INVESTING IN CHINA
Accessing the China Interbank Bond Market

BNP PARIBAS SECURITIES SERVICES
WEBINAR
24 SEPTEMBER 2021

The bank for a changing world
Agenda

01 Welcome

02 China’s Bond Market: Opening-up, Access and Updated Changes

03 Overview of Overseas Investment in the Interbank Bond Market

04 Onboarding process, requirements to start trading and hold bonds in custody

05 Q&As
China’s Bond Market: Opening-up, Access and Updated Changes

Overseas Client Department
CCDC Shanghai Headquarters

Sept, 2021
HIGHLIGHTS

01 Opening-up of CIBM

02 Market Access and Main Differences

03 Updated Changes of CIBM
PART 01
Opening-up of China’s Bond Market
The Opening Process of China's Bond Market

- **2005**: Pan-Asia bond index fund was permitted into CIBM.
- **2010**: Three types of overseas institutions were permitted to enter on pilot program.
- **2013**: RQFIs were permitted into the market.
- **2015**: Repo as eligible transaction for three types of institutions.
- **2016**: CIBM Direct as main access channel allows a full coverage of eligible overseas investors and products into CIBM.
- **2017**: Bond Connect was launched as a supplementary indirect access channel for small and medium-sized overseas investors.

The bond market opening continues to accelerate...
Snapshot of Bond Holdings by Overseas Investors in China’s Inter-bank Bond Market (by H1, 2021)

Percentage of Bond Holdings by Overseas Investors in China’s Inter-bank Bond Market (by H1, 2021)

- RMB 103.72 trn, 96.75% (by domestic institutions)
- RMB 3.48 trn, 3.25% (by overseas institutions (at CCDC))
- RMB 3.3 trn, 94.83% (by overseas institutions (at other CSDs))
- RMB 0.18 trn, 5.17%

Trends of Bond Holding Volume by Overseas Investors in China’s Inter-bank Bond Market (RMB Trillion)

RMB 107.22 trn of total depository in CIBM

967 overseas investors entered CIBM

Statistics: CCDC
PART 02

Market Access and Main Differences
Existing Access Channels in Comparison

- **CIBM Direct** – Overseas institutional investors directly participate in CIBM by entrusting bond settlement agents.
- **Bond Connect** - Overseas investors invest in CIBM through the connectivity between Hong Kong and Shanghai.
- **QFII/ RQFII**: Qualified foreign institutional investors invest in domestic financial assets, incl. stock, bond, futures, etc.

### Exchange Market
- **Custodian Bank for QFII**

### Inter-bank Bond Market
- **Bond Settlement Agent (BSA)**
- **Overseas Investor**

### Key Requirements
1. **QFII Scheme**
   - Requires filing with CSRC and registration at SAFE

2. **CIBM Direct Scheme**
   - Requires filing to PBC

3. **Hong Kong Bond Connect Scheme**
   - Requires filing to PBC
Main Market Access Channel - CIBM Direct

Core Advantages

Direct Holding
- Clear ownership structure

Non trade transfer
- Between CIBM Direct & QFII/RQFII

Eligible Products
- Support not only cash bonds, but also REPO, bond lending, bond forwards.

Counterparties
- RFQ market makers - 84 vs. 56
- Support the trading between two Overseas Investors

Settlement Efficiency
- 17:00 vs. 12:00 (T+0)

Transaction Cost
- Average around 0.8bps lower*1

Bond as Collateral
- CGB as margin for futures trading
- Cross-border collateral management

Anonymity
- Anonymous Account for sovereign institutions

Note: 1) average price is estimated by market participants
2) multi-AM support is depending on BSA internal capabilities
Updated Changes of China’s Bond Market
Onboarding Procedures

Recent Improvements

- The same overseas institutional investor needs to **file only once** to PBC for access via CIBM Direct, Bond Connect and QFII/RFQII.
- Asset managers **file at the entity level only once**, product-level filing no longer required.
- Once an asset management entity completes its own filing, its asset management products can directly open accounts in batch.
- Overseas investors independently decide their investment periods and scale **without quota limits**.
Future Optimization

- Access to the CGB Futures Market
- Cross-border Collateral Management Service
- ETF In-kind Creation & Redemption
- Electronic Trading In the Primary Market
- Foreign Currency Repo
- Simplified Account Opening Process
Value-added Information Services of China’s Bond Market

- ChinaBond Case Studies
  --Annually

- ChinaBond Market Guide
  --Annually

- ChinaBond Insights
- ChinaBond Watch
  --Monthly

● Get in touch with Overseas Client team at CCDC -

Tel: +86 (0) 21 60813111
E-mail: marketing_sh@chinabond.com.cn
Thank you!

Sept, 2021
This presentation is a non-public and confidential document issued by China Central Depository & Clearing Co., Ltd. (hereinafter referred to as “CCDC”), which is only for the internal use of institutions permitted by CCDC. In addition to the published information, the institutions that receive the slides shall be obliged to keep confidentiality of the slides and the information contained therein; they shall neither transmit or disclose all or part of the information in the slides in any form to any third-party institution or individual including media agencies or peers, nor quote any information in any form.

CCDC endeavors to ensure the accuracy and completeness of the slides, but it will neither guarantee its accuracy or completeness, nor assume any responsibility for any loss caused by the inaccuracy or missing content in the slides. The information on which all or part of the slides is based is sourced from third parties, which is true and reliable but has not been verified; and the slides does not guarantee the accuracy of the above information. The opinions expressed in the slides represent only personal views of researchers and do not represent the views of CCDC. They are for users’ reference only and do not constitute any research and investment advice for users.

CCDC maintains the intellectual property rights of the slides.
Agenda

01 Overview of Overseas Investment in the Interbank Bond Market

02 Product Innovation

03 More Instruments

04 China Market Outlook
Overview of Overseas Investment in the Interbank Bond Market

Investing in China
- The inflow of foreign capital has been accelerating year by year. In July 2021, foreign investors boosted holdings of Chinese government bonds to a record $338 billion. Global central banks are likely to increase holdings of Yuan-dominated assets by $400 billion over the next five years. By 2030, the share of Yuan in global reserves could rise to 6% and become the world’s third-largest reserve currency.

Interbank Bond Market
- By the end of July 2021, in terms of incorporated entities, 1,193 overseas investors have registered through CIBM Direct scheme and Bond Connect Scheme.

Source: PBoC, CFETS, BNP Paribas, Bloomberg
# Overseas Investors in the Interbank Bond Market

## Overseas Investors Breakdown

<table>
<thead>
<tr>
<th></th>
<th>Direct CIBM</th>
<th>Bond Connect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Banks</td>
<td>70</td>
<td>3</td>
</tr>
<tr>
<td>Commercial Banks</td>
<td>171</td>
<td>147</td>
</tr>
<tr>
<td>Asset Management</td>
<td>172</td>
<td>431</td>
</tr>
<tr>
<td>Other Financial Institutions</td>
<td>61</td>
<td>109</td>
</tr>
<tr>
<td>Other Medium and Long-term Institutional Investors</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: PBoC, CFETS, BNP Paribas, Bloomberg
Overview of Overseas Investment in the Interbank Bond Market

- According to PBoC, foreign investors holdings of Chinese bonds totalled RMB 3.62 trillion in March 2021, representing a 3.09% of China’s bond market.

- In July, the cash bond trading turnover of overseas investors amounted to 1144.1 billion yuan, up by 4% MoM, which represented 6% of the total turnover for interbank cash bond market.

- The total monthly figure comprised 618.0 billion yuan of bond purchase and 526.1 billion yuan of bond sell, giving a net purchase of 91.9 billion yuan. The turnover reached **556.1 billion yuan for CIBM Direct** (503.8 billion yuan through agent trade and 52.2 billion yuan through Direct-RFQ service) with net purchase of 73.7 billion yuan.

Source: PBoC, CFETS, BNP Paribas, As of Q2 2021
Product Innovation

**ABS**
- ABS issuance in China totalled RMB 2.87 trillion in 2020, a year-on-year increase of 23%.
- Corporate ABS (Selective Asset Management Plan or SAMP) represents 54% of all issuance, followed by Credit ABS (Asset Securitisation or CAS) at 28%, and asset-backed notes (ABN) at 18%.

**PANDA**
- The outstanding volume of Panda bond reached RMB 253 billion at the end of 2020, accounting for 0.15% of the total Chinese bond volume.

**GREEN**
- On 21 April 2021, the PBoC, the National Development & Reform Commission (NDRC) and the China Securities Regulatory Commission (CSRC), released the latest Catalogue for Green Bond Endorsed Projects (2021 Edition). This new Catalogue replaces the 2015 Edition and takes effect on 1 July 2021.
- Since President Xi Jinping made an ambitious commitment of carbon peaking by 2030 and carbon neutrality by 2060 in September 2020, China has accelerated its footsteps towards this goal. At the start of 2021, the Chinese government made expansion of green finance one of its “key work missions” for the year, as well as for the 14th Five-Year-Plan running from 2021 to 2025.

Source: PBoC, CFETS, BNP Paribas
More Instruments

REPO

- Regarded as the indicator of the true cost of liquidity onshore
- Two types: pledged repo and title transfer repo
- CIBM pledged repo monthly volume: CNY 93.8 trillion (Aug 2021)
- Offshore investors conducted total CNY 0.84 tri Repo, mainly were on reverse repo side.
- On July 12, CFETS and China Central Depository & Clearing Co., Ltd. (CCDC) jointly launched the FX repo business, helping market participants lower financing costs of foreign currency and strengthen risk prevention.

INTEREST RATE SWAP

- CNY IRS market started from 2006.
- 656 interbank participants by 02 Sep 2021.
- Floating indices: Repo 7D, Shibor 3M, Shibor O/N, LPR 1Y, LPR 5Y, Lending 1Y, Lending 3Y, Depo 1Y, CGB 10y, CDB 10y, etc...
- LPR getting alive after PBOC announced LPR rates as Loan rate anchor in Aug 2019
- Offshore NDIRS market and overseas hedge fund trading activities can move the onshore market via NDD deals
- BNPP China can facilitate IRS from trading to settlement (partner with local clearing banks).

THIRD PARTY FX

- We can provide 3rd party FX via BNPP HK as well as BNPP China.

Source: PBoC, CFETS, BNP Paribas
China Market Outlook

Inflation Side
- CPI range in 1-2% vs 3% PBoC target, due to stable food prices
- PPI small upside risk as crude oil (in house) forecast $70-75 level
- Core inflation: not much sign of overheating as general consumption facing downward pressure

Financial Data Front
- More loan facility and credit limits on the way from PBoC approval
- Relatively smooth arrangement in LGBs issuance
- The current credit easing measure may not be able to fully hedge the downward sentiment of loans from housing/real estate sector from YoY basis

Fiscal & Monetary Policies
- Fiscal side: more accommodative measures are expected for H2 2021 and H1 2022

Market Outlook
- 10y CGB trades in 2.95/2.75 range and better buying after sell-off if any
- Overnight & 7d repo rate average: 2% - 2.10 & 2.15% - 2.25%
Legal Notice: This communication may contain “Research” as defined under MiFID II unbundling rules; any such Research is intended either (i) for those firms who are in scope of the MiFID II unbundling rules and have signed up to a BNP Paribas Global Markets Research package, or (ii) for firms that are out of scope of the MiFID II unbundling rules and therefore are not required to pay for Research under MiFID II. Please note that it is your firm’s responsibility to ensure that you do not view or use any Research in this communication if your firm has not signed up to a BNP Paribas Global Markets Research package, unless your firm is out of scope of the MiFID II unbundling rules. Please note that MiFID II also imposes rules regarding receipt of monetary and minor non-monetary benefits under the broader inducements regime. This communication may also be regarded as a minor non-monetary benefit (MNMB) and it is your firm’s responsibility to consider its own regulatory obligations in relation to inducements and accepting MNMBs.

This material is CONFIDENTIAL AND FOR DISCUSSION PURPOSES ONLY; it constitutes a marketing communication and has been prepared by a Sales and Marketing function within BNP Paribas and/or its subsidiaries or affiliates (collectively “we” or “BNP Paribas”). As a confidential communication it is submitted to selected recipients only and it may not be made available (in whole or in part) to any other person without BNP Paribas’ written consent.

This communication is not a recommendation to engage in any action, does not constitute or form any part of any offer to sell or issue and is not a solicitation of any offer to purchase any financial instrument, nor shall it or any part of it nor the fact of its distribution form the basis of, or be relied on in connection with, any contract or investment decision. To the extent that any transaction is subsequently entered into between the recipient and BNP Paribas, such transaction will be entered into upon such terms as may be agreed by the parties in the relevant documentation.

The information contained in this communication has been obtained from sources believed to be reliable, but there is no guarantee of the accuracy, completeness or suitability for any particular purpose of such information or that such information has been independently verified by BNP Paribas or by any person. None of BNP Paribas, its members, directors, officers, agents or employees accepts any responsibility or liability whatsoever or makes any representation or warranty, express or implied, as to the accuracy or completeness of the information, or any opinions based thereon, contained in this communication and it should not be used in place of professional advice. Additional information may be provided on request, at our discretion. Any scenarios, assumptions, historical or simulated performances, indicative prices or examples of potential transactions or returns are included for illustrative purposes only. Past performance is not indicative of future results. Investors may get back less than they invested. BNP Paribas gives no assurance that any favourable scenarios described are likely to happen, that it is possible to trade on the terms described herein or that any potential returns illustrated can be achieved. This communication is current as at the date of its production and BNP Paribas is under no obligation to update or keep current the information herein. In providing this communication, BNP Paribas offers no investment, financial, legal, tax or any other type of advice to, and has no fiduciary duty towards, recipients of this communication. BNP Paribas neither guarantees the accuracy of the information contained therein nor are there any warranties as to the results to be obtained from any investment, strategy or transaction, or as to whether any strategy, security or transaction described herein may be suitable for recipients’ financial needs, circumstances or requirements. Recipients must make their own assessment of strategies, securities and/or potential transactions detailed herein, using such professional advisors as they deem appropriate. BNP Paribas accepts no liability for any direct or consequential losses arising from any action taken in connection therewith or reliance on the information contained in this communication even where advised of the possibility of such losses.

As an investment bank with a wide range of activities BNP Paribas may face conflicts of interest and you should be aware that BNP Paribas and/or any of its affiliates may be long or short, for their own account or as agent, in investments, transactions or strategies referred to in this communication or related products before the material is published to clients and that it may engage in transactions in a manner inconsistent with the views expressed in this communication, either for their own account or for the account of their clients. Additionally, BNP Paribas may have acted as an investment banker or may have provided significant advice or investment services to companies or in relation to investments mentioned in this communication. The information in this communication is not intended for distribution to, or use by, any person or entity in any jurisdiction where (a) the distribution or use of such information would be contrary to law or regulations, or (b) BNP Paribas or a BNP Paribas affiliate would become subject to new or additional legal or regulatory requirements. Persons in possession of this communication should inform themselves about possible legal restrictions and observe them accordingly.

Executive Order 13959, as amended: BNPP clients and counterparties are responsible for ensuring that they comply with applicable provisions of Executive Order 13959 (and any subsequent official guidance).

France: BNP Paribas, incorporated in France with Limited Liability (Registered Office: 16 boulevard des Italiens, 75009 Paris, France, 662 042 449 RCS Paris, www.bnpparibas.com) is authorized and supervised by European Central Bank (ECB) and by Autorité de Contrôle Prudentiel et de Résolution (ACPR) in respect of supervisions for which the competence remains at national level, in terms of Council Regulation n° 1024/2013 of 15 October 2013 concerning specific tasks on the ECB concerning policies relating to the prudent supervision of credit institutions.
Disclaimer

China: This document/communication is being distributed in the People’s Republic of China (“PRC”, which for these purposes excludes the Hong Kong or Macau Special Administrative Regions or Taiwan) by BNP Paribas (China) Limited (“BNP China”), a subsidiary of BNP Paribas. BNP China is a commercial bank regulated by the China Banking and Insurance Regulatory Commission. Where the document/communication is also provided in both English and Chinese, the Chinese version shall prevail in the event of discrepancies between the two versions.

France: This communication is prepared and/or distributed by BNP Paribas, acting through its Hong Kong branch. BNP Paribas is a public limited company (société anonyme) incorporated in France. The liability of its members is limited. BNP Paribas, acting through its Hong Kong branch, is registered as a Licensed Bank under the Banking Ordinance and regulated by the Hong Kong Monetary Authority. It is also a Registered Institution regulated by the Securities and Futures Commission for the conduct of Regulated Activity Types 1, 4, 6 and 9 under the Securities and Futures Ordinance. Furthermore, where the content relates to regulated products/activities, this communication is directed at “professional investors” as defined in the Securities and Futures Ordinance.

UK: BNP Paribas is authorised and regulated by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution. BNP Paribas London branch is authorised by the Prudential Regulation Authority with deemed permissions under the UK Temporary Permissions Regime. BNP Paribas London branch is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details of the Temporary Permissions Regime, which allows EEA-based firms to operate in the UK for a limited period while seeking full authorisation, are available on the Financial Conduct Authority’s website. BNP Paribas London Branch is registered in England and Wales under number FC13447. Registered office in the UK: 10 Harewood Avenue, London NW1 6AA.

Vietnam: This communication is distributed in Vietnam by BNP Paribas Hồ Chí Minh City Branch, registered in Vietnam under No. 725/ GP-HCMC and BNP Paribas Hanoi Branch registered under No. 05/GP-NHNN. This publication is directed at investors who have legal standing and is not intended for Private Customers in the territory of Vietnam and should not be passed to any such persons. It is directed only at Vietnamese counterparts who have the capacity and licence authorised by SBV to purchase from or transact with offshore counterparts.

Some or all of the information contained in this document may already have been published on https://globalmarkets.bnpparibas.com

© BNPP, All rights reserved.
How to Get Started

**APPOINT A LOCAL CUSTODIAN (BOND SETTLEMENT AGENT)**
- KYC
- Contractual framework set up
- Documentation preparation
- Estimated time: 2-3 weeks

**REGULATORY FILLING**
- File relevant forms with PBOC
- Estimated time: 1 week

**ACCOUNT OPENING**
- Open cash and securities accounts at BNPP China
- Open market accounts (CCDC, SHCH, CFETS)
- Estimated time: 2 weeks

**START INVESTING**
- Cash injection
- Start trading!

---

A SIMPLE AND EFFICIENT PROCESS TO INVEST IN CIBM IN APPROXIMATELY 6 TO 8 WEEKS

PBOC: The People’s Bank of China
CCDC: China Central Depository & Clearing Co., Ltd.
SHCH: Shanghai Clearing House
CFETS: China Foreign Exchange Trade System
For illustrative purpose only
## Direct CIBM Filing & A/C Opening Process

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Timeline</th>
</tr>
</thead>
</table>
| Preparation | - Internal KYC  
- Contractual agreement execution | 2-3 weeks |
| PBoC Filing | - 2-page filing form | 1 week |
| RMB Basic Account at BNPP China | - A/C opening files preparation  
- RMB Basic Account opening | 1-2 weeks |
| Special Accounts at BNPP China | - Special Accounts opening  
- RMB special A/C: 1 week  
- FCY special A/C: 1-2 weeks |  |
| RMB Special Account |  |
| FCY Special Account |  |
| CCDC/ SHCH/ CFETS Accounts | - A/C opening upon CCDC, Shanghai Clearing House & CFETS | 1 week |

**Note:** Special accounts can ONLY be used for CIBM business. The FCY Special Account can only be used for FCY cross-border cash injection & repatriation and FX trading with BNPP China.
Your Key Securities Services Contacts

**JULIEN KASPARIAN**  
Head of Hong Kong  
[Email: julien.kasparian@asia.bnpparibas.com]  
+852 3197 3855

**PHILIPPE KERDONCUFF**  
Head of China  
[Email: philippe.kerdoncuff@asia.bnpparibas.com]  
+86 21 2896 2680

**AMAN MEHTA**  
Sales Director – APAC Clients  
[Email: aman.mehta@asia.bnpparibas.com]  
+852 2909 8618

**CHRISTOPHE BEELEARTS**  
Client Development for EU and US Clients  
[Email: christophe.beelearts@asia.bnpparibas.com]  
+352 2696 2170
Disclaimer

Legal Notice: This document/communication may contain “Research” as defined under MiFID II unbundling rules; any such Research is intended either (i) for those firms who are in scope of the MiFID II unbundling rules and have signed up to a BNP Paribas Global Markets Research package, or (ii) for firms that are out of scope of the MiFID II unbundling rules and therefore are not required to pay for Research under MiFID II. Please note that it is your firm’s responsibility to ensure that you do not view or use any Research in this document if your firm has not signed up to a BNP Paribas Global Markets Research package, unless your firm is out of scope of the MiFID II unbundling rules. Please note that MiFID II also imposes rules regarding receipt of monetary and minor non-monetary benefits under the broader inducements regime. This document may also be regarded as a minor non-monetary benefit (MNMB) and it is your firm’s responsibility to consider its own regulatory obligations in relation to inducements and accepting MNMBS.

This document is CONFIDENTIAL AND FOR DISCUSSION PURPOSES ONLY: it constitutes a marketing communication and has been prepared by a Sales and Marketing function within BNP Paribas and/or its subsidiaries or affiliates (collectively “we” or “BNP Paribas”). As a confidential document it is submitted to selected recipients only and it may not be made available (in whole or in part) to any other person without BNP Paribas’ written consent.

This document is not a recommendation to engage in any action, does not constitute or form any part of any offer to sell or issue and is not a solicitation of any offer to purchase any financial instrument, nor shall it or any part of it nor the fact of its distribution form the basis of, or be relied on in connection with, any contract or investment decision. To the extent that any transaction is subsequently entered into between the recipient and BNP Paribas, such transaction will be entered into upon such terms as may be agreed by the parties in the relevant documentation.

The information contained in this document has been obtained from sources believed to be reliable, but there is no guarantee of the accuracy, completeness or suitability for any particular purpose of such information or that such information has been independently verified by BNP Paribas or by any person. None of BNP Paribas, its members, directors, officers, agents or employees accepts any responsibility or liability whatsoever or makes any representation or warranty, express or implied, as to the accuracy or completeness of the information, or any opinions based thereon, contained in this document and it should not be used in place of professional advice. Additional information may be provided on request, at our discretion. Any scenarios, assumptions, historical or simulated performances, indicative prices or examples of potential transactions or returns are included for illustrative purposes only. Past performance is not indicative of future results. Investors may get back less than they invested. BNP Paribas gives no assurance that any favourable scenarios described are likely to happen, that it is possible to trade on the terms described herein or that any potential returns illustrated can be achieved. This document is current as at the date of its production and BNP Paribas is under no obligation to update or keep current the information herein. In providing this document, BNP Paribas offers no investment, financial, legal, tax or any other type of advice to, and has no fiduciary duty towards, recipients. Certain strategies and/or potential transactions discussed in this document may involve the use of derivatives which may be complex in nature and may give rise to substantial risks, including the risk of total or partial loss of any investment or losses without limitation and which should only be undertaken by those with the requisite knowledge and experience. BNP Paribas makes no representation and gives no warranty as to the results to be obtained from any investment, strategy or transaction, or as to whether any strategy, security or transaction described herein may be suitable for recipients’ financial needs, circumstances or requirements. Recipients must make their own assessment of strategies, securities and/or potential transactions detailed herein, using such professional advisors as they deem appropriate. BNP Paribas accepts no liability for any direct or consequential losses arising from any action taken in connection with or reliance on the information contained in this document even where advised of the possibility of such losses.

As an investment bank with a wide range of activities BNP Paribas may face conflicts of interest and you should be aware that BNP Paribas and/or any of its affiliates may be long or short, for their own account or as agent, in investments, transactions or strategies referred to in this document or related products before the material is published to clients and that it may engage in transactions in a manner inconsistent with the views expressed in this document, either for their own account or for the account of their clients. Additionally, BNP Paribas may have acted as an investment banker or may have provided significant advice or investment services to companies or in relation to investments mentioned in this document. The information in this document is not intended for distribution to, or use by, any person or entity in any jurisdiction where (a) the distribution or use of such information would be contrary to law or regulations, or (b) BNP Paribas or a BNP Paribas affiliate would become subject to new or additional legal or regulatory requirements. Persons in possession of this document should inform themselves about possible legal restrictions and observe them accordingly.

Legal Notice: This document/communication may contain "Research" as defined under MiFID II unbundling rules; any such Research is intended either (i) for those firms who are in scope of the MiFID II unbundling rules and have signed up to a BNP Paribas Global Markets Research package, or (ii) for firms that are out of scope of the MiFID II unbundling rules and therefore are not required to pay for Research under MiFID II. Please note that it is your firm’s responsibility to ensure that you do not view or use any Research in this document if your firm has not signed up to a BNP Paribas Global Markets Research package, unless your firm is out of scope of the MiFID II unbundling rules. Please note that MiFID II also imposes rules regarding receipt of monetary and minor non-monetary benefits under the broader inducements regime. This document may also be regarded as a minor non-monetary benefit (MNMB) and it is your firm’s responsibility to consider its own regulatory obligations in relation to inducements and accepting MNMBS.

This document is CONFIDENTIAL AND FOR DISCUSSION PURPOSES ONLY: it constitutes a marketing communication and has been prepared by a Sales and Marketing function within BNP Paribas and/or its subsidiaries or affiliates (collectively “we” or “BNP Paribas”). As a confidential document it is submitted to selected recipients only and it may not be made available (in whole or in part) to any other person without BNP Paribas’ written consent.

This document is not a recommendation to engage in any action, does not constitute or form any part of any offer to sell or issue and is not a solicitation of any offer to purchase any financial instrument, nor shall it or any part of it nor the fact of its distribution form the basis of, or be relied on in connection with, any contract or investment decision. To the extent that any transaction is subsequently entered into between the recipient and BNP Paribas, such transaction will be entered into upon such terms as may be agreed by the parties in the relevant documentation.

The information contained in this document has been obtained from sources believed to be reliable, but there is no guarantee of the accuracy, completeness or suitability for any particular purpose of such information or that such information has been independently verified by BNP Paribas or by any person. None of BNP Paribas, its members, directors, officers, agents or employees accepts any responsibility or liability whatsoever or makes any representation or warranty, express or implied, as to the accuracy or completeness of the information, or any opinions based thereon, contained in this document and it should not be used in place of professional advice. Additional information may be provided on request, at our discretion. Any scenarios, assumptions, historical or simulated performances, indicative prices or examples of potential transactions or returns are included for illustrative purposes only. Past performance is not indicative of future results. Investors may get back less than they invested. BNP Paribas gives no assurance that any favourable scenarios described are likely to happen, that it is possible to trade on the terms described herein or that any potential returns illustrated can be achieved. This document is current as at the date of its production and BNP Paribas is under no obligation to update or keep current the information herein. In providing this document, BNP Paribas offers no investment, financial, legal, tax or any other type of advice to, and has no fiduciary duty towards, recipients. Certain strategies and/or potential transactions discussed in this document may involve the use of derivatives which may be complex in nature and may give rise to substantial risks, including the risk of total or partial loss of any investment or losses without limitation and which should only be undertaken by those with the requisite knowledge and experience. BNP Paribas makes no representation and gives no warranty as to the results to be obtained from any investment, strategy or transaction, or as to whether any strategy, security or transaction described herein may be suitable for recipients’ financial needs, circumstances or requirements. Recipients must make their own assessment of strategies, securities and/or potential transactions detailed herein, using such professional advisors as they deem appropriate. BNP Paribas accepts no liability for any direct or consequential losses arising from any action taken in connection with or reliance on the information contained in this document even where advised of the possibility of such losses.

As an investment bank with a wide range of activities BNP Paribas may face conflicts of interest and you should be aware that BNP Paribas and/or any of its affiliates may be long or short, for their own account or as agent, in investments, transactions or strategies referred to in this document or related products before the material is published to clients and that it may engage in transactions in a manner inconsistent with the views expressed in this document, either for their own account or for the account of their clients. Additionally, BNP Paribas may have acted as an investment banker or may have provided significant advice or investment services to companies or in relation to investments mentioned in this document. The information in this document is not intended for distribution to, or use by, any person or entity in any jurisdiction where (a) the distribution or use of such information would be contrary to law or regulations, or (b) BNP Paribas or a BNP Paribas affiliate would become subject to new or additional legal or regulatory requirements. Persons in possession of this document should inform themselves about possible legal restrictions and observe them accordingly.