

European Banks – Credit Update

- Redemptions of legacy AT1 instruments and upcoming call dates for high coupon yielding AT1s will likely see issuance volumes of the same paper increase over the course of 2021.
- January primary market volumes see SSAs outpace last year's performance while FIGs lag.
- Spread widening in the secondary as initial vaccine euphoria makes way for sober outlook on the operating environment of European FIGs.

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Increased AT1 redemptions expected for 2021

Over the course of 2021, we expect to see the number of AT1 redemptions rise compared to previous years for several reasons. Some of these outstanding capital instruments supporting Tier 1 ratios are considered grandfathered as eligible regulatory capital until end-2021 under the EU's Capital Requirements Regulation (CRR). After this date, they will no longer be permitted to be considered for MREL purposes. This issue moved into the focus of issuers and investors after the EBA issued in October 2020 an opinion addressing so-called possible 'infection risk' stemming from legacy instruments whose ineligibility can also affect the eligibility of other capital instruments.

The ECB opinion highlighted the risk that the integrity of other layers of own funds or eligible liabilities could be disqualified. This is because some AT1 bonds contain contractual terms establishing their position in the capital structure, which may conflict with the ranking provisions set out under CRR as well as distribution payments. These legacy debt instruments may contain dividend pushers and stoppers, which influence whether a bank can make payments on other capital instruments. AT1 instruments that are pushed down the capital structure into Tier 2 could restrict distributions of Tier 2 or lower-tier instruments, which in turn would disqualify higher layers of regulatory capital under the CRR, even if the lower-tier instrument might otherwise have been eligible.

For the above reasons, the EBA would prefer banks to either call, redeem or repurchase legacy instruments to avoid infection risk. Banks are technically permitted to keep these legacy instruments on their balance sheets. However, we believe that this is unlikely as they are excluded from regulatory MREL and would carry a high funding cost. Several banks have already announced that they will redeem their legacy AT1 debt. DZ will retire eight bonds that were issued between 2003 and 2007 for a nominal value of EUR1.41bn and BNP announced that it will call its USD600m legacy note in March this year. The EBA is expected to monitor how Eurozone banks will manage their grandfathered liability structures while the Prudential Regulation Authority (PRA) in the UK has stated that it shares the EBA's stance on infection risk and requires banks to submit plans to address this issue by end-March 2021.

We further anticipate that the majority of issuers with high-coupon yielding, callable AT1 notes will elect to redeem them when there is a chance this year. Financing conditions remained favourable and supply dynamics remain supportive of AT1 valuations. Investor appetite for higher-yielding instruments remained high as seen in Abanca's EUR375m AT1 which was highly subscribed (6x) earlier this year. We have already seen the likes of Intesa and Svenska Handelsbanken opting to call old deals and replace them with cheaper ones, though many AT1 bonds have already been refinanced during 2020. The upcoming call dates are evenly spread across the year with the majority expected between March and September. Generally, the call record of European banks is good with only two benchmark-sized AT1s outstanding that weren't called (Deutsche Bank and Lloyds). Investor fears over non-call risk was sparked in March 2019 when Santander decided not to call a euro AT1 bond. Market participants worried that the first non-call of an AT1 could do lasting damage to the asset class. However, these concerns were disbursed as AT1 prices held up and investors were willing to pick up the outstanding Spanish instrument, even if its handling proved contentious at the time. There have been a number of issuers that followed Santander's example since then, yet it has failed to cause disruption to the market.

| 2021 European Banks High Coupon AT1 Call Dates | | | |
|--|--------------|------------|-----------------|
| Issuer | Issue Amount | Coupon (%) | First Call Date |
| Intesa | €1.25bn | 7.0 | 19-Jan-2021 |
| Svenska Handelsbanken | \$1.2bn | 5.25 | 01-Mar-2021 |
| UBS | \$1.5bn | 6.875 | 22-Mar-2021 |
| BNP Paribas | \$1.5bn | 7.625 | 30-Mar-2021 |
| SocGen | €1bn | 6.75 | 07-Apr-2021 |
| BBVA | €1bn | 8.875 | 14-Apr-2021 |
| Bankinter | €200m | 8.625 | 10-May-2021 |
| HSBC | \$2bn | 6.875 | 01-Jun-2021 |
| Credit Agricole | €1bn | 6.5 | 23-Jun-2021 |
| Rabobank | €1.25bn | 6.625 | 29-Jun-2021 |
| UBS | \$1.1bn | 7.125 | 10-Aug-2021 |
| Natwest | \$2.65bn | 8.625 | 15-Aug-2021 |
| UniCredit | €1bn | 6.75 | 10-Sep-2021 |
| Santander | €1.5bn | 6.25 | 11-Sep-2021 |
| Nordea | \$550m | 5.25 | 13-Sep-2021 |
| SocGen | \$1.5bn | 7.375 | 13-Sep-2021 |
| Erste Group | €500m | 8.88 | 15-Oct-2021 |
| Virgin Money UK | £288m | 8.75 | 10-Nov-2021 |

Source: Bloomberg, compiled by DCME

Primary and secondary markets

Data collected from Bloomberg on European **primary market** issuance volumes shows that SSAs issued EUR31.1bn over the course of last week exceeding market expectation of EUR22.5bn-26.6bn. Sovereign issuers as well as CADESS and the European Union contributed to the strong deal flow which far outstripped FIG supply of EUR6.2bn that lagged survey data of EUR7-11.5bn for the week. January 2021 FIG volumes of EU52.4bn closed 44% behind last year's

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issuance while SSAs were up 32.8% at EUR135.5bn compared to last year. The EU tapped its social bond programme (SURE) for EUR4bn which was the most subscribed bond of the week with 12.25x orders over deal size. The EUR10bn second leg over 7-years was 8.6x oversubscribed. Market participants expect SSA issuances to carry forward their momentum into February leading the way for a fifth week in a row. Survey data suggests SSA volumes will range between EUR16bn-21bn and FIGs to issue EUR4.5bn-9bn over the course of this week.

For FIGs, Australia and New Zealand Banking Group (ANZ) issued the most subscribed FIG deal of the week with book orders 3.07x over deal size. ANZ issued a 10-year, Tier 2 sustainability bond linked to the UN's sustainable development goals (SDG). The EUR750m transaction was offered at IPT MS + 135/140bps and eventually tightened 28bps helped by its order book. It was the first sustainable bond issuance by the bank since the merger of their SDG and green bond frameworks last year. ANZ aims to raise a further USD0.65bn-1.65bn Tier 2 debt during 2021 in line with other Australian banks that need to meet their TLAC requirements with subordinated debt by 2024. The Australian Prudential Regulation Authority (APRA) mandated in July 2019 that systemically important banks need to meet the equivalent of 3% of their RWA with Tier 2 to satisfy TLAC requirements. This will likely prompt more capital trades throughout the year from ANZ, Commonwealth Bank of Australia, NAB and Westpac. The estimated shortfall of the four systemically relevant institutions is around USD38bn.

(Table 1) Key Transactions

| Bank | Rank | Amount | Maturity | Final Spread (bps) | IPT (bps) | Book Orders |
|-------------------|----------------------|---------|-------------|--------------------|--------------|-------------|
| JP Morgan | Senior Unsecured | USD3bn | 11NC10 | T + 90 | T + 105/110 | n.a. |
| JP Morgan | Senior Unsecured | USD2bn | 6YNC5 | T + 62 | T + 75/80 | n.a. |
| La Banque Postale | Tier 2 | EUR500m | 11.5NC6.5 | MS + 123 | MS + 145 | >EUR1.3bn |
| ANZ Bank | Tier 2 (Sustainable) | EUR750m | 10.25NC5.25 | MS + 112 | MS + 135/140 | >EUR2.3bn |
| European Union | Senior Unsecured | EUR4bn | 30Y TAP | MS + 5 | MS + 7 | >EUR49bn |
| European Union | Senior Unsecured | EUR10bn | 7Y | MS - 16 | MS -13 | >EUR83bn |
| Cades | Unsecured (Social) | EUR4bn | 10Y | OAT + 16 | OAT + 18 | >EUR9.3bn |

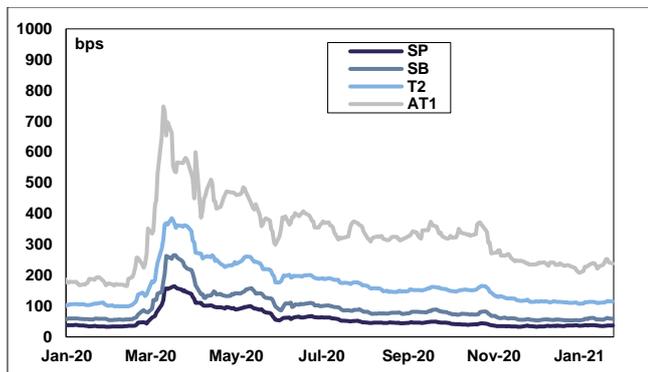
Source BondRadar, Bloomberg.

Secondary market spreads widened modestly across EUR and USD, reflecting market risk perceptions. CDS price indices on European senior (63bps) and subordinated financials (118bps) as measured by iTraxx benchmarks also priced higher against the prior week's levels by 1bps each. Volatility was slightly frontloaded during the week as Italy's Prime Minister resigned on Tuesday, a step anticipated by the market, and the spat between Astra Zeneca and the EU over vaccine contingencies fuelled negative sentiment over slow vaccine rollouts on the continent. The initial vaccine euphoria, which raised hopes for a 2H21 recovery, has given way to a more sober outlook for the rest of the year given the evident challenges in rolling out enough doses across Europe. The Fed's acknowledgment that the US recovery had stalled and needed progress on vaccines underscored this broad based softening of sentiment in the market and ultimately led to some widening in the secondary market.

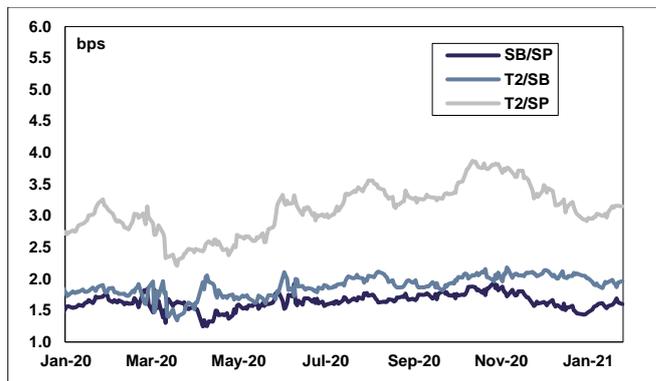
The lack of FIG deal flow during the European banks' earnings season arguably shifted investor focus towards the uncertainty surrounding bank operating environments, adversely impacting spreads. This was exemplified by Goldman's recently launched EUR1.75bn senior unsecured that traded wide of its reoffer level, despite stellar fundamentals reported by the bank. Based on data collected from Bloomberg 35% of FIG tranches issued this year quoted wider than launch (SSA only 21%) which has worsened against last week when 27.4% of FIG deals traded wider (SSA: 24.5%). Weekly average EUR spreads across geographies for SP (0.6bps), SNP (2.4bps) and Tier 2 (6.2bps) closed wider on general economic uncertainty. A stronger outlook in the US somewhat limited the widening among USD spreads over the past week with USD SP (0.7bps), SNP (1.3bps) and Tier 2 (5.4bps).

Western European Banks EUR Spreads and Yields

Aggregate EUR Z-spread LTM (bps)



Multiples (x)



Source: Bloomberg, Daiwa Capital Markets Europe. SP = Senior Preferred/Senior OpCo; SB = Senior Non-Preferred/Senior HoldCo; T2= Tier 2; AT1 = Additional Tier 1. All figures based on Z to worst spread of public benchmark issuances.

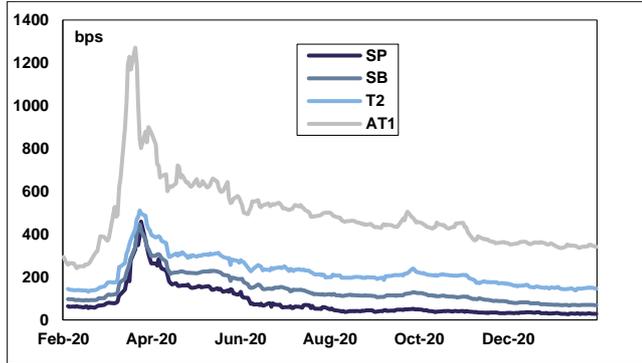
Selected Names

| | Sr Preferred/Sr OpCo | | | | | Sr Non-Preferred/Sr HoldCo | | | | | Tier 2 | | | | |
|-------------|----------------------|-------|------|-------|-------|----------------------------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| | Dur | Yield | Z | Z 5DΔ | Z YTD | Dur. | Yield | Z | Z 5DΔ | Z YTD | Dur. | Yield | Z | Z 5DΔ | Z YTD |
| Commerz | 5.4 | 0.1 | 50.3 | 0.8 | -3.6 | 3.8 | 0.3 | 73.5 | 2.4 | -0.1 | 4.6 | 1.8 | 216.3 | 10.5 | 3.6 |
| Barclays | 3.2 | 0.2 | 61.0 | 2.5 | 2.4 | 2.8 | 0.0 | 52.3 | 1.8 | 8.9 | 1.9 | 0.9 | 139.6 | 8.6 | 1.4 |
| BBVA | 5.0 | 0.0 | 43.3 | 0.6 | 4.4 | 3.9 | 0.1 | 54.1 | 0.7 | 2.8 | 5.4 | 0.8 | 125.7 | 6.0 | 1.4 |
| BFCM | 4.4 | -0.1 | 32.1 | 1.5 | 1.3 | 8.7 | 0.5 | 67.4 | 2.0 | 5.9 | 4.8 | 0.5 | 87.3 | 5.0 | 4.3 |
| BNPP | 2.3 | -0.3 | 21.1 | 0.6 | -1.2 | 5.0 | 0.2 | 61.2 | 1.5 | 1.6 | 4.6 | 0.6 | 98.8 | 5.3 | -0.1 |
| BPCE | 3.4 | -0.2 | 30.3 | 0.6 | 0.2 | 4.5 | 0.2 | 60.0 | 2.3 | 5.9 | 2.3 | 0.2 | 64.8 | 2.8 | 3.6 |
| Credit Ag. | 3.2 | -0.1 | 31.8 | 1.2 | -0.6 | 5.6 | 0.2 | 59.2 | 2.6 | 5.9 | 4.6 | 0.8 | 118.6 | 5.9 | 2.3 |
| Credit Sui. | 5.4 | 0.1 | 50.3 | 0.8 | -3.6 | 5.2 | 0.3 | 70.2 | -1.7 | 5.3 | 5.6 | 1.3 | 161.2 | 6.4 | 8.0 |
| Danske | 2.3 | -0.2 | 31.0 | 1.6 | 0.4 | 2.3 | 0.0 | 49.8 | -0.4 | -2.9 | 3.6 | 0.8 | 125.6 | 3.4 | -7.4 |
| Deutsche | 2.5 | 0.0 | 43.4 | 1.1 | -3.8 | 3.9 | 0.7 | 114.2 | 3.9 | 1.6 | 4.4 | 1.9 | 227.6 | 8.2 | -7.3 |
| DNB | 2.8 | -0.2 | 24.1 | 1.3 | -1.3 | 3.6 | 0.0 | 47.0 | 2.5 | -5.3 | 1.6 | 0.0 | 50.0 | 2.7 | 3.1 |
| HSBC | 3.3 | 0.0 | 34.3 | 1.6 | 1.8 | 3.2 | -0.1 | 46.9 | 2.1 | 6.4 | 5.4 | 0.5 | 82.3 | 7.4 | 3.8 |
| ING | 1.1 | -0.4 | 8.0 | 1.1 | -1.2 | 4.7 | 0.1 | 49.5 | 1.0 | 3.4 | 3.5 | 0.7 | 108.0 | 4.6 | 2.8 |
| Intesa | 4.5 | 0.2 | 63.5 | -1.9 | 6.5 | | | | | | 5.1 | 1.7 | 204.8 | 7.9 | 6.2 |
| Lloyds | 2.7 | -0.2 | 21.5 | 2.3 | 2.1 | 3.6 | 0.1 | 55.6 | 3.3 | 4.3 | 2.5 | 0.6 | 108.2 | 6.1 | 1.5 |
| Nordea | 3.9 | -0.2 | 23.4 | 0.7 | -3.6 | 2.4 | -0.2 | 28.7 | 2.3 | 1.8 | 0.6 | 0.2 | 60.0 | 0.7 | -7.7 |
| Rabobank | 3.2 | -0.3 | 19.3 | -0.2 | -5.6 | 5.7 | 0.0 | 39.0 | 1.4 | 2.3 | 1.6 | 0.0 | 42.2 | 0.5 | -0.7 |
| RBS | 3.1 | 0.0 | 39.4 | 1.0 | -2.0 | 5.7 | 0.0 | 39.0 | 1.4 | 2.3 | 1.6 | 0.0 | 42.2 | 0.5 | -0.7 |
| Santander | 3.4 | -0.1 | 35.1 | 0.0 | 1.8 | 4.8 | 0.3 | 62.5 | 0.1 | 4.2 | 5.5 | 0.8 | 115.2 | 6.9 | 2.5 |
| San UK | 4.0 | 0.0 | 38.5 | 2.8 | 2.1 | 2.4 | 0.0 | 58.9 | 3.4 | 5.1 | 5.5 | 0.8 | 115.2 | 6.9 | 2.5 |
| SocGen | 1.8 | -0.3 | 21.5 | 1.0 | -2.6 | 6.2 | 0.4 | 78.0 | 2.0 | 1.7 | 3.0 | 0.5 | 94.8 | 3.7 | -2.3 |
| StanChart | 3.6 | -0.1 | 36.9 | 1.3 | -2.5 | 5.4 | 0.3 | 69.2 | 3.6 | 18.1 | 3.1 | 0.6 | 106.6 | 4.1 | -1.1 |
| Swedbank | 4.2 | -0.1 | 36.4 | 0.9 | -1.4 | 5.3 | 0.2 | 54.7 | 1.7 | -0.1 | 4.9 | 0.4 | 88.8 | -2.8 | -10.8 |
| UBS | 2.0 | -0.3 | 22.0 | 1.8 | -2.2 | 3.1 | 0.0 | 54.0 | 2.9 | 6.2 | 0.3 | 1.0 | 76.0 | 1.5 | -30.1 |
| UniCredit | 4.1 | 0.4 | 84.6 | -2.3 | 10.1 | 4.4 | 0.9 | 130.4 | -2.2 | 7.0 | 2.8 | 1.9 | 228.5 | 11.4 | 5.4 |

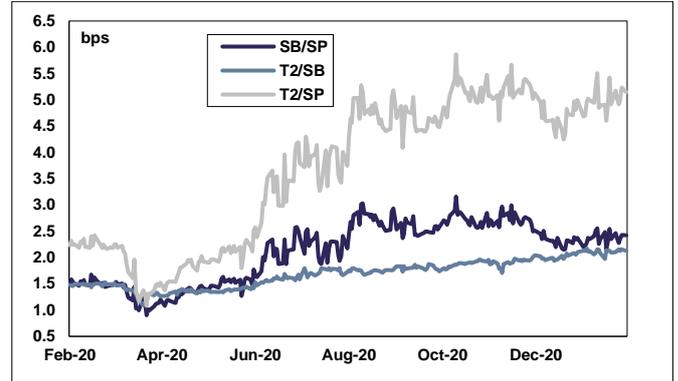
Source: Bloomberg, Daiwa Capital Markets Europe. Dur.= Duration. Yield= Yield to worst (%). Z = Z-Spread to Worst (bps). Z 5DΔ = last 5 days Z-spread net change (bps). Z YTD = year to date Z-Spread net change (bps). Blank cells represent lack of statistically significant data. Figures may not be representative of the whole market.

Western European Banks USD Spreads and Yields

Aggregate USD Z-spread LTM (bps)



Multiples (x)



Source: Bloomberg, Daiwa Capital Markets Europe. SP = Senior Preferred/Senior OpCo; SB = Senior Non-Preferred/Senior HoldCo; T2= Tier 2; AT1 = Additional Tier 1. All figures based on Z to worst spread of public benchmark issuances.

Selected Names

| | Sr Preferred/Sr OpCo | | | | | Sr Non-Preferred/Sr HoldCo | | | | | Tier 2 | | | | |
|-------------|----------------------|-------|-------|-------|-------|----------------------------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| | Dur. | Yield | Z | Z 5DΔ | Z YTD | Dur. | Yield | Z | Z 5DΔ | Z YTD | Dur. | Yield | Z | Z 5DΔ | Z YTD |
| Barclays | 2.1 | 0.4 | 19.2 | -4.0 | -8.7 | 4.0 | 1.3 | 84.4 | 1.3 | 2.7 | 5.5 | 2.2 | 147.6 | 5.0 | -3.5 |
| BFCM | 2.4 | 0.5 | 31.1 | 1.1 | -2.3 | 4.0 | 1.3 | 84.4 | 1.3 | 2.7 | 5.5 | 2.2 | 147.6 | 5.0 | -3.5 |
| BNPP | 2.0 | 0.3 | 7.9 | -4.0 | -7.3 | 4.1 | 1.3 | 64.2 | 0.9 | -2.7 | 5.4 | 1.8 | 107.8 | 1.7 | 3.7 |
| BPCE | 3.9 | 0.8 | 45.8 | -0.4 | -4.3 | 4.5 | 1.2 | 50.3 | 0.0 | -3.1 | 3.2 | 1.2 | 81.6 | 1.5 | -2.8 |
| Credit Ag. | 2.5 | 0.6 | 31.6 | 0.8 | -2.2 | 4.4 | 1.2 | 50.6 | -2.4 | -3.1 | 7.0 | 2.4 | 134.0 | 4.2 | 1.0 |
| Credit Sui. | 3.0 | 0.4 | 24.6 | -1.3 | 2.2 | 4.1 | 1.2 | 67.9 | 1.1 | -1.3 | 2.4 | 2.0 | 159.4 | 12.5 | 27.9 |
| Danske | 1.8 | 0.6 | 39.3 | -0.3 | 4.5 | 2.6 | 1.0 | 74.3 | -0.2 | -6.7 | 2.4 | 2.0 | 159.4 | 12.5 | 27.9 |
| Deutsche | | | | | | 3.3 | 1.3 | 69.1 | -2.2 | -7.2 | 7.6 | 3.5 | 279.0 | 8.5 | 15.5 |
| HSBC | 3.5 | 1.1 | 84.6 | 3.6 | 2.3 | 4.7 | 1.3 | 71.5 | 0.7 | 0.8 | 10.7 | 3.1 | 170.5 | 5.6 | -1.0 |
| ING | 3.5 | 1.1 | 84.6 | 3.6 | 2.3 | 4.4 | 1.1 | 62.1 | 1.9 | -2.3 | 2.2 | 1.2 | 85.5 | -3.6 | -9.4 |
| Intesa | 3.2 | 1.4 | 106.0 | 0.2 | 4.1 | 4.4 | 1.1 | 62.1 | 1.9 | -2.3 | 3.7 | 2.6 | 208.2 | 21.3 | 6.8 |
| Lloyds | 4.0 | 1.0 | 59.4 | -0.7 | -3.3 | 3.5 | 1.0 | 62.7 | 0.8 | 3.2 | 4.6 | 1.7 | 110.8 | 0.9 | -7.0 |
| Nordea | 3.4 | 0.6 | 24.5 | 0.5 | 0.0 | 2.4 | 0.6 | 33.3 | -0.2 | -7.4 | 1.6 | | 17.0 | 3.3 | |
| Rabobank | 3.0 | 0.5 | 21.6 | 0.1 | 0.3 | 3.8 | 0.8 | 39.9 | 2.2 | -2.0 | 4.5 | 1.3 | 70.1 | 1.2 | -0.9 |
| RBS | 3.0 | 0.5 | 21.6 | 0.1 | 0.3 | 3.8 | 0.8 | 39.9 | 2.2 | -2.0 | 4.5 | 1.3 | 70.1 | 1.2 | -0.9 |
| Santander | 5.4 | 1.3 | 67.7 | 2.1 | -4.7 | 4.8 | 1.4 | 81.8 | -1.2 | -5.2 | 6.5 | 2.1 | 130.5 | 3.4 | 2.3 |
| San UK | 2.9 | 0.6 | 34.1 | 0.6 | -6.3 | 2.6 | 0.9 | 58.9 | 2.0 | -6.4 | 4.1 | | -12.1 | -41.8 | |
| SocGen | 4.3 | 1.0 | 54.8 | 4.5 | 4.2 | 4.2 | 1.4 | 86.0 | 0.0 | -3.4 | 4.1 | 1.8 | 131.6 | 0.9 | -13.9 |
| StanChart | 0.3 | 0.6 | 43.6 | 7.8 | -11.1 | 3.8 | 1.2 | 76.6 | 1.3 | -7.5 | 5.4 | 2.3 | 187.2 | 5.3 | -7.9 |
| UBS | 9.4 | 1.5 | 60.3 | 0.8 | 0.8 | 4.2 | 1.2 | 62.0 | -0.3 | -0.9 | 5.4 | 2.3 | 187.2 | 5.3 | -7.9 |
| UniCredit | 1.8 | 1.4 | 118.7 | 2.7 | -4.7 | 4.3 | 1.9 | 148.7 | 2.6 | 0.6 | 5.8 | 4.5 | 343.5 | 10.3 | 5.7 |

Source: Bloomberg, Daiwa Capital Markets Europe. Dur.= Duration. Yield= Yield to worst (%). Z = Z-Spread to Worst (bps). Z 5DΔ = last 5 days Z-spread net change (bps). Z YTD = year to date Z-Spread net change (bps). Blank cells represent lack of statistically significant data. Figures may not be representative of the whole market.

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The statements in the preceding paragraphs are made as of February 2021.

Explanatory Document of Unregistered Credit Ratings

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■ 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>)

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