UNITED ARAB EMIRATES
MINISTRY OF CLIMATE CHANGE
& ENVIRONMENT

UAE Green Bond and Sukuk Program Development

Situation Analysis Report

2022

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The UAE Green Bond and Sukuk Program Development – Situation Analysis has been developed by the Ministry of Climate Change and Environment (MOCCAE) as part of the implementation of sustainable financial practices in the UAE, in partnership with the Global Green Growth Institute (GGGI).

This study has benefitted from the inputs of experts from key institutions in the sustainable finance space, including the Ministry of Finance, Abu Dhabi Islamic Bank (ADIB), Bank of Baroda, BNP Paribas, Emirates Nature – WWF, ING, RAKBANK and Standard Chartered.

Table of Contents

1. Vision and Mission

In recent years, the concepts of mainstreaming sustainability and the pursuit of green economic practices have emerged as strategic priorities for many governments and intergovernmental organizations. Beyond the impacts presented by the potential physical damages brought about by changing weather patterns and climate-related events, there has been growing consensus and acceptance on the emergence of economic risks as a result of climate change.

Sustainable finance remains one of the crucial pillars supporting the development of a successful, green and resilient economy. For its part, the UAE seeks to become a global hub for sustainability through innovative solutions that protect and sustain the environment and economy for future generations. This commitment is underpinned by a number of national and emirate-level initiatives, such as the UAE Vision 2021 National Agenda, the Dubai Declaration on Sustainable Finance in 2016, the Abu Dhabi Sustainable Finance Declaration in 2019, as well as the Sustainable Finance Framework launched at the beginning of 2021.

The Sustainable Finance Framework was a landmark effort pioneered by MOCCAE to support the mobilization of private capital towards low-carbon, environmentally sustainable, and climate-resilient investments. The Framework was developed through strong stakeholder collaboration, with insights gathered from leading financial institutions and relevant public sector stakeholders, to inform on the areas of intervention which require the most attention.

Enhancing the supply and demand for sustainable finance products and green investment projects has been prioritized as a key action theme of the Framework, along with strengthening the enabling environment to promote sustainable finance activities. To take forward this goal, as well as the objectives of the UAE Green Agenda & Circular Economy Policy, MOCCAE set out this year to explore potential

public interventions to further develop the domestic green bond and sukuk market. In filling the gap between the supply and demand for financing for sustainability-aligned projects, green bonds have emerged as an increasingly popular financial instrument for sovereign issuers, as well as corporate financiers. Government-led support in the development of a domestic green bond and sukuk market would not only allow for higher volumes of green investments, but would also further establish the UAE's status as a regional hub for sustainable finance.

Though green bond issuances have been on the rise in recent years, they may still not be adequately understood by the wider financial services community. To achieve the desired scale of issuance, one challenge is to encourage issuers that may already have portfolios of suitable green projects to access the green bond market in order to finance these projects. To increase awareness and to help bridge any information gaps, MOCCAE has developed this Situation Analysis report to lay out the fundamentals of green bonds and current conditions in the UAE marketplace, along with recommendations for further review and to be taken forward to further develop a domestic green bond and sukuk market. During the development process, relevant stakeholders were consulted in both the public and private sectors to gauge their market readiness for issuing and investing in green bonds, as well as the needs and priorities for the development of the green fixed income market in the UAE.

2. Global Green Bond and Sukuk Market Landscape

The United Nations has cited the emergence of green bonds as "one of the most significant developments in the financing of low-carbon, climate-resilient investment opportunities"[i]. Sovereign and corporate green bonds and sukuk share the same characteristics as conventional bonds in terms of structure, risk and returns. The distinguishing attribute is the additionality of an identified "green" purpose in its use of proceeds, earmarked for projects with an environmental benefit, including those addressing climate change mitigation and adaptation. Similarly, a green sukuk operates fundamentally the same as a traditional sukuk or Shari'a-compliant, interest-free bond, but with specified climate-focused use of proceeds.

Following the debut of green bonds in 2007 with the European Investment Bank (EIB)'s EUR 600 million issuance (labelled at the time as a Climate Awareness Bond), Multilateral Development Banks (MDBs) remained the sole issuers of green bonds until 2012, with the launch of the first corporate green bonds. The introduction of the Green Bond Principles (GBPs) by the International Capital Market Association (ICMA) in 2014 additionally helped to create more transparency for investors and clarified requirements for issuers. With the entrance of corporate supply and demand, the green bond market has since seen significant expansion. By December 2020, the global green bond market reached a significant milestone, surpassing $1 trillion in cumulative issuances[ii]. It must be noted, however, that notwithstanding this remarkable growth, the global green bond market still remains limited in size; in comparison, the total outstanding in the overall global bond market stood at $128.3 trillion as of August 2020[iii].

As the principles of Islamic finance are closely aligned with sustainable investment, there are natural opportunities for the growth of the green Islamic finance market. In fact, in recognition of the significant overlap between environmental, social and corporate governance (ESG) and Shari'a principles, Dubai Financial Market (DFM),

which became the world's first Shari'a compliant capital market in 2007, has since updated its Shari'a standards to cater to growing investor interest in sustainability[iv]. Moreover, given their asset-based nature, sukuk are inherently suited to project financing, including for sustainable investments, such as the construction of renewable energy power plants, green buildings, and environmentally-friendly mass transport infrastructure.

In July 2017, the principles of green and Islamic finance were merged through the issuance of the world's first green sukuk by Tadau Energy, a Malaysian energy company; the proceeds of the MYR250m green sukuk were used to finance a large-scale solar photovoltaic power plant. The global green sukuk market remains significantly smaller than the green bond market, representing only 2.4% of all sukuk issuances and 1.7% of green bonds globally in 2019[v]. This low level can be explained by the fact that the sukuk market itself remains relatively small compared with global bond issuance volumes, despite marked growth in recent years. As of September 2020, total green sukuk issuances amounted to approximately $10 billion across twelve unique issuers in Indonesia, Malaysia, Saudi Arabia and the United Arab Emirates, as well as one multilateral development bank[vi].

2.1 Development of the Green Bond Market

The EIB issued the inaugural green bond, labelled as a climate awareness bond[vii], in 2007 in order to secure financing earmarked for future projects in the fields of renewable energy and energy efficiency. With the creation of a new class of fixed income instruments, the World Bank then followed suit with its own SEK 2.325 billion issuance of the first labelled green bond in 2008[viii]. The bond served to catalyze the market for sustainable investing by setting a standard focused on increasing transparency in monitoring and reporting use of proceeds, and in structuring investments for social purpose.

For a number of years thereafter, the supply side of the green bond market was led by small transactions issued mainly by supranational issuers, who became the pioneers of the green bond market. Organizations including the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction (EBRD) and the International Finance Corporation (IFC) all went on to issue green bonds to finance their climate-focused projects. Though in the nascency of the market, MDBs remained the sole issuers of green bonds until 2012, there are, in fact, no limitations on which types of entities can issues green bonds: any private company, supranational (multilateral and national development banks), government (city, regional and sovereign levels), government agency (export credit agencies, export-import banks) or financial institution that is in a position to issue a conventional bond can similarly approach the market with a green bond (after demonstrating a portfolio of eligible green projects).

In November 2013, Vasakronan, a Swedish real estate company, issued the world's first corporate green bond[ix], with the proceeds of the SEK 1.3 billion bond used to finance upgrades of existing buildings and new building construction to LEED Gold or better certification. The following day, EDF, a French energy company, also entered the market with its own EUR 1.4 billion green bond issuance, with proceeds exclusively dedicated to financing future renewable energy projects[x]. American investment bank, Bank of America Merrill Lynch, then entered the market with a USD 500 million green bond by the end of the month, with proceeds used to finance energy efficiency and renewable energy projects[xi]. The entrance of corporate issuances ushered in a new phase of growth for the global green bond market and by the end of 2013, outstanding green bonds stood at approximately $15 billion[xii].

Green Bond Principles

In January 2014, the introduction of the Green Bond Principles (GBPs)[xiii] by the International Capital Market Association (ICMA) further helped to usher in a wider range of green bond issuers. ICMA is an international not-for-profit organization,

which brings together members from debt securities markets to inform its work on regulatory and market practice issues. To provide the marketplace with a set of voluntary guidelines on the issuance of green bonds, ICMA convened a representative group of issuers, investors and intermediaries in the green bond market to draft the first edition of the GBP. The GBP helped to create more transparency for investors in the evaluation of different green bonds and to demystify the requirements and overall process for potential issuers.

In 2014, the green bond market tripled in size with a total of $36.6 billion of issuances across 73 different issuers[xiv]. While development banks continued to serve as the backbone of green bond issuance, including a number of national development banks which issued their inaugural green bonds, the diversification of supply through the entrance of corporate and municipal bond issuers also acted as a significant catalyst for market expansion.

Though no formally accepted common standard yet exists to guide issuing, monitoring or reporting of green bonds, the GBP have emerged as the de facto procedural point of reference for issuers. The GBP have been periodically revised to reflect the most up-to-date developments in the marketplace, with the most recent edition published in June 2021[xv]. Since its launch, over 400 market participants and relevant stakeholders from across the globe have become Members or Observers of the GBP[xvi], including all the development banks previously mentioned as having contributed to pioneering the green fixed income market. To address the growing interest in other new types of use-of-proceeds bonds, the first editions of the Social Bond Principles[xvii] and Sustainability-Linked Bond Principles[xviii] were launched in 2017 and 2020, respectively.

Climate Bond Standard

Another set of voluntary guidelines which has become widely accepted in the marketplace is the Climate Bond Standard (CBS)[xix]. Despite growing interest from both the demand and supply perspectives, one of the main challenges faced by

investment professionals remains the lack of standardization of definitions in the green investment space. As no commonly accepted market standard for a green bond yet exists, investors face the issue of distinguishing a commitment on the part of the issuer to use the proceeds for genuine, climate-focused activities from a "greenwashing" exercise, whereby the bonds may be labeled as eco-friendly but are not truly driven by environmentally-led objectives. Accordingly, aside from information on the pre- and post-issuance process as provided by the GBP, market guidance was also needed on what constitutes as "green".

The CBS is a voluntary initiative launched in December 2010 by the Climate Bonds Initiative (CBI), an international not-for-profit organization which aims to scale up investments that will deliver a low-carbon and climate-resilient global economy by providing investors, industry and government with resources on green financial market intelligence. The CBS provides clear, sector-specific eligibility criteria for assets and projects that can be used for green bonds and is frequently used as a reference point by institutions setting up their own green bond standards. Meanwhile, the Climate Bonds Standard and Certification Scheme builds on the principles of the CBS to set out a robust certification system, to validate that proceeds from green bond issuances are, in fact, being used to finance and refinance projects and assets that are consistent with the rapid transition to a low carbon & climate resilient future. Though certification by CBI remains voluntary for issuers and there are other intermediaries in the marketplace which similarly provide third-party certification, the CBS has emerged as a widely accepted best practice guideline. As of October 2021, $190 billion of debt across 387 issuances has been certified under the CBS[xx].

2.2 Issuer and Investor Profiles

While in the early stages of the development of the global green bond market, issuances had been largely dominated by supranationals, over the years, the issuer base has significantly expanded across geographies, currencies, sectors and project

types. Similarly, as interest in green bonds and sukuk has evolved globally from niche to mainstream, the investor base has also become increasingly diverse, expanding much beyond solely environmentally responsible and impact investors.

Issuer Profiles

As previously mentioned, any entity which is in a position to issue a conventional bond can similarly approach the market with a green bond (after demonstrating a portfolio of eligible green projects). However, following the issuance of the world's first green bond by the EIB in 2007, labelled green bonds remained a niche market, led only by a small number of AAA-rated development banks. By the end of 2012, the cumulative total of green bond issuances was approximately $7.8 billion, of which corporate green bonds were still non-existent.

In November 2013, Vasakronan, a Swedish real estate company became the world's first corporate green bond issuer with a SEK 1.3 billion bond, followed by a EUR 1.4 billion green bond issuance by EDF, a French energy company, the next day. American investment bank, Bank of America Merrill Lynch, then wrapped up the month with its own USD 500 million green bond. Spurred by these market opening issuances, along with the introduction of the Green Bond Principles in January 2014, which helped to clarify requirements for issuers, corporate green bond issuances have really taken off ever since.

As companies seek to mitigate the impact of carbon transition effects, green bond issuance will continue to grow. As of 2021, corporate issuances represent nearly 60% of the new issuance volume of the green bond market. Over time, companies will increasingly align their business models with a low-carbon future, using green bond proceeds to finance capital investments supporting these business model shifts. The utility sector, for example, has seen a growing number of companies financing their investments in renewable energy projects with green bonds. Even the cleanest of utilities has assets and operations that socially conscious investors would

normally shy away from funding. By including eligible investments falling within their corporate green bond frameworks, utilities can attract sources of capital that may otherwise be inaccessible.

Notwithstanding the growth of corporate issuances, MDBs continue to play a significant leadership role in expanding the green financing marketplace, particularly for Islamic financial instruments. The Islamic Development Bank (IsDB), for example, raised €1 billion through its first green sukuk issuance in November 2019, serving as the world's first AAA-rated green sukuk. The proceeds of the issue were used to finance a range of projects related to climate change, renewable energy, environment-friendly transport, energy efficiency improvement, water management and sanitation[xxi]. The IsDB has also since returned to the market with the issuance of a US$ 1.5 billion Sustainability Sukuk in June 2020 to tackle the aftermath of the COVID-19 pandemic[xxii] and a follow-on US$ 2.5 billion Sustainability Sukuk in March 2021[xxiii]. The latter was the world's largest sustainability sukuk, as well as IsDB's biggest USD public issuance to date. Proceeds will be allocated to finance/refinance green (10%) and social development projects (90%). Both issuances were listed on Nasdaq Dubai.

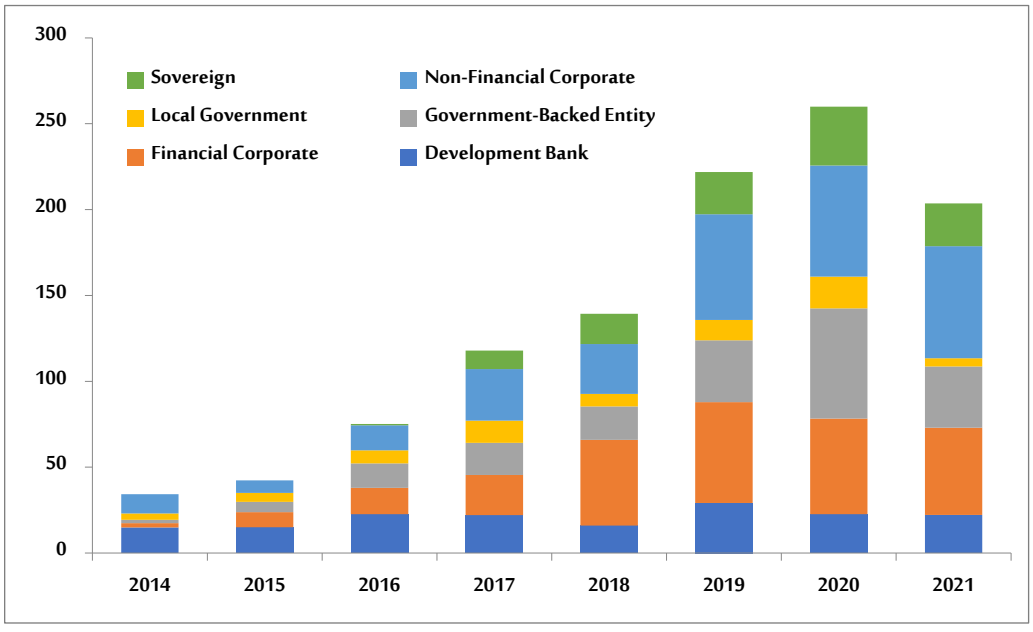
Governments also have a critical role to play in catalyzing the development of their respective national green bond and sukuk markets. Green bonds can serve as a key tool for governments to raise capital to implement infrastructure plans in line with their national climate priorities, including the country's Nationally Determined Contributions (NDCs) as set out under the Paris Agreement. Given the large scale of the budgetary responsibilities of central governments, sovereign issuers have the power to scale up green investments more than any other asset class through the issuance of green bonds and sukuk.

In addition to issuances made by local municipalities, a sovereign green bond can provide a strong signal of the country's commitment to a low-carbon economy by

exhibiting leadership through a demonstration issuance and raising awareness for green capital markets. Moreover, sovereign green bonds and sukuk have the potential to enhance market liquidity, which helps bring down the cost of capital for green projects, as well as encourage prospective public and private issuers to enter the market, which may have a multiplier effect on green bond and sukuk issuance.

The world's first sovereign green bond issuer was Poland in December 2016, approaching the market with a EUR 750 million issuance to finance national green projects. Meanwhile, the world's first sovereign green sukuk was issued by the Republic of Indonesia in February 2018, with the proceeds of the $1.25 billion issuance allocated to projects in nine earmarked green sectors[xxiv]. As of November 2021, over 20 countries have issued sovereign green bonds, and if including other types of thematic bonds earmarked more broadly for "social" or "sustainability" purposes, the number of sovereign issuers would total over 30[xxv].

Figure 1: Green Bond Issuances by Issuer Type (USD, billions)



Source: based on data from the Climate Bonds Initiative

Investor Profiles

At the nascency of the green bond market, investor interest stemmed primarily from European institutional investors, such as pension funds and insurance companies, and from environmentally responsible investors in the United States. As the green bond product has seen significant development in recent years and as the volume of issuances placed in the market has grown in size, the green investor base has also expanded much beyond these initial categories of investors to now include asset managers, foundations, religious organizations and corporations. Moreover, as traditional institutional investors seek to integrate sustainability into their asset allocation and risk management practices, even if that is not considered part of their core mandate, the overall green bond and sukuk market is naturally expected to benefit from the growing demand for green financial instruments.

In April 2006, a year before the issuance of the first climate awareness bond, the United Nations Principles for Responsible Investment (UN PRI) were launched. Recognizing that ESG considerations were not being sufficiently reflected in investment decision-making, the UN PRI were intended to provide investors with a voluntary set of actions to enhance their investment practices. At inception, the Principles were signed by heads of leading financial institutions from 16 countries, representing more than $2 trillion in assets under management (AUM)[xxvi]. Since that time, investor perception of issues such as climate change and action, has shifted significantly, with green bonds having sparked a revolution in thinking about sustainability, purpose and potential for liquid bond investments to achieve a positive impact[xxvii]. As of October 2021, a total of 4,375 institutions have become signatories to the UN PRI, representing $121 trillion in AUM[xxviii].

Investor interest specifically in green bonds has also seen significant development in recent years. Research revealed that as of October 2020, 49 funds allocate, or intend to allocate, more than 50% of their assets to green bonds; at least an additional 6

green bond-focused funds are either newly launched or in preparation for launch in the near term[xxix].

Through a statement released at the start of COP26 in November 2021, the Glasgow Financial Alliance for Net Zero (GFANZ) announced that a commitment of $130 trillion of private capital towards achieving net zero emissions by 2050 has been made collectively by over 450 firms across 45 countries[xxx]. This staggering commitment by firms across the entire financial spectrum—which includes banks, insurers, pension funds, asset managers, export credit agencies and stock exchanges—presents a promising opportunity to tap into a robust investor base for further, large-scale development of the global green bond and sukuk market.

2.3 Issuer and Investor Rationale

The growing interest in green bonds reflects a number of perceived advantages relative to conventional bonds from both an issuer and investor perspective.

Issuers

Financing for green projects and activities

Green bonds and sukuk offer an attractive way to access institutional investor capital for the financing of green projects and activities. As due to the financial structure of the instruments, the relevant risk and returns are determined by the issuer's overall credit profile rather than solely the green projects or assets, issuers can use their creditworthiness to lend support to the deployment of capital towards environmentally-focused initiatives. The use of proceeds earmarked for eligible green expenditures need not even be for new activities. In fact, using green bonds to refinance existing green assets or projects is equally as accepted by investors as using funds raised from green bonds for investment in new projects or assets, as refinancing is a widely accepted function of traditional capital markets and is often the motivation for bond issuances.

As no formally accepted, market-wide standard yet exists as to what constitutes as "green", projects and activities eligible to be financed by green bonds and sukuk are determined by the green bond and sukuk frameworks set out by the respective jurisdictions in which issuers are based and definitions may vary. In principle, all designated green project categories must provide clear environmental benefits, which should be assessed and, to the extent feasible, quantified by the issuer before issuing a green bond. The two most commonly referenced sets of guidelines, the Green Bond Principles and the Taxonomy released by the Climate Bonds Initiative, do provide direction for markets looking to develop their own frameworks; the comparison between the two standards as shown in Table 1 indicates that they largely converge.

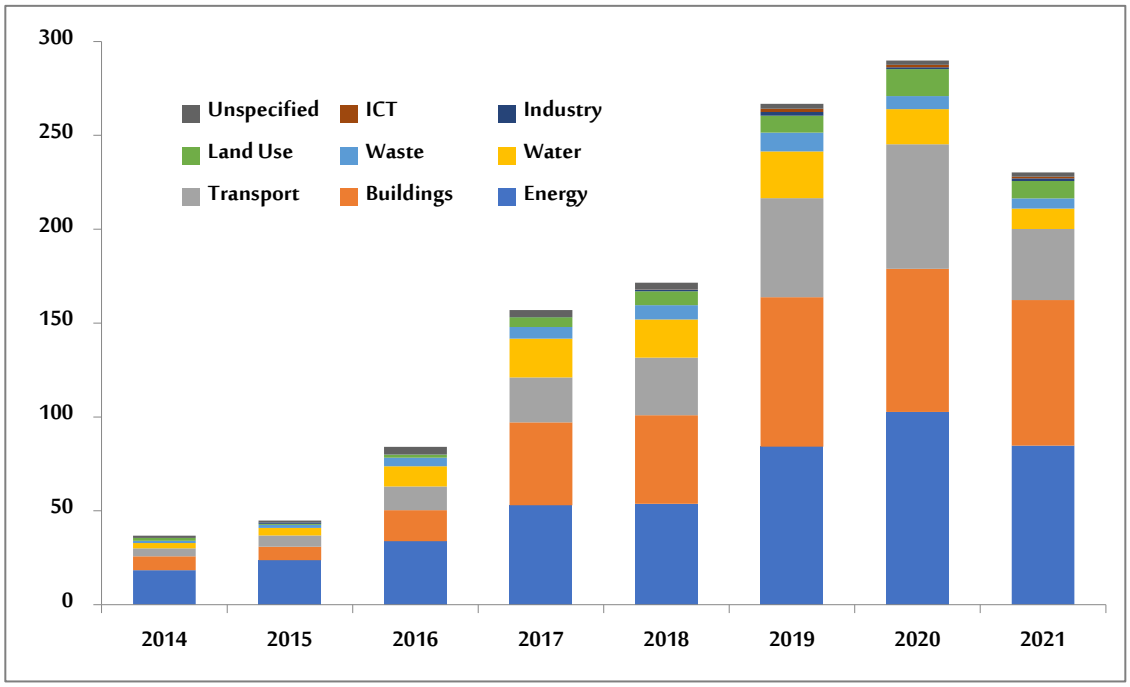
Table 1: High level equivalence across classification standards

Green Bond Principles	Climate Bonds Initiative
Renewable energy	Energy generation, transmission and storage
Energy efficiency	
Pollution prevention and control	Waste management
Environmentally sustainable management of living natural resources and land use	Agriculture, forestry, land conservation and restoration
Terrestrial and aquatic biodiversity conservation	
Clean transportation	Land transport shipping
Sustainable water and wastewater management	Water infrastructure
Climate change adaptation	Not an activity but one of the environmental objectives
Circular economy adapted products, production technologies and processes and/ or certified eco-efficient products	Industry and energy intensive commercial
Green buildings	Buildings

Source: International Capital Market Association

Since the early years of the green bond market, funding for climate-aligned energy projects have been a mainstay of eligible use of proceeds. In recent years, the areas of sustainable buildings and sustainable transport have also seen significant growth.

Figure 2: Green Bond Issuances by Use of Proceeds (USD, billions)



Source: based on data from the Climate Bonds Initiative

Diversification of investor base

Particularly for seasoned issuers which have a demonstrated track record of placing debt in the public market, the funds raised by a green bond or sukuk may very well otherwise have been raised through conventional bonds or sukuk. Green fixed income products, however, allow issuers to diversify their investor base, making such issuers less dependent on specific markets. In particular, green bonds and sukuk have attracted investors from the growing segment focused on sustainable

and responsible investing (SRI) and investors that incorporate ESG criteria as part of their investment analysis.

As the appetite for investment opportunities with robust green credentials grows within the global institutional investor community, including amongst specialized funds looking to invest specifically in green bonds, demand for green bonds and sukuk tends to outstrip supply. This trend has led to a high level of oversubscription compared with non-green issuances, which often gives issuers the flexibility to upsize the bond from its initial offering size and access greater volumes of funding, as appropriate for the entity's leverage and capital structure. A review of green bonds issued globally in the first half of 2021 reinforces the existence of this trend: for bonds issued in EUR, average oversubscription was 2.9x for green bonds compared with 2.6x for vanilla equivalents while for bonds issued in USD, average oversubscription was 4.7x for green bonds compared with 2.5x for vanilla equivalents[xxxi].

Pricing benefits

As green bonds and sukuk share the same fundamental characteristics as conventional bonds in terms of structure, risk and credit profile, the pricing of such green instruments is largely straightforward. Investors are not willing or expected to receive lower returns or to pay extra for the green aspect of the bond and related reporting and so it is generally accepted that green bonds will be priced very closely to regular bonds. Nevertheless, the concept of a 'greenium' has emerged in the marketplace, suggesting that on account of strong investor demand, there is or should be a pricing premium for green bonds and sukuk compared to conventional bonds. Although examples can be found of green bonds trading both above and below the credit curve of their non-green counterparts, the general consensus is that they largely trade in line with conventional bonds.

Academics and financial professionals who have studied the prices of green bonds in both the primary (at issuance) and secondary markets (post-issuance trading) over time have, to date, have also failed to find concrete empirical data to confirm such a pricing advantage. Amongst green sukuk, this yield compression is even harder to observe because the universe is smaller, along with a shorter track record. As such, it must be noted that while there is some anecdotal evidence suggesting that green bonds may have the potential to attract a pricing premium, if an issuer's motivation for issuing a green bond or sukuk is prompted by a desire for cheaper financing, then caution should be exercised.

Enhance issuer reputation and market signalling

The issuance of a green bond is an indication to the market of the entity's commitment to and leadership in social and environmental responsibility. As green issuances tend to be just one component of an entity's much more comprehensive sustainability strategy, they can serve as strong communication tools for corporates seeking to improve their public image and promote their environmental credentials. Meanwhile, for public sector entities like federal agencies, municipalities and sovereigns, green bonds and sukuk are an effective means for raising awareness amongst investors and the broader financial community of green capital markets through a demonstration issuance. A public green bond or sukuk can also serve as a benchmark, thereby enhancing market liquidity, which can have a multiplier effect on green bond and sukuk issuance.

Investors

The growth and evolution of investor demand for sustainable investments has also played a significant role in the development of the green bond and sukuk market. Institutional investors are increasingly looking to exploit investment opportunities that mitigate climate-related risks. Moreover, as institutional investors move to support the transition to low-carbon corporate business practices, both individually

and through associations, the financial community is playing a key role in the mobilization of capital towards green financial instruments.

Just as with issuers, fixed-income investors are using investments in green bonds and sukuk to communicate to their stakeholders their commitment to supporting environmentally friendly investments. As the financial risk and return profiles of green bonds and sukuk are the same as for conventional bonds issued by the same entity, investors are able to balance risk-adjusted financial returns with compliance with ESG requirements and green investment mandates. Investments in sustainable assets through holdings of green bonds and sukuk also allows for greater portfolio diversification while risk assessment can also be improved in an otherwise opaque fixed income market in cases in which detailed post-issuance reporting and disclosure standards are in place.

2.4 Benefits of Green Bonds for Issuers and Investors

Benefits of green bonds can extended to both issuers and investors. For instance, there is increasing evidence of pricing benefits emerging for some issuers, driven by strong investor demand and limited supply. Also, an increase oversubscription of thematic-labelled bonds is perceived.

On the other hand, the growth of the green bond market has attracted a diversified and more mainstream investor base. The institutional investor community (pension fund managers, assets managers, high-net-worth individuals) with large portfolios including those with sustainability-related mandates, are increasingly seeking green and low-carbon investment opportunities.

Benefits for Issuers can include

- Improve investor diversification;
- Enhance issuer reputation;
- Provide an additional source of sustainable financing;
- Increase alignment regarding the durability of instruments and the project lifecycle;
- Attract strong investor demand, which can lead to high oversubscription and pricing benefits (as has been observed in relation to certain issuances).

Benefits for investors can include

- Comparable financial returns with the addition of environmental and/or social benefits;
- Satisfy ESG requirements for sustainable investment mandates;
- Contribute to national climate adaptation, food security, public health, energy supply, amongst others;
- Enable direct investment in the 'greening' of brown sectors and social impact activities;
- Increased transparency and accountability on the use and management of proceeds, becoming an additional risk management tool;

3 UAE's Green Bond and Sukuk Market Potential

3.1 Demand for Sustainable Finance in the UAE

In recognition of existing and potential environmental and climate change risks in the UAE, the concept of the green economy has emerged as a strategic priority for the government over the past decade. As the UAE moves forward in implementing national strategies and promoting a successful transition to a green economy, competent government entities and regulators acknowledge that close coordination and collaboration with the private sector is critical. In particular, the scale of the investment required is well beyond the capacity of the public sector alone, drawing

attention to the importance of sustainable finance as one of the crucial pillars of the green economy.

The need for prioritizing sustainable finance has only become more pronounced during the global COVID-19 pandemic, which has had a profound impact across all aspects of society in the UAE. Beyond addressing the immediate health issues, as the UAE economy looks towards formulating its recovery plans, growing attentions are demanded to better understand and manage ESG risks in addition to climate risks to fend off future disruptions of this magnitude. Therefore, sustainable finance will not only serve as a deal enabler or investor/implementor for sustainable projects, but also as a solution to mitigate and manage current/future risks associated with the wide range of environmental, social, and climate risks.

UAE's Net Zero strategy: an opportunity for more green bonds and sukuk

There is a growing need to address climate change impacts through climate finance and hence arise the importance of increasing the funding for various adaptation and mitigation efforts. Green bonds offer such instrument to mobilize climate finance markets. According to Climate Bonds, Green Bonds have witnessed a 49% growth rate in the five years before 2021, the analysis suggests that by 2023 the green bond market annual issuance could exceed the $1 trillion mark. (world bank, 2021) further, the latest IPCC report, points out to the global need for investment to support the transition to low-carbon, climate resilient (LCR) economy, and in order to avoid the catastrophic climate change impacts the world has only 12 years to do so. Therefore, with the limited time left, countries are evaluating their efforts to scale up the transition. However, given that government balance sheets are being stretched and bank capital becoming constraint, according Climate Bonds Initiative & UNEP Finance Inquiry, 2016, it is crucial for the public sector to access new sources of capital. Hence, having large-scale private capital from institutional investors becomes an attractive alternative option to finance the LCR transition and support the growing interest in climate finance markets such as the green bond market. (Saravade & Weber, 2020)

Through an announcement made at Expo 2020 Dubai in October 2021, the UAE became the first country in the Gulf region to commit to purse achieving net-zero GHG emissions, by 2050. The announcement took place following the conclusion of the Government Accelerator program for

raising Climate Ambition and Economic diversification exercise, which adopted a holistic approach in developing a high-level roadmap for the UAE's pathway to net zero and integrated the work of ministries and private sector entities in cross-sectoral teams.

MOCCAE will lead and coordinate efforts to execute the UAE Net Zero by 2050 strategic initiative and ensure collaboration at the national level to fulfil this objective. Stakeholders in key sectors will update relevant plans, strategies, and policies, and implement initiatives and projects to achieve net zero by 2050 in line with their needs and growth requirements. Consequently, green bonds issuance offers a great potential to finance net-zero transition.

Some of the sectors which have been identified and which will be prioritized in achieving the UAE's net-zero ambition include renewable energy, sustainable transport and climate smart agriculture. In terms of the volumes of investment, it has been previously announced as part of the UAE's Energy Strategy 2050 that the national government will look to invest AED 600 billion by 2050 to meet the growing energy demand and ensure a sustainable growth for the country's economy. The Strategy aims to increase the contribution of clean energy in the total energy mix from 25 per cent to 50 per cent by 2050 and reduce carbon footprint of power generation by 70 percent, thus saving AED 700 billion by 2050. It also seeks to increase consumption efficiency of individuals and corporates by 40 per cent.

The deployment and use of clean energy solutions is one of the main pillars of the UAE's model of addressing the challenge of climate change and reducing GHG emissions. The country began financing clean energy projects more than 15 years ago and has invested over US$40 billion in the sector to date. Current trends predict the production capacity of clean energy, including solar and nuclear, to reach 14 GW by 2030, up from about 100 MW in 2015 and 2.4 GW in 2020. Given the high volume of investments that will be required going forward in order to support the green transition and the UAE's net zero ambitions, securing sufficient financing for sustainability-focused projects will be crucial. Green bonds and sukuk could be one class of financial instruments particularly appropriate for funding this agenda.

3.2 UAE Fixed Income Market

As of July 2021, the value of hard currency bonds and sukuk outstanding in the UAE totaled $189.9 billion[xxxii].

Government Issued Bonds

The Federal Government Public Debt Strategy 2021-2023 was approved by the UAE Cabinet in January 2021, setting out a general framework for motivating the national financial and banking sectors to establish a bond market in the local currency and providing financing alternatives[xxxiii]. Up until that point, the UAE had not raised debt at the federal level, with government bonds having been issued only by individual emirates. The Emirate of Abu Dhabi issued its first $1 billion five-year conventional bond in 2007, prior to the global financial crisis. Liquidity concerns prompted Dubai to do the same in the wake of the crisis with a $20 billion bond issuance in early 2009, half of which was taken up by the UAE Central Bank in a show of financial support for the Emirate. The emirates of Sharjah and Ras Al Khaimah have also since entered the market with their own public bonds and as of July 2021, sovereign bonds represented 29% of total debt in the UAE ($55.2 billion), increasing to a total of 67% (127.5 billion) if including government-related entities (GREs)[xxxiv].

Following indications from the government of interest in a sovereign issuance in the near-term, credit rating agencies Fitch and Moody's provided the UAE government with investment grade ratings of AA- and Aa2, respectively. Acknowledging the sovereign ratings as the highest in the region, His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, cited it as a new achievement for 2020[xxxv].

In October 2021, the UAE's inaugural federal bond was listed on Nasdaq Dubai, a $4 billion bond package comprised of three tranches placed by the Ministry of Finance (MoF). On the back of high oversubscription of 5.6x, the orderbook was increased from the initial target of US$3 billion and the issuance achieved the lowest-ever yield for a debut sovereign from the GCC[xxxvi]. The net proceeds from the bond issuance

will be used for general budgetary purposes including financing infrastructure projects that would help to attract more foreign direct investment into the country. Clarifying the purpose of issuing the bonds, Younis Haji Al Khoori, Under-Secretary of MoF stated, "the UAE issued these bonds to contribute to the development of the bond market and find investment alternatives for investors."[xxxvii]

Corporate Issued Bonds

In accordance with the initiative to grow the market with a benchmark federal issuance, the size of the corporate bond market in the UAE has been fairly small to date. As of July 2021, the value of corporate bonds and sukuk represented only 5% of total debt outstanding in the UAE[xxxviii]. Generally preferring to rely more on bank and equity financing, only a handful of local companies have approached the market with issuances. Fixed income activity has been led primarily by property developers, including Majid Al Futtaim, Emaar Properties, DAMAC Properties and Aldar Properties[xxxix].

3.3 Green Bond and Sukuk Activity in the UAE

Public Sector-Led Activity

Though no public green bonds or sukuk have been issued in the UAE to date, various government entities have independently demonstrated their interest in exploring the broader sustainable capital markets (beyond green bonds and sukuk) and supporting further development.

In a markets brief published in August 2018, the Dubai Financial Services Authority (DFSA) released its Green Bond Best Practice Guidelines[xl] to provide issuers and market practitioners with information about the DFSA's approach to the listing of green bonds. The Securities and Commodities Authority (SCA) also released its

Master Plan for Sustainable Capital Markets[xli] in January 2019, outlining seven pillars to be taken forward.

In January 2020, the Abu Dhabi Department of Energy announced a Green Bond Accelerator initiative, in collaboration with Abu Dhabi Global Market (ADGM) and Abu Dhabi Securities Exchange (ADX). The initiative was launched with the objective of establishing Abu Dhabi as a regional hub for the issuance of green bonds and green sukuk for sustainable projects in the Emirate, as well as across the Middle East and Africa.

In February 2021, the Dubai Sustainable Finance Working Group also launched its Sustainable Issuance Guide[xlii], which details the steps involved in issuing ESG bonds, sukuk, equities and other financial products. The Working Group[xliii], led by Dubai Financial Market (DFM) and the Dubai International Financial Centre (DIFC), was formed in 2019, and comprises ten other founding members, including leading financial institutions.

Private Sector-Led Activity

Meanwhile, in terms of private sector issuers, the UAE has achieved a number of milestones in the green bond space.

First Abu Dhabi Bank (FAB) issued the first green bond in the MENA region with a $587 million issuance in March 2017. It has since become a prolific repeat issuer and has followed up in accessing the market with a number of additional green private placements. As of March 2020, FAB had selected nine UAE-based projects to allocate to the green bonds in the areas of renewable energy and energy efficiency, including four solar plants projects, two green building projects, and three district cooling projects. In January 2021, FAB issued a CHF 260 million bond, the largest ever Swiss Francs (CHF)-denominated green bond by an international issuer and the

first by a MENA issuer[xliv]. In November 2021, a second CHF-denominated green bond was placed, totaling CHF 200 million, along with a USD 30 million green bond on the same day.

In May 2019, Majid Al Futtaim raised $600 million through the launch of its first green sukuk, which served as the first green sukuk issued by a corporate in the MENA region, as well as the world's first benchmark corporate green sukuk. A follow-up green bond for an additional $600 million was issued in October 2019. As of 2020, proceeds from both bonds have been fully allocated to projects supporting the green buildings sector.

Labeled as a Transition Sukuk, a USD 600 million sukuk was issued by Etihad Airways in October 2020, serving as the first sustainability-linked bond in the aviation sector. The sukuk links its performance to Etihad's carbon reduction targets, which include a commitment to Net Zero Carbon emissions by 2050; a 50% reduction in net emissions by 2035; and a 20% reduction in emissions intensity in the airline's passenger fleet by 2025[xlv]. Though the financial characteristics of the sukuk will not be affected by the achievement of the target carbon emission reductions, Etihad has committed to purchase carbon offsets if the targets are not met by a predetermined date (i.e. December 2024)[xlvi]. Subsequently in October 2021, Etihad raised an additional USD 1.2 billion in sustainability-linked loans, another first in the aviator sectorxlvii.

From an exchange perspective, Dubai has also served as the leading listing venue in the Middle East for green and sustainable debt issuances, notably, but not exclusively sukuk. Since 2018, eight green and one Covid-19 related debt issuances have listed on Nasdaq Dubai with a total value of US$7.8 billion[xlviii], comprised of issuers based in various countries around the world and include government, multilateral organizations, and private sector entities.

4 Perceived Challenges to Green Bond and Sukuk Market Development

Though global green bond issuances have been on the rise in recent years, barriers still exist which deter further market evolution and growth. The speed at which green bond markets develop and mature hinges on many variables, including policy and regulatory factors, market conditions and financing trends. As the green bond and sukuk market in the UAE is still in relatively early stages of development, it is important to identify and address any perceived challenges. It is only through a concerted push by policy makers and market participants to develop the market, that supply and demand will scale up rapidly to raise and finance the debt capital that will be needed for the transition to a low-carbon economy. As part of a nationwide consultation, leading financial institutions and relevant public sector stakeholders were engaged to gauge their market readiness for issuing and investing in green bonds, as well as to identify areas where support is required most in the near term for further development of the green fixed income market in the UAE.

The growing interest in sustainable finance, including the issuance and investment in green bonds, reflects the increasing commitment of financiers across both the public and private sectors to influencing environmental outcomes through their investment decisions. But when financial professionals look to incorporate green investments in their financing and capital allocation processes, there remains a lot of uncertainty as to how to proceed. The following challenges are amongst the most commonly referenced by participants in the nationwide consultation for this study.

Lack of guidance for issuance process for green bonds

For first-time issuers who are considering approaching the green bond or sukuk market, the overall process may appear overly complex and costly while the benefits over a conventional bond are also unclear. Moreover, due to a lack of sufficient understanding of the issuing requirements, there is generally a perception that green bonds are more costly to issue. While there are, in fact, incremental expenses, greater awareness on what those costs are used for as well as estimates on the relevant expenses will allow potential issuers to make better informed decisions on whether green fixed income products are appropriate for their respective entities.

From a process perspective, there may also be a lack of clarity as to the specific pre-issuance steps involved, from the establishment of the green bond framework, which includes determination of the use of proceeds and the process for project evaluation and selection, to soliciting an external opinion for verification and certification. Though international best practice guidelines, such as the Green Bond Principles, are available as a reference point in clarifying the general approach for issuance of a green bond, readily accessible guidance catered to the local market, particularly for Islamic issuances, may be necessary to catalyze domestic supply.

Lack of standardization for identifying eligible green projects

The green bond and sukuk markets have seen significant growth in recent years but continued confidence in the green credentials of such financial instruments is essential to further scale up this market expansion. From a supply perspective, there may be issuers that already have portfolios of suitable green projects but are unaware that they can seek financing by accessing the green fixed income markets. When faced with potential reputational risks if their interpretation of what constitutes

as “green” is challenged, companies, financial institutions and public institutions may shy away from an inaugural issuance. From a demand perspective, investor capacity and experience in individually assessing green-labeled assets can vary, especially amongst smaller, non-institutional investors. When assessing green financial instruments, investors are reasonably expecting that their funds will go towards projects and activities with a climate focus. But in the absence of clarity around the “greenness” of the bonds or sukuk, investors may refrain from allocating capital to such instruments. The availability of widely accepted guidelines and standards about what should or should not be considered a qualifying green activity can significantly help with the investment review process and allow for a broader investor base.

Lack of standardized sustainability metrics

Investor demand for high-quality ESG reporting has grown dramatically over the past decade. Investors are increasingly looking into ESG factors to inform their investment decisions by identifying risks and opportunities that may not be captured by mainstream financial analysis. At present, many investors feel that bond issuers are not sufficiently transparent on how the bond proceeds are being used and do not track or assess the actual impact of the projects that they are funding. In the absence of consistent, comparable and reliable disclosures, it is difficult for financial institutions to make the relevant assessments for capital allocation decisions towards green financial instruments, such as green bonds and sukuk.

Accordingly, the last few years have seen various green and sustainable finance reporting frameworks, standards and principles emerge to cater to different stakeholders. However, the emergence of a multitude of independently developed frameworks by a broad spectrum of stakeholders, ranging from regulators and policy

makers through legislative channels to non-governmental organizations and industry standard-setters via voluntary platforms, has actually resulted in an almost overwhelming number of inputs in the marketplace. The provisions vary considerably from country to country and from organization to organization. Corporate climate change–related reporting schemes have not developed in a uniform pattern and the lack of consistency and coherence between disclosure requirements can be seen as complex, costly and confusing.

5 Potential UAE Government-led Interventions in Support of Green Bond and Sukuk Market Development

Sustainable finance is evolving globally from niche to mainstream and commensurate with this transition, the global green bond and sukuk market has witnessed significant growth in recent years. As the regional market is still at a nascent stage, Gulf economies, including the UAE, have seen relatively lower volumes of issuances in this space, compared with regions like Europe and Asia for bonds and sukuk, respectively. Nevertheless, issuing interest and investment appetite have been growing.

To translate this interest into market activity, significant support is still needed to catalyze private sector involvement in sustainable debt markets at scale. Countries are increasingly cognizant that the needs and opportunities for sustainable finance will not be met without active engagement to promote financial system shifts, including through market innovations, voluntary/mandatory standards, public-private partnerships, and supporting policy, regulatory and fiscal measures. Public sector action is vital to support the development of the green fixed income market at a pace and scale which is appropriate for capitalizing on the opportunities it provides to both issuers and investors. As evidenced by the EU, which has always and continues to leads in terms of issuance volume, institutional support plays a critical role in the development of the green bond market.

As part of the nationwide consultation conducted for this study, leading financial institutions and relevant public sector stakeholders had been asked to identify areas where support is required most in the near term for further development of the green

fixed income market in the UAE. Synthesizing the insights which were gathered, along with consideration of international best practices to benchmark against jurisdictions similar in stages of economic development and in ambition to that of the UAE, a number of potential government-led interventions have been put forth for further review and consideration.

5.1 National Guidelines on Green Bond Issuances and Green Taxonomy (Pre-Issuance)

As cited by almost all financial professionals who had been consulted in the development of this market analysis, one of the biggest hurdles for the development of the green bond and sukuk market is the lack of a common green bond taxonomy and issuance framework, with standardized definitions and processes.

As sustainable investments develop globally, market practitioners and investors are demanding for more clarity and guidance to identify sustainable investment assets. Having a national taxonomy, especially one which is aligned with international guidelines, will enhance the standardization and comparability of green bonds and sukuk, which in turn will further accelerate the development of this asset class.

Meanwhile, having a national framework for the issuance of green and sukuk is key to encouraging transparency of the issuance process, safeguarding the utilization of proceeds towards designated eligible projects and ensuring accountability of the issuers. It should be noted that the application of the national framework by a local issuer does not preclude the issuer from disclosing its compliance with other global standards. As previously mentioned, a number of voluntary third-party guidelines have been issued to aid issuers and investors looking to incorporate green investments in their financing and capital allocation processes: currently, the Green

Bonds Principles and the Climate Bonds Standards are the most frequently referenced.

As referenced earlier, a number of different institutions in the UAE have independently taken steps towards providing guidance in support of the development of the green bond and sukuk markets, including DFSA, SCA and the Dubai Sustainable Finance Working Group. In looking towards developing a harmonized set of green bond and sukuk guidelines for the UAE, relevant existing frameworks should be reviewed, built upon, and adapted to the nationwide market context. The lack of a standardized framework could be addressed through cooperation and learning among stakeholders at national and international levels.

The planned initiatives of the UAE Sustainable Finance Working Group (SFWG) may work towards achieving this goal of comprehensive, cross-sectoral collaboration. The SFWG is chaired by ADGM and is comprised of a number of federal and local UAE regulators and exchanges, including MOCCAE, MoF, Ministry of Economy (MoE), Central Bank of the UAE, SCA, DFSA, ADX, DFM, Nasdaq Dubai and the Office of the UAE's Special Envoy for Climate Change (OSECC). Ahead of COP26, the SFWG issued a High-Level Statement on Sustainable Finance[xlix] detailing their commitment to achieving the UAE's sustainability objectives, including the recently announced Net-Zero 2050 ambition. Outlined in the Statement are three key deliverables, one of which is the development of a UAE taxonomy of sustainable activities.

Notable National Green Bond Taxonomy and Standards

In order to meet the European Union's climate and energy targets for 2030, as well as the objectives of the European green deal, directing investments towards sustainable projects and activities has been recognized as critically important. As a precursor to scaling up capital mobilization, a common language and a clear definition of what is "sustainable" was required. In July 2020, the EU Taxonomy Regulation entered into force, becoming the world's first "green list". The Taxonomy sets out a detailed list of economic activities with performance criteria to assess the activities' contribution toward six environmental objectives — climate change mitigation; climate change adaptation; sustainable use and protection of water and marine resources; transition to a circular economy, water prevention and recycling; pollution prevention and control; and protection of healthy ecosystems. The First Delegated Act on sustainable activities for climate change adaptation and mitigation[i] has been drafted and will come into force on January 1, 2022; a second delegated act for the four remaining objectives will be published later in 2022.

To reinforce the objectives of the Taxonomy, a proposal was submitted in July 2021 for a regulation to establish a voluntary EU Green Bond Standard[ii] available to all issuers (private and sovereigns) to help financing sustainable investments. The proposal lays the foundation for a common framework of rules regarding the use of the label "European Green Bond", intended to facilitate the identification of environmentally sustainable investments with credible green credentials and to steer capital flow towards sustainable investments. As proposed, all funds raised by green bonds issued in the region should be allocated fully to projects aligned with the EU Taxonomy, with use of proceeds detailed through established reporting requirements. All EU green bonds must also be checked by an external reviewer to ensure compliance, including for sovereign issuers.

Following on from the landmark efforts of the EU, national and regional initiatives have since been taken to provide detailed taxonomy-related guidance to prospective and existing green bond and sukuk issuers. As the definition of eligible green projects is a precursor for green bond and sukuk issuances, governments with sovereign green issuances have all released relevant national green bond frameworks in connection with their own capital raising activities. Guidance on the definition of green, however, can additionally extend to other issuers to encourage and support the growth of the wider sustainable finance capital markets. Coming into effect in July 2021, the Green Bond Endorsed Projects Catalogue (2021 Edition)[iii] was jointly released by the People's Bank of China (PBoC), the National Development and Reform Commission (NDRC), and the China Securities Regulatory Commission (CSRC). As part of China's efforts to consolidate its taxonomies for green

bonds and increase alignment with international standards, the 2021 Catalogue provides more detailed and stringent qualitative and quantitative criteria for green activities. Most importantly, compared with the first edition issued in 2015, the Catalogue now removes some carbon-intensive activities related to clean coal, coal-fired power, coal mining and washing, and oil and gas exploration equipment.

Building on the ASEAN Green, Social and Sustainability Bond Standards which have already been in place since 2018, the ASEAN Taxonomy for Sustainable Finance was released in November 2021[liii] to address the market-identified need for a regional taxonomy. As there are ten ASEAN member states with a variety of systems and policies on sustainable finance, the Taxonomy sets out to serve as a common language across the different jurisdictions to communicate and coordinate on labelling for economic activities and financial instruments.

5.2 Government-backed Green Bond Grant Scheme

One barrier to the issuance of green bonds is the common perception that it is more expensive to issue a green bond rather than a conventional one. While the incremental expense may be relatively small in the context of the overall costs of issuance, it can still represent a deterrent in the long run as issuing a green bond requires additional efforts in terms of monitoring, disclosure, and impact reporting to align with the requirements which had been set out under the applicable green bond framework. The development of a government-backed green bond grant scheme in the UAE, as already successfully launched by a number of countries, can help to mitigate this barrier and to catalyze the domestic green bond market. Particularly when a market is at a nascent stage, fiscal incentives are required to support market expansion and can include grants for external bond reviews or tax exemptions for issuers and/or investors.

Notable Government-backed Green Bond Grant Schemes

In June 2017, the Monetary Authority of Singapore (MAS) launched a similar Green Bond Grant Scheme to encourage the issuance of green bonds by both first-time and repeat issuers. In recognition of additional costs incurred when issuers engage external reviewers to validate the Eligible Expenses for which the proceeds of the bonds will be used and to verify their green bond status against internationally recognized standards, the Scheme provides grants to eligible green issuers to offset such costs. In February 2019, MAS lowered the minimum issuance size from SGD200 million to SGD20 million to support more issuers, including medium-sized enterprises. The scope of the scheme was also expanded to include social and sustainability bonds under the renamed Sustainable Bond Grant Scheme. The scheme was originally set up to run for three years through 2020, but has since been extended for another 3-year period to May 2023. As of March 2020, SGD6.5 billion of green bonds have been issued in Singapore[liv].

The Government of Malaysia has a lengthy history of supporting the development of sustainable finance. In 2014, the Securities Commission Malaysia (SCM) introduced the SRI Sukuk Framework to facilitate financing of sustainability-focused projects through green, social and sustainability sukuk. By 2018, green SRI sukuk issuances totaled RM2.4 billion[lv]. That same year, to encourage further issuances of green SRI sukuk, the SCM established a RM6 million Green SRI Sukuk Grant Scheme to incentivize issuers to come to market by offsetting up to 90% of external review costs incurred in relation to the issuance of green SRI sukuk. As of December 2020, RM5.4 billion of SRI sukuk have been issued under the SRI Sukuk Framework[lvi]. In January 2021, the scheme was extended to 2025 and rebranded as the SRI Sukuk and Bond Grant Scheme, to additionally incorporate issuances under the ASEAN Green, Social and Sustainability Bond Standards[lvii].

As part of a three-prong approach to encourage green bond issuances and investments, Japan's Ministry of the Environment has launched a Financial Support Programme for Green Bond Issuance[lviii]. Launched in 2018, the program provides subsidies to companies and municipalities based in Japan for expenses related to the issuance of green bonds, either incurred from the performance of external reviews or the hiring of consultants in the establishment of a green bond framework. Subsidies are currently subject to a maximum of 90% of the total expenses relating to the support provided or JPY40 million, whichever is lower. Use of proceeds for eligible green bonds need to contribute mainly to domestic decarbonization and are applicable for projects in areas, such as renewable energy and energy efficiency. Cumulative green bond issuances totaled USD 26.15 billion as of 2020, placing Japan as 9th in the world[lix].

Most recently in May 2021, the Hong Kong Monetary Authority (HKMA) launched its 3-year Green and Sustainable Finance Grant Scheme, which will provide subsidies for eligible bond issuers and loan borrowers to cover their expenses on bond issuance and external review services[lx]. As set out in the 2021-2022 budget, the Financial Secretary is targeting further issuance of green bonds totaling HK$175.5 billion (about US$22.5 billion) in the next five years[lxi].

5.3 Sovereign Green Bond / Sukuk Issuance

Another barrier which had been identified by more than half of the representatives of the local financial community who were consulted for this market analysis was the absence of a robust green bond market in the UAE. Just as the motivation behind the UAE's inaugural federal bond in October 2021 had been to contribute to the development of the bond market, the issuance of a benchmark sovereign green bond or sukuk in the UAE would make great strides in developing the local green fixed income market.

Given the large scale of the budgetary responsibilities of central governments, sovereign issuers have the power to scale up green investments more than any other asset class through the issuance of green bonds and sukuk. For governments with access to domestic and international capital markets, sovereign green debt instruments can attract the investment needed for achieving its climate goals, including funding policies designed to address greenhouse gas (GHG) emission reduction goals and Nationally Determined Contributions (NDCs). Moreover, sovereign green bonds and sukuk are almost always issued as part of a larger national strategic initiative, as in the case of the UAE's declared commitment to net zero by 2050. As of November 2021, over 20 countries have issued sovereign green bonds, and if including other types of thematic bonds earmarked more broadly for

"social" or "sustainability" purposes, the number of sovereign issuers would total over 30[lxii].

In addition to capital raising, a key motivation for most countries to issue a sovereign green bond is to support the growth of a local green bond market. Not only do sovereign green bonds and sukuk create awareness for green capital markets by exhibiting national leadership through a demonstration issuance, they also have the potential to enhance market liquidity and encourage prospective public and private issuers to enter the market. A liquid bond market provides greater flexibility and more options to exit the investment for project equity and longer-term project finance debt. In this way, bonds can help to increase the speed at which capital can be reinvested into other projects. Moreover, the establishment of benchmark pricing in the regional market has also shown to have a multiplier effect on green bond and sukuk issuance.

Notable Sovereign Green Bond and Sukuk Issuances

The world's first sovereign green bond issuer was Poland in December 2016, approaching the market with a EUR 750 million issuance to finance national green projects. In preparation for the issuance of a sovereign green bond, a country needs to have in place an established pipeline of eligible green expenditures for which the bond's proceeds will be used. The choice of eligible sectors should be a reflection of the country's environmental priorities and their existing capacities to achieve those targets, in alignment with national planning strategies. Since eligible projects can be defined quite broadly and as there is no set international standard in the market for what is considered "green", national governments create their own definitions when detailing the use of proceeds in their Green Bond Frameworks. In the case of Poland, six key Eligible Sectors were identified for the use of proceeds of the green bond: renewable energy, clean transportation, infrastructure, sustainable agriculture, afforestation, national parks and reclamation of heaps[lxiii]. Demonstrating its commitment to contributing to a pro-environment community and to being a repeat green issuer, the Government of Poland return to the market in February 2018 with a second sovereign green bond totaling EUR 1 billion[lxiv].

Meanwhile, the world's first sovereign green sukuk was issued by the Republic of Indonesia in February 2018. Just as with a sovereign green bond, the issuance of a sovereign green sukuk is guided by firstly specifying the eligible use of proceeds in a national Green Bond and Green Sukuk Framework; funds raised from the $1.25 billion issuance were accordingly allocated to projects in nine earmarked sectors: renewable energy; energy efficiency; resilience to climate change; sustainable transport; waste to energy and waste management; sustainable management of natural resources; green tourism; green buildings; and sustainable agriculture[lxv]. Following the success of its inaugural issuance, Indonesia returned to the market in February 2019 for a further $750 million of green sukuk. It is reported that use of proceeds from the two sukuk have resulted in a combined CO_2 emissions reduction of 8.9 million tons[lxvi].

Within the MENA region, Egypt became the first sovereign green issuer with a $750 million green bond in September 2020. Proceeds were earmarked to support the country's pipeline of eligible green projects, with an approximate breakdown of 16% renewable energy, 19% clean transportation, 26% sustainable water and wastewater management and 39% pollution prevention and control[lxvii].

Most recently, in September 2021, the UK government, host of COP26, issued a GBP 10 billion green bond, the largest inaugural green issuance by any sovereign issuer[lxviii]. Following the success of its inaugural issuance, the United Kingdom returned to the market a few weeks later for a further GBP 6 billion of green bonds, with the combined size of the two transactions marking the UK as one of the top three biggest national issuers of green bonds in the world[lxix]. Meanwhile, the European Union also came out with its own green bond in October 2021, raising EUR 12 billion, representing the world's largest single green bond issuance to date[lxx]. Both sets of bonds demonstrated strong investor appetite, and order books were more than 12 and 11 times oversubscribed, respectively.

5.4 Climate-Related Reporting and Disclosure Guidelines (Post-Issuance)

Disclosure of non-financial, climate-related information has become increasingly recognized as a useful mechanism for communication of risk exposure and risk

management measures to investors. In the case of green bond and sukuk market development, increased reporting of ESG-related information by issuers signals to investors that they are aware of climate and sustainability risks and opportunities and demonstrates the initiatives which are being taken to address such factors. To overcome the barrier of a lack of standardized sustainability metrics, the establishment of a set of sovereign climate-related reporting and disclosure guidelines would enhance transparency within the UAE market, creating a more robust enabling environment for green bonds and sukuk.

The last few years have seen various green and sustainable finance reporting frameworks, standards, and principles emerge to cater for different stakeholders. These have been advanced by private and public entities at a global, regional, and national level. Research conducted of the global marketplace has identified over 1,750 sustainability reporting provisions across 60 countries, with environmental topics consistently the most prevalent of the requirements, while governance topics have been the least[lxxi].

For jurisdictions in which no national standards exist, members of the financial services community have had to develop their own bespoke frameworks for reporting on climate-related information. The large number of standards and disclosure frameworks for corporate sustainability and climate-related issues, as well as different definitions and taxonomies for green assets, makes it difficult to compare the climate-related, green and sustainability information available to market participants. This multiplicity of reporting frameworks and standards can be taxing for firms, some of which end up reporting under different frameworks. Accordingly, the establishment of a set of sovereign reporting guidelines, based on lessons learned from the voluntary standards successfully deployed in other parts of the

world, would significantly streamline the reporting process for issuers, as well as enhance the availability of transparent and comparable information for investors in the green bonds and sukuk space.

Within the UAE, both the DFM[lxxii] and ADX[lxxiii] have independently taken steps to promote best practices and supporting issuers' on their sustainability disclosure journeys through the publication of their respective ESG reporting guidelines. The UAE SFWG has also included an examination of sustainability disclosures in place in the UAE as part of the three main deliverables outlined in its High-Level Statement on Sustainable Finance issued ahead of COP26. Through close, cross-sectoral collaboration, the development and launch of a set of harmonized, nationwide guidelines on climate-related disclosure applicable across the UAE would significantly help to enhance transparency within the national sustainable finance markets.

Notable International Climate Change-Related Reporting and Disclosure Guidelines

As more and more countries and jurisdictions have gone about independently developing their own respective disclosure guidelines and requirements, the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations[lxxiv], which were released in June 2017, was an attempt to introduce some level of convergence at the international level. The Climate Disclosure Standards Board (CDSB) and the Sustainability Accounting Standards Board (SASB) were two of the organizations engaged in the industry-led consultations in drafting the Recommendations.

The Recommendations provide a voluntary framework for companies and other organizations to develop more effective and consistent climate-related financial disclosures through their existing reporting processes. The Recommendations are structured around four key thematic areas which reflect the types of information investors and other market participants have expressed that they need in order to make better, more informed decisions: governance; strategy; risk management; and metrics and targets. Since their publication, the Recommendations have emerged as the de facto international benchmark for the disclosure of climate-related risks by financial institutions. As

of 2021, the Recommendations have been endorsed by institutions representing $194 trillion of assets under management globally[lxxv].

Nevertheless, despite taking steps towards higher standardization, the Recommendations are not expected to be uniformly adopted by financial institutions across the globe. Individual organizations will have to decide for themselves the extent to which the Recommendations are applicable, given their current monitoring and reporting capabilities, and keeping in mind existing disclosure obligations within the jurisdictions in which they operate.

Five of the leading voluntary frameworks and standard setters, each with their own sets of guidelines:

6.0 Conclusion

Green Bonds and green sukuk offers great potential for issuers and investors to finance projects that have positive environmental impact on climate change. Supporting the market by the development of guidelines and policies, creates greater awareness and knowledge for the concerned stakeholders to actively pursue green bonds & green sukuk to help finance transition to a net-zero economy. In addition to that, several recommendations were proposed to develop a domestic green bond and sukuk market, which will aid in the global commitment towards climate action.

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