its operations and acquisitions both through operating cash flows and borrowing facilities, particularly through senior notes from capital markets (87% of the gross debt as of 30 June 2018). The parent company raises the bulk of the Group's external financing and operates a cash pooling, under which any cash surplus at subsidiaries is centrally managed. Sanofi is exposed to risks of changes in interest rates, currency exchange rates and commodity prices. The Group therefore uses derivative financial instruments to mitigate the potential impact of those changes on its performance.

We believe that the Group benefits from a stable liquidity position. Sanofi disposed of cash and cash equivalents amounting to EUR 10,315 million as of 31 December 2017. In line with previous years, the Group's operating activities in 2017generated significant cash flows of EUR 7,379 million (2016: EUR 7,838 million). Sanofi has two syndicated credit facilities of EUR 4 billion each, drawable in EUR and USD, due on December 2020 and on December 2021 respectively, which can be used to cover current operational needs. Furthermore, Sanofi has two commercial paper Programmes: a EUR 6 billion Negotiable European Commercial Paper programme in France and a USD 10 billion programme in the United States. As of 31 December 2017 neither of these programmes was being used. The Group disposes of an EMTN Programme with a maximum total value of EUR 25 billion, which was until now used particularly for the financing of acquisitions. As of 30.06.2018, the bonds issued under the EMTN-Programme totalled to EUR 20,860 million. In March 2018, Sanofi issued six bonds with different maturities totalling EUR 8 billion, which were used for the financing of Ablynx and Bioverativ acquisitions. There were no financial covenants associated with the financial facilities of the Company. 87% of Sanofi's financial debt represented fixed-rate debt.

The net debt significantly increased during the course of the financial year 2018 to EUR 18,705 million (amount net of EUR 9,502 million cash and cash equivalents). The main reason for the increase of net debt were the acquisitions of Ablynx and Bioverativ for a total amount of EUR 12,686 million. The increase of net debt was offset by a cash inflow from the divestiture of the European generic business of EUR 1,577 million. Another reason behind the net debt increase were other capital expenditure (EUR 1,062 million), restructuring costs (EUR 683 million), further share repurchase (EUR 955 million), and dividend payments (EUR 3,773 million). Against this background, we expect a significant deterioration of the financial ratios as of 31 December 2018. Nevertheless, we also expect a recovery of net sales and profitability from the financial year 2019 onwards, considering the strong product pipeline and revenues from newly launched products, as well as from the products acquired with the both companies Ablynx and Bioverativ. Generally, we hold the view that, from 2019 onwards, a substantial deleveraging is achievable unless further considerable acquisitions or share buy-backs are planned.

[4] During the transaction, the final enterprise value of Sanofi's Animal Health business was determined as EUR 10,557 million. The enterprise value of BI's Healthcare Business was determined as EUR 6,239 million (including goodwill of EUR 2,222 million).

Issuer / issue rating details

Issue rating

This issue rating is exclusively valid for the long-term senior unsecured issues denominated in Euro, issued by Sanofi S.A., which are included in the list of ECB-eligible marketable assets. The ECB list of eligible marketable assets can be found on the website of the ECB.

The Notes have been issued within the framework of Sanofi's EMTN Programme, most recently renewed in March 2018. The total nominal value of the bonds issued must not exceed EUR 25 billion. Notes may be issued on an unsubordinated or on a subordinated basis. According to the most recent prospectus from 13 March 2018 and its supplements, dated 14 September 2018 and 15 November 2018, the Notes issued under the EMTN Programme benefit from a negative pledge provision and a cross-default mechanism (in respect of unsubordinated notes).

We have assigned the EUR debt securities issued by Sanofi S.A. a rating of A+. This decision is mainly based on the corporate rating of Sanofi. Other types of debt instruments or issues denominated in other currencies have not been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Overview

Table 4: Summary of CRA Ratings I Source: CRA

Ratingobjekte	Details Information	
	Date	Rating
Sanofi S.A.	30/11/2018	A+ / stable
Long-Term Local Currency Senior Unsecured Issues	30/11/2018	A+
Other	--	n.r.

Table 5: Overview of Sanofi EMTN Programme I Source: Sanofi, prospectus dated 13 March 2018

Issue Details			
Volume	EUR 25,000,000,000	Maturity	Depending on the respective bond
Issuer	Sanofi S.A.	Coupon	Depending on the respective bond
Arrangers	BNP Paribas	Currency	Depending on the respective bond
Credit Enhancement	none	ISIN	Depending on the respective bond

At the time of the rating, the following EUR-denominated Notes have been rated by Creditreform Rating AG:

Table 6: Overview of the issues of the Sanofi EMTN Programme I Source: Website of Sanofi and CRA's own presentation

ISIN	EUR	Issue Date	Maturity Date	Unsolicited Rating
FR0012969012	750,000,000	22.09.2015	22.03.2019	A+
FR0013143989	500,000,000	05.04.2016	05.04.2019	A+
XS0456451771	800,000,000	12.10.2009	11.10.2019	A+
FR0013201613	1,000,000,000	13.09.2016	13.01.2020	A+
FR0013324324	500,000,000	21.03.2018	21.03.2020	A+
FR0013324316	1,000,000,000	21.03.2018	21.03.2020	A+
FR0011560333	1,000,000,000	04.09.2013	04.09.2020	A+
FR0012969020	500,000,000	22.09.2015	22.09.2021	A+

FR0012146777	1,000,000,000	10.09.2014	10.03.2022	A+
FR0013201621	850,000,000	13.09.2016	13.09.2022	A+
FR0013324332	1,750,000,000	21.03.2018	21.03.2023	A+
FR0011625433	1,000,000,000	14.11.2013	14.11.2023	A+
FR0013143997	600,000,000	05.04.2016	05.04.2024	A+
FR0012969038	750,000,000	22.09.2015	22.09.2025	A+
FR0013324340	1,500,000,000	21.03.2018	21.03.2026	A+
FR0012146801	1,510,000,000	10.09.2014	10.09.2026	A+
FR0013201639	1,150,000,000	13.09.2016	13.01.2027	A+
FR0013144003	700,000,000	05.04.2016	05.04.2028	A+
FR0013324357	2,000,000,000	21.03.2018	21.03.2030	A+
FR0013324373	1,250,000,000	21.03.2018	21.03.2038	A+

All future LT LC senior unsecured Notes that will be issued by Sanofi under the current EMTN Programme, denominated in Euro and included in the list of ECB-eligible marketable assets will, until further notice, receive the same ratings as the current LT LC senior unsecured Notes issued under the EMTN Programme. Notes issued under the Programme in any currency other than euros, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Financial ratios analysis

Table 6: Financial ratios of Sanofi S.A. I Source: Sanofi, standardized by CRA

Asset Structure	2015	2016	2017
Fixed asset intensity (%)	59.45	58.16	63.46
Asset turnover	--	0.45	0.46
Asset coverage ratio (%)	96.08	108.01	103.43
Liquid funds to total assets (%)	12.14	13.42	13.57
Capital Structure			
Equity ratio (%)	45.31	41.65	47.41
Short-term-debt ratio (%)	23.63	23.03	20.34
Long-term-debt ratio (%)	11.81	21.17	18.23
Capital lock-up period (in days)	40.90	46.37	48.24
Trade-accounts-payable ratio (%)	5.06	5.61	6.10
Short-term capital lock-up (%)	39.37	37.42	29.25
Gearing	0.94	1.08	0.82
Leverage	--	2.30	2.25
Financial Stability			
Cash flow margin (%)	--	22.21	20.21
Cash flow ROI (%)	--	9.81	9.32
Debt / EBITDA adj.	4.16	4.54	4.21
Net Debt / EBITDA adj.	3.24	3.50	3.12
ROCE (%)	13.60	16.31	14.07
Debt repayment period	--	5.22	2.76
Profitability			
Gross profit margin (%)	100.00	100.00	100.00
EBIT interest coverage	10.06	7.07	13.82
EBITDA interest coverage	17.71	10.64	22.59
Ratio of personnel costs to total costs (%)	26.82	26.96	26.59
Ratio of material costs to total costs (%)	0.00	0.00	0.00
Return on investment (%)	6.33	7.39	11.62
Return on equity (%)	--	14.54	25.20
Net profit margin (%)	12.88	14.19	24.40
Interest burden (%)	92.83	88.95	97.09
Operating margin (%)	16.51	19.32	16.55
Liquidity			
Cash ratio (%)	51.37	58.27	66.73
Quick ratio (%)	130.57	137.57	130.39
Current ratio (%)	171.60	181.64	179.62

Appendix

Rating history

Corporate issuer rating of Sanofi S.A.

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	30/11/2018	XX/12/2018	Withdrawal of the rating	A+ / stable

Rating der LT LC senior unsecured issues of Sanofi S.A.

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	30/11/2018	XX/12/2018	Withdrawal of the rating	A+

Regulatory requirements

The present rating is an unsolicited rating. Creditreform Rating AG was not commissioned by the Issuer with the preparation of the rating. The present analysis was prepared on a voluntary basis.

The rating is based on the analysis of published information and on internal evaluation factors. The quantitative analysis is primarily based on the last annual report of the Issuer, the basis prospectuses and on press releases of the company. The information and documents meet the requirements and are in accordance with the published Creditreform Rating AG's rating methodology.

The rating was conducted on the basis of Creditreform Rating's "Corporate Issue Ratings" methodology and the "Corporate Issuer Rating" methodology. A complete description of Creditreform Rating's rating methodologies is published on the following internet page: www.creditreform-rating.de.

The documents submitted and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodology. A complete description of Creditreform Rating's rating methodologies and Creditreform's basic document "Rating Criteria and Definitions" is published on the following internet page:

www.creditreform-rating.de/en/regulatory-requirements/

This rating was carried out by analysts Elena Alexeenco (e.alexeenco@creditreform-rating.de) and Holger Becker (h.becker@creditreform-rating.de), both located in Neuss, Germany. A management meeting did not take place.

The rating was presented to the rating committee on 30 November 2018. The company examined the rating report prior to publication and was given at least one full working day to appeal the rating committee's decision and to provide additional information. The rating decision was not amended following this examination.

The rating will be monitored until CRA removes the rating and sets it to non-rated (n.r.).

In 2011 Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG (CRA) is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

Please note:

This report exists in an English version only. This is the only binding version.

Conflict of interests

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or in approving credit ratings and rating outlooks.

In the event of providing ancillary services to the rated entity, CRA will disclose all ancillary services in the credit rating report.

Rules on the presentation of credit ratings and rating outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our 'Rating Committee' policy, all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, CRA has used following substantially material sources:

Corporate Issuer rating:

1. Annual report
2. Website
3. Internet research

Corporate Issue rating:

1. Issuer corporate rating incl. information used for the Issuer corporate rating
2. Documents on issues / instruments

There are no other attributes and limitations of the credit rating or rating outlook other than those displayed on the CRA website. Furthermore, CRA considers as satisfactory the quality and extent of information available on the rated entity. With respect to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the time of disclosure of the credit rating to the rated entity and the public disclosure, no amendments were made to the credit rating.

The 'Basic Data' information card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating report and indicates how the different methodologies or other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings and best-case scenario credit ratings are explained.

The date at which the credit rating was initially released for distribution and the date when it was last updated, including any rating outlooks, is indicated clearly and prominently in the 'Basic Data' card as a "rating action"; initial release is indicated as "initial rating", other updates are indicated as an "update", "upgrade" or "downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within 'Basic Data' information card.

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An explanatory statement of the meaning of Creditreform's default rates are available in the credit rating methodologies disclosed on the website.

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