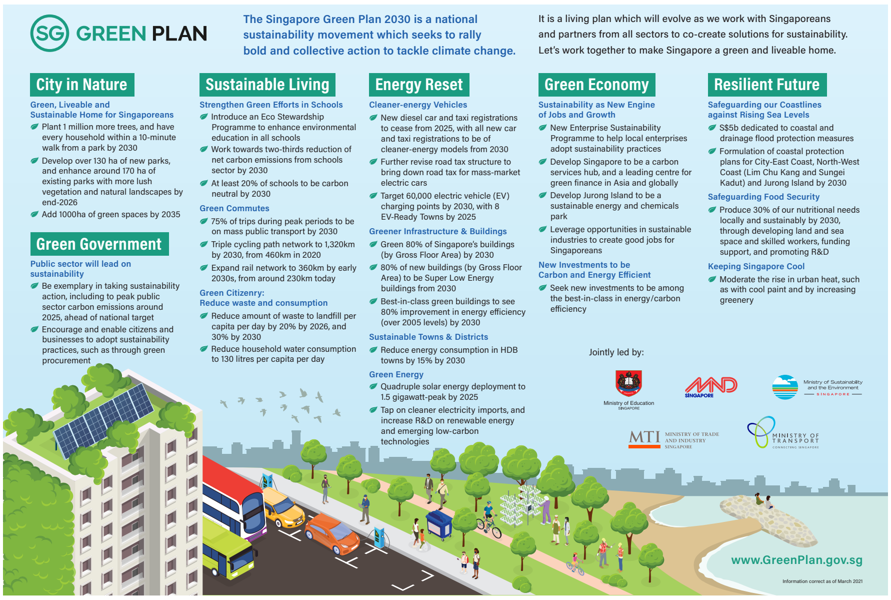
Volksbanken Raiffeisenbanken
Cooperative Financial Network

Sustainable Finance Bulletin

Singapore and Hong Kong Edition

Singapore: Leading financial centre with a high level of awareness for sustainability

In just 50 years, Singapore has risen to become one of the world's top three financial centres. It ranks third in the 2022 Global Financial Centre Index, behind New York and London, and has strong capabilities in wealth and asset management, foreign exchange and derivatives, insurance and risk finance, fixed income, infrastructure finance, and fintech and innovation. Singapore is also poised to benefit from the growth of its ASEAN neighbours. With a strong government commitment to sustainability, Singapore is leveraging its existing professional services infrastructure to develop further opportunities in Sustainable Finance.



Source; https://www.greenplan.gov.sg/cos/

Singapore has always seen sustainable development as one of the key goals it wants to achieve. On 21 September 2016, it became one of the first countries to ratify the Paris Agreement, along with 30 other countries.

Content

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DZ BANK

The Government of Singapore has recognized that climate change is an existential challenge for the country. According to the National Climate Change Secretariat, between 1984 and 2022, the average annual temperature increased by 0.24°C per decade. From 1993 to 2021, the mean sea level around Singapore rose by about 3.5 mm per year.

In February 2021, the Government of Singapore launched the Singapore Green Plan 2030, a nationwide movement to advance the national agenda on sustainable development. The Green Plan sets out concrete targets for the next 10 years, reinforcing Singapore's commitments under the UN 2030 Agenda for Sustainable Development and the Paris Agreement, positioning the nation to achieve its long-term net zero emissions target.

In October 2022, the Government of Singapore announced that it would raise its national climate target to achieve net zero emissions by 2050 as part of its Long-Term Low-Emissions Development Strategy. As part of its revised 2030 Nationally Determined Contribution (NDC), the country will also reduce emissions to around 60 $MtCO_2e$ in 2030 after peaking emissions earlier.

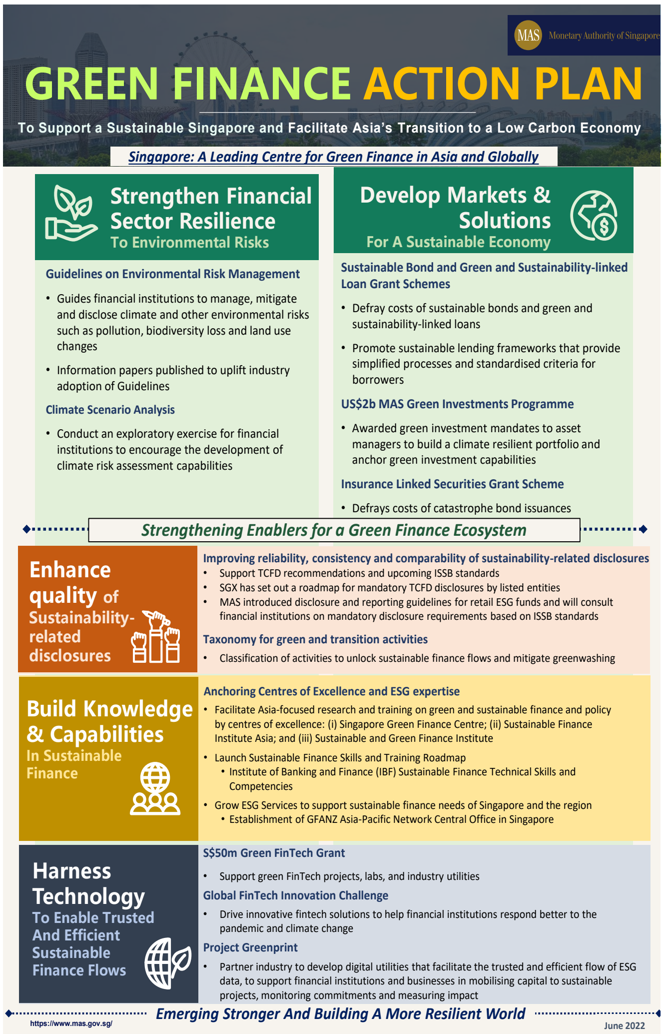
Finance at the heart of government commitment

Recognizing ASEAN's significant need for sustainable financing over the next decade, and the opportunities this presents for Singapore as a major financial hub to support the region's sustainable transition, the Government of Singapore has developed a strong and credible sustainable finance ecosystem in Singapore over the past few years.

In 2017, the Monetary Authority of Singapore (MAS) launched a Green Bond Grant scheme encouraging the issuance of Green Bonds in Singapore by helping issuers to cover additional costs associated with external reviews. In February 2019, this scheme was expanded to include Social and Sustainability Bonds and renamed Sustainable Bond Grant Scheme.

In 2019, the MAS announced the development of a new and comprehensive long-term strategy to make Sustainable Finance a defining feature of Singapore's role as an international financial centre: the so-called Green Finance Action Plan.

In November 2020, the MAS announced the world's first Green and Sustainability-Linked Loan Grant Scheme supporting corporates to raise financing for investments in green projects, assets and more sustainable business models. It also encourages banks to develop green and sustainability-linked loan frameworks to make such financing more accessible to small and medium-sized enterprises. Borrowers can use this grant to offset the additional cost of validating green and sustainability-linked loans and frameworks.

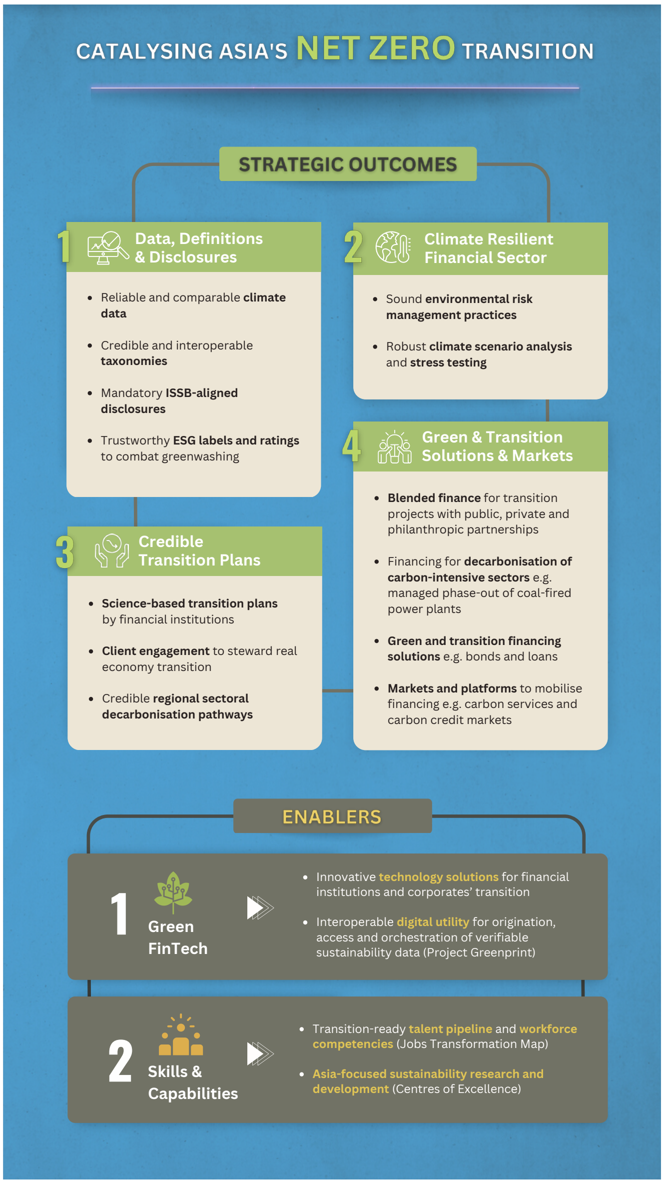


Source: Monetary Authority of Singapore (MAS).

In April 2023, the MAS launched the Finance for Net Zero Action Plan aiming to mobilise the financing required to drive decarbonisation and the net zero transition in Singapore and Southeast Asia.

Source: Monetary Authority of Singapore (MAS).

It expands the scope of MAS' Green Finance Action Plan launched in 2019 to include transition finance and aims to achieve the following four strategic outcomes: 1) Strengthen data, definitions and disclosures; 2) Forge a climate-resilient financial sector; 3) Promote the adoption of credible transition plans; 4) Catalyse credible green and transition solutions and markets.



Source: Monetary Authority of Singapore (MAS).

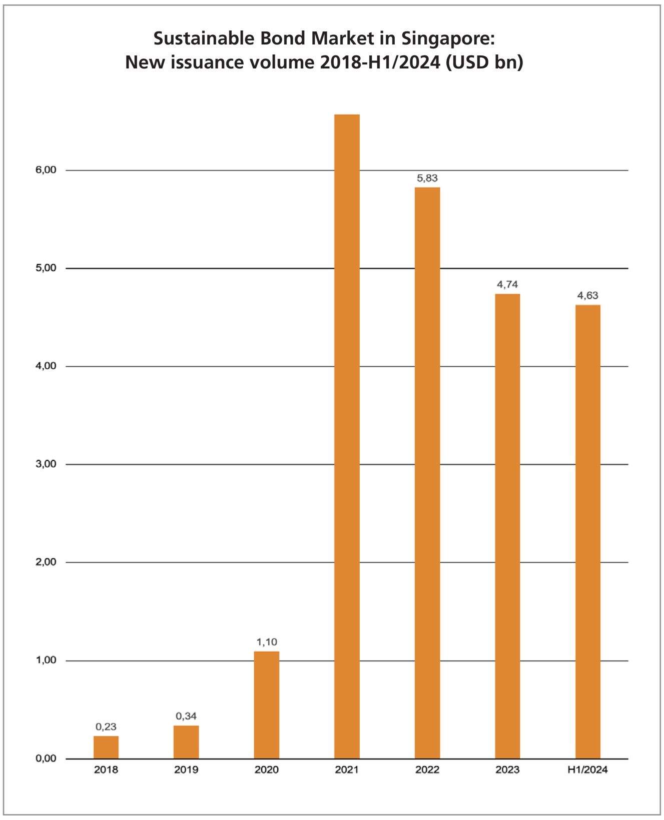
To enable the above outcomes, MAS will continue to grow and scale Green FinTech solutions. MAS will also continue investing to develop the skills and capabilities of the Singapore workforce.

Sustainable Bond Market in Singapore

In both cumulative and absolute terms, Singapore is the clear leader and most developed market in ASEAN. It is the leader in Green Bonds, Sustainability-Linked Bonds and Sustainability-Linked Loans, accounting for around 60% of cumulative ASEAN issuance. We see catch-up potential especially in Social and Sustainability Bonds, which we have rarely or never seen in the Singapore market.

2021 was the strongest year on record for Singapore's Sustainable Bond market so far, with new issuance of USD 6.57 billion.

After two weaker years, with new issuance declining by around 11% to USD 5.83bn in 2022 and around 18% to USD 4.74bn in 2023, Singapore's Sustainable Bond market is currently soaring to new heights. At USD 4.63bn, new issuance almost matched the 2023 full year result after only 6 months.



Source: Bloomberg, DZ BANK.

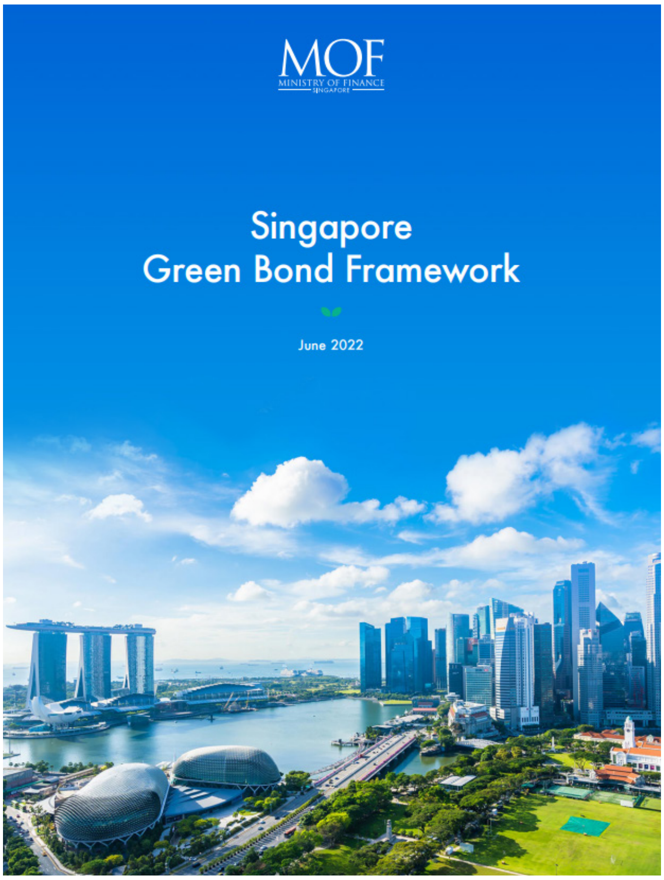
Singapore Sovereign Green Bonds

By the end of the second quarter 2024, more than 50 Sovereigns have issued Sustainable Bonds. Singapore is one of them.

In August 2022, the country issued its first Sovereign Sustainable Bond: an SGD 2.4 billion 50-year Inaugural Sovereign Green Bond, which formed part of the pipeline of up to SGD 35 billion of sovereign and public sector Green Bonds that the Government of Singapore and its statutory boards will issue by 2030. Proceeds from the Green Bond are used to finance expenditures in support of the Singapore Green Plan 2030.

In August 2023, Singapore raised SGD 2.8 billion from a tap of its 50-year Green Bond. In May 2024, the country issued a new SGD 2.5 billion 30-year Green Bond.

The Singapore Green Bond Framework is aligned with the core components and key recommendations of the Green Bond Principles 2021 and the ASEAN Green Bond Standards 2018.



Source: Miinistry of Finance Singapore.

Source: Singapore-Asia Taxonomy for Sustainable Finance, 2023 Edition.

Eligible Green Categories are Renewable Energy, Energy Efficiency, Green Buildings, Clean Transportation, Sustainable Water and Wastewater Management, Pollution Prevention, Control and Circular Economy, Climate Change Adaptation, Biodiversity Conservation and Sustainable Management of Natural Resources and Land Use.

Any expenditure related to the following activities will be excluded from the Green Categories: Fossil fuel, fossil fuel electric power generation projects, and energy efficiency improvement projects for fossil fuel-based electric power generation; Vehicles powered through fossil fuel combustion; Non-certified sustainable palm oil; Nuclear energy; Lethal defence goods; Weaponry; Gambling; Alcoholic beverages; Tobacco products; Conflict minerals; Activities or projects associated with child labour or forced labour.

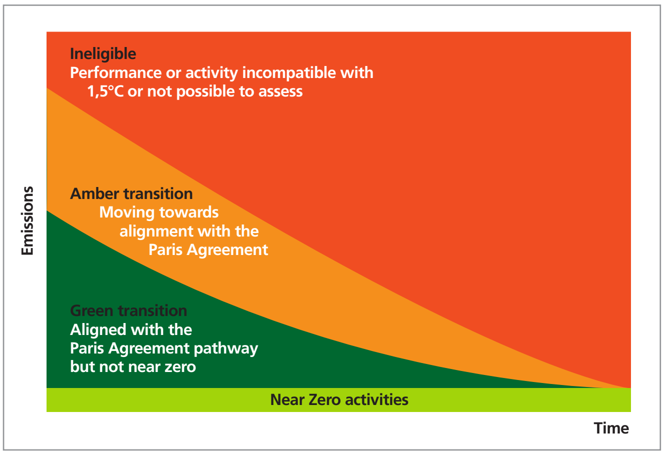
The world's first multi-sector transition taxonomy

During COP28 in Dubai in December 2023, the MAS launched the Singapore-Asia Taxonomy for Sustainable Finance (Singapore-Asia Taxonomy), the world's first multi-sector transition taxonomy.

The Singapore-Asia Taxonomy is the first taxonomy globally to pioneer the concept of a "transition" category. This is in recognition of the need to properly contextualise "transition" for the Asian region.

Transition activities are comprehensively defined through two new approaches:

– A traffic light system that defines green, transition and ineligible activities across the eight focus sectors. "Transition" refers to activities that do not meet the green thresholds now but are on a pathway to net zero or contributing to net zero outcomes. To signal the importance of progression towards a 1.5°C aligned outcome, transition thresholds do not last indefinitely and have a sunset date.



Source: Singapore-Asia Taxonomy for Sustainable Finance, 2023 Edition.

– A "measures-based approach" that seeks to encourage capital investments into decarbonisation measures or processes that will help reduce the emission intensity of activities and enable the activities to meet the green criteria over time.

The Singapore-Asia Taxonomy provides a credible framework to phase-out coal-fired power plants (CFPPs), which is a critical part of the energy transition in the Asia-Pacific region where coal accounts for almost 60% of power generation. To ensure credibility of the early coal phase-out process, the Taxonomy sets out both entity and facility-level criteria that are aligned to a 1.5°C scenario. Such criteria include that the electricity generated from the phased-out CFPP has to be fully replaced with clean energy within the same electricity grid and the coal plant needs to have a just transition plan.

Singapore Sustainable Finance Association

In January 2024, the MAS and the financial industry established the Singapore Sustainable Finance Association (SSFA), building on the success and achievements of the industry-led Green Finance Industry Taskforce.

The SSFA is the first multi-sectoral industry body to support the development of Singapore as a leading global centre for Sustainable Finance, fostering closer collaboration across asset classes in the financial sector and strengthening the linkages with sectors of the real economy to support the growth of Singapore as a trusted, vibrant, and inclusive centre for Sustainable Finance.

As a start, the SSFA will focus on five priority workstreams: Carbon Markets; Transition Finance; Blended Finance; Natural Capital & Biodiversity; Taxonomy.

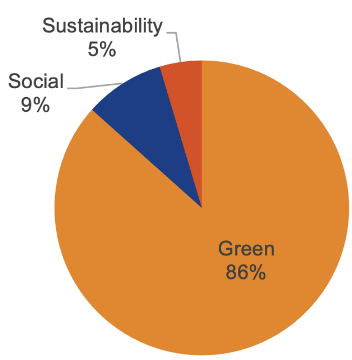
DZ BANK recently became a General Member (FI Partner) of the SSFA. In a forthcoming issue of our Sustainable Finance Bulletin, the SSFA will present itself in detail in a guest contribution.

The Sustainable Debt market in Hong Kong at a glance

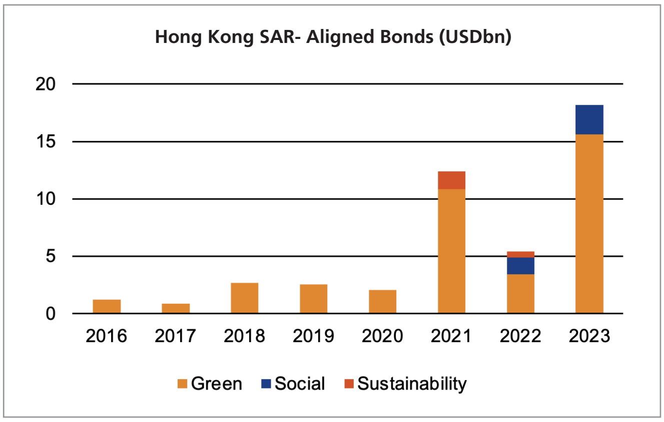
The Asian region plays a pivotal role for our fight against climate change. Hence, it is important to implement and foster a robust and credible sustainable finance market in the region. Hong Kong leads the way: In 2023, the volume of sustainable bonds increased by 236% as compared to the year before, as just revealed by the sixth Climate Bonds Initiative (CBI) Hong Kong Sustainable Debt Market Briefing, with a volume of USD 18.2bn. These numbers are confirmed by our own internal DZ BANK database. Most of the bonds are focused on the green theme, which made up USD 15.63bn of the sustainable debt issued in last year. This not only translates into a year-on-year growth of 173.3%, but also into a top ten position of Hong Kong as source of green bonds. However, the main driver for this growth was the Government Green Bond Program, which accounted for 92.4% (or USD 14.4bn) of the overall green bond market. The private sector surely needs to catch up on relative numbers, while we should not underestimate the influence of public sector issuers on local sustainable finance markets, which can issue at larger scales and set the path for private capital.

But official institutions do not only act as a role model: In order to further accelerate sustainable finance flows and to provide more guidance on what activities and projects can be classified as green, the Hong Kong Monetary Authority published the Hong Kong Taxonomy for Sustainable Finance (Hong Kong Taxonomy) on 3rd May 2024. After a discussion paper has been released in May 2023, the recently released green classification framework reflects the feedback received from various stakeholders from the region.

Hong Kong SAR- Distribution of Aligned Bonds



Source: Climate Bonds Initiative, DZ BANK



Source: Climate Bonds Initiative, DZ BANK

The current version comprises 12 economic activities under four sectors, namely power generation, transportation, construction as well as water and waste management. Unsurprisingly, the focus is on sectors with the highest carbon emission volumes. Guided by the principles of interoperability, comparability and inclusiveness, its target is to facilitate an easy navigation among the existing Common Ground Taxonomy, China's Green Bond Endorsed Projects Catalogue and the EU Taxonomy for Sustainable Activities. This part is particularly relevant, as we will only be able to achieve the common and global goals of the Paris Agreement with harmonized and aligned regulations and guidelines that clearly define what is green and sustainable. The Taxonomy focuses on the topic of Climate Change Mitigation but acknowledges that Do No Significant Harm (DNSH) and Minimum Social Safeguards (MSS) criteria are important for the interconnectedness of sustainability issuers. They are not an explicit part of the Taxonomy yet but will be further examined in the future.

Time will tell whether the Hong Kong Taxonomy achieves its goal to raise awareness about green finance, to promote common understanding on green activities, to facilitate green finance flows, and to provide a foundation for further applications. The more pragmatic Asian approach is encouraging, as the Sustainable Finance regulation in Europe is currently very complex and requires a lot of efforts from companies on the reporting side, while it is still not clear whether it has an actual impact on sustainability yet.

DZ BANK Day on Sustainable Transition – Seminar takeaways from Singapore

Financing the brown to green transition: opportunities and challenges

Transition finance is a crucial component of global ambitions to achieve a sustainable economy, deliver on net-zero commitments and mitigate climate change. The funding needs are vast. Research shows that the global transition finance gap stands at about USD 4 trillion per year.[1)]

Naturally, both private and public sector financiers need to take action to plug some of that gap. Until now, public transition and climate finance has grown faster than private finance, but this is likely to change in the future given the huge amount of private capital in the global financial system.

The fixed income market, for one, is already playing an increasingly important role in financing the sustainable transition of corporations and sovereigns worldwide.

Case in point: global green, sustainability and social bond volumes have soared from USD 198.2 billion through 615 deals in 2018 to USD 776.1 billion from 2,085 deals in 2023, shows Dealogic data. There are expectations for volumes to hit USD 1 trillion in the near future.

Global sovereigns are also playing a big role in embracing environmental, social and governance linked fundraising. For example, the Republic of Iceland printed its first green bond in March 2024, raising € 750 million from a deal that was more than nine times oversubscribed, said Marcus Pratsch, Head of Sustainable Bonds and Finance at DZ BANK, one of four lead managers on the fundraising.

DZ BANK also helped the Federal Republic of Germany sell a € 3 billion green bond in early June in another successful deal. Pratsch said about USD 180 billion in global sovereign sustainable bond issuance is expected this year.

"The road to a sustainable economy needs capital markets as we enter a new age of finance," Pratsch added, speaking during the DZ BANK Day on Sustainable Transition in Singapore in mid-June.

That requires a certain innovative streak, to devise deal structures that support both issuers and investors.

Sustainable covered bonds are a great example, given their contribution to climate neutrality and their support for low-carbon

1) Asia leads the way as transition finance seeks to plug the net-zero investment gap | Fidelity Singapore

activities – like the construction of new buildings – and for transitional activities, like the renovation of existing buildings, reckons Pratsch.

"We are in a race to attract private capital to transition, which is becoming an important part of the ESG market," he added. "It's not just about making companies greener; it's about leaving no one behind in this brown to green transition journey."

Corporate strengths

In addition to the work being done by financial institutions like DZ BANK, other players are throwing their weight behind ESG to reach net-zero and to be able to meet the targets of the Paris Agreement.

DZ BANK's seminar in Singapore – organised in partnership with SGX Fixed Income and the Singapore Sustainable Finance Association – hosted delegates at the forefront of the transition journey in Europe, such as Airbus, Lufthansa Group, SAP, Siemens Energy and Union Investment, who shared how they are facilitating the decarbonisation of high-emitting industries, while supporting economic growth and spearheading innovation.

Take Siemens Energy as an example, a company spun out from Siemens AG in 2020. The German group develops technology that enables energy transition, with one-sixth of global electricity generation based on its technology, said Dieter Vollkommer, Vice President of Sustainability. The firm has identified various levers to decarbonize the energy system, among them: the shift from coal to gas and eventually to hydrogen , renewable energy sources, the electrification of fossil driven processes and increasing the energy efficiency.

The challenge is far bigger for aviation leaders, given the industry accounted for some 2% of global energy-related CO_2 emissions in 2022.[2)]

Philipp Bonkatz, General Manager for Singapore, Malaysia and Brunei at Lufthansa Group, said achieving net-zero targets won't be easy but more air transport companies need to start being part of the solution rather than part of the problem. Using more modern and efficient aircraft and engines, optimising the use of fleet, waste management, carbon offsets and a bigger focus on developing the production and use of sustainable aviation fuel (SAF) are the priorities, he said.

His comments were echoed by Hélène Burger, Head, International Cooperation and Sustainability, Asia Pacific, Airbus, who said the firm's carbon footprint is dominated by scope three emissions, which help guide their operations towards a more sustainable future.

"There's no one silver bullet to decarbonise aviation," she said, adding that Airbus is at the forefront of delivering the latest generation of aircraft that improve airline operations to reduce fuel burn. At the same time, Airbus is supporting the development of SAF that complies with international (ICAO CORSIA) standards and to bring disruptive technologies that aid this transition towards Sustainability.

Airbus, she added, wants to bring to market a hydrogen-powered aircraft by 2035.

German multinational software company SAP is doing its part too in helping corporate clients with their transition journey. SAP technology enables corporates globally to act on climate action, circular economy, social responsibility, and the connection of financials and non-financials, said Mareike Parisi, Senior Manager for Corporate Sustainability at SAP, at the seminar.

Regarding SAP's own emissions, Parisi shared that while the company became carbon neutral in its own operations in 2023, it is now on an ambitious path to become Net Zero in 2030, cutting down emissions along the entire value chain.

Friedrich Luithlen, Head of Debt Capital Markets and Syndication at DZ BANK, added that industry drives transformation.

"It starts with the ingenuity of engineers and the imagination of entrepreneurs. It then requires the agility of regulators and lawmakers. The role of finance to efficiently channel the funds and manage the financial risks is important but remains a consequence of the former factors," he said.

Roadblocks ahead

The efforts across the board are laudable. But all the speakers highlighted the numerous challenges they have had to overcome on their transition journey – and the many roadblocks still ahead.

Here, Asian markets and European markets have taken slightly different approaches.

Mervyn Tang, Head of Sustainability, Asia Pacific, at Schroders, pointed out that the challenge in Asia is finding not just a way to fund already green assets, but also money to work towards high carbon industries that need to decarbonise.

2) Aviation – IEA

"That's where transition finance comes in, whereby financial institutions are able to invest or lend to high carbon industries in a way that's still consistent with the decarbonisation objective. That's what Singapore has been focusing on with its taxonomy."

Vollkommer from Siemens Energy reckons regulation in Europe "is quite extensive" and that it must be ensured that the funding actually flows into the transition technologies that actually need it.

Careful navigation of the regulatory environment is needed. Eric Cheah, Head, Investment Management Asia Pacific, Real Estate at Union Investment (the investment arm of DZ BANK), pointed to the importance of not just complying with the taxonomy in your home market, but also adhering to regulations in the jurisdiction in which you're investing. "That's where the complexity comes in," he reckons.

This means taxonomies and subsidies should go hand in hand.

"Taxonomies are an effective way to get the process started and they need to be accompanied and followed up by subsidies to make progress fast," said Bonkatz from Lufthansa. "That's where e.g. the Singapore taxonomies do a good job as they are more realistic in their approach."

Complying with the Science Based Targets initiative goes some way in giving market participants a way to measure the impact of their initiatives, lend credibility to their ESG efforts and get to the point where CO_2 emission reductions are considered a corporate's key performance indicator in line with revenues and profitability.

But the speakers all agreed that while the efforts to meet the SBT may be worthwhile, the process itself is onerous and expensive, posing a challenge to smaller companies keen to brandish their ESG qualifications.

All this shows that the journey to transitioning is only just beginning. There was broad consensus that market participants need to find ways to balance regulation and innovation, navigate regional disparities and find economically viable solutions to make the transition story a success. Collaboration and standardisation of regulations will be key to getting financing for projects that deserve them.

"It is a privilege to host German global industry champions in Asia around their transition stories," said DZ BANK's Luithlen. "Our core strength in the German economy is engineering. The economic incentives in Europe's large internal market are built to foster a transition industry. Combine that with global finance and you have a winning formula."

How can DZ BANK help?

DZ BANK can offer expert advice on navigating the complex regulatory landscape of transition finance, thanks to its strong footprint in both Europe and Asia and its understanding of frameworks in both the regions. It can also provide the necessary capital needed to invest in new technologies supporting transition – and facilitate a path to the capital markets.

DZ BANK Day on Sustainable Transition – Interview with Siemens Energy

Advancing sustainable transition one step at a time

Transition financing has fast emerged as a critical tool for enabling the global shift from carbon-intensive activities to sustainable practices. Helping businesses and economies move away from brown or carbon intensive activities to green, low-carbon, ones is the need of the hour.

That pivot, of course, needs financing. According to a study by Allen & Overy and the Climate Policy Initiative[3)], some USD 6.2 trillion of climate finance is needed annually between now and 2030, and USD 7.3 trillion by 2050, to deliver on the world's net-zero ambitions.

It's a big challenge, but industries and companies are increasingly recognising the need to integrate sustainability into their operations now to ensure a viable future.

One company that is at the forefront of tackling the challenges around transition is Siemens Energy, a Munich-based integrated energy technology company which works with its customers and partners on reducing greenhouse gas emissions and making energy reliable, affordable, and more sustainable.

3) How-big-is-the-Net-Zero-financing-gap-2023.pdf (climatepolicyinitiative.org)

At a seminar organised in mid-June in Singapore by German financial institution DZ BANK, in partnership with the SGX Fixed Income and Singapore Sustainable Finance Association, a delegation of European sustainable transition leaders shed light on their work on transitioning, the hurdles they face and the long road ahead in their sustainability journey.

Finding solutions

Dieter Vollkommer, Vice President Sustainability at Siemens Energy, said in an interview that the conversations around transition have changed significantly in recent years – moving from a more educational conversation about five years ago with suppliers to now active dialogues around solutions to reducing scope 1, 2 and 3 emissions.

A look at our portfolio shows that we need materials from sectors that are difficult to decarbonize," said Vollkommer. "For example, we need steel and cement. We have to work closely with our suppliers and develop solutions to reduce our carbon footprint. Most suppliers are aware of their impact on the climate and the environment and are already working to become more sustainable.

Siemens Energy itself made important strides. In the 2023 financial year, it achieved its target of 100% share of renewable electricity and is on a good way to achieving its decarbonisation targets. It has committed to exiting from new coal projects, sells gas turbines that are ready to be run on hydrogen in the future and has bolstered its renewable energy capacity significantly.

Vollkommer added that it was "fascinating" to see the energy and the passion for sustainability among speakers at the seminar, hear their commitments to the cause, as well as the challenges they face in transitioning.

"That's why I am grateful to DZ BANK for organising this event, because all this transition needs to be financed and supported by financial institutions," said Vollkommer. "And at the event, you could sense how the finance industry is not just pointing out the problems and the challenges around transition but also seeking solutions."

Dose of pragmatism

The other speakers at the seminar included representatives from the Lufthansa Group and Airbus, as well as SAP, Union Investment and Schroders.

Vollkommer pointed out that the panels provided some much-needed insight into the different approaches to transition in Asia and Europe, including the use of taxonomies in Asia to steer innovation and investments into transition financing.

In Asia, where rapid industrialisation and economic growth have significantly boosted energy demand, the importance of transition financing is particularly pronounced. After all, Asia accounts for half of global carbon emissions and produces about 85% of its energy from fossil fuels.[4] Growing the amount of funding available and the ways it can be deployed are necessary to meet critical climate targets.

"It feels like Asia is approaching some of the challenges in a more pragmatic way, in starting to change and making progress. Every minute counts so it's necessary to start now and not wait for the perfect solution to create impact."

Vollkommer added: "I would recommend this seminar to other corporates because it's a really good exchange between the corporate speakers and the financing sector. It's a good occasion to learn more about what's going on in Asia and feed that through to our Asia operations and globally."

How can DZ BANK help?

Siemens Energy's experience from the seminar underscores the value of these engagements and provides a compelling case for other corporates to participate in future events. The seminar not only provided actionable insights but also reinforced the commitment needed from everyone to drive the sustainability agenda forward. To learn more about how DZ BANK can help with your fundraising, sustainability or transition financing plans, please contact us today.

4) What will it take to finance Asia's green transition? – Temasek

DZ BANK in Hong Kong: bridging sustainability and building talent

Hong Kong is an International Financial Centre and the "Super-Connector" between China and the World. Nowhere is this more evident than in Sustainable and Transition Finance. In 2023, the city of 7,5mn people issued USD 15,6bn of green debt, putting it in 10th place globally.[5]

One reason for this disproportionally strong showing is the Common Ground Taxonomy (CGT) jointly developed by the People's Bank of China and the European Commission. The CGT maps the differences and similarities between the EU Taxonomy and the Chinese Green Bond Catalogue. It forms the basis for Hong Kong's own Taxonomy which was published in May 2024.

In devising the Hong Kong Taxonomy, the HKMA relied strongly on the expert advice of various stakeholders. One group particularly well suited to opine on Interoperability with European Standards is the Sustainable Finance Working Group (SFWG) of the European Chamber of Commerce in Hong Kong. The SFWG brings together banks, fund managers and insurers from all the major European countries. Germany is represented by DWS and DZ BANK AG, whose Branch Manager Johannes Hack has been Co-Chair of the Group since its inception in 2021.

Besides its feedback on alignment of taxonomies, the Working Group puts particular emphasis on developing talent in the ESG sphere.

Under the motto "Hong Kong's Got ESG Talent", the Group's members personally offer young students and professionals the chance to join a 9 month mentoring. Now in its third year, the first two runs twinned more than 60 mentees from different backgrounds with ESG professionals from a wide range of European banks. As with any successful mentoring, the sharing goes both ways – while the mentees benefit from the working experience of the mentors, the mentors profit from having their views and advice challenged from a fresh perspective. In Hong Kong, this is all the more important as there are significant differences in how the road to net zero is shaped. Where Europe's focus often is on "pure" green, Asian circumstances and mindsets may require a shift of perspective to the importance of transition finance activties.

By co-chairing the Sustainable Finance Working Group, DZ BANK's Hong Kong branch hopes to support the city in its role as Asia's leading Green Finance hub today. By mentoring interested students, we hope to help shape the generation that will take over the difficult task of leading Asia to a more sustainable future tomorrow.

Guest article:

Lufthansa Group – Leading Sustainable Aviation in APAC

Author: Sarah Lang

Lufthansa Group, a leading European aviation conglomerate and the fourth largest airline group globally, has made significant strides in incorporating sustainable practices into its operations. Sustainability is an important topic for Lufthansa Group, and its airlines are committed to reducing their environmental impacts while contributing to a more sustainable future.

Despite the perception that the aviation industry is inherently at odds with sustainability, Lufthansa Group has recognized the importance of addressing environmental concerns and has taken proactive steps to minimize its carbon footprint. From investing billions in new and more fuel-efficient aircraft to implementing eco-friendly practices in its operations Lufthansa Group is dedicated to making a positive impact on the environment, including by driving forward the development of sustainable aviation fuels (SAF).

Lufthansa Group's Paris Climate Act-Aligned CO_2 Targets

Lufthansa Group is the first European airline group that has a scientific based reduction target in alignment with the Paris climate act from 2015.

5) Hong Kong Green and Sustainable Debt Markt Briefing 2023, CBI, June 2024

– By 2030: Halving net CO_2 emissions, as compared to 2019
– By 2050: CO_2 neutrality (Net-zero CO_2 emissions)

Through fleet optimization, operational efficiency, and the increased use of Sustainable Aviation Fuels (SAF), Lufthansa Group aims to reduce net CO_2 emissions by 50% by 2030, as compared to 2019, certified by the independent and internationally recognized Science Based Targets Initiative (SBTi). The company also sets ambitious targets for CO_2 neutrality by 2050 and engages in short-term initiatives to eliminate single-use plastics, reduce food waste, and increase waste recycling.

Partnerships for Aviation Sustainability

Lufthansa Group emphasizes the importance of collaboration with partners across different industries for technology advancement and sustainability efforts. Partnership plays a crucial role in Lufthansa Group's sustainability initiatives and in providing a seamless customer experience.

Together with leading global chemicals and coatings manufacturer BASF, Lufthansa Group has developed a functional biomimetic technology: a film with a barely perceptible ribbed texture of small protrusions – called riblets. Utilizing sharkskin technology would allow fleets of aircraft to save many tons of kerosene and thereby reduce CO_2 emissions annually. Known as AeroSHARK technology, these riblets are a durable bionic film that successfully mimics the skin of sharks and optimizes airflow, thus enabling significant fuel savings.

Lufthansa Group also invests in the start-up environment. The start-up SQUAKE, which emerged from the Lufthansa Innovation Hub, has been an independent company since 2021 and is playing a pioneering role in the travel and logistics sector. It offers companies in this sector the opportunity to accurately calculate CO_2 emissions for various business activities, including air, road, and sea travel, as well as accommodation. SQUAKE's offerings also include various offsetting options, such as SAF, Direct Air Capture, and reforestation projects. To utilize these, SQUAKE connects its customers with reliable and established offsetting partners worldwide.

Advancing Sustainable Aviation Fuel (SAF) production is a key priority for Lufthansa Group. In partnership with fuel providers and companies like Synhelion, Lufthansa Group is at the forefront of innovative solutions. Notably, Lufthansa Group Airlines were the first to produce SAF from solar energy and to operate a flight using solar fuel, marking a significant breakthrough in eco-friendly aviation. Collaborating closely with travel agencies and corporations, the airline is actively promoting the adoption of SAF.

Lufthansa Group's intermodality efforts and the role of the APAC region

The APAC region is crucial for the Lufthansa Group's international operations, offering a growing and lucrative market for the aviation industry. The Group has a strong presence in the region, providing a wide range of flights and forming partnerships with local airlines. The region's increasing demand for air travel and technological innovation aligns with Lufthansa Group's growth and expansion plans, leading the Group to invest in and expand its presence in the region.

Lufthansa Group is enhancing its intermodality efforts by integrating various modes of transportation. This approach combines air travel with local land transport options, expanding destination choices for travelers and improving overall travel efficiency and convenience. Lufthansa Group currently has an intermodal network of more than 40 destinations in five countries with about 3,000 connections per week. As the leader throughout Europe, the Lufthansa Group is now expanding its strategic rail and air network to Asia.

As a first outside of Europe and a first for the Asia-Pacific region, Lufthansa Group has partnered with KORAIL, the primary train operator in South Korea, to offer passengers the flexibility of air-to-rail options when traveling within South Korea. In addition to providing additional choice and flexibility for customers, intermodality also reaffirms the commitment to sustainability, giving guests a sustainable option for domestic travel within South Korea.

Lufthansa Group's Innovative Green Fares Initiative

The Lufthansa Group has pioneered a groundbreaking initiative in the aviation industry with the launch of Green Fares. These fares are designed to cater to environmentally conscious travelers by integrating sustainability into the ticket pricing structure. Green Fares have proven particularly effective in boosting sales in regions with a strong focus on sustainability, such as the Nordic countries, Germany, and the Netherlands. This initiative not only appeals to eco-minded passengers but also stimulates domestic travel by providing a greener travel option.

Building on their success in Europe, Lufthansa has expanded the Green Fares to Asia, with Singapore being a key testing ground. This expansion aims to meet the growing demand for sustainable travel options among environmentally aware travelers in the region.

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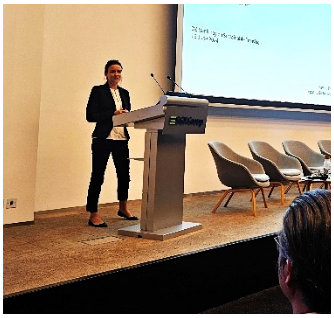
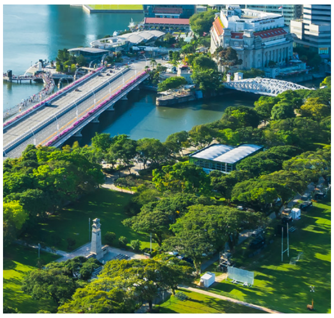
Impressions from the Day on Sustainable Transition in Singapore









Impressions from the Day on Sustainable Transition in Hong Kong