Creditreform Bank Rating

BNP Paribas SA (Group)
as parent of Banca Nazionale del Lavoro S.p.A

Creditreform Rating
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Rating object	Rating information		
BNP Paribas SA (Group) as parent of Banca Nazionale del Lavoro S.p.A.	**Long Term Issuer Rating / Outlook:** A- / Stable		**Short Term:** L2
Creditreform ID: 00651990582 Incorporation: 1822 (Main-) Industry: Banks Management: Jean-Laurent Bonnafé (CEO) Philippe Bordenave (COO)	**Rating of Bank Capital and Unsecured Debt Instruments:**		
	Senior Unsecured A-	Tier 2 BB+	Additional Tier 1 BB
	Rating Date: **14 June 2018** Monitoring until: withdrawal of the rating Rating Type: **unsolicited** Rating Methodology: bank ratings; rating of bank capital and unsecured debt instruments		

Our rating of Banca Nazionale del Lavoro S.p.A. is reflected by our rating opinion of BNP Paribas SA (Group) due to its group structure. Therefore we refer to our rating report of BNP Paribas SA (Group) from 14 June 2018.

Contents

Analysts

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Lead-Analyst

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Senior Analyst

SWOT-Analysis

Strengths

+ Europe´s second largest bank and the largest bank in France with high systemic relevance for the global banking sector
+ Good diversification in operating income due to the two main business fields
+ Steady improvement in the quality of the loan portfolio
+ Continued growth in the customer loan and customer deposit portfolios in recent years
+ Solid liquidity situation

Weaknesses

- Below-average capital ratios in the peer group comparison. The difference between Tier 1 and CET 1 is relatively large
- In the adverse scenario of the EBA stress test, the results are below the peer group average

Opportunities / Threats

+ Ambitious targets to be achieved through the “Road to 2020” business plan
+ The digital transformation is driven by high investments in automatization
- A strong dependency on the economy in Europe, as more than two-thirds of the operating income is generated in Europe

Company Overview

BNP Paribas SA (BNP Paribas) was formed on 23 May 2000 through the merger of BNP and Paribas Bank. The bank looks back on an over 200-year history with the founding of Société Générale de Belgique in 1822. Measured by total assets, BNP Paribas is the second largest bank in Europe (as of 2017). In total, approximately more than 198,000 employees work in 73 different countries for BNP Paribas.

BNP Paribas organizes its business into two main fields of activity: Retail Banking & Services (RBS), and Corporate Institutional Banking (CIB). The RBS business is divided into “Domestic Markets” and “International Financial Services”. The other business field, CIB, is a global provider of financial solutions to corporate and institutional clients. The main business activities in the CIB are as follows:

Graph 1: Corporate Structure
(Source: Website of BNP Paribas)

The major shareholder structure of BNP Paribas is:

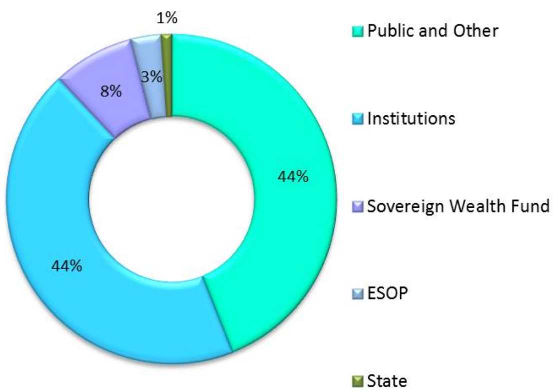

Chart 1: Major shareholders of BNP Paribas
(Source: Own presentation based on data from BNP Paribas website)

Due to the persistently low interest rate environment and strong competition in the European banking landscape, BNP Paribas has created a 2017-2020 business development plan. The business development plan “Road to 2020” includes savings on expenses and ambitious growth plans (including annual revenue growth ≥ 2.5% or ROE = 10%). These targets are to be achieved through increased investments in digital transformation processes.

Business Development

Profitability

Operating income amounted to €44.1bn last year and did not change significantly compared to the previous year. BNP Paribas generates the majority of its revenues from interest income. With almost identical interest income, the interest costs rose disproportionately compared to the last year. Of the three main drivers of operating income, fees and commissions contributed the smallest share with 17%, and considerably increased 3% YOY (+€252m). Net trading income contributed 18% and increased 2% YOY (+€157m). In particular the realized gains of securities led to the slight improvement.

The operating income is distributed among the business lines as follows:

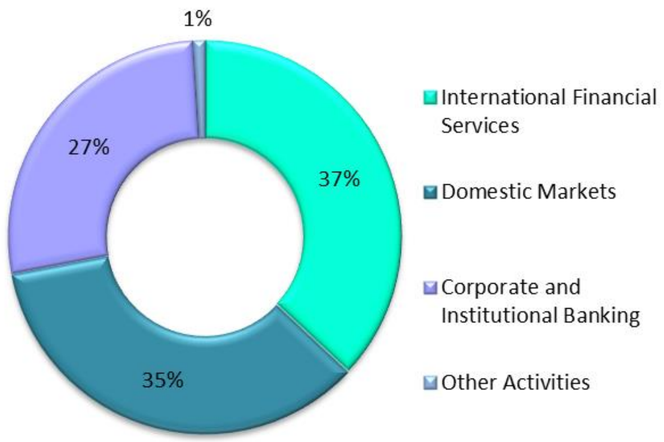

Chart 2: Operating income of business lines
(Source: Own presentation based on data from Annual Report 2017 of BNP Paribas)

Operating expenses were €29.9bn last year, increasing 2% YOY (+€542m). Personnel expenses accounted for 55.1% of total expenses last year with no significant change from the previous year. Increased investments in digitization and automation could reduce personnel costs in the future. Other expenses accounted for 39.2% of total expenses last year, and significantly increased by 4% YOY (+€450m). These costs include other commission expenses, marketing costs and IT costs. The reported net profit was €8.2bn last year, expanding by 1% YOY (+€92m).

A detailed group income statement for the years 2014 through 2017 can be found in Figure 1 below:

Income Statement	2014	%	2015	%	2016	%	2017	%
Income (€000)								
Net Interest Income	20.319.000	51,3%	22.553.000	50,3%	22.376.000	51,1%	21.774.000	49,3%
Net Fee & Commission Income	7.388.000	18,6%	7.615.000	17,0%	7.202.000	16,4%	7.454.000	16,9%
Net Insurance Income	3.441.000	8,7%	3.749.000	8,4%	3.763.000	8,6%	4.088.000	9,3%
Net Trading Income	6.276.000	15,8%	7.292.000	16,3%	7.568.000	17,3%	7.725.000	17,5%
Equity Accounted Results	407.000	1,0%	589.000	1,3%	633.000	1,4%	480.000	1,1%
Dividends from Equity Instruments	534.000	1,3%	580.000	1,3%	611.000	1,4%	666.000	1,5%
Rental Revenue	0	0,0%	14.000	0,0%	50.000	0,1%	220.000	0,5%
Lease and Rental Revenue	1.085.000	2,7%	1.230.000	2,7%	1.357.000	3,1%	1.351.000	3,1%
Other Noninterest Income	189.000	0,5%	1.234.000	2,8%	251.000	0,6%	365.000	0,8%
Operating Income	**39.639.000**	**100%**	**44.856.000**	**100%**	**43.811.000**	**100%**	**44.123.000**	**100%**
Expenses (€000)								
Depreciation and Amortisation	1.551.000	5,9%	1.661.000	5,7%	1.713.000	5,8%	1.711.000	5,7%
Personnel Expense	14.801.000	56,0%	16.061.000	54,9%	16.402.000	55,8%	16.496.000	55,1%
Occupancy & Equipment	NA	0,0%	NA	0,0%	NA	0,0%	NA	0,0%
Tech & Communications Expense	NA	0,0%	NA	0,0%	NA	0,0%	NA	0,0%
Marketing and Promotion Expense	NA	0,0%	NA	0,0%	NA	0,0%	NA	0,0%
Other Provisions	NA	0,0%	NA	0,0%	NA	0,0%	NA	0,0%
Other Expense	10.057.000	38,1%	11.539.000	39,4%	11.279.000	38,4%	11.729.000	39,2%
Operating Expense	**26.409.000**	**100%**	**29.261.000**	**100%**	**29.394.000**	**100%**	**29.936.000**	**100%**
Operating Profit & Impairment (€000)								
Pre-impairment Operating Profit	**13.230.000**		**15.595.000**		**14.417.000**		**14.187.000**	
Asset Writedowns	4.281.000		5.116.000		3.804.000		3.443.000	
Net Income (€000)								
Nonrecurring Revenue	301.000		0		597.000		566.000	
Nonrecurring Expense	6.100.000		100.000		0		0	
Pre-tax Profit	**3.150.000**		**10.379.000**		**11.210.000**		**11.310.000**	
Income Tax Expense	2.643.000	83,9%	3.335.000	32,1%	3.095.000	27,6%	3.103.000	27,4%
Discontinued Operations	0		0		0		0	
Net Profit	**507.000**		**7.044.000**		**8.115.000**		**8.207.000**	

Figure 1: Group income statement
(Source: S&P Global Market Intelligence)

The slight change in net profit for the year is also evident in the income ratios, which barely moved compared to the previous year. The ROAA figure of the bank was similar to that of its peers and showed a very small increase from the previous year. The increase for peer banks was more noticeable. The ROAE figure of the bank significantly exceeded that of its peers and showed a decrease of 0.16 percentage points from the previous year. In the reporting year, the same figure increased for the peer group. The bank's RORWA was significantly more favorable than that of its peers. The bank's net interest margin was considerably less favorable than that of its peers, displaying a decrease of 0.03 percentage points from the previous year; the peer group, however, observed an increase in this figure. The Cost/income figures of the bank were comparable to the peer group. Of the four business development aspects examined, the earnings figures achieved the highest relative score. Currently, BNP Paribas benefits from its high business volume in its income figures.

A detailed overview of the income ratios for the years of 2014 through 2017 can be found in Figure 2 below:

Income Ratios (%)	2014	%	2015	%	2016	%	2017	%
Return on Average Assets (ROAA)	0,03	-0,26	0,32	0,30	0,38	0,06	0,39	0,00
Return on Equity (ROAE)	0,55	-5,20	7,23	6,67	7,92	0,70	7,76	-0,16
RoRWA	0,08	-0,88	1,12	1,04	1,29	0,17	1,29	0,00
Net Interest Margin	1,13	0,00	1,13	0,00	1,15	0,02	1,12	-0,03
Cost income Ratio ex. Trading	79,16	0,45	77,90	-1,26	81,10	3,21	82,25	1,14
Cost income Ratio	66,62	0,15	65,23	-1,39	67,09	1,86	67,85	0,75
Change in %Points								

Figure 2: Group key earnings figures
(Source: S&P Global Market Intelligence)

Asset Situation and Asset Quality

In terms of total assets, financial assets made up 92%, decreasing markedly by 6% YOY (-€113bn). Net loans to customers contributed 37% to BNP´s total assets and increased 2% YOY (+€17bn). Total securities provided the largest fraction with 43%, decreasing by 15% YOY (-€146bn). In particular, positive market values from derivative financial instruments have decreased YOY. Of the three main constituents o the asset side, cash positions made up the least with 9%, and considerably increased by 11% YOY (+€18bn). Total assets added up to €1,960bn, a considerable decrease by 6% YOY (-€117bn).

A detailed look at the development of the asset side of the balance sheet for the years 2014 through 2017 can be taken in Figure 3 below:

Assets (€000)	2014	%	2015	%	2016	%	2017	%
Cash and Balances with Central Banks	117.473.000	5,7%	134.547.000	6,7%	160.400.000	7,7%	178.446.000	9,1%
Net Loans to Banks	43.348.000	2,1%	43.427.000	2,2%	47.411.000	2,3%	45.670.000	2,3%
Net Loans to Customers	658.351.000	31,7%	682.963.000	34,2%	712.819.000	34,3%	729.533.000	37,2%
Total Securities	1.099.325.000	52,9%	973.825.000	48,8%	987.597.000	47,6%	841.901.000	42,9%
Financial Assets	**1.918.497.000**	**92%**	**1.834.762.000**	**92%**	**1.908.227.000**	**92%**	**1.795.550.000**	**92%**
Equity Accounted Investments	7.371.000	0,4%	6.896.000	0,3%	6.910.000	0,3%	6.812.000	0,3%
Other Investments	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Insurance Assets	2.782.000	0,1%	2.909.000	0,1%	2.866.000	0,1%	3.002.000	0,2%
Noncurrent Assets HFS & Discontinued Ops	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Tangible and Intangible Assets	33.174.000	1,6%	36.652.000	1,8%	37.889.000	1,8%	44.111.000	2,3%
Tax Assets	8.628.000	0,4%	7.865.000	0,4%	7.966.000	0,4%	6.568.000	0,3%
Total Other Assets	107.306.000	5,2%	105.109.000	5,3%	113.101.000	5,4%	104.209.000	5,3%
Total Assets	**2.077.758.000**	**100%**	**1.994.193.000**	**100%**	**2.076.959.000**	**100%**	**1.960.252.000**	**100%**

Figure 3: Development of assets
(Source: S&P Global Market Intelligence)

The NPL / total loans figure of the bank was exceedingly less favorable than that of its peers and showed a considerable decrease of 0.83 percentage points from the previous year. Peer banks saw a less pronounced decline. The NPL / RWA figure of the bank was significantly worse than that of its peers and showed a significant decrease of 0.81 percentage points from the previous year. The decrease for peer banks was less pronounced. Potential problem loans / NPLs of the bank were by far better than those of its peers and displayed a decrease of 0.29 percentage points from the previous year. The same ratio increased for the peer group. The reserved / impaired loans ratio of the bank significantly exceeded that of its peers and displayed an increase of 1.04 percentage points over the previous year. The same ratio decreased for the peer group. Net write-offs/ RWA figure of the bank was exceedingly worse than that of its peers and showed a large increase of 0.43 percentage points over the previous year. The same figure decreased for the peer group. The RWA / assets figure of the bank was similar to that of its peers, showing a considerable increase of 1.95 percentage points over the previous year. The same ratio decreased for the peer group. Asset quality has improved in some aspects but remains slightly below average.

A detailed overview of the asset quality for the years of 2014 through 2017 can be found in Figure 4 below:

Asset-Quality (%)	2014	%	2015	%	2016	%	2017	%
Non Performing Loans (NPL) / Loans	7,53	0,32	7,10	-0,43	6,72	-0,37	5,89	-0,83
NPL / RWA	8,05	0,17	7,69	-0,36	7,50	-0,19	6,69	-0,81
Potential Problem Loans / NPL	13,32	12,05	14,85	1,53	12,77	-2,08	12,48	-0,29
Reserves / Impaired Loans	61,59	3,46	63,50	1,91	64,73	1,23	65,77	1,04
Net Write-offs / Risk-adjusted Assets	0,55	0,03	0,70	0,15	0,41	-0,29	0,84	0,43
Risk-weighted Assets/ Assets	29,57	-1,34	31,57	2,00	30,73	-0,85	32,68	1,95
Change in %Points								

Figure 4: Development of asset quality
(Source: S&P Global Market Intelligence)

Refinancing and Capital Quality

Total liabilities dropped by 6.0% YOY. During the same period, equity was built up by 1.9%; as a result, the total equity ratio rose to 5.5%.

Financial liabilities accounted for 84% of total liabilities, decreasing significantly by 7% YOY. Customer deposits represented 41% of total liabilities. An increase in deposits is a key growth strategy for generating market share over the coming years. This increase is necessary for BNP, with a relatively constant net interest margin. Total debt represented 21% of total liabilities, falling by 5% YOY (-€19bn). Secured and unsecured senior debt account for 96% of the total debt. Over 50% of the derivative liabilities are interest rate hedges and 25% are foreign hedges, which were responsible for YOY decline. Among the total other liabilities are guarantee deposits received and other creditors and miscellaneous liabilities. All other positions on the liability side have remained relatively unchanged in recent years.

Due to BNP Paribas' bank capital and debt structure, as well as its status as a G-SIB and a buffer of non-preferred senior unsecured debt, the group's preferred senior unsecured debt instruments have not been notched down in comparison to the long term issuer rating. However, BNP Paribas' Tier 2 capital rating is four notches below the long term issuer rating based on BNP Paribas capital structure and seniority in accordance with our rating methodology. Additional Tier 1 capital is rated five notches below the long term issuer rating, reflecting a high bail-in risk in the event of resolution.

A detailed overview of the development of liabilities for the years of 2014 through 2017 can be found in Figure 5 below:

Liabilities (€000)	2014	%	2015	%	2016	%	2017	%
Total Deposits from Banks	92.032.000	4,6%	86.531.000	4,6%	75.893.000	3,8%	77.974.000	4,2%
Total Deposits from Customers	641.549.000	32,3%	700.309.000	37,0%	765.953.000	38,8%	766.890.000	41,4%
Total Debt	455.375.000	23,0%	385.880.000	20,4%	409.078.000	20,7%	389.695.000	21,0%
Derivative Liabilities	438.008.000	22,1%	350.842.000	18,5%	342.568.000	17,4%	246.073.000	13,3%
Securities Sold, not yet Purchased	78.912.000	4,0%	82.544.000	4,4%	70.326.000	3,6%	69.313.000	3,7%
Other Financial Liabilities	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Total Financial Liabilities	**1.705.876.000**	**86%**	**1.606.106.000**	**85%**	**1.663.818.000**	**84%**	**1.549.945.000**	**84%**
Insurance Liabilities	112.458.000	5,7%	119.098.000	6,3%	123.773.000	6,3%	126.776.000	6,8%
Non-Current Liab. HFS & Discontinued Ops	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Unit-Linked Insurance and Investment Contr.	62.756.000	3,2%	65.945.000	3,5%	69.853.000	3,5%	76.660.000	4,1%
Tax Liabilities	2.920.000	0,1%	2.993.000	0,2%	3.087.000	0,2%	2.466.000	0,1%
Noncurrent Asset Retirement Obligations	6.904.000	0,3%	6.681.000	0,4%	7.189.000	0,4%	6.740.000	0,4%
Other Provisions	5.433.000	0,3%	4.664.000	0,2%	4.612.000	0,2%	4.321.000	0,2%
Total Other Liabilities	87.722.000	4,4%	88.629.000	4,7%	99.407.000	5,0%	86.135.000	4,6%
Total Liabilities	**1.984.069.000**	**95,5%**	**1.894.116.000**	**95,0%**	**1.971.739.000**	**94,9%**	**1.853.043.000**	**94,5%**
Total Equity	**93.689.000**	**4,5%**	**100.077.000**	**5,0%**	**105.220.000**	**5,1%**	**107.209.000**	**5,5%**
Total Passiva	**2.077.758.000**	**100%**	**1.994.193.000**	**100%**	**2.076.959.000**	**100%**	**1.960.252.000**	**100%**
Deposits from Customers Growth*	15,91	NA	9,16	-6,75	9,37	0,21	0,12	-9,25
Change in %Points								

Figure 5: Development of refinancing and capital adequacy (Source: S&P Global Market Intelligence)

The relative increase in total capital compared to risk-weighted assets had a positive effect on the capital ratios.

The CET1 Ratio, Tier 1 Ratio and Total Capital Ratio were significantly less favorable than those of its peers. The slight improvements in the three ratios have not led to better performance compared to the peer group; however, peer banks noticed a more distinct increase. The leverage ratio and total equity / total assets were comparable to those of its peers. Peer banks observed a lesser increase. The capital adequacy figures were the weakest compared to all of the other business development aspects examined. This is confirmed by the results in the EBA-stress test; BNP Paribas should build up more CET1, possibly through a higher accumulation of net profit.

A detailed overview of the development of capital ratios for the years 2014 through 2017 can be seen in Figure 6 below:

Capital (€000)	2014	%	2015	%	2016	%	2017	%
Total Capital	77.217.000	-3,54	85.920.000	11,27	92.454.000	7,60	94.658.000	2,38
Total Risk-weighted Assets	614.449.000	9,80	629.626.000	2,47	638.207.000	1,36	640.644.000	0,38
Capital Ratios (%)								
Core Tier 1 Ratio	10,50	-1,24	11,05	0,55	11,61	0,56	11,88	0,28
Tier 1 Ratio	11,46	-1,39	12,21	0,74	12,87	0,67	13,18	0,30
Total Capital Ratio	12,57	-1,74	13,65	1,08	14,49	0,84	14,78	0,29
Leverage Ratio	3,60	-0,10	4,03	0,43	4,40	0,37	4,60	0,20
Fully Loaded: Common Equity Tier 1 Ratio	10,28	-1,46	10,87	0,59	11,48	0,61	11,80	0,31
Fully Loaded: Tier 1 Ratio	10,80	-2,05	11,69	0,89	12,63	0,95	13,05	0,41
Fully Loaded: Risk-weighted Capital Ratio	11,69	-2,61	12,95	1,26	14,18	1,23	14,65	0,46
Total Equity/ Total Assets	4,51	-0,51	5,02	0,51	5,07	0,05	5,47	0,40
Change in %Points								

Figure 6: Development of capital ratios (Source: S&P Global Market Intelligence)

Liquidity

The liquidity situation of Europe´s second largest bank is comfortable and adaptable due to its broad refinancing base. The LCR is well above the required regulatory threshold. The interbank ratio significantly exceeded that of its peers and showed a considerable decrease of 3.9 percentage points from the previous year. Peer banks noticed a steeper decline. The LTD ratio was comparable to that of its peers, with an increase of 1.9 percentage points over the previous year. The same figure decreased for the peer group in the reporting year.

Liquidity (%)	2014	%	2015	%	2016	%	2017	%
Liquidity Coverage Ratio	113,58	NA	124,37	10,79	122,33	-2,03	121,00	-1,33
Interbank Ratio	47,10	-20,40	50,19	3,09	62,47	12,28	58,57	-3,90
Loan to Deposit (LTD)	102,62	-8,12	97,52	-5,10	93,06	-4,46	95,13	2,07
Change in % Points								

Figure 7: Development of liquidity
(Source: S&P Global Market Intelligence)

Conclusion

After the penalties recorded in 2014 (€6bn), BNP Paribas has been able to report substantial net profits in the last three years. The comparison with the peer group shows that competitors have been able to considerably improve their profitability in recent years. Based on the cost income ratios, it becomes clear that BNP Paribas continues to save money through increased digitalization and automatization.

The increased earning power, however, has also led to higher risk-weighted assets. The peer group comparison has shown that the risks of the assets are still in line. The NPL ratios are in need of improvement for a French bank with such a large business volume. In particular, a positive development of the French economy will be necessary.

The building up of equity should be remain a priority in the coming years. The gap between the capital ratios of the peer group and BNP Paribas has increased in recent years. A stronger accumulation of the net profit could close this gap.

Due to its high systemic relevance and worldwide networking, the liquidity situation was guaranteed at all times.

BNP Paribas is in the midst of a major transformation process to meet its ambitious “Road to 2020” targets. The cost savings will be essential to further increase its net profit.

In a scenario analysis, the rating developed slightly better in the best case scenario and substantially worse in the worst case scenario.

The ratings of bank capital and (preferred) senior unsecured debt would behave similarly based on our rating system. These ratings are especially sensitive to changes in total equity and to bank capital and debt structure in general.

Ratings Detail

Bank ratings

The bank ratings are dependent on a host of quantitative and qualitative factors. An improvement in either sub-category may result in a higher rating score.

LT Issuer / Short-Term / Outlook **A- / L2 / stable**

Bank Capital and Debt Instruments Ratings

The ratings for bank capital and debt instruments are inter alia dependent on subordination and relative size of the instrument class, based on the long-term issuer rating of the bank.

‘Preferred’ senior unsecured debt: **A-**
Tier 2 (T2): **BB+**
Additional Tier 1 (AT1): **BB**

Ratings Detail and History

Ratings			
Bank Capital und Debt Instruments			
Instruments	Rating Date	Publication Date	Ratings
Senior Unsecured / T2 / AT1	14 June 2018	26 June 2018	A- / BB+ / BB

Bank Issuer Ratings			
Type	Rating Date	Publication Date	Ratings
LT Issuer / Outlook / Short-Term	14 June 2018	26 June 2018	A- / L2 / stable

Figure 8: Ratings Detail and History

Regulatory

Creditreform Rating AG was neither commissioned by the rating object nor by any other third party for the rating. The analysis took place on a voluntary basis by Creditreform Rating AG and is to be described in regulatory terms as an unsolicited rating.

The rating is based on publicly available information and internal evaluation methods for the rated bank. The quantitative analysis is based mainly on the latest annual accounts, interim reports, other investor relations information of the bank, and calculated key figures by S&P Global Market Intelligence subject to a peer group analysis were 27 competing institutes.

The information and documents processed met the requirements of the rating system of Creditreform Rating AG as published on the website www.creditreform-rating.de. The rating was carried out on the basis of the rating methodology for unsolicited bank ratings as well as the methodology for the rating of bank capital and unsecured debt instruments in conjunction with Creditreform`s basic document “Rating Criteria and Definitions”.

On 14 June 2018, the rating was presented by the analysts to the rating committee and adopted in a resolution.

The rating result was communicated to BNP Paribas, and the preliminary rating report was made available to the bank. There was no change in the rating score.

The rating is subject to one-year monitoring from the rating date (see cover sheet). Within this period, the rating can be updated. After one year, a follow-up will be required to maintain the validity of the rating.

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

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 nor any other natural persons 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 the following material sources:

1. Transaction structure and participants

2. Transaction documents

3. Issuance documents

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 satisfactory the quality and extent of information available on the rated entity. In regard to the rated entity Creditreform Rating AG regarded the 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 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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