# Credit Comment – French Banking Sector

- The fundamentals of the top five French banks are solid, backed by their diversified business models, stable earnings, clean balance sheets, and comfortable funding and liquidity positions. Yet the picture on capitalization is mixed.
- The bonds of the five largest French banks are often priced at similar levels in primary markets, but a clearer differentiation is warranted.

# **French Banking Sector**

# Overview

The bonds of the five largest French banks (BNP Paribas, Societe Generale, BPCE, Credit Agricole and BFCM) often trade at very similar levels in both the primary and secondary markets, yet there are key differences among the banks, from profitability to capitalization and structure, which should arguably be better reflected in credit pricing.

The fundamentals of the top five French banks are generally solid, with stable earnings, clean balance sheets, and comfortable funding and liquidity positions. Capitalisation is strong among the cooperative names - Credit Agricole, BPCE and BFCM -, but somewhat thinner for the listed groups (BNPP and SocGen). In all, the sector has shown notable resilience amid the many significant negative factors impacting profitability, from low interest rates to higher regulatory

#### **Heat Map** Credit **BNP** BPCE BFCM Credit Factor SocGen Agricole Paribas Profitability 2 2 3 2 2 3 Capital 2 1 1 1 2 1 Asset Quality 1 1 1 Structure 1 1 2 2 3 2 2 1 2 1 Litigation Funding and 1 2 1 2 1 Liquidity

1=Favourable; 2=Neutral; 3=Unfavourable. The heat map displays a relative comparison of the banks among themselves and the general banking sector.

requirements and increased compliance costs. It has been supported by the still-positive economic environment in France, leading to strong asset quality metrics and low impairment charges.

A key pillar of this resilience is the sector concentration, with the five largest banks accounting for 85% of the sector's total assets. This gives the institutions some pricing power, market entry barriers and the scale necessary to develop sustainable business model. Another source of strength has been the banks' continuous search for business diversification, either geographically or by product. This is proving of greater relevance in this prolonged period of low and negative interest rates across Europe.

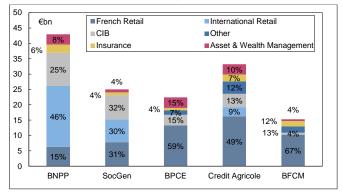
#### Profitability

In addition to the low interest rate environment, French banks' profitability is further pressured by the existence of regulated savings (Livret A), which are tax-free deposits, guaranteed and priced by the French government. These were first created in 1818 by King Louis XVIII to repay the debts incurred during the Napoleonic wars. Although Livre A's interest rate follows a specific market-related formula, stablished by the French central bank, the rate is arguably above what would be normal market rates. As it is serves as a reference rate for other deposits, the rate ends up increasing interest expenses for French banks. In addition, most of Livret A deposits go to the state-owned Caisse des Dépôts et Consignations (CDC), making French banks more reliant on more expensive, market sensitive wholesale funding. More positively, the sector has long

sought a diversified stream of revenues in different geographies and business lines. This is now the sector's key strength, amid the low revenues provided by vanilla French retail banking. That said, the search for product diversification has also led French banks to provide relatively cheap credit pricing for households and SMEs, as they seek to attract clients and later cross-sell other products, increasing fees on one hand, but hitting margins on the other.

In recent years, low interest rates have led to a flow of mortgage re-negotiations, which in turn raised fees and commissions, and partly offset tighter margins. However, as the volume of renegotiations drops, the weakness in the profitability of retail banking in France should become clearer, as rates remain at very low levels.

#### **Revenues breakdown (2018)**



Source: Banks financial statements, Daiwa Capital Markets Ltd.

#### Israel Da Costa, CFA Credit Analyst +44 20 7597 8355 Israel.DaCosta@uk.daiwacm.com





Global markets activities (FICC and Equity sales and trading) have also been a negative pressure on the sector, particularly for BNP Paribas and SocGen and, to a lesser degree, for BPCE and Credit Agricole. Although weak trading has been a global trend, as post-crisis regulations made swathes of the FICC and Equity businesses uneconomic, we do note that the French banks have been losing market share to peers, particularly to the large American banks. More positively, strong performance in insurance, asset and wealth management and international retail enabled the sector to show resilience amid the weak French retail banking and global markets.

We also note that the weakness in profitability is not only driven by external sectors. French banks have a high cost base, due to complex structures and expensive, yet low-profit, global markets operations. Local banks have failed to fully adapt to the new banking environment, and are yet to compensate for the higher compliance and regulatory costs, with total costs / total assets largely at the same level as observed in 2007 (see table). French banks' efficiency will continue to be weak in the short to medium term, as investments in digitalization will drive up operational costs. In all, we expect profitability to remain under pressure for as long as interest rates are negative, European economic growth is anemic and cost efficiency efforts are substandard.

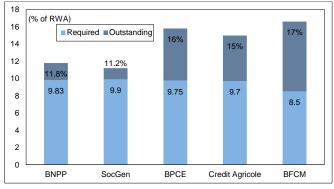
#### Capitalization

The picture on capitalization is mixed. Whilst the cooperative groups benefit from limited capital redistribution needs, leading to strong organic capital generation, the two listed names have their CET1 and Leverage ratios considerably below their French and European peers. We should note however that, if needed, BNP Paribas and SocGen would have easier access to markets to raise capital than the cooperatives. The different capitalization levels also have an impact on the shortfall in the MREL requirement, although requirement levels are similar. The cooperative banks, with a much larger total capital base, are in a considerably more comfortable position to comply with current and forthcoming requirements leading, in turn, to a lower run rate of Senior Non-Preferred (SNP) debt issuance. (See charts on the right and more details in Credit Considerations below).

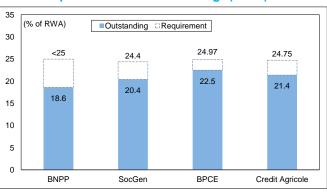
#### **Asset Quality**

The sector has benefited from a healthy economic environment in France in recent years, leading to a decline in impairment charges, improved asset quality metrics and increased levels of lending demand. Asset quality is also supported by the granularity in banks' exposure by counterparty and jurisdiction, with NPL ratios ranging between 2.6% and 3.6% among the largest five banks, with strong coverage levels, ranging between 70.0% and 84.5%. That said, French corporate sector debt has risen significantly in recent years, reaching 175% of GDP at end Q318, more than €4tn according to S&P. This increase has been fueled by low interest rates, strong investment in France and abroad, and easy funding conditions.

# **CET1 Requirement and Outstanding (YE18)**



Source: Banks financial statements, Daiwa Capital Markets Ltd.



MREL Requirement and Outstanding\* (YE18)

Source: Banks financial statements, Daiwa Capital Markets Ltd. \*Excluding senior preferred debt.

Comfort is provided by the high diversification and granularity of the sector, further supported by improving interest rate payment capacity, vast cash piles, and recurring debt maturity extensions. However, the resilience of the French corporate sector may have been weakened as a result, so that French banks' asset quality could deteriorate materially in an economic downturn.

#### Funding

Due to the Livre A regulated deposits, French banks have a relatively high reliance on wholesale funding. In particular BPCE and BFCM, which are more domestically focused, and have Loans To Deposit ratios around 120%, whilst the other three banks have LTD around 100%. That said, the sector benefits from a well-established and developed covered bond market, which reduces the reliance on unsecured, more market sensitive funding.

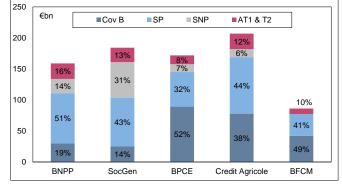
As the first issuers of Senior Non-Preferred (SNP) papers, the French banks have now on aggregate built a large MRELeligible SNP buffer. As at end-Feb'19, the four largest French banks had around €75bn of Senior Non-preferred debt, whilst issuance volumes are likely to remain elevated as regulatory clarity and transparency improves. As a non-G-SIB, BFCM is yet to be notified by the ECB on its MREL requirement, despite being a €667bn total assets bank, which, in turn, highlights



how little the ECB has progressed in implementing banks' resolution regulation. The other four banks have MREL requirements equivalent to just below 25% of RWAs. A key point yet to be decided by the EU is the level of subordination to be required, i.e. how much of the MREL requirement has to be filled with debt junior relative to Senior Preferred instruments. Each bank will be given its own specific subordination requirement, which we expect to be in line with the minimum TLAC subordination requirement, i.e. 18% + buffers - 3.5% from 2022, as percentage of RWAs.

The local banks are likely to take advantage of the third round of TLTRO 3. However, given the short term of the facility - two years instead of the four years in previous rounds - banks are

# Wholesale funding profile (2018)



Source: Banks financial statements, Daiwa Capital Markets Ltd.

more likely to use the new round to smooth out the current reliance on TLTRO, rather than utilizing it to finance new loans.

The French names are only slowly increasing their supply of ESG paper, as the groups are still working on enhancing the identification of assets that could be used for ESG programmes. That said, French names have actively worked in the intermediation of ESG bonds and have provided material volumes of sustainable financing, the latter having arguably a greater ESG impact than the simple determination of bonds as ESG, when these would have been issued irrespectively of being ESG or not.

# **Credit considerations**

#### BNP Paribas (SP: Aa3 by Moody's and A+ by S&P; SNP: Baa1/A-)

The bank's strength lies on its strong franchise across its main business lines, and on the diversification of its revenue base by product, business and geography. It has the highest RoTE of the top five French banks (see peer table below), although this is partly driven by its smaller capital base. BNPP's CET1 ratio of 11.7%, albeit on an upward trend, is a key vulnerability, and still trails most of its European peers. Revenues are under pressured, impacted by the weak domestic market, volatile capital market operations, and disinvestments. This recent decline on earnings led the bank to revise down its 2016-2020 compound annual growth rate (CAGR) target on revenues from above 2.5% to 1.5%, to be achieved mostly from cost savings rather than revenue generation. The RoE target moved from 10% to 9.5%, whilst the fully loaded CET1 ratio target was maintained at above 12%. Asset quality is solid, backed by the stable economic environment in France and Belgium, yet its exposure to Italy is high, with a gross exposure of €153bn as at YE18, 10% of total, including €11.5bn to the Italian sovereign

BNPP has stopped placing public benchmark Senior Preferred (SP) paper until its SNP buffer is much larger, leading to an elevated running rate of SNP issuance per year of €14-15bn. The bank is the only euro area issuer to date to include call options on its SNP issuance. Other banks have deemed it uneconomic so far, whilst the ECB is yet to provide clarity on the allowance of call options for MREL eligible bonds. S&P recently upgraded the bank's SP bond to A+, on the back of the increased volume of SNP debt, yet it maintained the rating on all debt classes, including SNP.

# Societe Generale (SP: A1 by Moody's and A by S&P; SNP: Baa2/BBB+)

Similar to BNPP, SocGen benefits from a diversified revenue base both by business line and geography, with wellestablished operations in CEE, Africa and the U.S., in addition to its strong position in its home market. The bank's thin capital base is however a key credit vulnerability. It did report a 50bps increase in the CET1 in 1Q19 to 11.7%, putting it at the same level as BNPP, but further improvement is needed. This capital weakness led the regulator to recently increase SocGen's pillar 2 requirement (P2R) from 1.5% to 1.75%, reflecting the fact that the ECB wants the bank to accumulate more capital. SocGen unsurprisingly sees capital as a priority, hence the recently announced scrip dividends. Positively, the bank's total capital ratio of 16.5% compares somewhat better, on the back of adequate volumes of AT1s and T2s, which strengthens the loss absorbing protection to holders of SNP and SP debt.

Also similar to BNPP, SocGen recently revised down its targets for 2020, which were announced in November 2017, with the ROTE target revised from 11.5% to 9-10% in 2020 and the CET1 ratio target to 12%, from 'above 12%', with any improvement expected from reduced costs rather than revenue generation. In addition, the bank announced further optimization of its businesses, with an increased focus on equity derivatives and structured finance, and away from commodities and proprietary trading, whilst flow activities, such as credit and rates, will be 'reorganized'. The strategy change seems reasonable, as being leaner, more efficient and focused on key strengths is certainly credit positive, yet it's unclear this will prove sufficient to revert the bank's downward trend on trading revenues. Litigation concerns have now reduced, following two large settlements with U.S. authorities last year totaling \$2.7bn on a range of issues. Assuming stable revenues, the lack of significant conduct charges should support the bank in strengthening its capital base in the short to medium term.

Please note the disclaimers and disclosures on the last page of this document.



SocGen disclosed a funding plan of  $\in$ 17bn for 2019, which includes  $\in$ 6-8bn in Secured and SP papers,  $\in$ 6-7bn in SNP and  $\in$ 2.5-3bn in T2 and AT1 securities. The SNP debt amount announced for 2019 is their run rate, a similar volume should be expected for 2020. As at 15 April, the bank has already completed 60% of its funding plan for 2019, and 80% of the SNP issuance plan.

# Groupe Credit Agricole (SP: A1 by Moody's and A+ by S&P; SNP: Baa2/A-)

CA's credit profile is supported by a solid capital base, leading retail and SME franchise in France, 70% ownership of Amundi, Europe's largest asset manager, and strong franchises in leasing and consumer finance in Europe. Its balance sheet is healthy, with its exposure to Italy being its main weakness, where the bank has €108bn in commercial lending exposure (8% of the group's total) and €8.5bn in sovereign exposure. In March 2019 the group was accused by a Swiss newspaper to be involved in the so-called Troika Laundromat, with suspicious funds amounting to about \$150m moving to accounts in its Geneva wealth management unit. The bank responded by saying it respects all rules on money laundering. We note that the group is yet to be formally investigated by any authority, whilst the mentioned amounts are small compared to figures being investigated by other high profile cases in Europe (e.g. Danske and Swedbank).

CA will publish its new strategy on 06 June, which we don't expect to differ significantly from its current focus on organic growth, with an opportunistic approach for specific areas (e.g. Asset Management and Wealth Management), particularly in Asia. That said, the euro area will remain the bank's strategic focus. We note however that when the group held excess capital in the past, it has sought additional yields in roads less travelled, leading for instance to significant impairment charges from investments in banking organizations in Greece and Portugal. Any non-organic expansion warrants enhanced scrutiny.

Moody's has the bank's Outlook on Positive, driven by its strong and improving capital base. The agency is likely to upgrade all CA's ratings if it were to meet its 15.5% - 16% CET1 target by YE19. Assuming no significant deterioration in the macro economic environment in France and Italy, an upgrade by the agency is highly likely this year. We see CA's credit profile as stronger than BNP Paribas', an upgrade of CA's ratings to at least the same level as BNP Paribas by Moody's is hence long overdue.

The funding plan for CASA, the group's main issuer, was set at €17bn in 2019, of which €5-6bn in Tier 2 or senior non-preferred debt.

# Groupe BPCE (SP: A1 by Moody's and A+ by S&P; SNP: Baa2/A-)

The group is less diversified geographically than its larger French peers, yet diversification is assured through its insurance, asset and wealth management businesses. A lower reliance on corporate and investment banking earnings has also led to stable earnings, although the focus on the domestic market has dragged down the bank's profitability, with the bank reporting the lowest margins among the large French names (see peer table). The 2018 results were particularly impacted by squeezing margins in in the Caisse D'epargne retail network, whilst an acceleration in the bank's transformation plan has increased operating expenses. It benefits from a solid capital base (CET1 ratio of 15.8%), on the back of its low-dividend-paying cooperative structure. The group was created as the merger between two vast cooperative networks, Banque Populaire (BP) and Caisse d'épargne (CE), yet the structure remains suboptimal, elevating its overall costs. It has made tangible progress in recent years in the simplification of its structure, yet with two parallel network of branches and a total of 29 BPS and CEs, we see significant scope for further reductions in the group's cost base.

The group plans to issue €20bn in unsecured debt in 2019, down from the €27bn raised for 2018, of which €3-4bn in SNP format, down from the €7.3bn issued in 2018.

# Banque Federative du Credit Mutuel (SP: Aa3 by Moody's and A by S&P; SNP: Baa1/BBB+)

BFCM is by far the smallest of the top five banking groups in France, with a franchise more focused on French retail. The group's credit profile benefits from historically high earnings retention due to its cooperative structure, leading to a solid CET1 ratio of 16.6%, whilst its vanilla low-risk businesses have delivered low but stable earnings, and limited through-the-cycle asset quality volatility. Different to the general European trend, BFCM has decided to maintain its large network of branches, and aims to focus on client loyalty, offering a large range of services to justify the high costs of maintaining the branch network. Although the strategy might prove successful in the medium term, it is unclear the additional services will justify the high costs. Furthermore, some non-finance related services, such as investments in a mobile network, may prove a distraction to the bank's core business. BFCM's overall governance is negatively impacted by its overly complex structure, despite the adequate mutual support mechanisms in place.

Notwithstanding its large size (total assets of  $\in$ 667bn), BFCM is yet to be notified by the ECB on its MREL requirement, so that its SNP debt needs are still unclear. In light of the bank's strong capital base, we expect the its SNP debt issuance needs to be limited. BFCM is not a G-SIB, as such, it does not have to comply with TLAC requirements. Nonetheless, the bank has already issued its inaugural SNP paper in March 2019, when it placed a  $\in$ 1bn 10Ybond, priced at MS+118bps, which was well received by the markets, with book orders above  $\in$ 3.25bn.



# Pricing

#### **Issuer Differentiation**

French banks' SP and SNP papers are often priced at similar levels when issued in JPY. This is also observed in the USD secondary market. However, as highlighted above, and already observed in the EUR market, there is a strong rationale for clearer differentiation.

Based on fundamentals, we believe CA's SP and SNP paper should trade tighter than those of its French peers, backed by its solid and still growing capital base and good business mix, whilst large volumes of Tier 1 and Tier 2 paper also provides strong support to both SP and SNP debtholders. BPCE and BFCM should trade wider than CA, given their somewhat weaker business mix and profitability and more complex structure (particularly BFCM), despite their solid capital base. Finally, BNPP and SocGen portray a somewhat weaker credit profile than their French peers at the moment, as a result of their weaker capital base and higher exposure to volatile and underperforming investment banking activities. This, in our view, justifies wider spreads to its French peers. BNPP SP's are trading at a premium to peers. This is driven by technicals rather than fundamentals however, as the bank's decision to stop issuing SP benchmarks until its SNP buffer is more robust has led to limited supply.

Against European peers, French credits look rather expensive, particularly against Swiss and UK banks, which have stronger credit profile. The wider spreads of UK banks are driven by Brexit and the political uncertainty, which we understand. However, based on fundamentals, there's a strong case for French banks to trade with wider differentials to the large Swiss issuers.

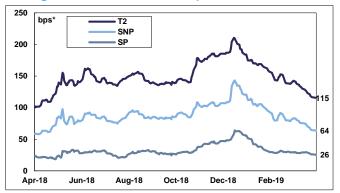
#### **Market Overview**

French - and European – banks' credit spreads have tightened significantly since the beginning of the year, particularly for lower-ranked paper, against the backdrop of the US Fed's halt to monetary policy tightening and the signal from the ECB that it won't raise interest rates in 2019. The banking sector has also been supported by signals from the ECB that it would consider a tiered system on deposits placed at the central bank, which accompanied the confirmation of a new round of TLTROS.

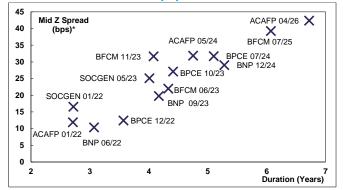
This tightening led to a compression in spreads, particularly for EUR bonds, with the average French senior non-preferred debt trading at only 38bps above senior preferred paper on average. Given that the Tier 2 - SNP spread is at 51bps, we do see the SNP – SP spread as too tight. Based on fundamentals, and in line with current CDS pricing, SNP should trade halfway between SP and Tier 2, potentially closer to Tier 2 in periods of stress.

The stable fundamentals of the French banking sector and increasing volumes of loss absorbing Senior Non-Preferred (SNP) debt should in theory lead to a tightening of the banks' SP and SNP paper, yet this might be hindered by the already tight conditions in the market.

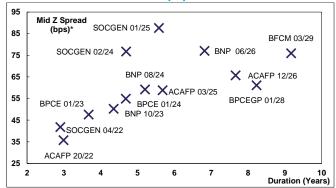
#### Average French Banks EUR Z Spreads



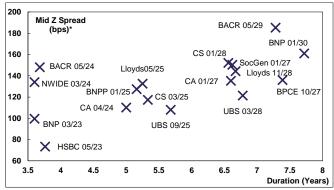


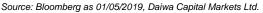


#### Selected French EUR SNP papers









Also as a result of the currently tight conditions, investors are being pushed to chase higher yields and duration in the primary market, leading to strong demands levels for papers ranked below senior preferred, and to low new issue premia.



Peer Comparison Table										
Key Ratios (%)	<b>BNP</b> Paribas		Societe Generale		Credit Agricole		BPCE		BFCM	
€bn	FY18	FY17	FY18	FY17	FY18	FY17	FY18	FY17	FY18	FY17
Revenues	42.5	43.2	25.2	24.0	32.8	32.1	24.0	23.7	14.1	14.0
NII	21.1	21.8	11.0	10.4	18.5	19.7	8.6	10.2	6.2	5.7
Costs	30.6	29.9	17.9	17.8	21.5	20.9	17.7	17.1	8.7	8.5
Impairments	2.8	2.9	1.0	1.3	1.7	1.7	1.3	1.4	0.9	0.9
Net Income	7.5	7.8	3.9	2.8	6.8	6.5	3.0	3.0	2.7	2.2
€bn										
Total Assets	2,041	1,950	1,309	1,274	1,855	1,765	1,274	1,259	667	618
Total Loans	766	731	447	417	855	795	659	626	371	343
Total Deposits	797	761	417	411	790	732	530	517	304	288
Wholesale Funding	159	150	179	168	202	198	217	217	88	85
- o/w SNP	23	11	14	7	13	8	12	5	0	0
- o/w SP	81	86	29	25	91	88	122	130	NA	NA
CET1	76	75	41	40	81	78	62	59	35	33
(%)										
NIM	1.1	1.1	0.9	0.9	1.1	1.2	0.7	0.9	1.0	1.0
ROE	7.6	8.0	7.1	5.3	6.7	6.6	5.3	5.3	7.0	5.9
RoTE	9.7	10.4	9.0	7.3	8.0	8.2	5.7	5.8	7.8	7.0
ROAA	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.5	0.4
C/I	71.9	69.4	71.1	74.5	65.3	65.1	73.7	72.1	61.9	60.4
CET1	11.8	11.6	11.2	11.4	15.0	14.9	15.8	15.3	16.6	16.5
TotaL Capital	15.0	14.6	16.5	17.0	18.3	18.2	19.6	19.2	19.7	20.3
LR	4.5	4.5	4.2	4.3	5.4	5.6	5.2	5.1	6.0	5.9
NPL	2.6	3.3	3.6	4.4	2.6	3.1	2.8	3.2	3.1	3.3
NPL Coverage	76.2	91.0	54.0	61.0	84.5	78.8	74.5	71.4	70.0	59.7
LCR	132.0	121.0	124.0	124.0	133.4	133.0	>110	>110	131.2	131.3
(%)	FY18	FY07	FY18	FY07	FY18	FY07	FY18	FY08	FY18	FY07
Total Costs/ Total Assets	1.5	1.8	1.4	1.3	1.2	1.3	1.4	1.4	1.3	1.0

Source: Banks financial statements. Daiwa Capital Markets Europe. Moody's.



#### **Key contacts**

<b>London</b> Head of Research Financials, Supras/Sovereigns & Agencies	Grant Lewis Israel Da Costa, CFA	+44 20 7597 8334 +44 20 7597 8355
Research Assistant Manager	Jodene Adjei	+44 20 7597 8332
<b>Tokyo</b> <i>Domestic Credit</i> Chief Credit Analyst Electronics, Automobiles, Non-Banks, Real Estate, REIT Chemicals, Iron & Steel	Toshiyasu Ohashi Takao Matsuzaka Kazuaki Fujita	+81 3 5555 8753 +81 3 5555 8763 +81 3 5555 8765
International Credit Non-Japanese/Samurai, European Sovereigns Non-Japanese/Samurai Non-Japanese	Hiroaki Fujioka Fumio Taki Jiang Jiang	+81 3 5555 8761 +81 3 5555 8787 +81 3 5555 8755
London Translation Head of Translation, Economic and Credit	Mariko Humphris	+44 20 7597 8327

# DAIR <GO>

All of the research published by the London and New York research teams is available on our Bloomberg page at DAIR <GO>. If you are unable to access the research on this page, please contact Jodene Adjei on +44 207 597 8332.

# Access our research at:

http://www.uk.daiwacm.com/ficc-research/research-reports

Follow us <u>
@DaiwaEurope</u>

This document is produced by Daiwa Securities Co. Ltd and/or its affiliates and is distributed by Daiwa Capital Markets Europe Limited in the European Union, Iceland, Liechtenstein, Norway and Switzerland. Daiwa Capital Markets Europe Limited is authorised and regulated by The Financial Conduct Authority, is a member of the London Stock Exchange and an exchange participant of Eurex. Daiwa Capital Markets Europe Limited and its affiliates may from time to time, to the extent permitted by law, participate or invest in, or be mandated in respect of, other transactions with the issuer(s) referred to herein, perform services for or solicit business from such issuer(s), and/or have a position or effect transactions in a particular issuer's securities or options thereof and/or may have acted as an underwriter during the past twelve months in respect of a particular issuer of its securities. In addition, employees of Daiwa Capital Markets Europe Limited and its affiliates may have positions and effect transactions in such securities or options and may serve as Directors of a particular issuer Capital Markets Europe Limited may, to the extent permitted by applicable UK law and other applicable law or regulation, effect transactions in securities of a particular issuer before this material is published to recipients.

This publication is intended for investors who are not Retail Clients in the United Kingdom within the meaning of the Rules of the FCA and should not therefore be distributed to such Retail Clients in the United Kingdom. Should you enter into investment business with Daiwa Capital Markets Europe's affiliates outside the United Kingdom, we are obliged to advise that the protection afforded by the United Kingdom regulatory system may not apply; in particular, the benefits of the Financial Services Compensation Scheme may not be available.

Daiwa Capital Markets Europe Limited is part of Daiwa Securities Group Inc. Daiwa Securities Group Inc., its subsidiaries or affiliates, or its or their respective directors, officers and employees from time to time have trades as principals, or have positions in, or have other interests in the securities of the company under research including market making activities, derivatives in respect of such securities or may have also performed investment banking and other services for the issuer of such securities. Daiwa Securities Group Inc., its subsidiaries or affiliates do and seek to do business with the company(s) covered in this research report. Therefore, investors should be aware that a conflict of interest may exist.

Daiwa Capital Markets Europe Limited has in place organisational arrangements for the prevention and avoidance of conflicts of interest. Our conflict management policy is available at http://www.uk.daiwacm.com/about-us/corporate-governance-regulatory. Regulatory disclosures of investment banking relationships are available at http://www.us.daiwacm.com/

The statements in the preceding paragraphs are made as of May 2019.



#### Additional notes for Japanese-based investors

#### Explanatory Document of Unregistered Credit Ratings

In order to ensure the fairness and transparency in the markets, Credit Rating Agencies became subject to the Credit Rating Agencies' registration system based on the Financial Instruments and Exchange Act. In accordance with this Act, in soliciting customers, Financial Instruments Business Operators, etc. shall not use the credit ratings provided by unregistered Credit Rating Agencies without informing customers of the fact that those Credit Rating Agencies are not registered, and shall also inform customers of the significance and limitations of credit ratings, etc.

#### ■ The Significance of Registration

Registered Credit Rating Agencies are subject to the following regulations:

1) Duty of good faith.

2) Establishment of control systems (fairness of the rating process, and prevention of conflicts of interest, etc.).

3) Prohibition of the ratings in cases where Credit Rating Agencies have a close relationship with the issuers of the financial instruments to be rated, etc.

4) Duty to disclose information (preparation and publication of rating policies, etc. and public disclosure of explanatory documents).

In addition to the above, Registered Credit Rating Agencies are subject to the supervision of the Financial Services Agency ("FSA"), and as such may be ordered to produce reports, be subject to on-site inspection, and be ordered to improve business operations, whereas unregistered Credit Rating Agencies are free from such regulations and supervision.

#### Credit Rating Agencies

[Standard & Poor's]

# The Name of the Credit Rating Agencies group, etc

The name of the Credit Rating Agencies group: S&P Global Ratings ("Standard & Poor's") The name and registration number of the Registered Credit Rating Agency in the group: S&P Global Ratings Japan Inc. (FSA commissioner (Rating) No.5)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Unregistered Rating Information" (http://www.standardandpoors.co.jp/unregistered) in the "Library and Regulations" section on the website of S&P Global Ratings Japan Inc. (http://www.standardandpoors.co.jp)

#### Assumptions, Significance and Limitations of Credit Ratings

Credit ratings assigned by Standard & Poor's are statements of opinion on the future credit quality of specific issues or issues as of the date they are expressed and they are not indexes which show the probability of the occurrence of the failure to pay by the issuer or a specific debt and do not guarantee creditworthiness. Credit ratings are not a recommendation to purchase, sell or hold any securities, or a statement of market liquidity or prices in the secondary market of any issues.

Credit ratings may change depending on various factors, including issuers' performance, changes in external environment, performance of underlying assets, creditworthiness of counterparties and others. Standard & Poor's conducts rating analysis based on information it believes to be provided by the reliable source and assigns credit ratings only when it believes there is enough information in terms of quality and quantity to make a conclusion. However, Standard & Poor's does not perform an audit, due diligence or independent verification of any information it receives from the issuer or a third party, or guarantee its accuracy, completeness or timeliness of the results by using the information. Moreover, it needs to be noted that it may incur a potential risk due to the limitation of the historical data that are available for use depending on the rating. This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of March 7th, 2017, but it does not guarantee

accuracy or completeness of this information. For details, please refer to the website of S&P Global Ratings Japan Inc. (http://www.standardandpoors.co.jp)

#### [Moody's]

#### The Name of the Credit Rating Agencies Group, etc

The name of the Credit Rating Agencies group: Moody's Investors Service, Inc. ("MIS")

The name and registration number of the Registered Credit Rating Agency in the group: Moody's Japan K.K. (FSA commissioner (Rating) No.2)

How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Unregistered Rating explanation" in the section on "The use of Ratings of Unregistered Agencies" on the website of Moody's Japan K.K. (The website can be viewed after clicking on "Credit Rating Business" on the Japanese version of Moody's website (https://www.moodys.com/pages/default\_ja.aspx) Assumptions, Significance and Limitations of Credit Ratings

Credit ratings are Moody's Investors Service, Inc.'s ("MIS") current opinions of the relative future credit risk of entities, credit commitments, or debt or debt-like securities. MIS defines credit risk as the risk that an entity may not meet its contractual, financial obligations as they come due and any estimated financial loss in the event of default. Credit ratings do not address any other risk, including but not limited to: liquidity risk, market value risk, or price volatility. Credit ratings do not constitute investment or financial advice, and credit ratings are not recommendations to purchase, sell, or hold particular securities. No warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability or fitness for any particular purpose of any such rating or other opinion or information, is given or made by MIS in any form or manner whatsoever.

Based on the information received from issuers or from public sources, the credit risks of the issuers or obligations are assessed. MIS adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MIS considers to be reliable. However, MIS is not an auditor and cannot in every instance independently verify or validate information received in the rating process.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of May 13th, 2016, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Moody's Japan K.K. (https://www.moodys.com/pages/default\_ja.aspx)

#### [Fitch]

The Name of the Credit Rating Agencies group, etc

The name of the Credit Rating Agencies group: Fitch Ratings ("Fitch")

The name and registration number of the Registered Credit Rating Agency in the group: Fitch Ratings Japan Limited (FSA commissioner (Rating) No.7) How to acquire information related to an outline of the rating policies and methods adopted by the person who determines Credit Ratings

The information is posted under "Outline of Rating Policies" in the section of "Regulatory Affairs" on the website of Fitch Ratings Japan Limited (https://www.fitchratings.co.jp/web/)

### Assumptions, Significance and Limitations of Credit Ratings

Ratings assigned by Fitch are opinions based on established criteria and methodologies. Ratings are not facts, and therefore cannot be described as being "accurate" or "inaccurate". Credit ratings do not directly address any risk other than credit risk. Credit ratings do not comment on the adequacy of market price or market liquidity for rated instruments. Ratings are relative measures of risk; as a result, the assignment of ratings in the same category to entities and obligations may not fully reflect small differences in the degrees of risk. Credit ratings, as opinions on relative ranking of vulnerability to default, do not imply or convey a specific statistical probability of default.

In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The assignment of a rating to any issuer or any security should not be viewed as a guarantee of the accuracy, completeness, or timeliness of the information relied on in connection with the rating or the results obtained from the use of such information. If any such information should turn out to contain misrepresentations or to be otherwise misleading, the rating associated with that information may not be appropriate. Despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

For the details of assumption, purpose and restriction of credit ratings, please refer to "Definitions of ratings and other forms of opinion" on the website of Fitch Rating Japan Limited.

This information is based on information Daiwa Securities Co. Ltd. has received from sources it believes to be reliable as of May 13th, 2016, but it does not guarantee accuracy or completeness of this information. For details, please refer to the website of Fitch Rating Japan Limited (https://www.fitchratings.co.jp/web/