Sustainable Finance Special Interest Commentary

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Sustainable Finance 2024 – Global, Asia and Singapore Trends

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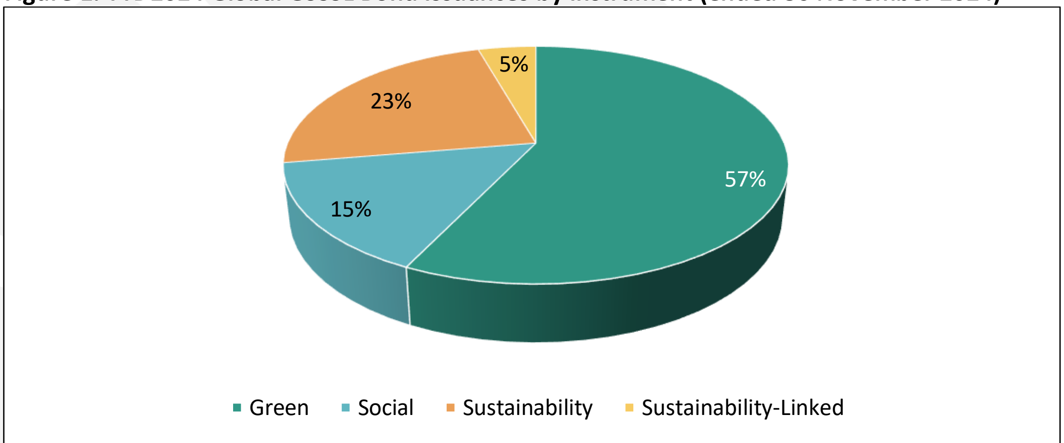
In our "***3Q2024 Sustainable Finance Update – Globally Warming***" published on 23 October 2024, we highlighted the broad global trends with sustainable finance bond issuances (comprising mostly green, social, sustainability, and sustainability-linked ("GSSSL") bonds). This followed our publication titled "***Transition Bonds: In the shadows of Sustainable Finance***" published on 27 May 2024 that introduced transition bonds as a relatively nascent financing tool that has a somewhat promising outlook, albeit coming from a low base. These articles highlighted the growing depth and breadth of sustainable finance bonds, something that will continue to develop in our view to combat climate change and social issues as well as other items on the sustainability agenda.

Reaching for Records Globally

Sustainable finance bond issuance (comprising mostly green, social, sustainability, and sustainability-linked ("GSSSL") bonds) continues to be on an uptrend, with global issuances hitting USD990bn as of 30 November 2024, one of its busiest years since the inception of the market in 2007. Growth in overall sustainable finance bond issuance is in the context of a generally buoyant issuing environment for bonds driven by (1) investors taking advantage of higher base rates and expectations for interest rates to fall and (2) issuers taking advantage of tight credit spreads and a soft-landing economic scenario despite elevated geopolitical risks.

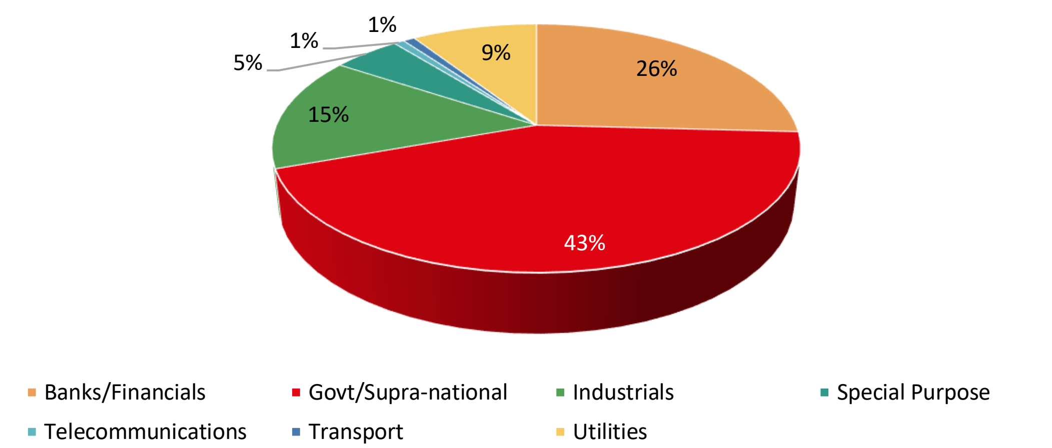
While overall global volumes are rising, trends by GSSSL issuer and issue type have remained consistent as in prior years with ongoing strong issuance of **green bonds** by **sovereigns** to address the more pressing and obvious concern of climate change. Governments globally including supra-national issuers comprise almost half of global sustainable finance issuance per Bloomberg while green bonds contribute over half of global sustainable finance issuance for the year to date (ended 30 November 2024).

Figure 1: YTD2024 Global GSSSL Bond Issuances by Instrument (ended 30 November 2024)



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

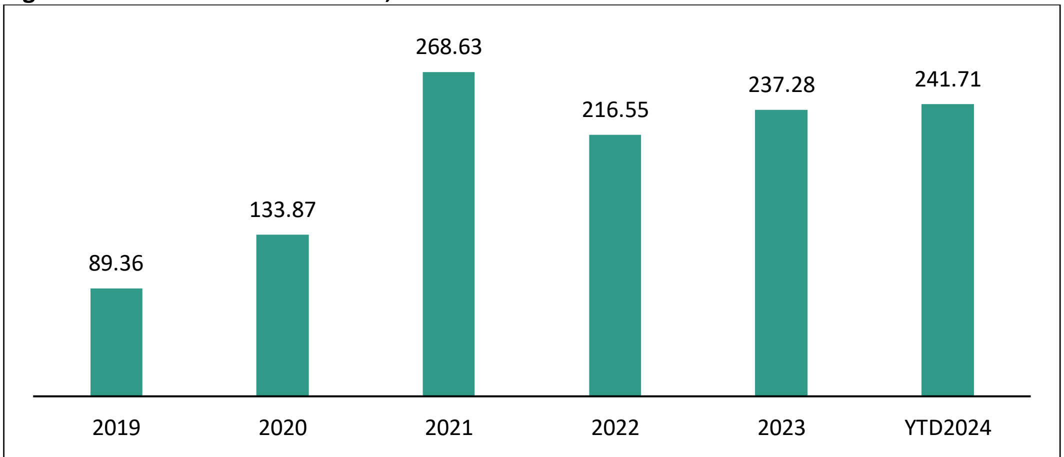
Figure 2: YTD2024 Global GSSSL Bond Issuances by Issuer Type (ended 30 November 2024)



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

While green bonds remain the most popular format with top green bond issuances by value from the European Union and followed by Germany and France, issuance continues to be somewhat restrained against approaching 2030 and 2050 global climate change targets. This is due to the ongoing lack of clarity and standardisation of regulations with the European Union ("EU") green bond market relying on the International Capital Markets Association's ("ICMA") Green Bond Principles 2021 that are voluntary process guidelines for issuing green bonds with recommendations for transparency and disclosure.

Figure 3: EU Green Bond Issuances, USDbn



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

To address this roadblock, the EU has introduced the European Green Bond Standard ("EGBS") in December 2023 to define what constitutes "green" and to establish safeguard requirements for issuers. This standard is expected to enhance market efficiency by minimizing discrepancies and costs for investors evaluating green bonds, strengthen efforts to combat greenwashing, and promote further growth in the green bond markets. According to comments by White & Case[1], the EGBS is expected to create greater stability and quality, giving EU green bond ("EuGB")

[1] New European Green Bond Standard is a game-changer, 14 December 2023, White & Case

issuers and investors more confidence and helping them steer clear from greenwashing claims[2].

While green bond issuances in the EU could increase following the EGBS taking effect from 21 December 2024, this increase may be gradual as issuers adapt to the new framework. Nonetheless, it is anticipated that the new framework will encourage investor confidence in this label and lead to higher green bond issuances. According to a report from the European Commission in July 2023, the EU's green transition will require an additional investment of EUR620bn each year until 2030. In addition, companies in various sectors will face significant expenses as they adopt more sustainable operational practices.

While green bonds continue to garner favour within sustainable finance, other GSSSL types have also had a solid year in 2024**. Sustainability bonds** as the second largest GSSSL type had their busiest October ever due to strong issuance across currencies by development banks. USD24.5bn of sustainability bonds were issued in October per Bloomberg by governments and corporates, almost double that of the ~USD12.3bn issued in October 2023. Of this, development banks including the World Bank along with supranationals, sovereigns and agencies contributed 73% of the October 2024 sustainability bond issuance, followed by industrials and financials contributing 12.1% and 9% respectively. Corporates have also driven the y/y growth by increasing the number of eligible green or social projects within their sustainability bond frameworks over time according to a report by Barclays PLC. While this has increased the flexibility of issuers to finance projects with sustainability bonds, there remain some drawbacks for investors including potential greenwashing, a lack of certainty as to what the bond proceeds will be used for and what the eventual sustainability impact of the bond will be. Companies usually only report the use of proceeds later when they publish their sustainability or impact report.

Social bonds also had a constructive year, highlighted by April with global social bond sales of USD14.3bn, a record for the month with the previous record being USD12.2bn in April 2022. This was driven by large deals by French unemployment insurance agency Unedic and the Republic of Colombia. Other notable social bonds were from:

- Citigroup Inc (“Citi”) through Citibank NA that priced USD3bn of social bonds in November 2024. Bond proceeds are expected to be used exclusively to finance or refinance social finance assets that meet Citi’s social eligibility criteria according to its social finance framework, including expanding access to financial services to unbanked and underserved individuals and promoting affordable housing. Citi was reportedly the only one of the six large Wall Street banks to issue a benchmark sized sustainable finance bond in 2024, also issuing a EUR750mn green bond in May 2024. Per a Citi spokesperson, the USD3bn social bond “contributes to our social finance commitment and ability to meet investor demand for sustainable finance products.” Proceeds may also have been used to refinance the October 2024 maturity of Citi’s inaugural USD2.5bn social bond for housing that was the largest ever social bond issued by a private sector issuer at the time and kept Citi as the largest financier of affordable housing in the US according to Environmental Finance. That bond was used to finance the construction, rehabilitation and preservation of quality affordable housing

[2] Developments in green bonds, 8 January 2024, Stibbe

for low-and moderate-income populations. The bond also was part of Citi's Action for Racial Equity plan that looked to provide more than USD1bn to communities of colour in the US to close the racial wealth gap.

- In Europe, Deutsche Bank AG was a first-time issuer of social bonds raising EUR500mn in early July 2024. The deal saw strong investor demand with an order book at over 12 times at its peak. Proceeds will be used to refinance social assets such as provisions of adequate and affordable housing for disadvantaged populations or communities, according to the bank's sustainable instruments framework. The framework also aims to generate a cumulative EUR500bn in sustainable financing and investments for the bank by the end of 2025 (excluding its investment arm DWS Group).
- In Korea, social bond issuances account for 66% of GSSSL issuances, considering both USD and local currency. Korea Housing Finance Corp ("KHFC") is one of the key issuers, which facilitates the government's policy of making home loans more accessible to low- and middle-income households. See below for further information.

Sustainability linked bonds ("SLB") however are heading for their third straight year of noticeable decline. Investor reluctance persists around the incentive structure of the instrument, the quality or rigour of the instrument's sustainability performance indicators ("SPI") or targets ("SPT") and the actual impact of the issuance, some of which can come from brown companies that do not disclose any specific use of proceeds, whether green, social or otherwise. Greenwashing concerns are on both sides of the transaction with issuers also concerned about being accused of overstating the benefit of the SLB to the environment or society, whilst also having difficulty deciding what is the right SPI/SPT and what is actually achievable. *A recent report from* Climate Bonds Initiative highlighted that more than 80% of 768 SLBs issued from 2018 through November 2023 were not aligned with global climate goals while an analysis by Bloomberg New Energy Finance ("BloombergNEF") reported that 16% of SLBs issued up to May 2024 with a publicly available call date allow companies to call the SLB before the SPI/SPT observation date, up from 9% in 2023.

Governments and regulators have also raised concerns with the Platform on Sustainable Finance that advises the European Commission on environmental, social and governance policies proposing that SLB proceeds, or sustainable flows be excluded from a European Union ("EU") review of sustainable flows in the region and an exercise that monitors how well the EU's green rules are working. This is because including SLB flows would require a detailed assessment of the materiality and ambition of SLB SPTs as opposed to green bonds that target specific projects.

As for the concern with the SLB incentive structure, this was highlighted by SLB's more positive event of 2024, Italian vertically integrated utility Enel Spa's ("Enel") USD2bn issuance in June that drove SLB issuance by companies and governments to USD6.6bn that month, the highest amount since the USD7.5bn raised in September 2023. Demand for the deal was strong with investor orders of nearly USD11bn, and while the company saw this as a positive sign for the market's confidence in SLBs, the interest was likely driven by a few factors:

1. Investor familiarity with Enel as the first and largest issuer of SLBs globally, as well as the company's commitment to sustainability.
2. The SLB market's largest trigger event to date when Enel missed its emissions targets on ~USD20bn of bonds earlier this year that was due to Russia's invasion of Ukraine and the resultant European energy crisis.
3. Investor interest in the possibility of receiving higher coupons in the future if Enel misses its emissions targets again. Per Bloomberg, the missed

emissions target cost Enel around EUR83mn in additional interest. Similarly at this time, an Enel 2027 bond whose coupon was set to go up due to the missed SPT outperformed a comparable Enel bond that was not impacted by the SPT miss as investors in Enel's SLB's started pricing them as if the coupon was going to increase.

This last point highlights the questionable outcome of sustainable finance investors profiting from sustainable performance that is below targets. This is notwithstanding that Enel's emissions intensity in 2023 reportedly remained in line with the 1.5c trajectory. In another example from 2024, London & Quadrant Housing Trust missed a key emissions target that resulted in a coupon step up to 2.125% from 2% on a EUR300mn SLB. As a result of this, the price of the SLB affected by the coupon step-up rose in comparison to the issuer's other bonds.

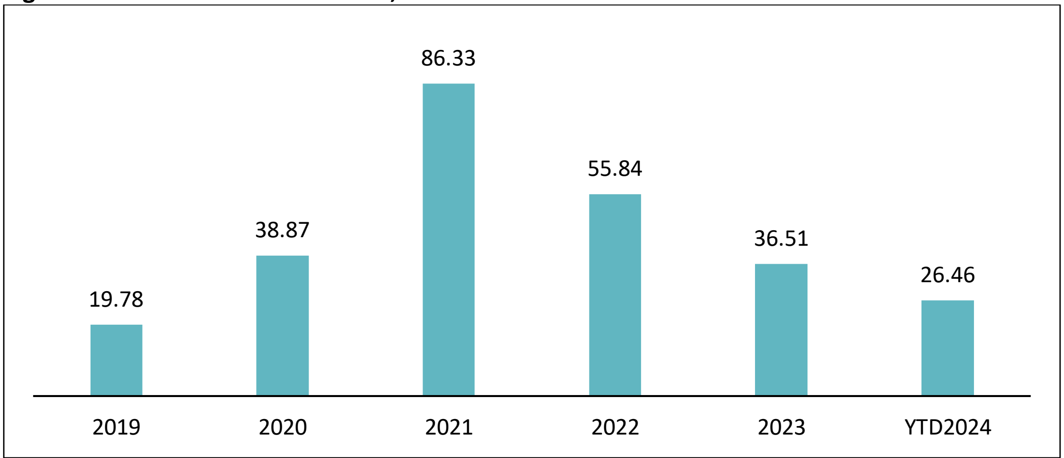
US GSSSL also trending down

Amidst generally constructive sustainable finance issuance however, there has been a downward trend in the U.S as various factors have individually and collectively worked to suppress supply and demand of GSSSL out of the US.

1. The high interest rate and inflation environment that is deterring interest from investors and issuers. On the investor front, returns have been more appealing from energy intensive industries – according to Bloomberg, US ESG-related stock mutual funds underperformed the S&P 500 index on average up to August of 2024. From the issuer perspective, the costs of issuing GSSSL have increased along with investor scrutiny on GSSSL instruments (see below) with issuers needing to expand their resources for ESG data collection and impact reporting. At the same time, greeniums have reduced or dissipated as global supply has risen with the resultant absence of a pricing benefit making GSSSL bonds less practical. Combined with the higher cost of funding and competition from strong conventional US bond issuance volumes, issuers may have pursued conventional bond raisings over more time-intensive and highly scrutinised GSSSL bond raisings.
2. The lack of supply in the US has also reduced the liquidity of GSSSLs, providing another deterrent for investors. According to a report by Barclays PLC, liquidity for sustainable bonds in Europe has improved over the past few years along with issuance volumes while it has deteriorated in the US investment-grade market.
3. A political backlash against sustainable finance, particularly in Republican states such as Texas and Kansas where politicians have tried to block government entities from buying sustainable finance instruments and questioned the validity of ESG investing. Some US states have also blacklisted companies over their approach to products to improve environmental, social and governance issues.
4. Higher scrutiny from investors on GSSSL instruments. As such, it is important for issuers to have an effective strategy and implementation process and for regulators to have more transparent frameworks as the market over time places greater emphasis on quality over quantity. According to BloombergNEF, EMEA and APAC are leading in issuance volumes with impact reporting schemes, whilst the Americas are lagging behind with US regulations on climate-disclosure reportedly weaker than similar standards in the EU. This may explain the disparity between issuance trends in EU and the U.S, highlighting how enhanced transparency and reliability can boost demand for GSSSL bonds. Analysts at Sustainable Fitch have acknowledged the difficulties for investors to measure the impact of

their investments given the lack of standardization among ESG bonds and across portfolios. Finally, a study by the National Bureau of Economic Research on the first green bonds sold by corporate and municipal issuers between 2013 to 2022 highlighted that only ~2% of proceeds were used to fund projects that are genuinely unique or don't replicate existing work, ~30% of proceeds were used to refinance ordinary debt, while there were many other instances where funds were directed towards existing projects or to new developments that were similar to previous work. As such, the study concluded that almost all green bonds issued in the US were failing to deliver real action on climate change.

Figure 4: U.S GSSSL Bond Issuances, USDbn

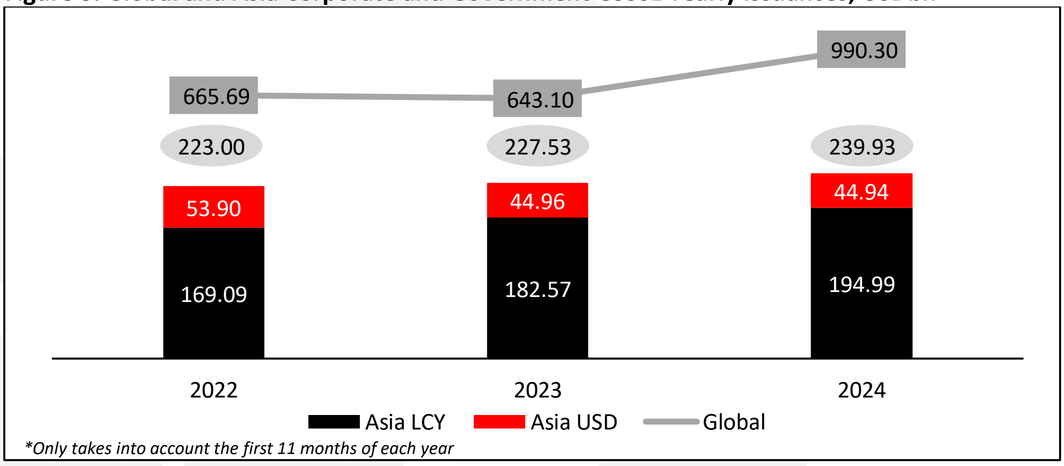


Source: Bloomberg, OCBC Credit Research as of 30 November 2024

GSSSL Trends in Asia

Despite facing multiple challenges from elevated global interest rates, geopolitical tensions, and sector-specific credit disruptions in China, the sustainable bond market in Asia remained strong with overall GSSSL issuance volumes across currencies in Asia up 11.4% y/y up to 30 November 2024. The market experienced some significant developments and emerging trends in 2024 that reflect resilience and adaptability in our view.

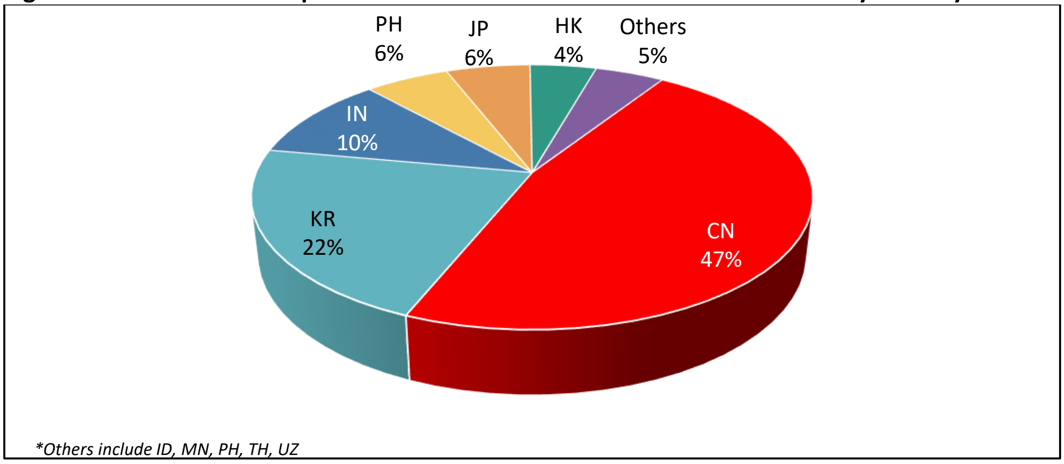
Figure 5: Global and Asia Corporate and Government GSSSL Yearly Issuances, USDbn



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

Despite ongoing macro-economic headwinds, tightened eligibility criteria for projects to be included in onshore green bonds and additional structuring and verification costs for ESG labels that drove Chinese issuers towards conventional bonds with onshore interest rates low, China remains by far the key issuer of GSSSL bonds in Asia, a position it has held since 2015. Out of the total number of issuances YTD2024, 47% of the issuances came from China, amounting to USD21.1bn. Despite these recent pressures in China on GSSSL issuance (Chinese local currency green bond issuance fell by 45% y/y to USD26bn in 1H2024 from USD46bn in 1H2023), there is an expectation that China will continue to be a source of GSSSL issues within Asia. In recent years, mandatory sustainability reporting has been gaining traction globally and Chinese companies are facing stricter sustainability reporting regulations as part of efforts to enhance transparency and align with European requirements. New sustainability disclosure guidelines from China's Ministry of Finance and the three major stock exchanges are expected to improve investor confidence going forward by providing a unified framework for evaluating the financial and impact materiality of ESG factors for onshore listed companies.

Figure 6: YTD2024 Asia Corporate and Government GSSSL Bond Breakdown by Country



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

The largest USD GSSSL issuances in Asia through 2024 as at time of writing include:

1. **Korea Electric Power Corp ("KEPCO")** issuing a USD1.2bn Green, Fixed bond to finance or refinance, either fully or partially, KEPCO's current and future funding for the development and operation of projects that meet the eligibility criteria for green projects, as outlined in the KEPCO's Sustainable Finance Framework from September 2021.
2. **Republic of the Philippines**, issuing a USD1bn Sustainability bond for general budget financing and to finance or refinance assets in accordance with the Republic's Sustainable Finance Framework.
3. **China Construction Bank Corporation/Hong Kong** issuing a USD1bn Green bond with proceeds allocated to eligible projects that are defined in the Green Bond Principles 2021.

These however do not even make the top 20 largest GSSSL issuances across currencies in Asia with several mega issues by sovereigns in local currency:

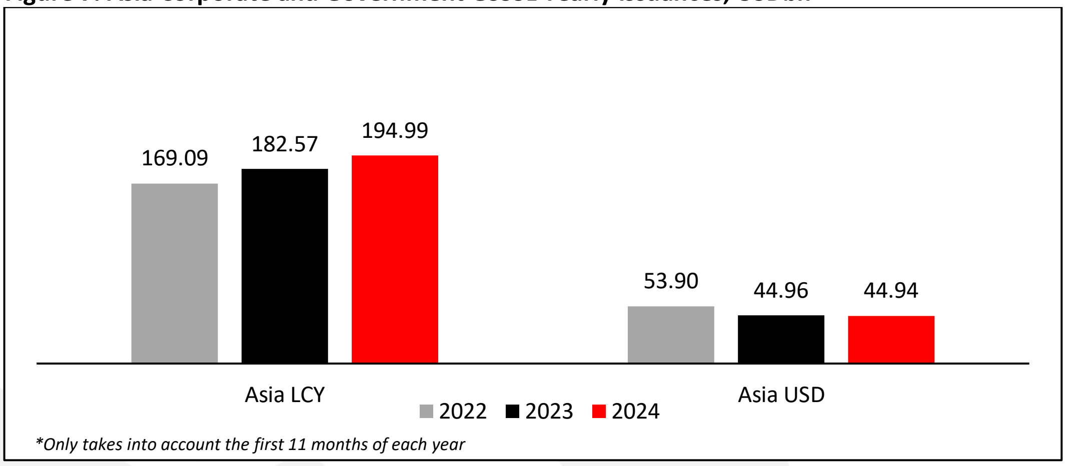
1. Australia issued its first sovereign green bond in June attracting an order book more than three times the AUD7.0bn (USD4.7bn) 10Y issue size at final pricing according to comments from the Australian Office of Financial Management. Per Bloomberg, the issue was priced with a slight greenium

to its benchmark 2034 bond to reflect Australia's credible green bond framework and a lack of supply of green Australian assets given Australia is one of the highest per-capita carbon emitters in the world. Proceeds are expected to be used to accelerate the nation's energy transition including hydro-power and marine renewable energy.

2. The Japan Government issued JPY799.5bn (USD5.3bn) and JPY799.8bn (USD5.3bn) in February with the JPY800bn issue notable as the world's first sovereign climate transition bond to finance the development of clean energy resources to help Japan cut greenhouse gases to zero by 2050 and become a carbon-neutral society. The 10-year transition bonds were issued to fund low-cost wind power generators and airplanes that use alternative fuels and were also reportedly sold at a lower yield than Japan's regular debt, signalling strong investor demand. Since then, the country has issued two further smaller transition bonds in May and July 2024. Please see our publication "***Transition Bonds: In the shadows of Sustainable Finance***" published 27 May 2024 for more details on transition bonds.

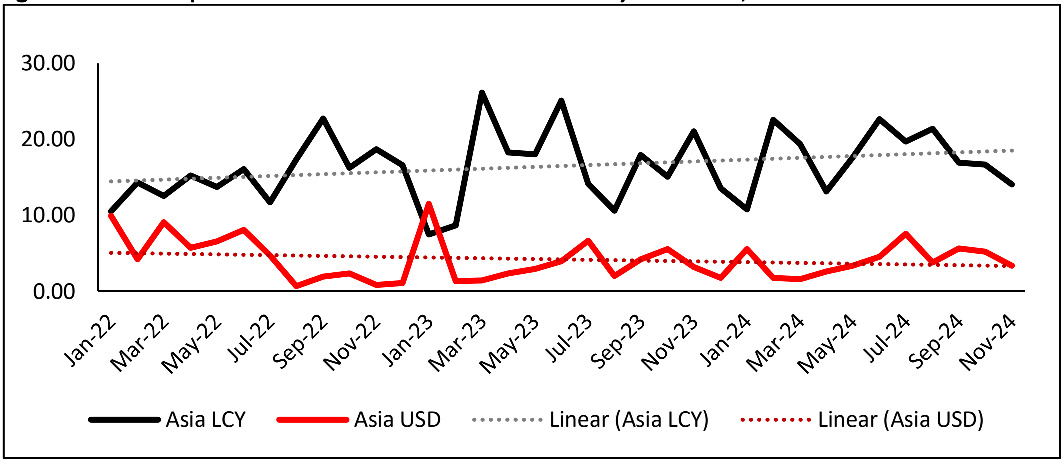
Looking at Asia GSSSL issuance through 2024, we see a growing trend in Asia for local currency ("LCY") issues, while the trend for Asia USD GSSSL is moving in the opposite direction. We also observe that in some months, when there is an increase in LCY issuances, there is a corresponding decrease in USD issuances, and vice versa. Asia LCY issuances grew by 11.4% y/y, while Asia USD fell by 1.0% y/y in when comparing the issuances amount from January to November. Possible reasons for the declining trend in USD issuances in Asia include interest rate differentials with the high USD interest rate environment making China domestic issuances more attractive for financing or refinancing. Another factor is the reduction in overall USD issues by Chinese issuers in recent years amid the fallout from a wave of defaults in the property sector. China's international bond issuances dropped by ~12% y/y to USD108bn in 2023, down from USD122bn in 2022 and USD230bn in 2021.

Figure 7: Asia Corporate and Government GSSSL Yearly Issuances, USDbn



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

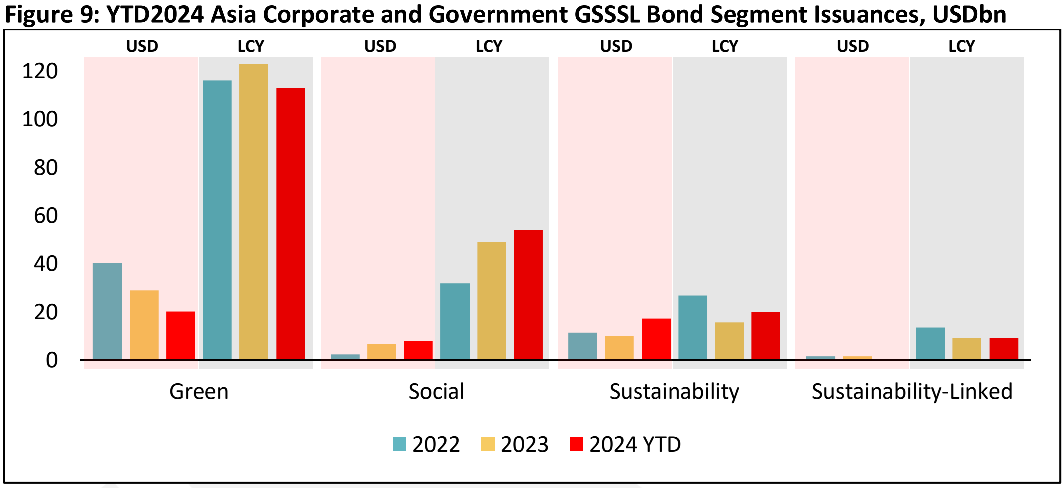
Figure 8: Asia Corporate and Government GSSSL Monthly Issuances, USDbn



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

The preference for LCY over USD issuances is consistent across all four GSSSL segments. Another interesting trend is that while green bonds continue to be the largest category of issuance, social and sustainability bonds are gaining more traction in Asia. The growth rate of social and sustainability bond issuances in YTD2024 is already outpacing that of 2023, whether in USD or LCY, possibly on rising cost of living concerns and the need for more affordable and social housing.

Figure 9: YTD2024 Asia Corporate and Government GSSSL Bond Segment Issuances, USDbn



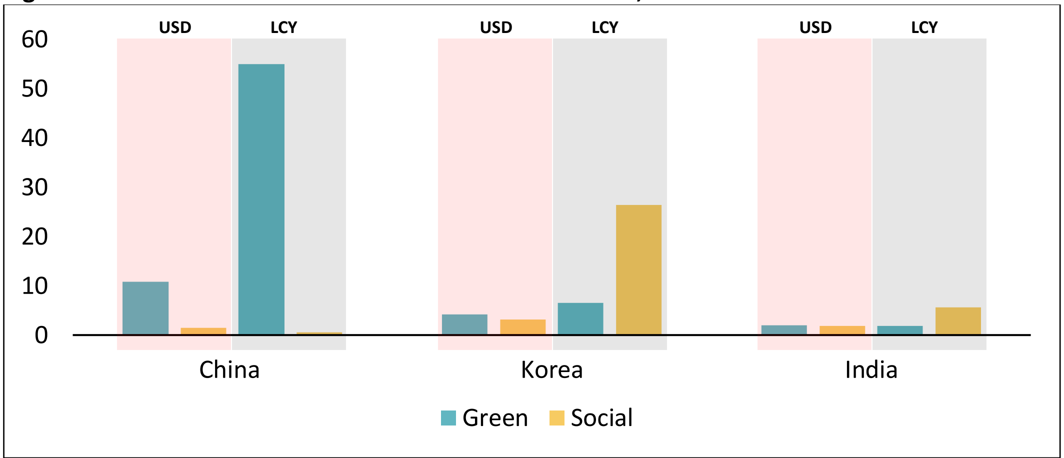
Source: Bloomberg, OCBC Credit Research as of 30 November 2024

Analysing the top three GSSSL issuers by country in Asia based on Bloomberg data, we find that 84% of green bond issuances in China were in LCY, while 60% of issuances in Korea and 48% issuances in India were in LCY. The data is quite different for social bonds however with 86% of issuances in China done in USD (albeit from a low base), while 12% of issuances in Korea and 25% in India were in USD. In India, we can observe that issuances are higher in USD for green bonds, whereas social bonds are predominantly issued in LCY. According to a report by S&P Global[3], this is due to the existence of taxonomies that provide useful guidance on assessing the impact on green projects, attracting more USD issuance for green bonds. Meanwhile, social projects, such as affordable housing and socioeconomic empowerment, are typically more localized and require a thorough understanding of the specific local

[3] Asia-Pacific Sustainable Bonds To Step Up Growth In 2024, 21 February 2024, S&P Global Ratings

sustainability context of an issuer. This could explain why social issuances are predominantly in LCY and will likely attract local investors, especially in emerging economies.

Figure 10: YTD2024 Asia Green and Social Bond Issuances, USDbn



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

China remains the dominant issuer of green bonds YTD2024 whether in LCY or USD, while Korea is the largest issuer of social bonds in both formats. Sustainability issuance is mixed with China issuing the most USD sustainability bonds while Australia is largest LCY issuer of this format.

Figure 11: YTD2024 Largest Issuance by Bond Segments

	USD	LCY
Green	China	China
Social	Korea	Korea
Sustainability	China	Australia

Source: Bloomberg, OCBC Credit Research as of 30 November 2024

(i) **In China,** despite short-term economic uncertainty, energy transition remains a key driver for China's GSSSL market. While the nation's energy base is still carbon-intensive, the central government has set targets to reach peak carbon emissions by 2030 and achieve carbon neutrality by 2060. Meeting these goals will require substantial efforts and green investments. That explains how China remains a major issuer of green bonds, with banks like Bank of Jiansu Co Ltd and China Construction Bank Corp/Hong Kong issuing the largest issuance in the LCY and USD space respectively.

(ii) **In Korea,** social bond issuances account for 66% of GSSSL issuances, considering both USD and LCY. Korea Housing Finance Corp ("KHFC") is one of the key issuers, which enables the government's policy of making home loans more accessible to low- and middle-income households. Other notable issuers consist of banks such as Industrial Bank of Korea and Shinhan Bank Co Ltd, for which the use of proceeds will be allocated to eligible social projects or assets that comply with the social eligible categories. Priority will be given to categories that support housing, education and other activities that have social benefits.

(iii) **In Australia**, sustainability bond issuances have been contributed by the South Australian Government Financing Authority and New South

Wales Treasury Corp. Both issuers intend to use the proceeds to finance and/or refinance, in whole or in part, green and/or social expenditures that conform to the Eligibility Criteria defined in their respective Sustainability Bond Frameworks. According to the South Australian Government Financing Authority Bond Framework, the government has an established process for reporting the alignment of State Budget expenditures (both operating and capital) with the United Nations Sustainable Development Goals ("UN SDGs"). Additionally, the Eligibility Criteria for the categories of bond and note proceeds have been developed in reference to the UN SDG targets, as well as the ICMA Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines. State governments, representing half of the GSSSL issuances in the country, are also expected to pursue green funding for decarbonization projects according to S&P Global.

GSSSL in Singapore is buzzing

Aside from 2023 when issuance volumes declined in line with the overall market, GSSSL issuance trends through 2019-2024 within the SGD credit market represent strong adoption of sustainable finance at both the government and corporate level. This is to support Singapore's decarbonisation efforts and boost the country's status as a green finance hub, with ongoing efforts to promote clarity in sustainable finance and deepen sustainable finance capabilities. This has seen GSSSL issuance in the SGD credit market grow from one issue for SGD500mn in 2019 (the Manulife Financial Corp MFCCN 3% '29s that were called on 21 November 2024) to just over SGD9.5bn so far in 2024 (as of 30 November 2024) from 22 issues.

Government leading the way

Recent growth in issuance volumes include the Singapore government's 30Y and 50Y Singapore Government Bonds issued at 3.25% and 3.0% respectively with the recent SGD2.5bn SIGB 3.25% '54s receiving an orderbook ~2.5 times the amount offered in May 2024. These bonds are officially called Green Singapore Government Securities (Infrastructure), with proceeds used to finance expenditures in support of the Singapore Green Plan 2030, including two MRT lines (i.e. Jurong Region Line and the Cross Island Line) that are estimated to reduce greenhouse gas emissions associated with land transport. The Singapore Green Bond Framework along with the Significant Infrastructure Government Loan Act 2021 ("SINGA"), establishes the basis for the issuance of Green Singapore Government Securities (Infrastructure) bonds. The Singapore Green Bond Framework is in accordance with globally recognized market principles, standards, and best practices. Morningstar Sustainalytics has provided a pre-issuance Second-Party Opinion ("SPO") that verified the framework's compliance with the ICMA Green Bond Principles 2021 and the ASEAN Green Bond Standards 2018. It also acts as a national benchmark and reference for statutory boards that plan to issue green bonds, as they are required to align their respective green bond frameworks with the guidelines and standards that are set out in the national framework.

As of 31 March 2024, the Singapore public sector has issued a total of SGD12.5bn of green bonds[4], working closer towards Singapore's commitment to issue up to SGD35bn of green bonds by 2030. The green bond issuances were in the green

[4] Singapore Green Bond Report For the Financial Year 2023, September 2024, Ministry of Finance

categories of (i) clean transportation, (ii) waste management, (iii) green buildings and (iv) sustainable water and wastewater management. We can see increasing SGD GSSSL issuance by statutory boards over the years by National Environment Agency (two in 2021), Housing & Development Board (three in 2022, one in 2023, four in 2024), and Public Utilities Board (one in 2022, one in 2024). With these issuances in the public sector, it brings possibility of a higher quality green bond market in Singapore, as corporates will be able use these issuances as a reference, hence improving market liquidity for green bonds and attracting green issuers, capital and investors.

Corporates are catching up

Corporate issuance also has increased with 2024 seeing the largest number of GSSSL issuance by issue count and issue amount. New issuers can be seen entering the SGD market, including Ho Bee Land Ltd ("HOBEE") which issued their first green bond with SGD160mn outstanding while the largest issuance in 2024 that is not from a statutory board came from ST Telemedia Global Data Centres Pte Ltd ("STT GDC"), a Temasek Holdings (Private) Limited linked company, with a SGD500mn sustainability-linked bond on 8 January 2024. The demand for this bond was strong, with bids over SGD1bn at reoffer for the initial issuance amount of SGD450mn (SGD50mn was a retap on 24 Jan 2024).

Similar to global trends, green bonds dominate SGD GSSSL issuance. This reflects the use of green bonds by the Singapore government and statutory boards. In addition, we can see issuances coming in stronger in the REITs sector for YTD2024. It is worth noting that many REITs and property developers in Singapore hold Building and Construction Authority ("BCA") Green Mark Buildings, which means that green bonds can be issued by these companies to finance retrofitting, energy efficiency upgrades or renewable energy projects for these buildings. It is also part of Singapore's target to 'green' 80% of local buildings by 2030 according to the Singapore Green Building Masterplan (part of the Singapore Green Plan 2030), meaning there is likely to be more 'green' buildings upcoming.

As the leading market for green bonds and loans in ASEAN with a ~ 50% share, Singapore is actively assisting businesses in obtaining green and sustainable financing options. The Monetary Authority of Singapore ("MAS") offers grant programs that help cover the expenses of external reviews for these financing options, including the Sustainable Bond Grant Scheme and the Green and Sustainability-Linked Loan Grant Scheme.

Transitioning to other GSSSL

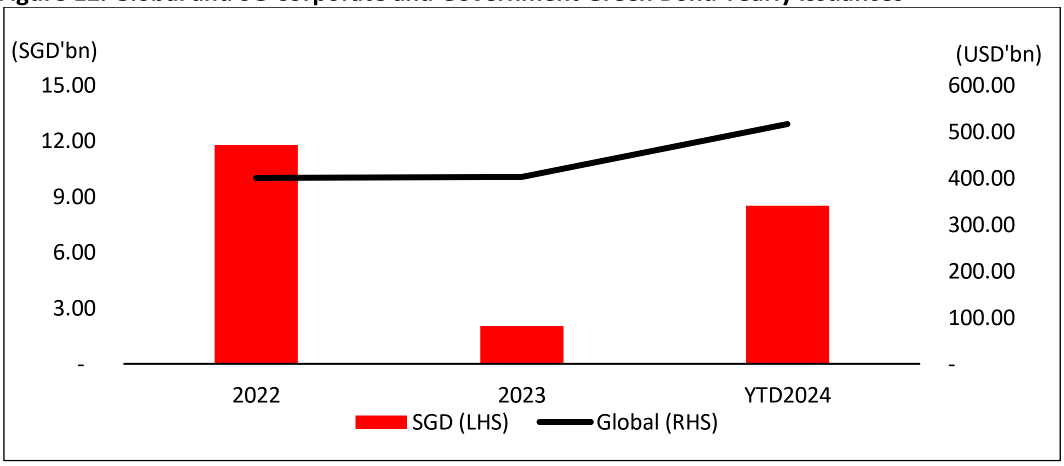
In its net-zero transition, Singapore plans to fund not only green activities but also transition activities. The MAS has launched the Singapore-Asia Taxonomy for Sustainable Finance which sets out thresholds and criteria for defining green and transition activities, where the latter refers to activities that do not meet green thresholds now but are on the path to net-zero or contributing to net-zero outcomes. This can enable Financial Institutions to support the transition of hard-to-abate sectors towards low-carbon operations, particularly in Asia. To develop a more effective market for green investments, there are plans to update the Singapore Green Bond Framework to align with the Singapore-Asia Taxonomy.

There are also efforts to support the facilitation of cross-border green capital flows and enhance the interoperability of taxonomies across China, the EU and Singapore.

Launched at the COP29 climate summit in November 2024, the Multi-Jurisdiction Common Ground Taxonomy (M-CGT) was developed by the People's Bank of China (PBOC), the European Union Directorate-General for Financial Stability, Financial Services and Capital Markets Union (FISMA), and the MAS. The M-CGT builds on the EU-China Common Ground Taxonomy (CGT) to include the Singapore-Asia Taxonomy, serving as a reference document to allow stakeholders to assess what is considered green across the three jurisdictions. Green bonds that align with the M-CGT criteria can be considered by cross-border investors whose markets reference the taxonomies mapped to the M-CGT. The common standard can therefore help to improve investor confidence and reduce greenwashing concerns, in addition to boosting green capital flows especially for developing economies.

In addition, all listed companies in Singapore will be required to make climate-related disclosures starting FY2025 based on local reporting standards aligned with the International Sustainability Standards Board. This will also apply to large non-listed companies from FY2027. Aligning with global sustainability reporting standards enables companies to retain their attractiveness to a growing pool of investors guided by ESG priorities.

Figure 12: Global and SG Corporate and Government Green Bond Yearly Issuances



Source: Bloomberg, OCBC Credit Research as of 30 November 2024

Table 1: Recent SGD-denominated GSSSL issues, SGDmn

Icon	Type	Issuer	Issue	Amount Outstanding (SGD million)
	Green	Manulife Financial Corp	MFCCN 3% '29s	500^
	Green	National University of Singapore	NUSSP 1.565% '30s	300
	Green	CapitaLand Ascendas REIT	AREIT 2.65% '30s	100
	Green	CapitaLand Ascendas REIT	AREIT 3% -PERP	300
	Sustainability-linked bond	Surbana Jurong Pte Ltd	SRBJNG 2.48% '31s	250
	Green	National University of Singapore	NUSSP 1.62% '31s	300
	Green	Sembcorp Financial Services Pte Ltd	SCISP 2.45% '31s	400
	Sustainability bond	Frasers Logistics & Commercial Trust	FLTSP 2.18% '28s	150
	Green	National Environment Agency	NEASP 2.5% '51s	1,300.00
	Green	National Environment Agency	NEASP 1.67% '31s	350
	Sustainability bond	Frasers Property AHL Ltd	FPLSP 3% '28s	300
	Sustainability-linked bond	Sembcorp Financial Services Pte Ltd	SCISP 2.66% '32s	675
	Sustainability-linked bond	Nanyang Technological University	NTUSP 2.185% '36s	650
	Green	Housing & Development Board	HDBSP 1.845% '27s	1,000.00
	Social	First Real Estate Investment Trust	FIRTSP 3.25% '27s	100
	Green	CapitaLand Ascendas REIT	AREIT 3.468% '29s	208
	Sustainability-linked bond	Ascott REIT MTN Pte Ltd	ARTSP 3.63% '27s	200
	Green	Credit Agricole SA	ACAFP 3.95% '32s	250
	Sustainability-linked bond	Sembcorp Financial Services Pte Ltd	SCISP 3.735% '29s	300
	Green	Housing & Development Board	HDBSP 2.94% '27s	1,100.00
	Green	Singapore Government Bond	SIGB 3% '72s	2,400*
	Green	Public Utilities Board	PUBLSP 3.433% '52s	800
	Green	Frasers Property Treasury Pte Ltd	FPLSP 4.49% '27s	500
	Green	Housing & Development Board	HDBSP 4.09% '27s	1,200.00
	Green	Sembcorp Financial Services Pte Ltd	SCISP 4.6% '30s	350
	Green	National University of Singapore	NUSSP 3.268% '33s	340
	Green	Mapletree Pan Asia Commercial Trust	MCTSP 4.25% '30s	150

	Green	CapitaLand Integrated Commercial Trust	CAPITA 3.938% '30s	400
	Green	Apeiron AgroCommodities Pte Ltd	APEIRO 4.487% '28s	50
	Green	Singapore Government Bond	SIGB 3% '72s	2,800*
	Green	Housing & Development Board	HDBSP 3.104% '28s	740
	Sustainability-linked bond	STT GDC Pte Ltd	STTGDC 5.7% -PERP	500
	Green	Housing & Development Board	HDBSP 2.977% '29s	800
	Green	MPACT Treasury Co Pte Ltd	MCTSP 3.9% '34s	200
	Green	MapletreeLog Treasury Co Pte Ltd	MLTSP 3.81% '31s	75
	Green	Housing & Development Board	HDBSP 3.409% '27s	800
	Green	CapitaLand Ascendas REIT	AREIT 3.73% '34s	300
	Green	Singapore Government Bond	SIGB 3.25% '54s	2,500.00
	Green	OUE REIT Treasury Pte Ltd	OUECT 4.1% '27s	250
	Sustainability-linked bond	Sabana Industrial Real Estate Investment Trust	SSREIT 4.15% '29s	100
	Green	CMT MTN Pte Ltd	CAPITA 3.75% '34s	300
	Green	Ho Bee Land Ltd	HOBEE 4.35% '29s	160
	Green	Housing & Development Board	HDBSP 3.244% '26s	965
	Green	OUE REIT Treasury Pte Ltd	OUECT 3.9% ‘31s	300**
	Green	Public Utilities Board	PUBLSP 2.502% ‘31s	325
	Green	OUE Treasury Pte Ltd	OUESP 4% ‘29s	200***
	Green	Sembcorp Financial Services Pte Ltd	SCISP 3.65% ‘36s	350
	Green	Housing & Development Board	HDBSP 2.757% ‘28s	900
	Green	CMT MTN Pte Ltd	CAPITA 3.3% ‘35s	200
	Social	Korea Housing Finance Corp	KHFC 3.033% ‘26s	300

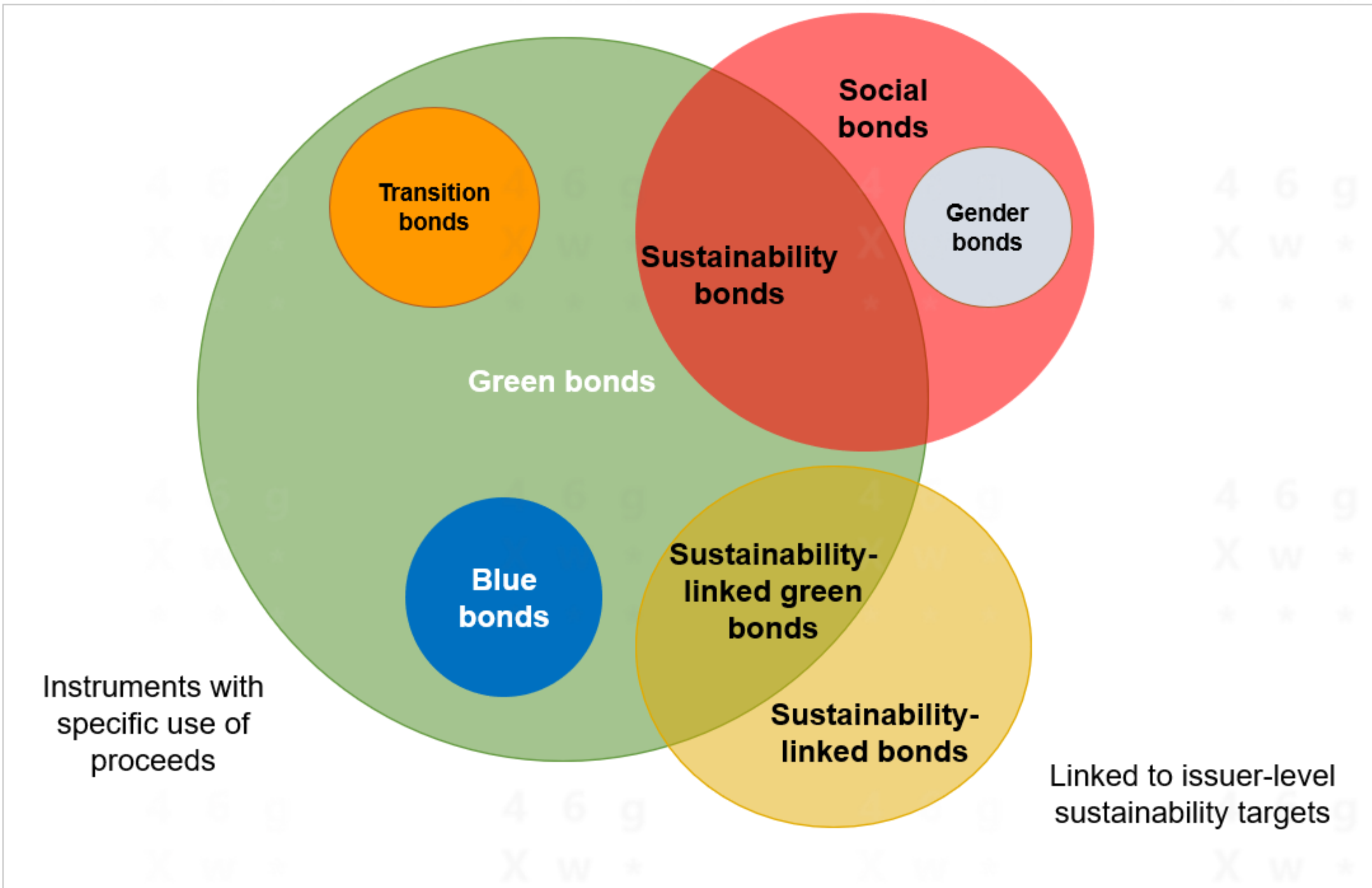
Source: Bloomberg, OCBC Credit Research as of 30 November 2024
^called on 21 November 2024
* SIGB 3% '72s total issuance is SGD5.2bn comprising initial SGD2.4bn issue in August 2022 and subsequent retap of SGD2.8bn in August 2023
** OUECT 3.9% ‘31s total issuance is SGD300mn comprising initial SGD180mn on 19 September 2024 and subsequent retap of SGD120 mn on 15 November 2024.
*** OUESP 4% ‘29s total issuance is SGD200mn comprising initial SGD150mn on 1 October 2024 and subsequent retap of SGD50mn on 22 October 2024.

Table 2: Definitions

	Icon	Type of bonds	Definition
1.		Green bond	Proceeds from these bonds are specifically allocated to financing new and existing projects or activities with positive environmental impacts.
2.		Social bond	To qualify as a social bond, the proceeds must be used to finance or refinance social projects or activities that achieve positive social outcomes and/or address a social issue.
3.		Sustainability bond	Sustainability bonds are issues where proceeds are used to finance or re-finance a combination of green and social projects or activities.
4.		Sustainability-linked bond	These bonds are structurally linked to the issuer's achievement of climate or broader United Nations Sustainable Development Goals ("UN SDG") targets. Sustainable performance target ("SPT")'s that are not met then results in an increase in the instrument's coupon rate. Conversely, a SPT that is met or exceeded could result in a decrease in the instrument's coupon rate.
5.		Gender bond	A type of social bond where proceeds are used to support the specific purpose of raising awareness on gender inequality and women empowerment.
6.		Blue bond	A type of green bond where proceeds are used on projects or strategies leading to a healthy and productive ocean and marine life environment.
7.		Transition bond	A hybrid of green and sustainability-linked bonds where proceeds are used to reduce an issuer's environmental impact through decarbonising fossil fuel and hard-to-abate sectors that would not normally qualify for green bonds.

Source: OCBC Credit Research

Figure 13: Classification of GSSSL bonds



Source: OCBC Credit Research

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