I. OVERVIEW ON GREEN BONDS

According to the Green Bonds Principal ("GBP") established by International Capital Market Association (ICMA), green bonds refers to any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance eligible environmentally beneficial projects. On top of its contributions to environment, green bonds are also considered to be the ideal solution to the financing dilemma faced by large green projects, which tend to have lengthy investment periods which are far beyond the loan periods offered by banks in developing countries.

The first green bond is widely considered to be issued in 2007 and China started to issue green bonds in 2015. Since then, China's green bond market has been growing rapidly and is now the second biggest globally.

A. Relevant Standards

The standard of what could qualify as green bonds is not globally unified. Gaps exist between international standards and national ones and also between different countries. The most widely acknowledged standard is the GBP established by ICMA, where four core components of green bonds is set out as follows: (1) use of proceeds; (2) process for project evaluation and selection; (3) management of proceeds and (4) reporting.

The standard that Chinese government adopted varies from the GBP and splits even exist between different authorities applying to different type of issuers. However, these different authorities share the same idea that the key feature of a green bond is that the proceeds are used for projects or assets with an environment benefit, regardless of the nature of the corporation. The different laws and regulations that set out these standards will be discussed below.

B. Green bonds in China

The severe environment pollution as well as China’s commitment made under Paris Agreement provides an incentive for the Chinese government to develop green bond market. Chinese government has provided strong policy supports with a top-down approach to the green finance within China.

The first guideline on green bonds was issued by the People’s Bank of China ("PBoC") in December 2015—"Announcement on Matters concerning the Issue of Green Financial Bonds in the Interbank Bond Market" (the "PBOC Guidelines") for financial institutions. At the same time, the PBoC also published its definitions of "green" in "Green Bonds Endorsed Project Catalogue" while the National Development and Reform Commission ("NDRC") published the "Guidance on Green Bond Issuance." The latter governs green enterprise bonds issued by corporate issuers, in which the eligible uses of proceeds are defined in a slightly different way from those in the PBoC’s Catalogue. For exchange-traded corporate bonds, the Shanghai Stock Exchange ("SSE") and the Shenzhen Stock Exchange ("SZSE") issued their notices on Green Bond Pilot Program respectively in March and April 2016. In March 2017, China Securities Regulatory Commission ("CSRC") and National Association of Financial Market Institutional Investors ("NAFMII") issued different guidelines to cover green bond issuance by other non-financial corporates. In February 2019 seven competent authorities including NDRC and PBoC issued Green Industry Guidance Catalogue (2019 Edition) in an aim to align different green guidelines and standards.
C. Corporate as Green Bond Issuers

On the international scale, the issuance of green bonds was dominated by supra-nationals at the early stage, and the first corporate green bond was issued in 2013.

In China, financial institutions like commercial banks initially dominated the issuance of the green bonds and the dominance has persisted. However, the corporate issuers in China have become more active over the past two years. According to statistics of the first quarter of 2019, non-financial corporate has grown to become the second largest issuer with 34% of the total issued amount. Among these corporates, state-owned enterprises take the dominance while private and foreign enterprises are less active.

II. Secondary Market of Green Bonds

Normally the secondary market of green bonds is where investors buy and sell previously issued green bonds. Primary market and secondary market of green bonds function interactively.

A. Current Status of Secondary Market of Green Bonds

International investors have become more interested in green assets. Global stock exchanges are looking for ways to further promote sustainable and transparent capital markets. In 2012, the UN Sustainable Stock Exchanges (UNSSE) initiative invited partner exchanges globally by making a voluntary public commitment to promote green finance. Nevertheless, the global secondary market of green bonds is still facing great challenges, including insufficient supply to meet investor demand, insufficient liquidity of green products, terminology confusion (different “green” definitions), operational capacity constraints of exchanges, regulatory hurdles and poor availability of relevant data.

In China, secondary market of green bonds is also emerging, though less active than the global market. The lack of attractive pricing for investors is at least partly because there are not enough green investors or green bonds to create the sort of supply and demand pressures necessary to push up interest rates or improve pricing in the secondary market.

Moreover, according to the statistics, the secondary market for corporate issued green bonds is much less active than those issued by financial institutions with the latter making up 80.52% of the total transaction amount in 2017, even though many investors of the latter would hold these green bonds until their maturity. Two important factors contribute to this phenomenon. The first is that the better financial status, including ability to get collaterals, of financial institutions, and the second is the obstacles corporates would come across to enter the primary market of green bonds at the first stage, such as the cost of external review and on-going supervision.

B. Policies in China Stimulating the Secondary Market of Green Bonds

According to the report of NAFMII-ICMA Working Group, the concerns of investors of green bond, which would greatly affect their willingness in investing in the secondary market, involve: (1) criteria of "green"; (2) information disclosure and use of proceeds; (3) reporting of use; (4) external review and (5) project benefits. As set out below, Chinese government has recently made policies to stimulate the secondary market of green bonds accordingly.
1. **The Belt and Road Initiative ("BRI")**

Chinese government issued the "Guiding Opinions on Promoting Green Belt and Road" to support the use of green finance in BRI projects. In addition, the "Belt and Road Ecological and Environmental Cooperation Plan" entails 25 green BRI pilot projects, which would enhance participation in both primary and secondary market of green bonds.

2. **Bond Connect**

Liquidity for green bonds in the secondary market would potentially attract more investors into the market. The liquidity in the second market of green bonds can be enhanced through introducing Northbound trading under Bond Connect for foreign investors to participate in the Chinese bond market.

Bond Connect is a new market access scheme that allows investors from mainland China and overseas to trade in each other's bond markets through a connection between the related Mainland and Hong Kong financial infrastructure institutions. Through Bond Connect, a wider range of international investors can invest in onshore green bonds in China.

3. **Indices**

A green bond index tracks the financial performance of the constituents and helps investors to identify fixed income investments supporting a low carbon transition. As China’s green bond market has grown, a number of green bond and climate aligned bond indices have been established, focusing on both labelled and unlabeled green bonds on China’s domestic market.

These indices make it easier for investors to track green bond performance, and compare returns and volatility with other investments, which is of significance help for investors when making investment decisions. The more information is shared, the easier it will be for issuers and investors to streamline processes and track market progress.

C. **Prediction and Suggestions**

It is commonly predicted that green bond issuance will continue to rise and investment demand will grow accordingly. Under such circumstance, suggestions are made to Chinese government to further stimulate the secondary market of green bonds, especially for corporate green bonds.

Except for improving international investors' understanding and awareness, some other general suggestions for policy-makers are made, including harmonizing the green standards, launching dedicated listing sections for green bonds to support green financing and investment, maintaining an open market and making policies friendlier to foreign investment.

For corporate issuers, regulators are suggested to simplify the green bond approval process, improve requirements for domestic credit ratings and provide clear policy signals and guidance on international capital controls in order to control cost and risk for private and foreign to enter the market.