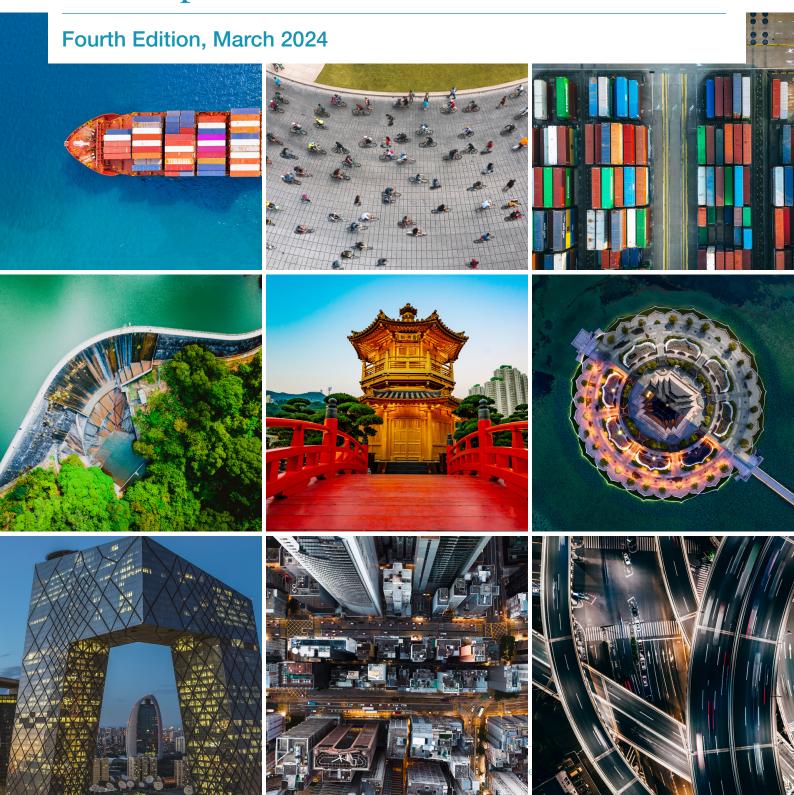


The Asian International Bond Markets: Development and Trends



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This report draws upon numerous interviews with market participants. ICMA would like to acknowledge CGIF, Citi, Crédit Agricole CIB, Global X Mirae, the Hong Kong Exchanges and Clearing Limited, HSBC, ICBC Asia, Ping An, S&P Global and Standard Chartered Bank (in alphabetical order) for their significant contributions to the current report, as well as those who provided insights for the previous editions of this report. ICMA would like to extend its appreciation to Bloomberg, Covalent Capital, Dealogic, EquiLend, IHS Markit and MarketAxess for providing the data and analysis used in this report. If there is any inconsistency or ambiguity between the English version and the Chinese version, the English version shall prevail.



Supported by the Hong Kong Monetary Authority

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Executive summary

In 2023, the international bond markets in Asia continued to face challenges on multiple fronts, notably high global interest rates, geopolitical tensions, and sectoral credit events from China. However, amidst these difficulties, there were notable developments and trends observed within the market.

The annual issuance volume of international bonds from Asian issuers experienced a partial recovery, rising from about US\$371 billion in 2022 to approximately US\$380 billion in 2023. This recovery was primarily driven by increased international bond issuances from Japan, South Korea, and Hong Kong¹. China's international bond issuances declined by approximately 12% yearon-year to US\$108 billion in 2023 from US\$122 billion in 2022 and US\$230 billion in 2021. Despite this decline, China remained a significant player, accounting for 29% of the total issuance volume and ranking second only to Japan's US\$115 billion issuance volume. However, the total regional issuance volume in 2023 remained below the record level of over US\$620 billion seen in 2021, as Asian issuers showed an increased preference for issuing bonds in domestic currencies for cost-effectiveness during 2022 and 2023.

Of all Asian international bonds in the primary market, the share of issuance arranged within Asia grew from about 10% in 2006 to 30 - 40% over the past four years. Hong Kong consistently maintained its position as the primary location for arranging international bond issuances from Asian entities. In 2023, however, it arranged slightly fewer issuances than the U.S., primarily due to a decline in Chinese international issuance. In terms of listing locations, Singapore and Hong Kong continued to be the region's top two most popular choices for listing Asian international bonds in 2023, a trend that has persisted since 2011.

The issuance volume of international sustainable bonds by Asian issuers experienced significant growth in 2021, approaching US\$100 billion. The volume stabilised at about US\$80 billion in 2022 and 2023. Chinese issuers retained their leading position in issuing international

sustainable bonds in 2023, accounting for approximately 26% of the total issuance volume. Japan and Korea were also prominent issuing countries, collectively contributing to an average of 40% of the annual issuance volume between 2019 and 2023. Hong Kong witnessed a remarkable increase in issuance volume in 2023, doubling year-on-year to approximately US\$16 billion.

In terms of currency distribution, international bonds issued by Asian issuers continued to be predominantly denominated in G3 currencies in 2023. Approximately 70% of the total issuance was denominated in USD, followed by about 11% in RMB and approximately 9% in EUR. Yendenominated issuance only accounted for about 1%.

Efforts to promote digitalisation and innovative technologies in Asia's bond markets gained traction in 2023. These initiatives aimed to enhance efficiency and improve market infrastructure, facilitating smoother operations and transactions.

In line with the primary market, secondary market activities and volumes saw a steady increase in activity from 2020 to mid-2022 but have been in decline leading to 2023, particularly with respect to non-financial issuers. Partly this can be attributed to changing market conditions, with higher yields and widening credit spreads. However, the most significant was the strong correlation between primary issuance and secondary activity. Participants also pointed to the relative decline of Chinese international issuance, along with volatility spillovers into the wider Asia market, which was also reflected in the notable decline in secondary market activity in bonds with China country of risk.

The China offshore market continued to set the tone for the Asia international market more broadly, and while its share of the overall market has decreased, the travails of the property sector have weighed heavily on both spreads and liquidity. Support from the People's Bank of China ("PBoC") support, however, appeared to have created some stability toward the end of 2023.

For purposes of this research report: (1) "Hong Kong" means "Hong Kong Special Administrative Region of the People's Republic of China"; (2) "China", "Mainland China" and "onshore" means the People's Republic of China excluding Hong Kong, Macau Special Administrative Region and Taiwan; and (3) "offshore" means "non-PRC'

Participants reported a continued push across the market to trading on venues, rather than traditional voice (or message) based transactions. This was particularly the case for smaller trade sizes and more liquid credits, where algorithmic (or "algo") price generation and order flow were becoming increasingly common. The most used e-trading protocol remained Request-for-Quote ("RFQ"). However, participants confirmed a growing adoption of other protocols, in particular All-to-All ("A2A") and Portfolio Trading ("PT").

Despite the challenges of recent years, which saw reduced volume in both primary issuance and secondary trading in the Asia international bond market, interviewees are broadly optimistic for 2024, noting that we are already beginning to see signs of a pick-up. China will remain a critical part of the equation, and the market hope is that the PBoC will be able to stabilise the property sector while also stimulating economic growth. Meanwhile, lower US yields could see more Asian corporates coming back to the international market.

Introduction

Why the report?

ICMA published the first edition of The Asian International Bond Markets: Development and Trends in March 2021 and released the second version and third version in 2022 and 2023 respectively. This fourth edition of the report aims to provide global market stakeholders with an updated overview of the market dynamics of the Asian international bond markets and includes an analysis of salient market events through the end of 2023.

Scope and methodology

The focus of this report is the international bond market in Asia², meaning debt securities issued in a market outside the issuer's home jurisdiction, which could be in the Euro, global or foreign markets, without necessarily depending on whether a bond is cleared on international central securities depositories ("ICSDs"). This research covers not only the trends in primary issuance in the international bond markets but also secondary market structures and trends in recent years.

In this report, ICMA combines quantitative data analysis with qualitative input from selected market participants. The quantitative data is taken from a variety of sources noted within the relevant text and charts. The qualitative narratives were synthesised from interviews with investment banks, investors, trading venues, and market infrastructures (a list of participating institutions is provided in the acknowledgements). Interviews were conducted from January to March 2024. ICMA is grateful to the Hong Kong Monetary Authority ("HKMA") for their significant support in the quantitative data collection and analysis, as well as for guidance in setting the overall themes in this report.

About ICMA

For over 50 years ICMA and its members have worked together to promote the development of the international capital and securities markets, pioneering the rules, principles and recommendations which have laid the foundations for their successful operation. In pursuit of its objectives, ICMA brings together members from all segments of the wholesale and retail debt securities markets, through regional and sectoral member committees, and focuses on a comprehensive range of market practice and regulatory issues which impact all aspects of international market functioning. ICMA prioritises three core fixed income market areas primary, secondary, repo and collateral: with two crosscutting themes of sustainable finance and FinTech and digitalisation. ICMA currently has over 620 members active in all segments of international debt capital markets in 68 jurisdictions globally. Among our members are private and public sector issuers, banks and securities dealers, asset and fund managers, insurance companies, law firms, capital market infrastructure providers and central banks. ICMA is a not-for-profit association ("Verein") under the Swiss Civil Code. The Association is headquartered in Zurich, with offices in London, Paris, Brussels and Hong Kong and registered in the Zurich Commercial Register. www.icmagroup.org

The definition of Asia may differ over time with respect to the inclusion or exclusion of certain frontier markets. Please refer to the full definitions at the end of the report.

Primary Markets

Macroeconomic developments

Apart from market dynamics and geopolitical factors, the global interest rate environment played a fundamental role in shaping the Asian international bond markets in 2023. In particular, over the course of 2023, the Fed Funds rate (upperband) was hiked to 5.50% (from 0.25% in March 2022), the ECB Main Re-financing Rate to 4.50% (from 0% in June 2022) and BOE Bank Rate to 5.25% (from 0.1% in December 2021)3. Global interest rates remained at rather high levels throughout the year, with the average 10-year government bond yields⁴ staying at about 2.70% for year-end 2023⁵. The high-interest rate environment resulted in higher borrowing costs for Asian issuers in the Asian international bond markets, which caused domestic markets to be relatively more attractive for financing or re-financing. With the continual adoption of monetary easing policies by China and Japan in comparison to the major advanced economies in the West, the persistent interest-rate differentials continued to impact Asian issuers' calculations when determining the currency mix for bond issuance.

On the demand side, institutional and professional investors in Asia sought higher-yielding instruments in response to the high interest rate environment. However, their risk appetite remained low under an increasingly complicated geopolitical landscape (including heightened trade tensions, political uncertainties and regional conflicts), which was reflected by their continual preferences for investment-grade bonds over high-yield bonds to seek better risk-adjusted returns. The unresolved situation of China's property market downturn and its spillovers to the economy also rendered investors cautious about adding high-yield bonds from certain sectors to their portfolios.

Despite these pressures, Asia continued to see resilience in sustainable bonds (green, social, sustainability and sustainability-linked bonds) as well as innovations in digital bonds.

International bonds globally and in Asia

For any jurisdiction, the international bond market usually develops after issuers become seasoned in their domestic capital markets. Unlike local currency bonds in the domestic market, international bonds are mostly sold only to institutional investors and individual professional investors.

Reasons for raising funds through international bonds include but are not limited to, meeting foreign currency funding needs, managing funding costs and structure, diversifying funding channels and investor base, and raising profile in the international markets. For investors, international bond markets are a way to obtain exposure to emerging market credits without the need to establish access to individual domestic markets or manage foreign exchange risks associated with local currencies. Investing in international bonds may also help with portfolio diversification and yield enhancement, especially in emerging markets such as Asia.

The Asian international bond market has experienced significant growth over recent years. Between 2006 and 2021, issuance volume of international bonds from Asian issuers grew at an annual rate of about 11% on average, higher than that of the Americas, EMEA and Oceania (Figure 1). Annual issuance volume peaked at about US\$626 billion in 2021. Although the issuance volume declined considerably in 2022 and 2023, the average issuance volume of the recent two years was still higher than the average of US\$334 billion between 2006 and 2023.

Countries cover: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Portugal, Spain, Sweden, the United Kingdom and the United States.

Data from Tradeweb

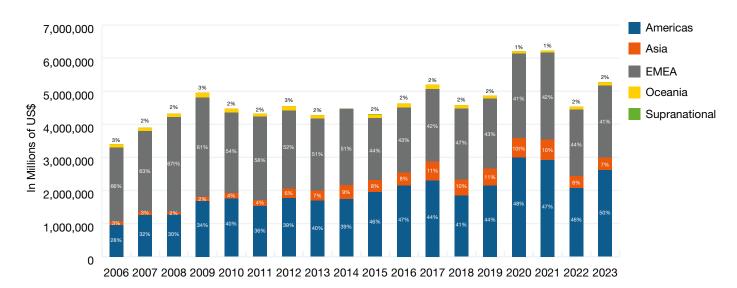


Figure 1: Global International Bond Issuance - by Region (Deal Nationality®)

Reviewing the global international bond markets since 2006, international bond issuance from issuers in the Americas and EMEA has been accounting for about 90% of total issuance volume on average. Among the two top regions, there has been a general decline in the share of EMEA issuance from about above 60% to close to 40% in recent years, while the share of bonds with issuers located in the Americas has grown from below 30% to now close to 50%. Despite a significant increase in the share of Asian issuance from low single digits in 2006 to high single digits in 2023, the percentage is still small compared to that of the Americas and EMEA.

Amongst all bond issuance (including domestic and cross-border) from Asian issuers, international bond issuance only made up about 7% in 2006. International bond issuance from Asian issuers started to pick up in 2012 and accounted for 12% - 20% from 2019 to 2023 (Figure 2). Compared with the world's average of above 35% in the most recent four years, the percentage of international bond issuance among all bond issuance from Asian issuers has remained low.

⁶ By Dealogic's definition, "deal nationality" refers to the jurisdiction in which most of the borrower's businesses take place. Throughout this report, both the words "nationality" and "region" are defined with the same meaning as deal nationality, unless otherwise specified.

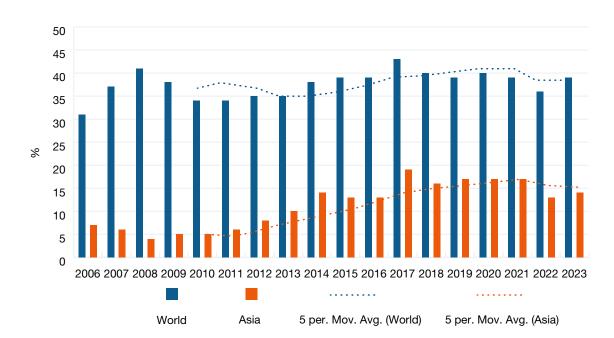


Figure 2: Percentages of International Bond Issuance over Total Issuance from Global and Asian Issuers

In the context of the international bond markets, participants and operations often cover multiple jurisdictions, and geographical analysis often presents methodological issues. This paper aims to present multiple perspectives on "where" a bond transaction takes place, in the spirit of providing a more nuanced picture of overall regional market activity. The analysis first covers the location of arrangement, secondly the location of the listing, and subsequently the issuer's major place of business (the "deal nationality").

Arrangement

Bank intermediaries and arrangers help to ensure that issuers have access to a range of investors both domestically and internationally and achieve optimal pricing in the primary market. Arrangers also aim to facilitate both a stable investor base as well as secondary liquidity for price discovery, for the benefit of their client issuers. Bond arranging activities include origination and structuring, book-building, legal and transaction documentation preparation, and sale and distribution. Although many factors influence the location of arrangement for bonds (such as the credibility of a financial centre's financial regulatory system, the degree of judicial independence and the enforceability of contracts when legal and operational risks of executing bond issuance are concerned), the location of the mandated leading banks (and their teams of professionals across functions of investment banking, trading, legal, and operations) is ultimately determinative.

Looking at the main location of arrangement⁷ for international bond issuance from Asian issuers, the dynamics evolved from the U.S. and the U.K. accounting for a combined share of about 80% in 2006 to about 45% in 2023, mostly due to the rise of Asian financial centres as centres for international bond transactions. More specifically, the share of Asia-based arrangements grew from about 10% in 2006 to 30 – 40% over the last four years (with the shares surpassing the combined shares of the U.S. and U.K.).

Before 2010, mandates for international bond issuance from Asian issuers were mostly granted to UK-based and US-based banks. Since 2010, banks located in Asia, especially in Hong Kong, have secured an increasing share of international

⁷ For analytical purposes, a bond is arranged in a location if it hosts most of the arranging activities, wherein more than 50% of the lead banks of a deal are based. If two jurisdictions tie for a deal, both jurisdictions will be attributed by taking an average of the nominal amount of the bond. For deals having no emergence of dominant jurisdictions, they are classified under the category of "consortium". As a key note, ICMA follows the "Lead Bank Nationality" classification by Dealogic during the analysis.

bond issuance from Asian jurisdictions. The growth of Asia-based arrangements has largely correlated with the rise of Hong Kong as a global offshore RMB business centre and hub for Chinese international issuance. Banks located in Hong Kong, equipped with experience navigating through practices on international bond issuance and the ability to distribute to global investor bases, are normally perceived to be enjoying closer banking relationships with Chinese issuers. Over the last decade, Hong Kong has consistently ranked as the number one location for arranging international bond issuance from Asian issuers⁸, except in 2023 where Hong Kong (with 23%) arranged slightly less issuance than the U.S. (with 26%), primarily due to a decline in Chinese international issuance.

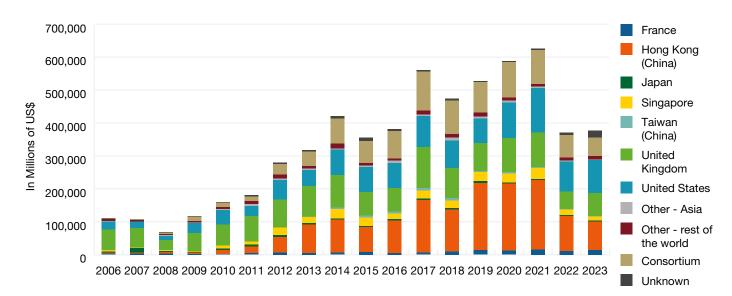


Figure 3: International Bond Issuance in Asia (Deal Nationality) - By Main Location of Arrangement

Source: ICMA analysis using Dealogic data (January 2024)

Listing

The listing of a bond on an exchange in theory facilitates visibility and trading on the secondary market, just as with equities. In practice, listed bonds in the Asian international bond market are traded off-exchange quite commonly, as is the case in the rest of the world. Between 2006 and 2023, most international bond issuance from Asian issuers (about 74% by volume on average) was listed. While there are multiple reasons as to why Asian issuers would like to have their international bond issuance listed, one of the key reasons is that listed securities are preferred by international institutional investors because of increased transparency on deal documentation, requirements on ongoing disclosures, enhanced governance provided by the listing approval process, and the potential for a more liquid secondary market for onexchange trading. While some fund managers are mandated to invest only in listed securities, some investors only invest in international bonds listed on domestic exchanges as constrained by their investment limits.

From an issuer's perspective, the choice of listing location is generally determined by requirements of target investors, by regulatory requirements, and by the simplicity, efficiency, predictability and affordability of the listing process. Singapore continued to be the top listing location of Asian international bonds in Asia (Figure 4)⁹, with nearly a quarter of Asian international bonds listed there (in terms of issuance volume), followed by Hong Kong which saw about 14% of bonds listed on its exchange. It is important to note that bond issuance from Asian issuers targeted at European markets may also be listed in the U.K. and Europe. In particular, Luxembourg drew one-fifth of international bond listing volume from Asian issuers in 2022 and 2023, and the U.K. was a listing location for 7% of issuance in 2023, almost triple the amount in 2022).

⁸ By nominal amount of bond issuance.

⁹ For deals that were listed in more than one location, the total notional amount would be divided by the number of listing locations to avoid double counting.

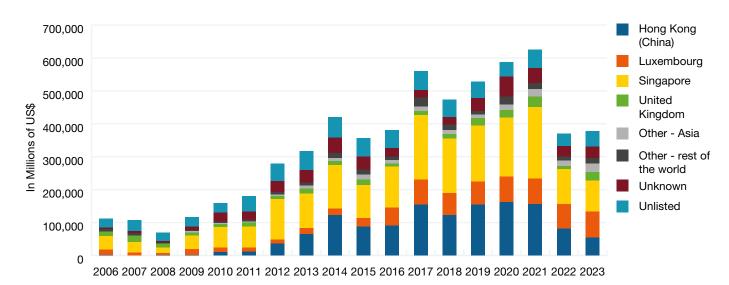


Figure 4: International Bond Issuance in Asia (Deal Nationality) - By Listing Locations

Deal nationality

International bond issuance from Asian issuers has stabilised since the significant drop in 2022. Total issuance in 2023 was about US\$380 billion, a marginal positive increase year-over-year (Figure 5). The small net increase was the result of increases in issuance volume (in absolute terms) from Japan, South Korea and Hong Kong which countered decreases from China, Singapore and the Philippines.

Before 2010, more than half of international bond issuance volume were from Japanese and South Korean issuers. Since 2010, there has been a significant increase in issuance volume from Mainland China, Hong Kong, Macao, Southeast Asia, and India, which have contributed more than half of the international bond issuance volume since 2010. However, the share of international issuance volume from Japanese and South Korean issuers has picked up once again since 2020 from below one quarter in 2019 to almost half in 2023.

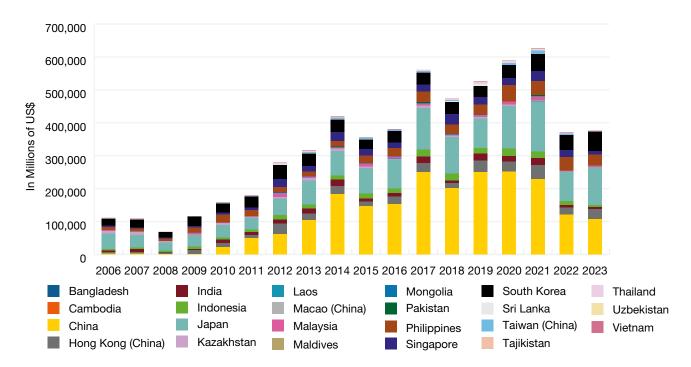


Figure 5: International Bond Issuance in Asia - By Deal Nationality

Though stable year on year, the issuance volume of international bonds from Asian issuers (in absolute terms) remained at low levels compared to that in 2017 to 2021. Market sentiments continued to be dampened by the still high-interest rate regimes with the future interest rate paths continuing to be complicated by the divergence of views between market practitioners (as reflected in the futures markets) and forward guidance from central banks, the need to navigate the new geopolitical landscape, concerns about economic growth for both advanced and emerging economies and heightened volatility seen in the secondary markets. To some extent, issuers with stable or increased financing or refinancing needs also started to prefer the domestic bond, loan, private credit markets instead of international bond markets.

Looking back on the longer-term market dynamics of the Asian international bond markets, for more than a decade since 2008, the ultra-low interest rate environment had fuelled the growth of the international bond markets by Asian issuers, in which the total issuance size increased from below US\$70 billion in 2008 to over US\$610 billion in 2021 (at an annualised growth rate of about 18%).

More recently, and consistent with the global picture, both the monetary and fiscal policy responses to COVID-19 in 2020 had injected huge liquidity into the G3 bond markets and created a very favourable funding environment for all types of issuers covering sovereign, supranational and agencies ("SSA"), corporates and financial institutions to tap the market for a protracted period. The accommodative monetary and fiscal policy environment eventually ended when central banks started to raise rates and taper quantitative easing in 2022 to combat high inflation rates, which not only increased the funding costs of G3 international bond issuance in the primary market significantly but also reduced investor demand for debt securities (less on the short-end but more on the long-end due to the inverted yield curve). Asian international bond issuers were driven more to rely on the domestic bond markets, bank loan markets and private debt markets to meet their funding needs and institutional investors became very cautious about adding duration to their portfolios. Both factors contributed to the subdued issuance amount of international bonds from Asian issuers between 2022 and 2023. Market interviews suggest that international bond issuance will continue to be affected not only by global interest rates but also by cross-currency swap ("CCS") spreads, which influence ultimate borrowing costs for domestic market corporates.

China¹⁰

In 2023, international bond issuance from Chinese issuers declined by about 12% to US\$108 billion year-over-year, which could be attributed to the divergence of monetary policies between the U.S. Federal Reserve and the PBoC that made local currency financing onshore a more appealing funding option to issuers. Dim sum bond issuance rebounded very significantly from about US\$18 billion in 2022 to US\$34 billion in 202311. There was also further development in China's panda bond market. According to data from the National Association of Financial Market Institutional Investors ("NAFMII")12, panda bond issuance from foreign borrowers reached about US\$18 billion as of Q3 2023, up from US\$11 billion in 2022. Notwithstanding the muted international bond issuance from Chinese issuers in 2023, China was still the second-largest supplier of Asian international bond issuance (behind Japan) and accounted for almost 30% of new issuance volume brought to the market.

Looking at issuance by industry: financial, real estate, industrial and government sectors continued to dominate Chinese international bond issuance, with these sectors combined accounting for more than 90% of international bond issuance volume in 2023. Among all the four sectors, the financial sector continued to be the main supplier of international bond issuance, which contributed about half of issuance compared to 42% in 2022.

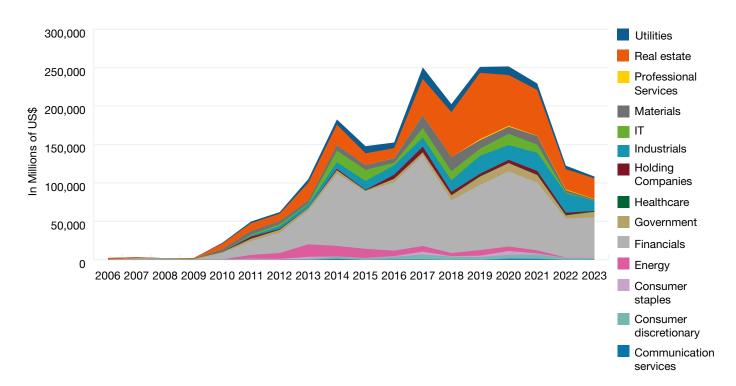


Figure 6: International Bond Issuance from China (Deal Nationality) by Industry

Source: ICMA analysis using Dealogic data (January 2024)

In October 2023, the National Development and Reform Commission ("NDRC") and the HKMA signed a Memorandum of Understanding ("MOU") with the objectives of supporting cross-border financing by Chinese enterprises and promoting the development of the Hong Kong bond market. Under the MOU, the NDRC and the HKMA agreed to strengthen cooperation to facilitate Chinese enterprises' cross-border financing activities in Hong Kong¹³.

¹⁰ Consistent throughout the report, "China" refers to Mainland China for analytical purposes.

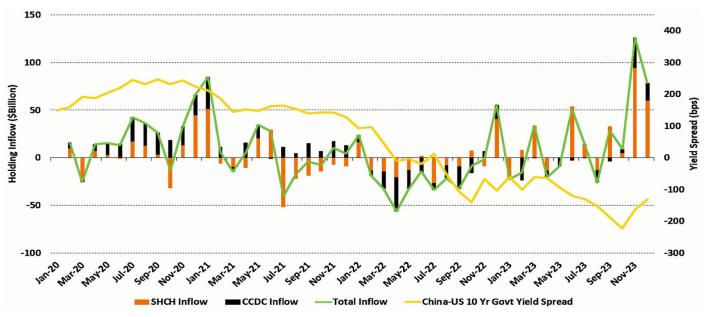
¹¹ Dealogic data quoted from The Asset - https://www.theasset.com/article/50728/g3-bond-market-shrinks-in-china-in-2023.

¹² Quoted from The Asset - https://www.theasset.com/article/50728/g3-bond-market-shrinks-in-china-in-2023

¹³ The major areas of cooperation under the MOU include (i) supporting bond issuance by Chinese enterprises in Hong Kong with policy facilitation and support measures; (ii) organising joint promotional activities to enhance the understanding of relevant policies among market participants; and (iii) promoting diversified development of the Hong Kong bond market, particularly the green and sustainable finance market as well as the dim sum bond market.

Although Chinese issuance into offshore markets has not recovered to earlier peak levels, foreign cross-border investment into the onshore markets has recently picked up. According to Bloomberg data, net "northbound" investment in onshore bonds by overseas investors increased substantially from September 2023 to the start of 2024 as disclosed by the China Central Depository Clearing Co., Ltd. ("CCDC") and the Shanghai Clearing House ("SHCH").

Figure 7: Estimated Aggregate Bond Holding Changes (Inflow/Outflow) by Overseas Investors vs. China-US 10-Year Government Yield Spreads



Source: Bloomberg

India

Back in 2006, only banks and a limited number of major corporate issuers from India tapped the international bond markets. It was in 2011 that SOEs and guasi-government entities started to consider raising funds in G3 currencies in the international bond markets. Issuance volume of international bonds from Indian issuers reached almost US\$20 billion in 2017, then the volume dropped significantly in 2018 to about US\$7 billion driven largely by domestic market credit events. However, issuance activities rebounded significantly in the following year with issuance volume reaching a recent high of US\$22 billion since 2006 and remained above US\$15 billion for two more years. Issuance volume subsequently declined to a 14-year low at about US\$5 billion in 2023. As observed by the market, the cost of hedging dollar issuance into rupees was higher than domestic borrowing and as such, Indian issuers preferred to borrow locally. It was reported by Reuters that some Indian companies had borrowed in local currencies and repurchased some of their overseas debts. Citing data from LSEG Workplace¹⁴, borrowing of foreign currency loans from Indian companies rose to more than US\$22 billion in 2023, the highest number recorded since 2014.

Looking at the issuance trend by industry (Figure 8), financial institutions were the dominant Indian issuers of international bonds and contributed 76% of total issuance volume in 2023. This was in contrast with 2022, in which energy companies accounted for more than half of total issuance volume, followed by financial companies which contributed about 18% of total issuance volume.

¹⁴ Quoted from Reuters - https://www.reuters.com/world/india/indian-firms-dollar-debt-issuance-hit-14-yr-low-amid-global-vield-pressures-2023-12-20/.

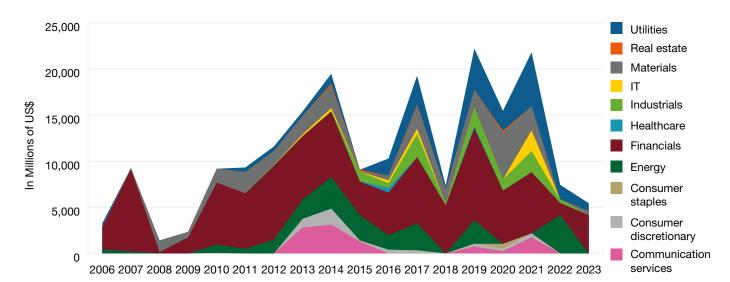


Figure 8: International Bond Issuance from India (Deal Nationality) - by Industry

ASEAN

International bond issuance from ASEAN issuers¹⁵ has gradually developed since the 1997-1998 Asia financial crisis, and in recent years followed the general trends observed globally and in Asia Issuance volume for ASEAN jurisdictions combined exceeded US\$100 billion in 2020 and 2021, followed by a decrease to about US\$80 billion and US\$56 billion in 2022 and 2023. According to interviews, the reduction in issuance volume was mainly due to issuers switching more to domestic borrowing for the re-financing of their overseas international bonds.

Despite the continued development of domestic capital markets, structural factors limit the growth of international bond markets from ASEAN. Firstly, commercial banks in the domestic markets of ASEAN states are relatively well-capitalised, which has made bank loans historically a cheaper option compared to borrowing using the bond markets. Another factor is that the market size of ASEAN corporates is generally small on a global scale and as such, ASEAN issuers would generally need to pay a relatively higher issuance premium when issuing international bonds, as compared with funding levels in the local bond and loan markets.

Since 2006, the major international issuing countries in ASEAN have been the Philippines, Singapore and Indonesia, of which their combined shares of total issuance volume have been at least 75% since 2006. Among the three countries, the Philippines contributed more than half of the total issuance volume from ASEAN in 2023, largely from the financial industry and SSA issuance. In terms of issuance volumes in absolute terms, Malaysia was the only country in Southeast Asia that showed growth in 2023 by recording a year-over-year growth rate of 52% to US\$4 billion, mainly driven by issuance from the financial industry.

120,000 Cambodia Indonesia 100,000 Laos Malaysia 80,000 In Millions of US\$ Philippines Singapore 60,000 Thailand Vietnam 40,000 20,000 0

Figure 9: International Bond Issuance from ASEAN - by Deal Nationality

Looking at the international issuance from ASEAN issuers by sector, the financial and government sectors have been the major contributors, with the former contributing 73% and the latter contributing 17% (Figure 10). Overviewing the development since 2006, although issuance from financial institutions was on average contributing to more than half of the total issuance from ASEAN between 2006 and 2021, their proportional shares have grown even further in 2022 and 2023, which is not uncommon in Asia.

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

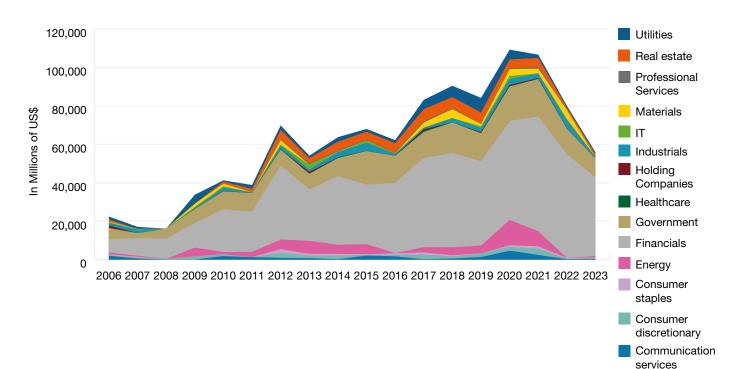


Figure 10: International Bond Issuance from ASEAN (Deal Nationality) – by Industry

Source: ICMA analysis using Dealogic data (January 2024)

Japan

Issuance volume of international bonds from Japanese issuers increased in the years following the global financial crisis of 2008, with issuance volume rising from US\$25 billion in 2008 to US\$151 billion in 2021, followed by a reduction of issuance volume in 2022 at US\$88 billion in line with other Asian markets. In 2023, issuance volume rebounded 30% year-over-year to about US\$115 billion due to favourable funding costs for Japanese issuers swapping foreign-currency debts issued back into domestic-currency debts.

From a sectoral perspective, consistent with observations elsewhere in Asia, financial institutions have been the dominant supplier of international bond issuance, which on average have contributed about 85% of issuance volume in Japan since 2006 and in particular 88% in 2023.

160,000 Utilities Real estate 140,000 Professional 120,000 Services Materials In Millions of US\$ 100,000 IT 80,000 Industrials Holding 60,000 Companies Healthcare 40,000 Government 20,000 Financials 0 Energy 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Consumer staples Consumer discretionary Communication services

Figure 11: International Bond Issuance from Japan (Deal Nationality) - by Industry

Source: ICMA analysis using Dealogic data (January 2024)

South Korea

Issuance from South Korea in the international market is largely dominated by financial institutions (mostly banks) and SOEs, which are perceived to have good fundamentals and attractive yields when compared with credit risks.

Issuance volume of international bonds from South Korea in recent years has shown strong resilience compared to other Asian jurisdictions, particularly as investors have sought to diversify within Asia. In late 2022, amid higher global rates and strong financing needs, the default of a municipality-guaranteed asset-backed commercial paper affected investor confidence domestically and led to spread widening in the local corporate bond market; Korean issuers continued to tap the international bond markets as an alternative funding source. With the implementation of financial market stabilisation measures, there has been a significant easing of financial market conditions since then. In 2023, the issuance volume of international bonds increased 31% year-over-year to about US\$60 billion, driven by issuance from financial institutions that contributed about 74% of total issuance. Taking advantage of the low base rate in Japan, the South Korean government launched its first-ever yendenominated bond sales in Japan of size of US\$475 million.

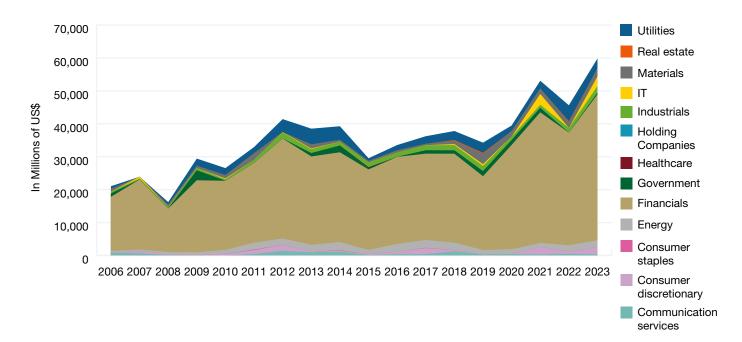


Figure 12: International Bond Issuance from South Korea (Deal Nationality) - by Industry

Debut issuance

The growth of the international bond market in Asia has been partly fuelled by new issuers 16 coming to the market. From 2006 to 2023, annual debut international issuance from Asian issuers fluctuated from between 1% and 11% of the annual total issuance volume of Asian international bonds.

Breaking down the debut issuance by deal nationality, the main source of debut deals in the international bond markets has been Chinese issuers, which have consistently accounted for the majority of debut issuance in recent years (64 - 87%) of issuance since 2014).

¹⁶ Debut issuance in this report is defined as the first international bond issuance from a parent group.

50,000 40,000 In Millions of US\$ 30,000 20,000 10,000 0 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Cambodia India Kazakhstan Malaysia Pakistan South Korea Tajikistan China Indonesia Sri Lanka **Philippines** Thailand Maldives Laos Hong Kong Japan Macao (China) Mongolia Singapore Taiwan (China) Uzbekistan

Figure 13: Debut International Bond Issuance in Asia - by Deal Nationality

(China)

Hong Kong has been the location of arrangement for over 60% of debut international bond issuance from Asian issuers by volume, in particular 82% in 2022 and 78% in 2023.

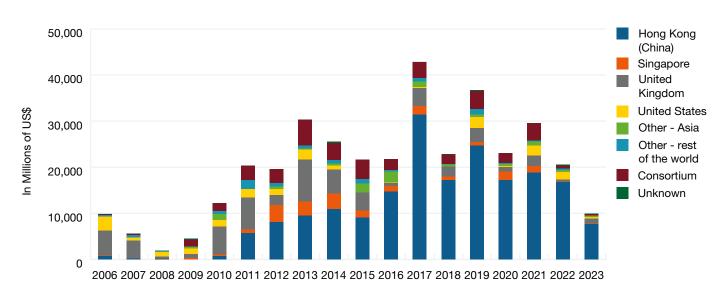


Figure 14: Debut International Bond Issuance in Asia (Deal Nationality) - by Main Location of Arrangement

Source: ICMA analysis using Dealogic data (January 2024)

First-time issuers in Asia would generally prefer to have their debut international deals listed on an exchange to reach a broader investor base and build up their reputation in the international bond market. For the period between 2017 and 2021, more than 95% of debut issuance from Asian issuers was listed by issuance volume. From 2013 to 2022, Hong Kong was the top listing location for debut issuers by issuance volume. In 2023, with the establishment of the Chongwa (Macao) Financial Asset Exchange ("MOX"), Macao (China) became the top listing location for having more than half of

Vietnam

debut deals listed in it by issuance volume, the majority of which related to the listings of Free Trade Zone ("FTZ") bonds during the first half of 2023.

Hong Kong 50,000 (China) Luxembourg 40,000 Macao (China) In Millions of US\$ Singapore 30,000 United Kingdom Other - Asia 20,000 Other - rest of the world Unknown 10,000 Unlisted 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

Figure 15: Debut International Bond Issuance in Asia (Deal Nationality) - by Listing Location

Source: ICMA analysis using Dealogic data (January 2024)

Green, Social, Sustainability, and Sustainability-Linked bonds

Green, social and sustainability, and sustainability-linked bonds (collectively known as "sustainable bonds" or "GSSS bonds") are increasingly part of the Asia international bond market landscape and have experienced exponential growth in recent years. Since the inception of the Green Bond Principles ("GBP") in 2014, the suite of sustainable bonds has expanded from green bonds to social bonds, sustainability bonds and sustainability-linked bonds (of which the proceeds are intended to be used for general purposes, hence the use of proceeds is not a determinant in its categorisation).

ICMA has managed the global bond market's voluntary best practices for sustainable bond products and published the GBP, the Social Bond Principles ("SBP"), the Sustainability Bond Guidelines ("SBG"), the Sustainability-Linked Bond Principles ("SLBP"), the Climate Transition Finance Handbook ("CTFH") and other related guidance documents. The Principles are the leading framework globally for the issuance of sustainable bonds and are the de facto standard referenced by over 97% of sustainable bond issuance internationally. The Principles underpin a market representing over US\$4 trillion of securities in stock, the largest source of debt capital finance available for sustainable projects and transition finance. The global international sustainable bond market has seen its issuance volume growing from below US\$234 billion in 2019 to over US\$780 billion in 2021, with the issuance volume dropping to about US\$620 billion in 2022 and 2023.

By looking at the Asian region especially, international issuance of sustainable bonds from Asian issuers grew to almost US\$100 billion in 2021 and then dropped to levels of about US\$80 billion in 2022 and 2023. Since 2015, Chinese issuers have taken a leading position in issuing international sustainable bonds, with their highest contribution at about 47% in 2016 and now stabilising at 26% in 2023 (close to US\$21 billion). Meanwhile, Japan and Korea were also leading issuing countries, of which they combinedly contributed to an average of about 40% of annual issuance volume between 2019 and 2023, with Japan and Korea contributing to an average of about 13% and 26% respectively. Issuance volume from Hong Kong in 2023 doubled year-over-year to about US\$16 billion.

120,000 100,000 80,000 In Millions of US\$ 60,000 40,000 20,000 0 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Pakistan China Indonesia Laos South Korea Uzbekistan Malaysia Philippines Taiwan (China) Hong Kong (China) Japan Vietnam India Kazakhstan Mongolia Singapore Thailand

Figure 16: International Sustainable Bond Issuance in Asia - by Deal Nationality

In terms of the proportion of issuance volume of international sustainable bonds to that of international bonds, issuance from Asian issuers has contributed a larger share compared to issuers globally, with the former contributing about 16%, 22% and 21% of issuance volume in 2021, 2022 and 2023 respectively and the latter contributing about 13%, 14% and 12% in 2021, 2022 and 2023 respectively.

By jurisdiction levels, over half of international bond issuance by Hong Kong issuers was sustainable issuance, followed by India (50%) and Laos (43%), which echoed a higher preference of issuers from those jurisdictions for issuing sustainable bonds over conventional bonds in the international bond market. According to our interviewees, the determining factors for issuing domestically or internationally continued to be funding costs, currency-matching in terms of the use of proceeds and profile-building purposes.

Table 1: Top 5 Asian Jurisdictions with the Highest Percentage of Sustainable Issuance over Total Issuance in the International Bond Markets (%)

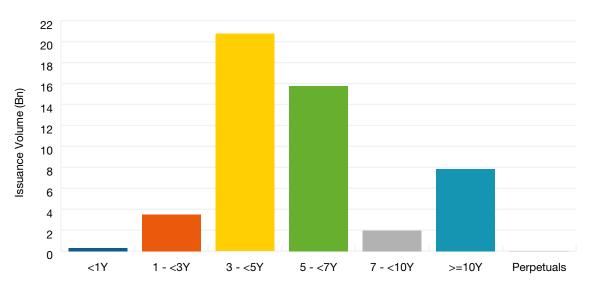
Year 2023			
Asia		Global	
Top Jurisdictions (in Descending Order) Percentage of Sustainable Issuance over Total Issuance in the International Bond Markets (%)			
1	Hong Kong	54	
2	India	50	
3	Laos	43	12
4	South Korea	34	
5	Uzbekistan	31	

Source: ICMA analysis using Dealogic data (January 2024)

By utilising data from Covalent Capital, a comparative analysis was conducted between the Asian G3 sustainable market and the Asian G3 market.

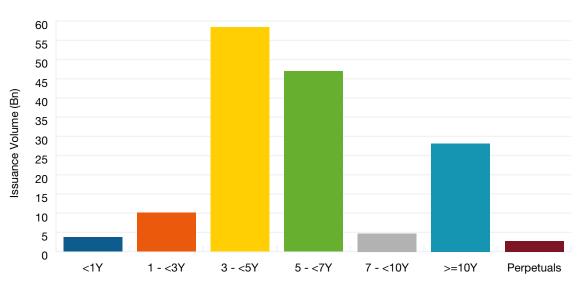
In terms of maturity, sustainable bonds have had a similar profile to the overall market, predominantly with tenors between 3 to 7 years, which accounted for about 70% of total issuance volume in 2023.

Figure 17: Asian G3 Sustainable Issuance - Maturity Profile



Source: Covalent Capital's Data (Accessed in March 2024)

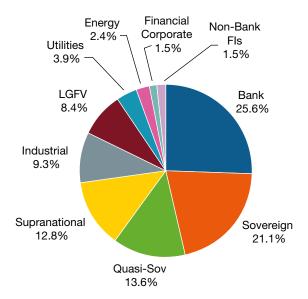
Figure 18: Asian G3 Issuance - Maturity Profile



Source: Covalent Capital's Data (Accessed in March 2024)

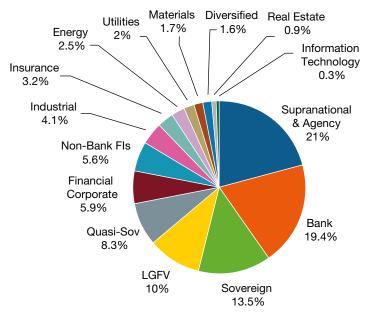
In terms of issuer type, in the sustainable space, more than one-quarter of issuance volume was originated from banks (about 26%), followed by sovereign issuers (about 21%). In comparison, looking at the total issuance, supranational & agency and banks both contributed about 20% of the total issuance individually. The overall market also enjoyed more diversified issuer types (coming from sectors including materials, diversified, real estate, informational technology and healthcare) in 2023.

Figure 19: Deal Statistics of Asian G3 Sustainable Issuance - Sector Profile



Source: Covalent Capital's Data (Accessed in March 2024)

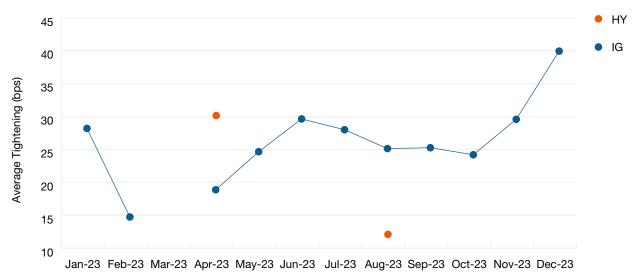
Figure 20: Deal Statistics of Asian G3 Issuance - Sector Profile



Source: Covalent Capital's Data (Accessed in March 2024)

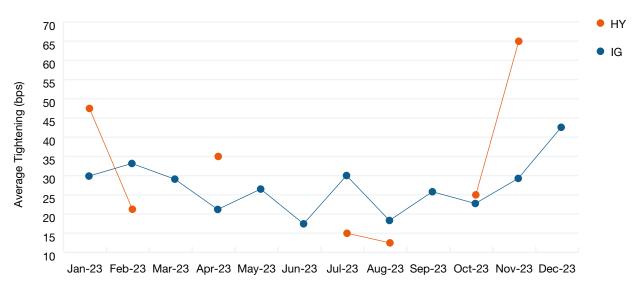
Primary issuance within the sustainable G3 Asian market could enjoy an additional 3bps of more weighted average IPG tightening compared to that of the overall market. However, the sustainable market had a lower average book coverage ratio (4.45) vs that of the overall market (4.74) in 2023.

Figure 21: Asian G3 Sustainable Issuance - Average IPG Tightening



Source: Covalent Capital's Data (Accessed in March 2024)

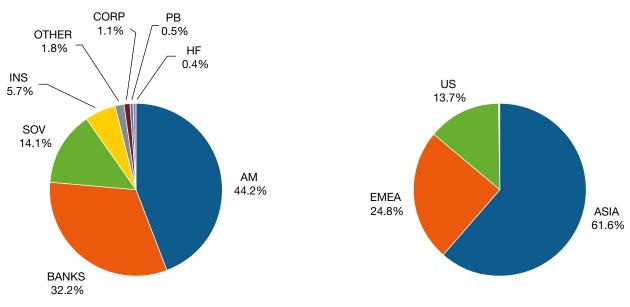
Figure 22: Asian G3 Issuance - Average IPG Tightening



Source: Covalent Capital's Data (Accessed in March 2024)

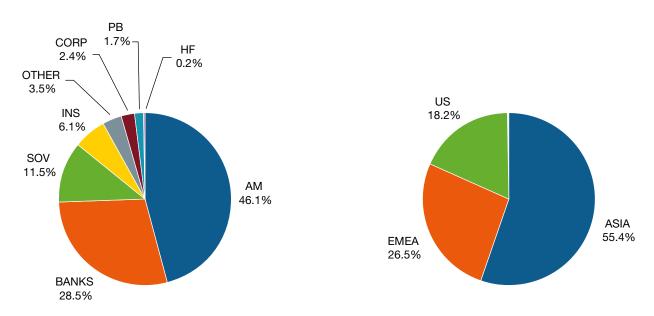
In terms of investor type and distribution by region, asset managers and banks were the predominant investors in both markets. Interestingly, a higher proportion of Asian investors (about 62%) was recorded for subscribing to Asian G3 sustainable bond issuance than that of the total Asian G3 bond issuance (about 55%) by volume. Further analysis of investor types and their geographical distribution of the overall Asian G3 bond market will be provided in the next section.

Figure 23: Deal Statistics of Asian G3 Sustainable Issuance – Investor Types (LHS) and Geographical Distribution (RHS)



Source: Covalent Capital's Data (Accessed in March 2024)

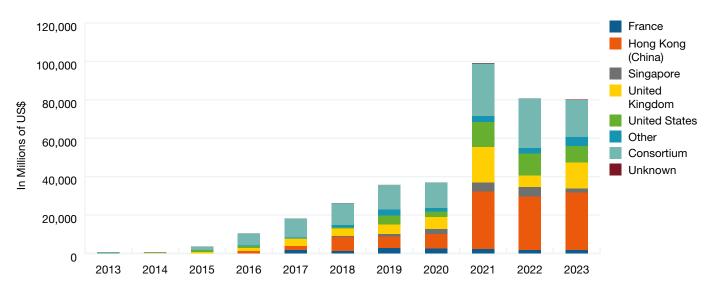
Figure 24: Deal Statistics of Asian G3 Issuance - Investor Types (LHS) and Geographical Distribution (RHS)



Source: Covalent Capital's Data (Accessed in March 2024)

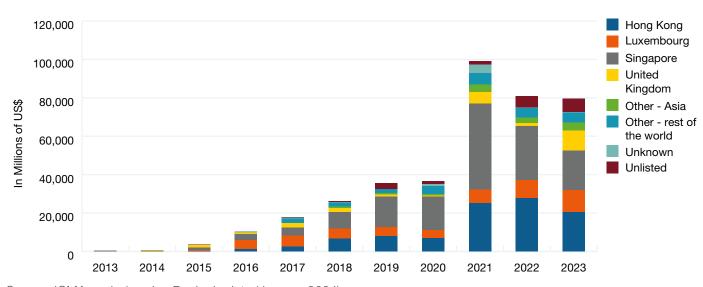
In terms of the location of arrangement of International sustainable bonds issued from Asia, about one-third of the deals were arranged in Hong Kong between 2021 and 2023, another one-third of the deals were arranged by consortium between 2018 and 2023 on average and the remaining arranged by countries such as the U.K., the U.S., Singapore and other jurisdictions (Figure 25).

Figure 25: International Sustainable Bond Issuance in Asia (Deal Nationality) – by Main Location of Arrangement



Mirroring the pattern seen across all international bonds from Asia, between 2013 and 2023, over 95% of international sustainable bonds from Asian issuers were listed, with which Luxembourg was the most popular country for listing between 2016 and 2017 (hosted 40% on average), succeeded by Singapore and Hong Kong in the following years (their combined contribution amounted close to 70% on average between 2018 and 2023).

Figure 26: International Sustainable Bond Issuance in Asia (Deal Nationality) - by Listing Location



Source: ICMA analysis using Dealogic data (January 2024)

International issuance of sustainable bonds from Asia has been driven by financial institutions, which provided about 60% of the total supply since 2014 on average. Over the recent years, issuer types have diversified with increasing shares gained by the government, utility and industrial companies and real estate developers (Figure 27).

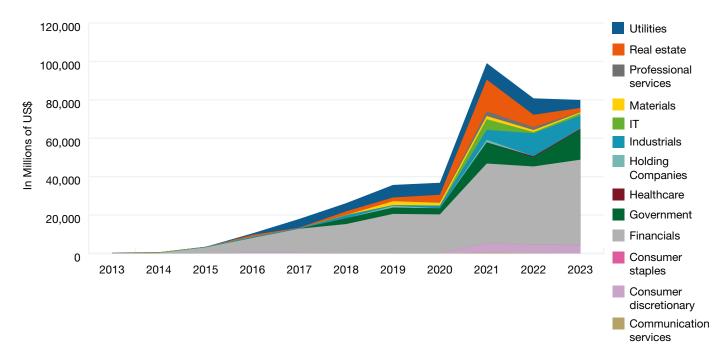


Figure 27: International Sustainable Bond Issuance in Asia (Deal Nationality) - by Industry¹⁷

Investors and distribution

Since the development of the international bond market in Asia, there has been a trend of "Asian money buying Asian bonds". One explanation is that Asian investors, including offshore branches and subsidiaries of Asian banks and fund houses, are more familiar with Asian names and their credit profiles. Another explanation is that Asian investors have more risk acceptance of Asian names compared to non-Asian names of the same credit ratings. This preference for intraregional investment is not inherently unique to Asian investors.

According to interviewees, home country preference did exist and had real implications on investors' geographical preferences on investment in new issuance (especially where investment limits of official sector investor policy favoured local market investment). As analysed in the previous section using Covalent Capital's data, more than half of the primary issuance in the Asian G3 space was bought by Asian investors (about 55%)¹⁸.

Regarding ESG investments, investors from our interviewees stressed that they would prefer investing in sustainable bonds if they could offer similar risk-adjusted returns as conventional debts of the same credit ratings. With the expected trend that issuers will pursue issuance of sustainable bonds, investors may have more choice over time, in terms of credit quality and tenor.

Overall, interviewees generally agreed that the investor base in the Asian G3 international bond markets was diversifying, although Asian buyers remained the main buyers of Asian G3 international bonds. It was also noted that amid higher global yields, Asian investors were increasingly looking at foreign names in search of better risk-adjusted returns.

¹⁷ The definition of "industry" by Dealogic differs from that of "sector" by Covalent Capital, which can lead to some overlapping of certain categories.

¹⁸ It is difficult to distinguish Asian and international investors in a clear-cut manner. This is because there is no mandatory requirement for disclosing the geography of investors and the ambiguity regarding syndicate desks' classification of offices opened by U.S. and European investors in Asia as either Asian or international.

Currency and tenor

In terms of currency distribution, international bonds issued by Asian issuers are mostly denominated in G3 currencies. In 2023, USD issuance made up about 70% of total issuance at US\$264 billion (dropping about 5% year-over-year). This was followed by RMB at about US\$40 billion (about 11%) which increased about 5% year-over-year and Euro at about US\$34 billion (about 9%).

As an overview of the China offshore bond market for 2023¹⁹, issuance in USD dropped significantly from about US\$103 billion in 2022 to US\$62 billion in 2023. According to interviewees, the decline was due to several factors such as the high global yields, reduced investor confidence due to ongoing credit events in the offshore bond market, and the reforms of mid-to-long-term offshore bond issuance by the NDRC. Particularly, the issuance volume of China's local investment and development company ("LIDC") offshore USD bonds dropped about 70% year-over-year to about US\$12 billion in 2023, alongside the government's effort to curb implicit debts of local governments. In contrast to LIDCs, Chinese property developers saw an increase in the issuance of offshore USD bonds in 2023. The total amount of new bonds issued by property developers reached about US\$18 billion, representing about a 16% increase year-over-year, which was mainly driven by re-financing activities of real estate developers and debt restructuring plans from defaulted property developers.

Contrary to the decline in USD bond issuances, the issuance of offshore RMB bonds saw substantial growth in 2023 (reaching a record high of about US\$40 billion), in which both FTZ bonds and dim sum bonds experienced a significant increase in issuance volume. The issuance of dim sum bonds reached about US\$29 billion in 2023 from about US\$9 billion in 2022. The issuance of FTZ bonds during the first half of 2023 reached about US\$12.3 billion from about US\$5 billion in the full year 2022²⁰. As revealed by our interviewees, some onshore issuers would prefer to raise funds onshore using CNY to capitalise on the cheaper funding costs relative to raising offshore in CNH and the funds raised would then be deployed to be invested in offshore CNH rate markets, which provided support on the demand side for offshore CNH rate products.

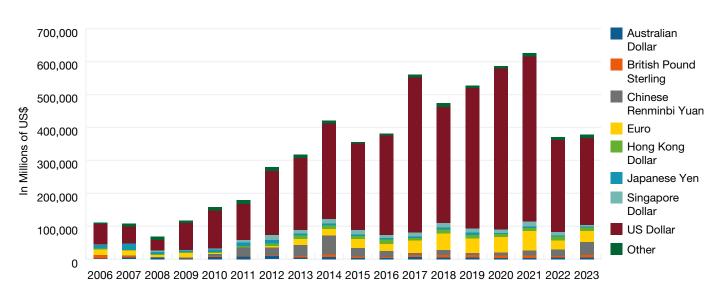


Figure 28: International Bond Issuance in Asia (Deal Nationality) - by Currency

Source: ICMA analysis using Dealogic data (January 2024)

In terms of tenor, tenors of 1 to 3 years and 3 to 5 years have been most popular among international bond issuance by Asian issuers, which accounted for about 70% of total issuance volume in 2023.

¹⁹ Some key market dynamics were captured in the report from Lianhe Rating Global - https://lhratingsglobal.com/wp-content/uploads/bsk-pdf-manager/2024/02/China-Offshore-Bond-Market-2023-Review-and-2024-Outlook.pdf.

²⁰ Data is provided in the report from Lianne Rating Global - https://lhratingsglobal.com/wp-content/uploads/bsk-pdf-manager/2023/10/China-Offshore-Bond-Market-2023-Mid-Year-Update-20231013.pdf.

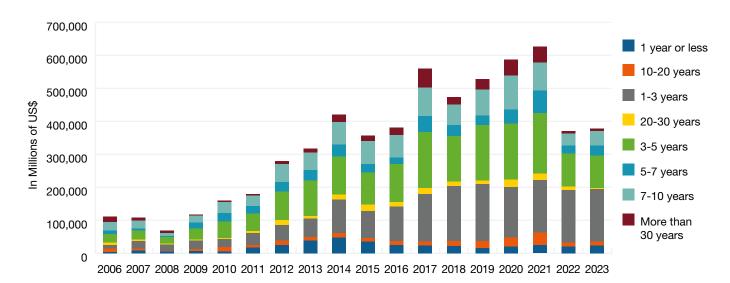


Figure 29: International Bond Issuance in Asia (Deal Nationality) - by Tenor

Digitalisation and technology

The Asian primary market is well served by technology solution providers. By estimation using ICMA's Primary Markets FinTech Directory²¹, there were more than 40 technology solutions available to automate all or part of the process of issuing debt securities, of which close to 30 were available to Asian market participants²². A key objective of ICMA's FinTech and Digitalisation practices is to avoid market fragmentation and foster innovation, supporting ICMA's mission to promote well-functioning and resilient international capital markets.

To support straight-through-processing ("STP") and interoperability in primary bond markets, ICMA and its primary market constituents developed the Bond Data Taxonomy ("BDT"), which was released in early 2023. The BDT provides a standardised and machine-readable language of a bond's key terms (such as notional amounts, currency, maturity, interest rates), key dates (such as pricing, settlement) as well as other relevant information (such as governing law, relevant parties involved, ratings, selling restrictions) typically included within a term sheet. The BDT has been adopted by a number of market stakeholders, including the HKSAR Government's recent issuance in February 2024²³. ICMA also completed phase 2 of its CDM project for repo and bonds in February 2023. The CDM is a cross-industry initiative between ICMA, ISDA, ISLA and FINOS (FinTech Open Source Foundation). As a trade processing model, the CDM enables firms to automate trade execution, clearing, settlement and associated lifecycle events and processes of a wide array of repo and securities lending and derivatives transactions.

Rapid technological developments in the past decade have also sparked innovative ideas to improve and revolutionise the debt capital markets. Market participants and regulators have been proactively contemplating the practical use and potential benefits of innovative technologies, including distributed ledger technology ("DLT"), Artificial Intelligence ("Al"), and algo trading, paving the way for broader adoption.

By estimation using Bloomberg's²⁴ data, as of 2024 March, over 30 bonds were outstanding that had digital exposures (i.e., issuance on a digital ledger, digital exchange, and/or digital clearinghouse) globally, in which issuance has gained

²¹ Last update: 5th September 2023.

²² Including technology solutions that provide global market coverage.

²³ For ICMA's press release welcoming the alignment of the HKSAR Government's digital green bonds with the BDT in February 2024, please refer to https://www.icmagroup.org/. News/news-in-brief/icma-welcomes-the-hksar-government-digital-green-bonds-alignment-with-icmas-bond-data-taxonomy/.

²⁴ Findings were based on the fixed-income search function "SRCH" of the Bloomberg Terminal on the whole government and corporate bond universe globally that were outstanding as of 21st March 2024.

traction since 2021. In terms of geographical breakdown, issuance from Asian issuers has accounted for almost half of the total issuance by deal counts, while the remaining portion was from issuers from Europe and supra-national organisations. In 2023, notable Asian deals included the first tokenised green bond issued by a government globally by the HKSAR Government (which was followed by a second tokenised issuance and the world's first multi-currency digital bond offering in February 2024) and the first tokenised security issued in Hong Kong by BOCI. For a deal-level review of other issuance, readers can refer to the ICMA-maintained <u>Tracker of New FinTech Applications in Bond Markets</u>, a compendium designed to provide a non-exhaustive overview of selected practical examples in fixed-income primary, secondary, repo and collateral markets.

Considering the continued increase in the frequency of issuances using DLT and blockchain and to foster transparency in this nascent market segment, ICMA's DLT Bonds Legal Subgroup analysed offering documents of DLT-based debt securities across a sample of jurisdictions globally to identify, if possible, any areas of convergence as to the scope and nature of risk factors and other disclosure. According to the report "Considerations for risk factors and disclosure in DLT bond", one clear area of convergence is that additional risk factors have been included to address risks for investors relating to the use of DLT, the legal and regulatory environment for DLT-based debt instruments and the limited liquidity for such debt instruments, of which the number and scope of such risk factors will largely depend on the structure of the transaction (particularly the type of DLT network or blockchain) and the other considerations detailed in the report.

Market stakeholders have generally welcomed the digitalisation development and application of fintech technologies in both the issuance and trading processes. However, they showed hesitation to invest huge CAPEX into more frontier DLT-based projects for efficiency gains. The interoperability issue was also mentioned regarding the trend of implementing financial initiatives in permissioned networks. For fintech applications to gain widespread adoption in the debt capital markets ("DCM"), it was the view of the interviewees that the following ingredients will be required at the very least:

- i) Development of interoperable or common market infrastructures; and
- ii) Wide acceptance amongst the full spectrum of DCM market participants, covering underwriters, investors, brokers/ dealers, trading platforms, CSDs, legal professionals, trustees, listing authorities and regulators.

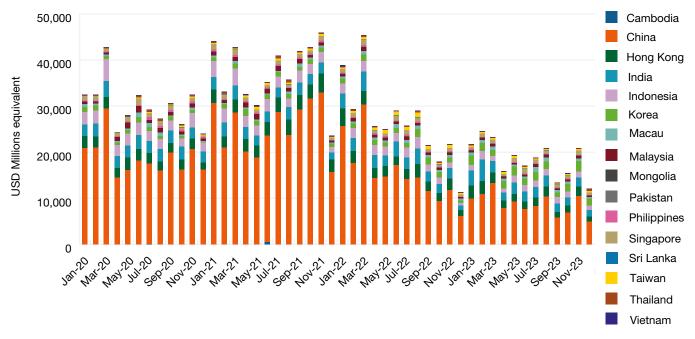
Secondary Markets

Market conditions

In line with the primary market, secondary market activity and volume have seen a steady increase in activity from 2020 to mid-2022 but have been in decline since, particularly with respect to non-financial issuers. This can be seen in the data, in terms of both volume and trade count (see Figures 30, 31, 32, and 33). Partly this can be attributed to changing market conditions, with higher yields and widening credit spreads (see Figures 34 and 35). However, the most significant influence is the strong correlation between primary issuance and secondary activity (see Figure 36). Corporate bonds tend to be most active in secondary markets in the first days and weeks after issuance, or in the event of a name-specific credit event. Reduced supply also results in a stronger inclination for investors to hold onto existing holdings, with fewer opportunities for switching to newly issued bonds.

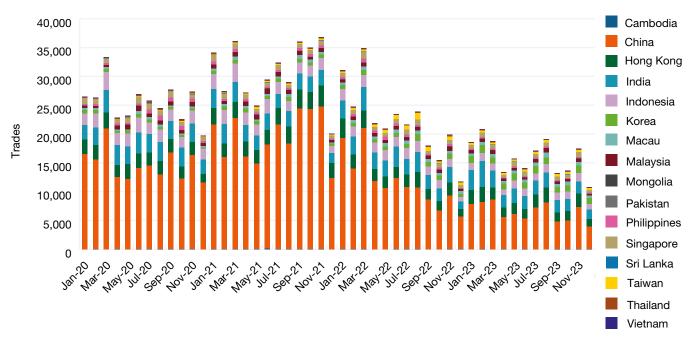
Participants also point to the relative decline of Chinese international issuance, along with volatility spillovers into the wider Asia market, which is also reflected in the notable decline in secondary market activity in bonds with China's country of risk (see Figure 37).

Figure 30: Asia International Credit (NFCs) Secondary Market Traded Volume by Country of Ultimate Risk



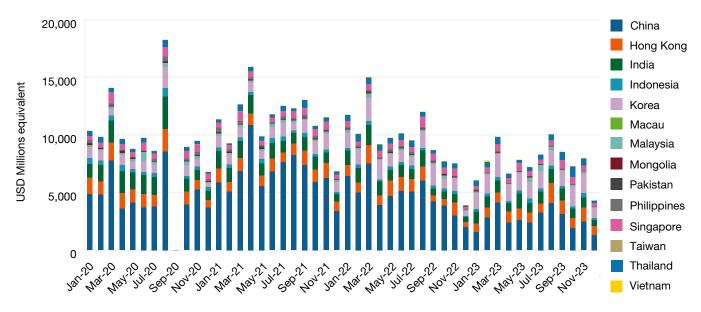
Source: ICMA analysis using TraX data from MarketAxess (March 2024)

Figure 31: Asia International Credit (NFCs) Secondary Market Trade Count by Country of Ultimate Risk



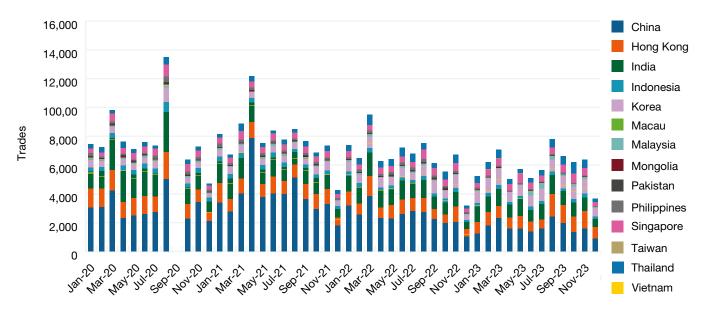
Source: ICMA analysis using TraX data from MarketAxess (March 2024)

Figure 32: Asia International Credit (Financials) Secondary Market Traded Volumes by Country of Ultimate Risk



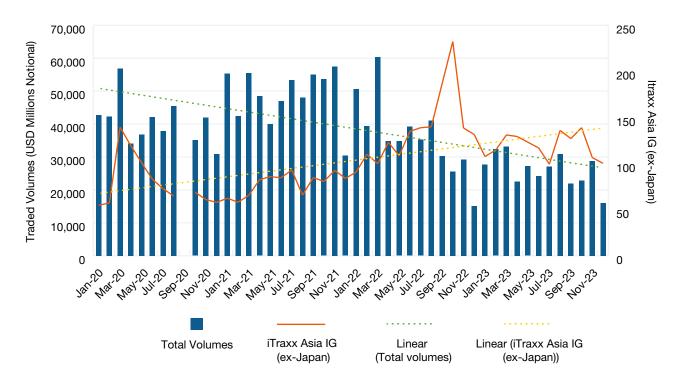
Source: ICMA analysis using TraX data from MarketAxess (March 2024)

Figure 33: Asia International Credit (Financials) Secondary Market Trade Count by Country of Ultimate Risk



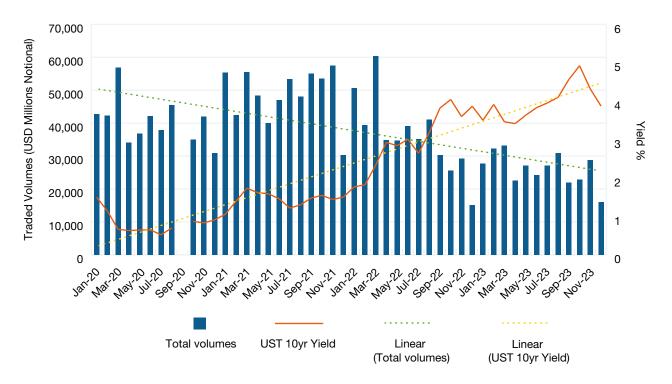
Source: ICMA analysis using TraX data from MarketAxess (March 2024)

Figure 34: Traded Volumes vs Credit Spreads



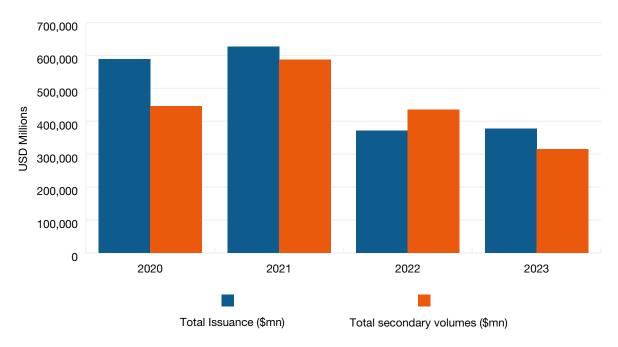
Source: ICMA analysis using TraX data from MarketAxess and S&P Global Market Intelligence data from Bloomberg (March 2024)

Figure 35: Traded Volumes vs UST Yields



Source: ICMA analysis using TraX data from MarketAxess and Bloomberg data (March 2024)

Figure 36: Annual Total Issuance and Secondary Trading Volumes



Source: ICMA analysis using Dealogic data and TraX data from MarketAxess and Bloomberg data (March 2024)

80
70
60
50
30
20
10
0
yet Ret heat Shi See Roa's heat heat yet See Roa's heat heat Shi See Roa's heat Shi See Ro

Figure 37: China Entity Issuance as a Share of Secondary Market Trading Volumes

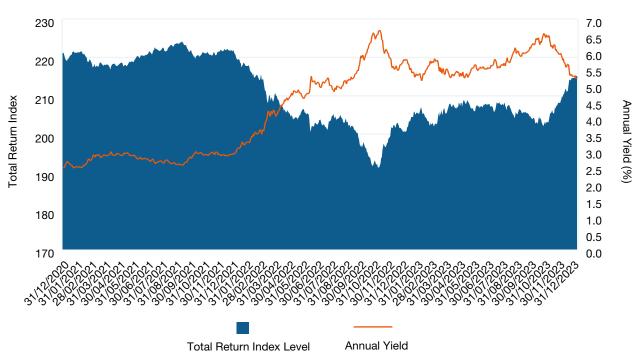
Source: ICMA analysis using TraX data from MarketAxess (March 2024)

The structure of liquidity provision and consumption also appears to have been affected by the volatility in the China property sector. The large international banks are still the main source of liquidity across all sectors and countries of risk, while the bigger regional banks provide market-making in their relevant segments. However, Chinese banks and broker-dealers have largely retrenched from risk taking and have taken on a more agency role than principal trading, which has taken a lot of liquidity and immediacy out of this segment of the market. Meanwhile, some international investors, except those with Emerging Market mandates, have retrenched from investing in Asia credit, either burned by the sharp moves following the China property crash, or scared by the volatility.

That said, participants report that the secondary market, particularly for IG, remains relatively liquid. And while trade sizes have reduced in general (see the section on e-trading) finding two-way markets for sizes of \$20mn is not difficult, particularly for financials and the more liquid sectors (such as Telecoms).

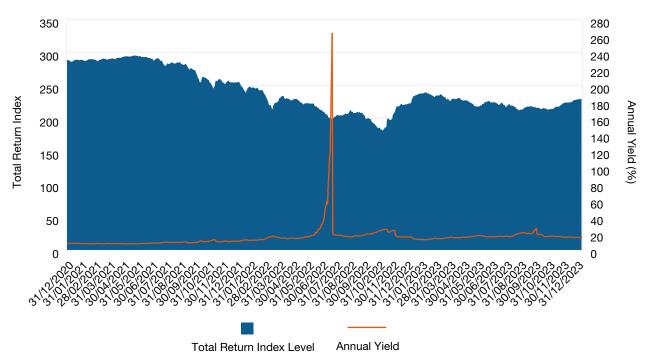
In terms of market performance, 2023 has mainly been a continuation of the bear trend that started in 2022, with higher yields and wider credit spreads. However, the last quarter of 2023 did see a positive reversal in Asia bond markets, in line with the US and other global markets, particularly for IG. This can be seen in the performance of the Asia IG iBoxx index in Figure 38. The high-yield segment, however, continued to underperform relative to IG, with concerns about the China real estate sector continuing to weigh heavily (see Figure 39).

Figure 38: Markit iBoxx Asia ex-Japan Investment Grade



Source: S&P Dow Jones Indices LLC, Data (from Dec. 31, 2020 to Dec. 31, 2023). Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Figure 39: Markit iBoxx Asia ex-Japan High Yield



Source: S&P Dow Jones Indices LLC, Data (from Dec. 31, 2020 to Dec. 31, 2023). Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

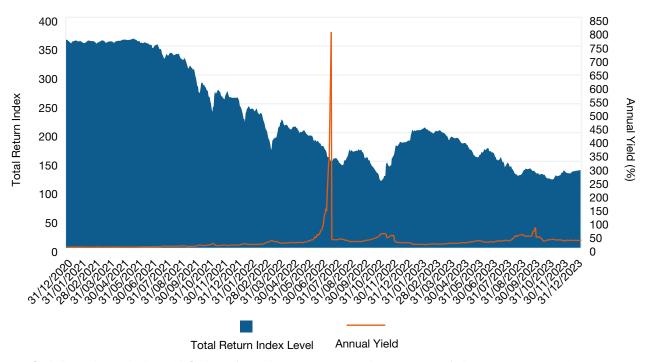
China

The China offshore market continues to set the tone for the Asia international market more broadly, and while its share of the overall market has decreased (see Figure 37), the travails of the property sector have weighed heavily on both spreads and liquidity. The poor performance of the sector can be seen in Figure 40, which harks back to H1 2021. The PBoC's support, however, appears to have created some stability toward the end of 2023.

This is also reflected in overseas investor trading turnover in China's domestic bond market which experienced a downward trend starting in early 2022 but has steadied throughout 2023 (see Figures 41 and 42).

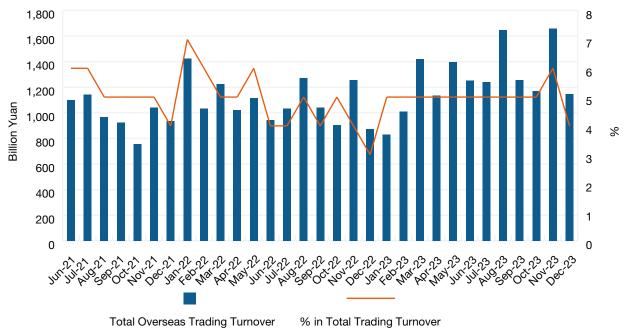
Meanwhile, we observe an increase in southbound flows from the middle of 2022 which correlates with the widening yield gap between the US Treasuries and China government bonds (see Figure 43). This trend continued until the middle of 2023, which could be attributed to the fact that the PBoC has asked local banks to reduce their outward investments via Bond Connect (with a clear intention to counter the yuan-depreciation pressure).

Figure 40: Markit iBoxx USD Asia China Real Estate



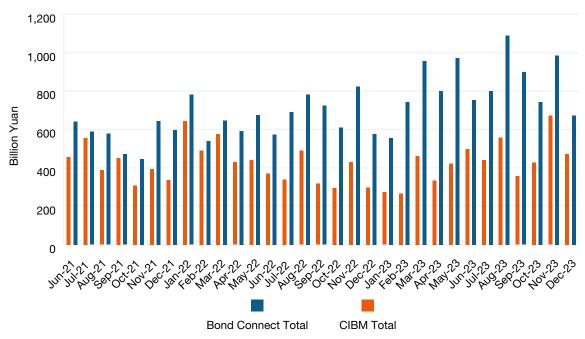
Source: S&P Dow Jones Indices LLC, Data (from Dec. 31, 2020 to Dec. 31, 2023). Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Figure 41: Trading Turnover of Overseas Investors in Interbank Cash Bond Market (CFETS)



Source: Bloomberg

Figure 42: Trading Volume on CIBM Direct and Bond Connect (CFETS)



Source: Bloomberg

700 200 150 600 100 500 End Balance (\$100 MM) 50 Yield Spread (bps) 400 0 300 -50 200 -100 100 -150 0 -200 -100 -250 404 China-US 10 Yr Govt Yield Spread Balance Change (L) Balance (L)

Figure 43: Estimated Southbound Bond-Connect Bond Month-end Balance (SHCH) vs. China-US 10 Yr Government Yield Spread

Source: Bloomberg

E-trading

Participants report a continued push across the market to trading on venues, rather than traditional voice (or message) based transactions. This is particularly the case for smaller trade sizes and more liquid credits, where algo price generation and order flow are becoming increasingly common. While it is difficult to estimate accurately the relative quantum of trading that is now executed electronically, interviewees suggest that e-trading is now a meaningful and still growing segment of secondary trading activity.

The most used e-trading protocol remains RFQ, which essentially electrifies the traditional model of dealer-centric liquidity provision (also referred to as Dealer-to-Client or "D2C"). However, participants confirm a growing adoption of other protocols, in particular all-to-all (or "A2A") trading, which opens clients to a wider range of dealers as well as other liquidity providers. PT is also becoming more common, where investors can send a list of interests to dealers who will price each interest as an overall executable package. Interviewees explain that these two alternatives to RFQ are particularly valuable in times of heightened volatility, where they can improve execution performance. While still relatively nascent, the development of the Asia bond ETF market will also be supportive of portfolio Trading, which can help to facilitate the creation and redemption process.

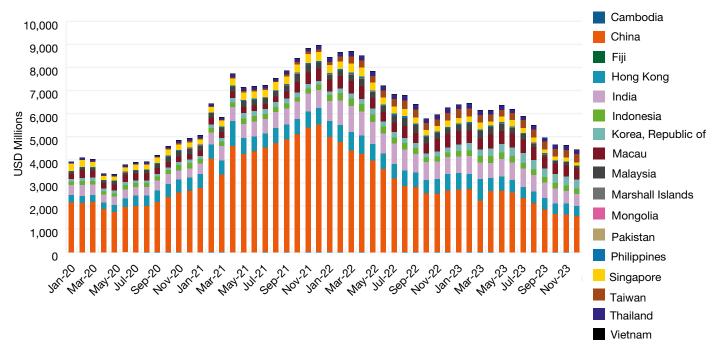
Participants expect this trend of more venue trading to continue, with the likely introduction of more protocols, although this will not replace the role of market-makers, who ultimately are the primary source of secondary market liquidity and risk transfer. Here interviewees see the potential of further automation to support liquidity provision.

Repo

Participants report that liquidity in the repo market for Asia international bonds continues to deepen, with more lenders coming into the market and a greater ability for dealers to access specific names. This has also been helped by higher rates, which creates the opportunity for more spread from lending specials, as well as increased market volatility and demand to cover short positions. The fact that in Asia there is not the same culture for tolerating settlement fails as there may be in other markets, repo rates can become extremely expensive, trading well below 0%, particularly for credits experiencing stress. A number of bonds issued by China real estate companies, for example, are reported to have traded in a range of -3% to -20% during 2023.

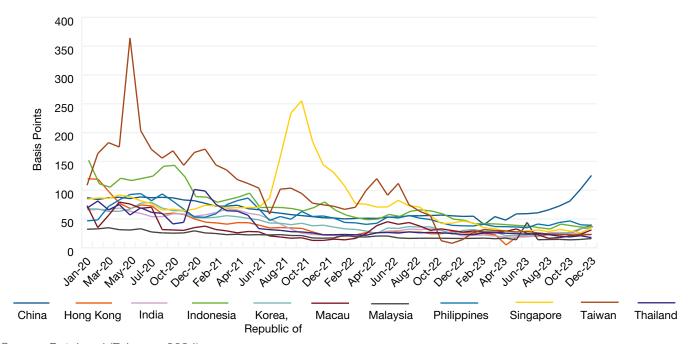
While overall repo and lending activity remains buoyant, as can be seen in lending balances, activity, unsurprisingly, follows closely trading activity in the underlying market, and has therefore declined over the course of 2023 (see Figure 46).²⁵

Figure 44: Asia International Credit on Loan - Average Monthly Balances by Country of Issue



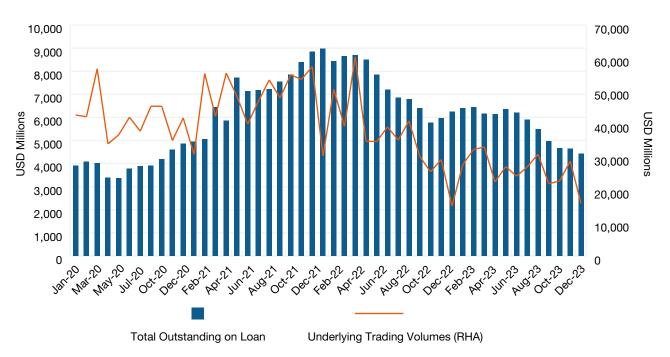
Source: DataLend (February 2024)

Figure 45: Asia International Credit on Loan - Average Monthly Fees by Country of Issue



Source: DataLend (February 2024)

Figure 46: Monthly on Loan Value and Underlying Trading Volumes



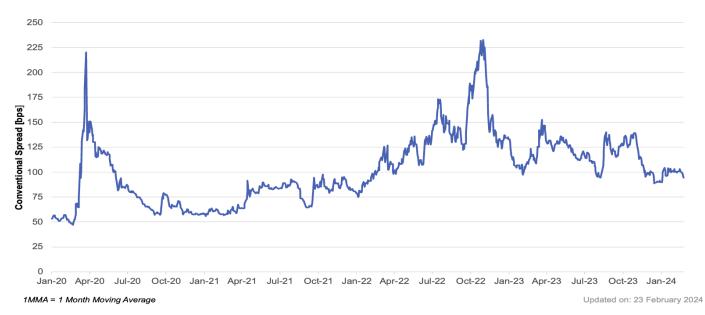
Source: ICMA analysis using data from DataLend (February 2024) and TraX data from MarketAxess (March 2024)

CDS

Credit Default Swaps are an important part of the bond market structure and an efficient and effective means of hedging and transferring credit risk. Participants bemoan the lack of a developed Single Name CDS market, where there are only a few active names and a handful of dealers. There is, however, an active Index market, which is widely used by dealers and investors. And while it may not have the same depth and tight pricing as its US and European equivalents, interviewees confirm that it is relatively liquid.

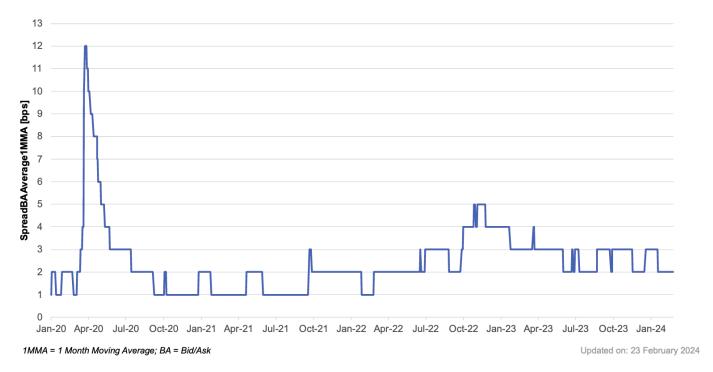
Two useful measures of CDS liquidity are the size of the bid-ask spread and the number of active dealers. Following the sharp market moves at the end of 2022, which saw a reduction of liquidity in the Index, 2023 has been relatively benign, with the bid-ask spread between 2bp and 3bp for the on-the-run contract, and the number of active dealers between 6 and 7, with a notable drop over reporting periods (see Figures 47, 48 and 49).

Figure 47: iTraxx Asia (ex-JP) IG Index: 5yr on-the-run



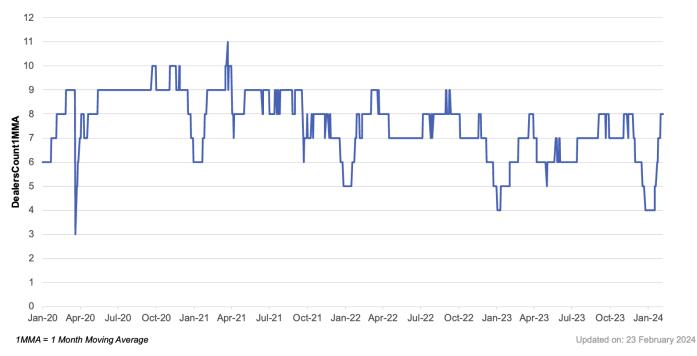
Source: S&P Global Market Intelligence

Figure 48: iTraxx Asia (ex-JP) IG Index: Bid-ask Spread (One-month Moving Average)



Source: S&P Global Market Intelligence

Figure 49: iTraxx Asia (ex-JP) IG Index: Dealer Count (One-month Moving Average)



Source: S&P Global Market Intelligence

Outlook for 2024

Despite the challenges of recent years, which have seen reduced volumes in both primary issuance and secondary trading in the Asia international bond market, interviewees are broadly optimistic for 2024, noting that we are already beginning to see signs of a pick-up. China will remain a critical part of the equation, and the market hope is that the PBoC will be able to stabilise the property sector while also stimulating economic growth. Meanwhile, lower US yields could see more Asian corporates coming back to the international market, not only from China, but India and Korea. Furthermore, it is hoped that international investors who were burned in recent years by the heightened volatility will slowly return to the market, particularly as increased supply helps to take some of the tightness out of the secondary market, so offering better value.

Methodologies for data analysis:

The scopes of international bonds under Dealogic include the following: Euro market private placement, Euro market public issue, Foreign market private placement, Foreign market public issue and Global market public issue.

By Dealogic's definitions, Euro markets refer to bonds that are marketed around the world except the U.S.; Foreign markets refer to foreign companies issuing bonds in another domestic market following that market rules and regulations and Global markets cover all markets.

Countries/regions included in Asia, by data source:

- Covalent Capital data: Cambodia, China, Hong Kong (China), India, Indonesia, Laos, Macao (China), Malaysia, Maldives, Mongolia, Papua New Guinea, Philippines, Singapore, South Korea, Sri Lanka, Taiwan (China), Thailand, Vietnam.
- TraX data from MarketAxess: Cambodia, China, Hong Kong (China), India, Indonesia, Korea, Macao (China), Malaysia, Mongolia, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan (China), Thailand, Vietnam.
- ICMA applies the following list to Dealogic data: Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, Hong Kong (China), India, Indonesia, Japan, Kazakhstan, Kyrgyzstan, Laos, Macao (China), Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Taiwan (China), Tajikistan, Thailand, Turkmenistan, Uzbekistan, Vietnam.

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