

European Banks – Credit Update

- The largest European banks accessing the JPY market have around \$500bn of excess capital to weather the current crisis, an increase of around \$210bn as a result of the recent measures announced by central banks across the region.
- Liquidity levels at the start of the crisis were comfortable, whilst new funding and liquidity facilities provided by central banks should alleviate any short-term market strain.
- Unsecured primary markets re-opened last week for European FIGs, with very attractive spreads.

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

Bank fundamentals and the ongoing crisis

Capital. Following the recent reduction in capital requirements across the continent, the largest European banks with a history of access to the JPY market have an estimated \$500bn of Common Equity Tier 1 (CET1) capital in excess of minimum requirements. Recent measures by central banks across the regions raised this excess capital volume by around \$210bn according to our estimates. Table 1 on page 2 provides a breakdown by bank.

The increase came largely from the euro area issuers (+\$181bn), as the ECB's cuts to minimum requirements were more comprehensive than those undertaken by other supervisors across the continent. In particular, the ECB cut the Capital Conservation Buffer (2.5% of RWA) and the Capital Countercyclical Buffer (CCyB). It also brought forward the rules allowing banks to use AT1 and Tier 2 instruments to partly meet their Pillar 2 Requirements (P2R). Finally, it also removed the Pillar 2 Guidance, an undisclosed requirement based on which the regulator may push banks to increase their capital base, although still allowing for capital redistribution. Given the lack of disclosure and the non-impact on capital redistributions, the cut to the P2G was not included in our estimates. Meanwhile, other European regulators have largely only cut the CCyB so far, which gives them ample room for further loosening in requirements. In the Netherlands the local regulators also cut the systemic risk buffers (SRBs), whilst the Swiss regulator announced that deposits placed at central banks will not count towards banks' leverage exposure.

Prior to the changes, euro area JPY issuers had a total of \$193bn of excess capital, vs \$90bn of the largest banks in Denmark, Sweden, Switzerland and the UK. The difference arises from the lower capital requirements applied to euro area banks on average, whilst non-euro area bank issuers remain better capitalized on average, despite the lower excess volumes.

Capital levels will also be supported by the suspension of dividend payments. Following a similar decision by the Swedish FSA earlier last week, on Friday the ECB advised euro area banks to scrap dividend payments for the financial years 2019 and 2020 until at least October 2020, whilst capital buybacks should also be stopped. Elsewhere, Credit Suisse has also announced a suspension of its capital buy-back programme.

Liquidity levels at the start of the crisis were solid, with comfortable Liquidity Coverage Ratios backed by elevated volumes of High Quality Liquid Assets. That said, the data are now three months old, which is a long time for liquidity indicators, as we previously learned from Banco Popular. Banks' liquidity levels have been impacted by corporates reportedly fully drawing down credit lines with banks in recent weeks, and by the potential quick increase in new lending on the back of the several loan guarantee schemes launched by countries across Europe. Yet central banks are being quick in utilising all tools available to ensure continuous frictionless functioning of banking systems. In the U.K., the BoE launched the Term Funding Scheme with additional incentives for SMEs (TFSME), offering cheap four-year funding, with daily drawdowns for 12 months. It also launched its Contingent Term Repo Facility (CTRF), a temporary enhancement to its sterling liquidity insurance facilities designed to help alleviate frictions observed in money markets in recent weeks.

In the euro area, the ECB launched a new Long Term Refinancing Operation (LTRO), with weekly auctions all maturing on 24 June 2020, when banks will be able to shift outstanding LTRO facilities into TLTRO III. The conditions for the latter were improved, with an increase in the allowance amount per bank, early repayments available after 12 months (from the previous 24) and no take-up limit in each auction. The conditions on the TLTROs between 24 June 2020 and 23 June 2021 were amended. The rate applied to all outstanding TLTROs in the period will be 25bps below the ECB's main refinancing rate for those who do not reach the lending target (-0.25%), and 25bps below the average rate on the ECB's deposit facility (-0.75%) for those who do reach the lending target. The lending target itself was also eased. In all, the most favourable conditions will be in place for a year from 24 June 2020, so that a significant drawdown is expected on that day. In the past two weeks, euro area banks drew down €190bn in LTROs and €115bn in TLTRO III, whilst €93bn of outstanding TLTRO II funds were repaid. Total outstanding LTRO is now at €825bn, the highest since 2013.

In Switzerland, the SNB announced a Covid-19 refinancing facility for banks, following the Swiss government's announcement the week before of a CHF20bn fund of state-backed bridge loans to support small businesses. Swiss banks can use loans granted under the government bridge loan program as collateral for the facility, which has no upper limit and draw-downs can be made at any time. This will ensure local banks have sufficient funding and liquidity to cover the increase in lending.

In addition to strong liquidity buffers, the elevated level of primary market activity in January and early February in both secured and unsecured format means European banks are generally well ahead on their funding plans for the year. This will allow them to stay out of the markets for a prolonged period should it be needed. Lower business activity and reduced loan demand as a result of the economic downturn will also reduce banks' funding needs. The recent re-opening of the debt capital market for European banks is reassuring, yet spreads remain prohibitive for lower-rated entities and lower-ranked paper.

Profitability. The many moving parts of banks' profitability make a comprehensive assessment rather challenging, if not unfeasible at the moment. Although there are positive drivers, such as greater treasury activity, increased demand for some products, an upwards-sloping curve, recovery in Euribor and liquidity measures, the overall trend will be downward, hit by, among other, even lower interest rates, squeezed margins, higher funding costs, lower demand, lower banking activity, and higher impairment charges.

Profitability was already a key weakness before the crisis, with the outlook now for the short to medium term being particularly bleak. Accordingly, in a normal environment, we'd use previous year profits as a proxy of how much loss a specific bank can absorb through its P&L. Yet, amid this unprecedented environment, the conservative approach is for P&L not to be used as source of loss absorption or organic capital generation. Banks with a higher cost base (elevated cost to income ratio) and higher percentage of losses consuming pre-impairment profit (LLP / Pre-Imp. Profit) are the ones in a weaker position to weather the forthcoming reduction in revenues and increase in impairment charges (See breakdown in Table 1).

Asset Quality. Similar to profitability, it is unrealistic – not to say pointless – to make any reasonable estimate on how much the asset quality of European banks will deteriorate in the forthcoming quarters. But it will be material, as a result of the expected deep recession and sharp increase in unemployment. Consumer lending (e.g. credit cards, personal loans) and SME lending will likely deteriorate the most. Residential mortgages, often the biggest exposure of retail banks in Europe, will be given some relief from the payment holidays being offered by banks and governments, but defaults will increase nonetheless.

Another potential weakness is the elevated private sector indebtedness in specific countries, particularly in the UK (149% of GDP at end-3Q19) and France (135%). The French case is of greater concern, as, whilst the UK figure is down 10ppt since end-3Q09, France is an outlier in Europe as its private sector debt has increased since the financial crisis, +25ppt since 3Q09.

(Table 1) European banks fundamentals and excess capital (as of YE19)

Bank	CET1 (%)	LR (%)	LCR (%)	Liquidity Reserves (\$bn)	CIR (%)	RoTE (%)	LLP / Pre-Imp. Profit (%)	Old CET1 Req. (%)	Est. New CET1 Req. (%)	Old CET1 Excess (\$bn)	New CET1 Excess (\$bn)	Δ Excess Capital (\$bn)
Commerzbank	13.4	5.1	135	80	77	3.4	33	10.6	7.1	5.6	12.7	7.1
Deutsche Bank	13.6	4.2	141	246	120	-	-	11.6	7.9	13.0	20.5	7.5
Danske	17.3	4.6	140	69	69	12.6	10	14.9	13.2	2.8	4.7	2.0
BBVA	11.7	6.7	129	162	48	9.9	16	9.3	6.1	10.0	22.9	12.9
Santander ¹	11.7	5.1	163	237	47	12.6	43	9.7	6.3	13.1	35.7	22.6
Nordea	16.3	5.3	166	118	51	11.3	20	13.2	8.5	5.2	13.0	7.8
BFCM	17.3	6.4	143	149	61	5.7	19	8.8	5.3	21.4	29.9	8.5
Crédit Agricole	15.9	5.7	128	331	67	8.1	16	9.7	6.3	22.3	34.3	11.9
BPCE	15.6	5.3	110	256	72	5.3	25	10.0	6.5	26.4	42.8	16.4
BNP Paribas	12.1	4.6	125	343	71	9.8	24	9.9	6.7	16.2	40.1	23.9
SocGen	12.7	7.9	124	211	73	6.2	23	10.0	6.5	10.3	23.8	13.6
Intesa Sanpolo	14.1	6.3	>100	211	56	9.9	24	9.2	5.9	16.4	27.2	10.8
UniCredit	13.1	5.3	>100	202	52	10.8	38	9.8	6.5	13.7	27.8	14.1
Rabobank	16.3	6.4	132	123	64	5.3	24	11.8	7.5	10.3	20.1	9.9
ING Group	14.6	4.6	127	149	57	9.4	14	12.0	8.0	9.4	23.8	14.4
DNB	17.2	7.40	138	52	43	15	7	16.1	14.8	1.0	2.2	1.2
Swedbank	17.0	5.4	182	38	44	14.7	6	15.1	13.1	1.2	2.5	1.3
UBS ²	13.1	5.6	138	166	81	9.0	1	9.6	9.6	4.8	8.4	3.6
Credit Suisse ²	12.7	5.5	198	173	78	8.6	6	10.0	10.0	5.1	8.3	3.1
Lloyds	13.8	5.20	137	164	55	8	15	12.8	11.0	2.5	7.1	4.6
Nationwide ³	31.5	4.60	140	39	73	4	14	13.1	12.1	1.9	3.1	1.2
HSBC	14.7	5.30	150	751	59	8.4	11	11.3	10.7	35.8	42.2	6.3
Santander UK	14.3	4.70	146	53	61	7.8	13	10.8	9.8	3.2	4.1	0.9
RBS	16.2	5.8	152	156	59	4.7	14	9.7	8.9	14.5	16.3	1.8
Barclays	13.8	5.1	160	264	63	9.0	31	12.5	11.4	4.8	8.9	4.1
Standard Chart.	13.8	5.2	144.0	198	68.2	6.4	19	10.3	9.90	11.7	12.9	1.2
Total										283	495	213

Source: Banks financial reports, Daiwa Capital Markets Europe. ¹Liquidity figures refer to Santander Spain only. ²UBS and Credit Suisse excess capital is based on their leverage ratio and not on the CET1. ³Figures as of September-2019.

Moreover, in addition to the global pandemic, the sharp decline in oil prices has increased the risk of exposures to the oil & gas sector. ING, Credit Agricole, SocGen, Commerzbank, and Natixis (BPCE) are among the names most exposed in this respect. Yet credit risk mitigating measures taken in the previous slump in oil prices mean these banks are overall in a good position to withstand a potential increase in defaults in the sector.

Overall, the deterioration in asset quality of European banks will be sensitive to the shape of the economic recovery. Should it be V-shaped, which we see as optimistic, asset quality deterioration should be limited and should start reversing soon. Meanwhile, a L-shaped profile for activity would lead to more substantial volumes of new NPLs, although the overall deterioration should still be manageable by most of the largest European banks. As their loan books are currently healthy, i.e. with low NPL levels, banks will face this crisis from a strong starting point.

Finally, banks' balance sheets are being used by governments as a tool to mitigate the economic impact of the virus outbreak. Governments rely hence on well-functioning banking systems. As a result, in the unlikely scenario in which the current supporting measures provided by the different central banks and governments, such as loan guarantees and funding and liquidity facilities, prove to be insufficient, additional measures would be expected.

IFRS9

Despite the recently announced moves by both the BoE and the ECB to make the recognition and impairments of NPLs more flexible in the current crisis, there's a limit on how much flexibility is allowed under the internationally agreed IFRS9 accounting rules. In that context, the EBA, the ECB, ESMA and the European Commission are reportedly looking into either applying a temporary suspension of the IFRS9 rules, or the extension of the current transition period that was agreed before IFRS9 took effect in 2018.

IFRS9 rules are gradually being implemented since January 2019. This changed how banks book impairments on non-performing loans. The rules moved from an 'incurred losses' approach, to an 'expected losses' approach. That is, instead of booking a loss when a company or individual actually stops paying, the loss is booked as soon as the bank expects the debtor to default in the future. The main flaw with it is that, in downturns, in light of the negative outlook, expected losses will be much higher than incurred losses, as there's usually a lag before companies actually stop paying back their debt. The move to an expected loss approach makes impairment charges highly pro-cyclical and volatile, exactly what we expect to observe in the next few quarters.

It is worth noting it was these same regulators who originally supported the implementation of these rules, a clear example of overregulation backfiring. A temporary suspension of accounting rules could undermine investors' confidence on banks' financials. The fact that this is even being considered highlights expectations of a sharp deterioration in impairment charges.

Rating agency actions

Acting more sensibly than in the financial crisis, rating agencies are being quicker this time around in reviewing their ratings. On Thursday, Moody's changed the outlook of six European banking systems to negative from stable. These are France, Italy, Spain, Denmark, the Netherlands and Belgium. It also maintained the negative outlooks for the banking systems in Germany and the UK, and kept stable outlooks on the Swedish and Swiss systems.

On Friday, Fitch downgraded the U.K. to AA- with negative outlook. We expect the ratings of the UK banks to be reviewed soon as a result. The agency also reviewed some German banking groups. It downgraded Commerzbank's SP from A- to BBB+/Negative, and the bank's SNP from BBB+ to BBB. Deutsche Bank's rating were put on Rating Watch negative, meaning it will be reviewed soon. Earlier in the week, the agency took action on Italian banks reflecting the outbreak of Covid-19 and a change in the agency's banks rating methodology. Intesa's Senior Preferred debt was affirmed at BBB, whilst its Tier 2 debt was downgraded by one notch to BB+, and the AT1 paper was upgraded by one notch to BB-. Unicredit's Senior Preferred paper was affirmed at BBB, its Senior Non-Preferred was downgraded by one notch to BBB-, Tier 2 downgraded by one notch to BB+, and the AT1 was upgraded by one notch to BB-.

We expect a significant number of rating actions by all three agencies in the next couple of quarters, particularly as hard data on the economic and financial impact of the outbreak arise.

Primary and secondary markets

After four weeks of no activity, the **unsecured primary market** for European banks finally re-opened last week with UK and Swiss names. Euro area banks are yet to come back to the markets for senior unsecured paper, although BPCE has accessed the market for secured debt. The transactions were largely successful in terms of demand. Spreads widened substantially from previous transactions, a whole new reality in terms of funding costs for issuers. Investors on the other hand should be looking at these with strong interest, being accustomed to very tight spreads for the past few years. Key transactions:

- Lloyds Banking Group, Senior HoldCo, 6NC5, EUR1.5bn, priced at MS+375bps, IPT at MS+400bps, final book size EUR8.75bn. In November 2019 the bank issued a similar paper at MS+85bps.
- HSBC Holdings launched a USD2.5bn 10Y priced at T+415bps, IPT was at T+450bps. Back in October 2019 the bank issued a 6NC5 USD2bn paper at T+112bps.
- Barclays, Senior HoldCo, 5Y, EUR2bn, priced at MS+370, IPT at MS+410bps, book orders over €8.25bn. Back in December 2019 the bank issued a similar paper 5.5NC4.5 at MS+105bps.
- Standard Chartered, Senior HoldCo, USD2bn, 11NC10, priced at T+385, IPT at T+425bps. In January 2020 the bank issued a similar paper, 6NC5, at T+120bps.

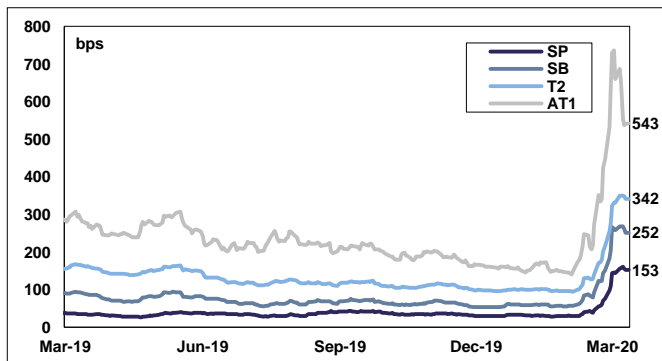
Please note the disclaimers and disclosures on the last page of this document.

- RBS NRF OpCo (Natwest Markets), Senior OpCo, EUR1bn, priced at MS+300, IPT at MS+340bps, books closed in excess of EUR5bn. In November 2019 the bank issued a similar paper at MS+95bps.
- Credit Suisse, Senior HoldCo, 6NC5, EUR2bn, priced at MS+350, IPT at MS+390bps, book orders over EUR12bn. In January 2020 the bank issued a similar paper, 8NC7, at MS+77bps.
- Credit Suisse, Senior HoldCo, 11NC10, USD3bn, priced at T+350bps, IPT at T+387bps. In September 2019 the bank issued a USD2bn Senior HoldCo 6NC5 at T+128bps.

In the secured market, BPCE placed a EUR1bn 5Y covered bond on Tuesday with just enough demand (1.2x), priced at MS+40, 31bps above the price of a similar deal executed in January 2020.

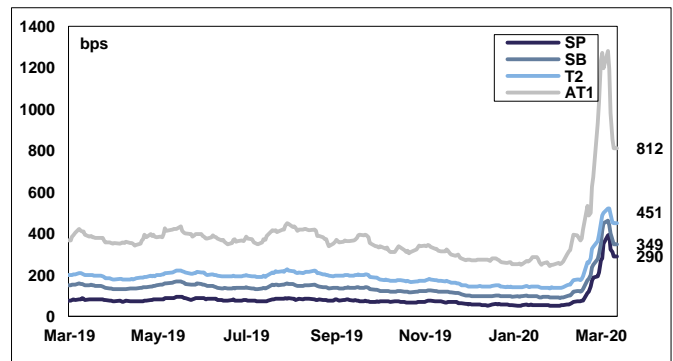
In the **secondary market**, after weeks of continued widening, lower-ranked secondary spreads tightened noticeably last week, particularly for lower ranked papers, and partly helped by real price discovery in the primary market. Average EUR SP was still up however, by 10bps W/W, whilst EUR SNP was down 6bps W/W, EUR Tier 2 was down 10bps W/W, and AT1 was down 116bps.

(Chart 1) Western European Banks Average EUR Z spread



Source: Bloomberg. SP = Senior Preferred/Senior OpCo; SNP = Senior Non-Preferred/Senior HoldCo; T2= Tier 2; AT1 = Additional Tier 1.

(Chart 2) Western European Banks Average USD Z spread



Source: Bloomberg. SP = Senior Preferred/Senior OpCo; SNP = Senior Non-Preferred/Senior HoldCo; T2= Tier 2; AT1 = Additional Tier 1.

Credit Research

Key contacts

<i>London</i>		
<i>Head of Research</i>	<i>Chris Scicluna</i>	+44 20 7597 8326
<i>Financials, Supras/Sovereigns & Agencies</i>	<i>Israel Da Costa, CFA</i>	+44 20 7597 8355
<i>Research Assistant</i>	<i>Katherine Ludlow</i>	+44 20 7597 8318
<i>Tokyo</i>		
<i>Domestic Credit</i>		
<i>Chief Credit Analyst</i>	<i>Toshiyasu Ohashi</i>	+81 3 5555 8753
<i>Electronics, Automobiles, Non-Banks, Real Estate, REIT</i>	<i>Takao Matsuzaka</i>	+81 3 5555 8763
<i>Chemicals, Iron & Steel</i>	<i>Kazuaki Fujita</i>	+81 3 5555 8765
<i>International Credit</i>		
<i>Non-Japanese/Samurai, European Sovereigns</i>	<i>Hiroaki Fujioka</i>	+81 3 5555 8761
<i>Non-Japanese/Samurai</i>	<i>Fumio Taki</i>	+81 3 5555 8787
<i>Non-Japanese</i>	<i>Jiang Jiang</i>	+81 3 5555 8755
<i>London Translation</i>		
<i>Head of Translation, Economic and Credit</i>	<i>Mariko Humphris</i>	+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>.

Access our research at:

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



Follow us

[@DaiwaEurope](https://twitter.com/DaiwaEurope)

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. Daiwa 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 March 2020.

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 issuers 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 ("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.moody.com/pages/default_ja.aspx))

Assumptions, Significance and Limitations of Credit Ratings

Credit ratings are Moody's Investors Service'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 April 16th, 2018, 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.moody.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.com/site/japan>)

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 September 27th, 2019, 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.com/site/japan>)

February 2020