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Market-Based Climate Financing Instruments for Subnational Governments

Decentralization and Climate Change Virtual Conference

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Preamble

Traditional financing sources for SNGs

- Fiscal transfers from central government
- Tax revenues and fees (such as cost recovery fees on public services)
- Concessional and non-concessional loans from international financial institutions and MDBs
- Lending from state-owned or national banks and commercial banks

- Major MDBs committed US$38 billion of climate finance to low- and middle-income economies in 2020
  - through national governments who on lend the resources to sub-nationals
  - directly to subnational governments with a sovereign guarantee
  - directly to subnational governments without sovereign guarantees at non-concessional rates

Climate funds

- Least Developed Countries Fund (LDCF)
- Special Climate Change Fund (SCCF) managed by the Global Environment Facility (GEF)
- Adaptation Fund
- Green Climate Fund (GCF)
  - Global Sub-national Climate Fund
- Climate Investment Funds (CIFs)

Challenges in developing subnational debt markets…

- History is replete with subnational default risks
  - Argentina,
  - Brazil
  - Mexico
  - Russia
- Fiscal stress and implicit liabilities are a real concern
- Subnational securities markets are mostly small in scale and lack liquidity and secondary markets
- Long-term challenges in developing liquid, deep, and competitive subnational credit markets

…nevertheless, many countries are allowing SNGs to access capital markets

Unprecedented scale of urbanization requires large-scale infrastructure investment (power, water, sanitation, roads, airports, schools, and hospitals)

- Since the 2008 financial crisis, there has been renewed interest in subnational debt market development.
- SNGs or their entities in various countries have already issued bond instruments:
  - PRC, India, Colombia, Mexico, Poland, Russia, and South Africa
- Other countries are developing policy frameworks for facilitating subnational debt market development
  - Indonesia, Vietnam),
- Others are allowing selected subnational entities to pilot-test transaction and capacity-building activities
  - Peru

Market-based sustainable financial instruments

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Assets available for environmental actions

$100 trillion

of assets under management signatories of the United Nations Principles for Responsible Investment

23%

annual rate of growth of assets invested under an ESG mandate from 2014 to 2016 versus an industry average of about 5%

$130 trillion

private capital committed to transforming the economy for net zero

Glasgow Financial Alliance for Net Zero (GFANZ)

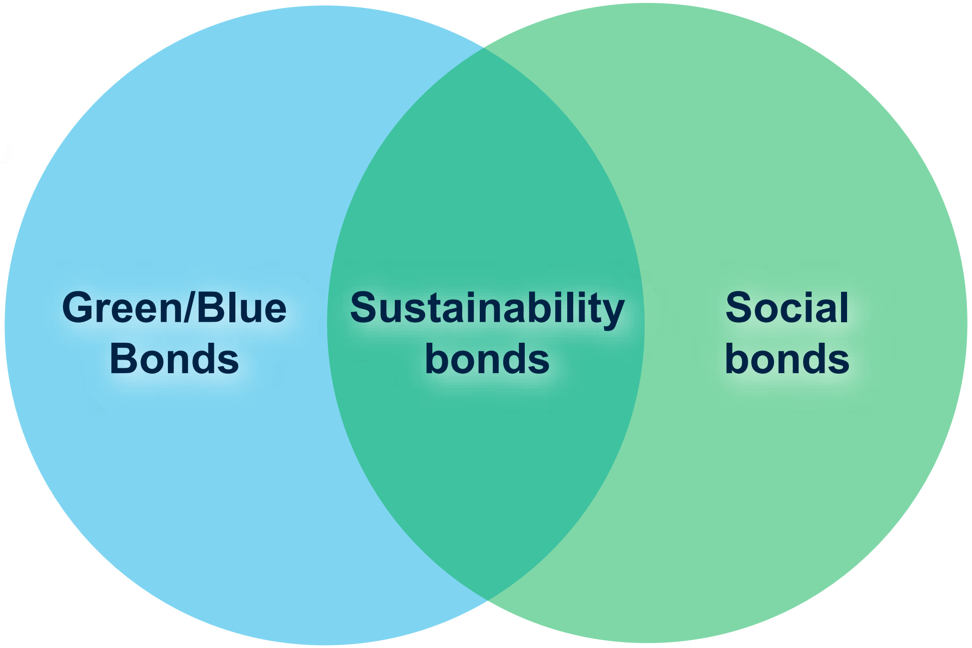
ESG considerations in investment decisions

ESG investment approaches

- Negative screening
- Postive screening (best in class)
- Sustainable thematic investing
- Impact investing
- ESG integration
- Responsible ownership

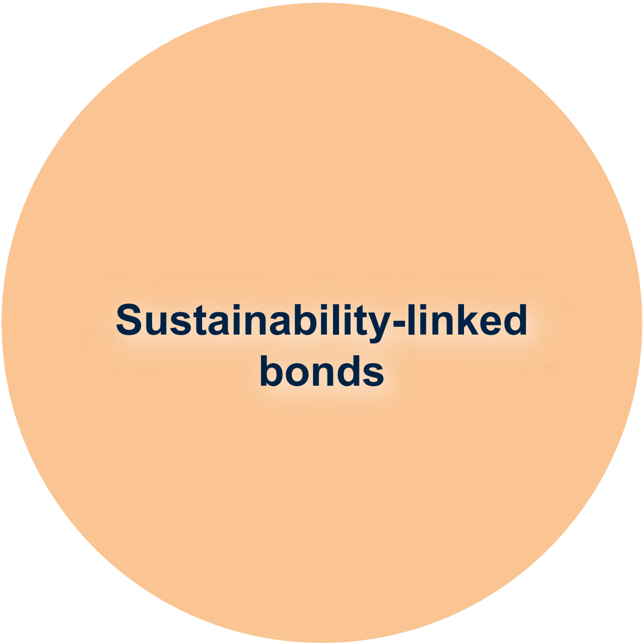
Thematic bonds

Green/blue bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible green/blue projects



Sustainable-labelled bonds encompass elements from both green and social bonds

Social bonds are use of proceeds bonds that raise funds for new and existing projects with positive social outcomes



These bonds have a general corporate purpose, but link a specific bond characteristic (i.e., coupon payment) to a sustainability KPI (i.e., GHG emissions)

Green bond eligible project examples

Mitigation	Adaptation
• Solar and wind installations • Funding for technologies that result in significant reductions in GHG emissions • Rehabilitation of power plants and transmission facilities to reduce GHG emissions • Greater efficiency in transportation, including mass transport • Waste management (methane emission capture) • Energy efficient building construction • Reforestation and avoided deforestation	• Protection against extreme events, such as floods and droughts (including reforestation and watershed management) • Food security improvement and stress-resilient crops (to slow down deforestation) • Sustainable forest management and avoided deforestation

Social bond eligible project examples

- Affordable basic infrastructure (e.g., clean drinking water, sewers, sanitation, transport, energy)
- Access to essential services (e.g., health, education and vocational training, healthcare, financing and financial services)
- Affordable housing
- Employment generation including through the potential effect of SME financing and microfinance
- Food security
- Socioeconomic advancement and empowerment

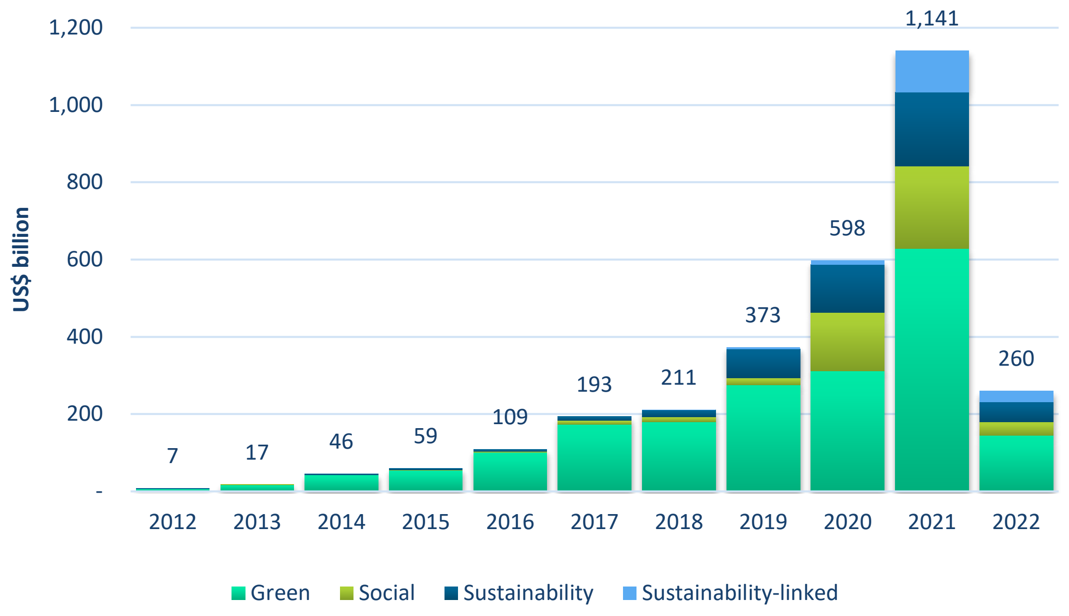
The market is growing rapidly…

- Global thematic bond issuance totaled US$1.14 trillion in 2021
    - ➢ Increase of 90.8% over 2020

- Thematic issuances are expected to surpass US$1.5 trillion in 2022

- Green bonds represent the largest portion of the thematic debt at 43.8% of the cumulative thematic debt issuances until April 2022

Thematic bond annual issuances 2012-2022



Source: BloombergNEF, as of April 2022

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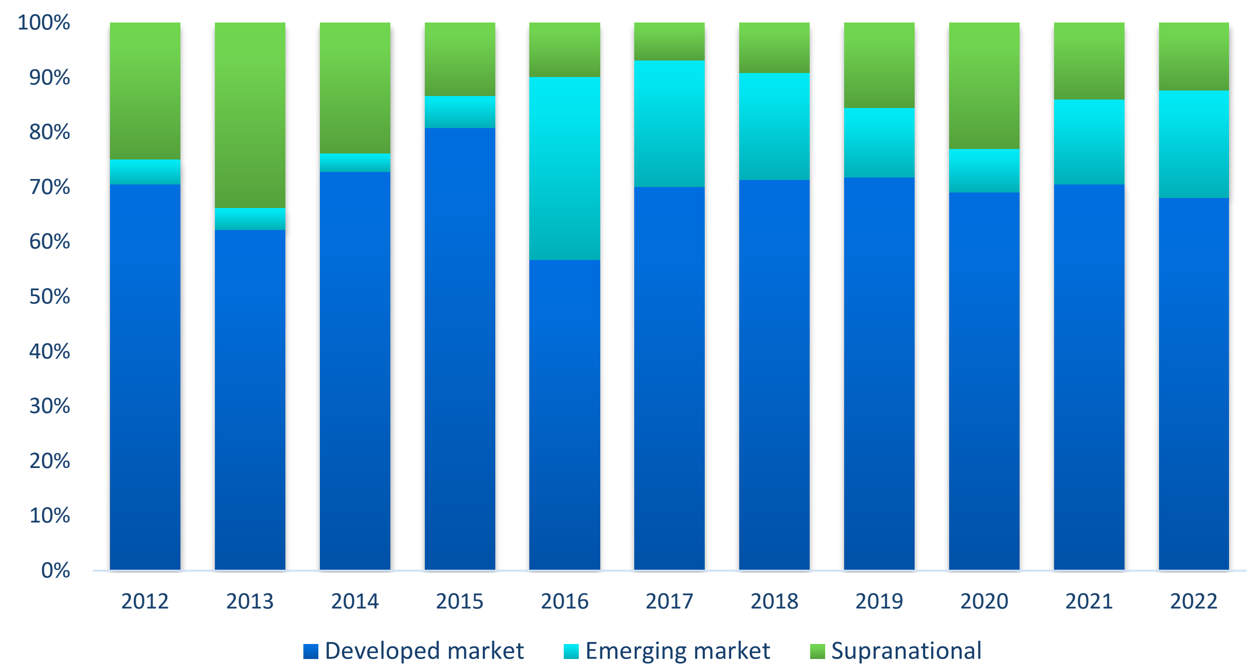
…although emerging markets still constitute a small share of the overall market

- Developed markets constitute the largest share of the market, between 68% and 71% in the last 5 years

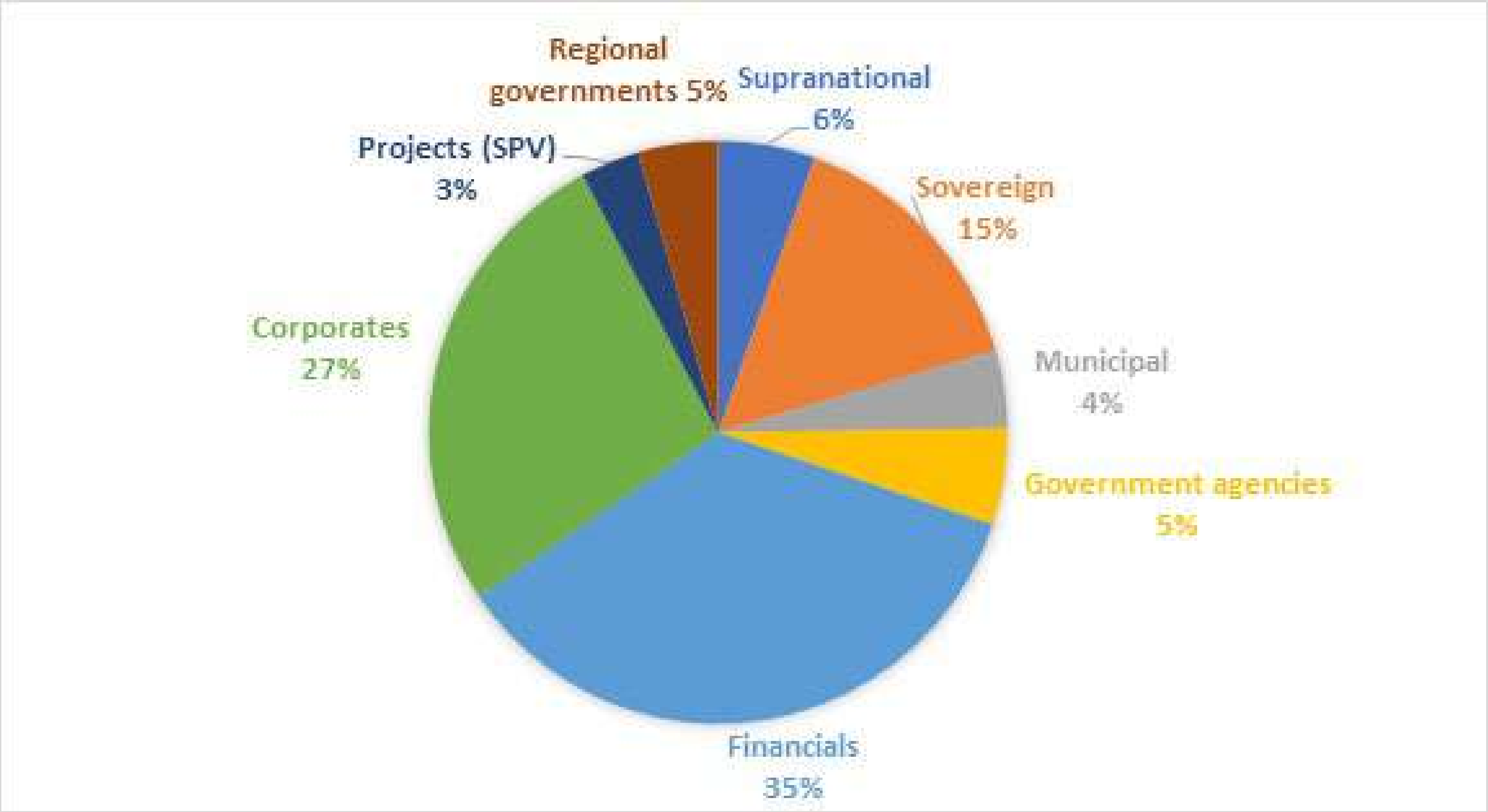
- Emerging Markets started issuing thematic bonds in 2012. In 2016, at its peak in terms of participation, emerging market issuances comprised 33% of the total thematic bond issuance

Thematic bond issuance by market



Source: BloombergNEF, as of April 2022

…. And the share of green bonds issued by SNGs is even smaller



Source: Bloomberg

Interest is growing: examples of green bond issuance by cities

- Commonwealth of Massachusetts
- City of Gothenburg green bond (SEK 500 million)
- Cities of Ottawa, Toronto and Vancouver (Canada)
- Ville de Paris (France)
- Nagar Nizam Ghaziabad (India)
- Reykjavik (Iceland)
- Fukuoka and Kawasaki (Japan), Oslo (Norway)
- Johannesburg and Cape town (South Africa)
- Canton of Basel-City (Switzerland)

786 issuers in the US have issued Green Municipal Bonds for a total of US$104 billion (source Bloomberg),

The process for issuing green bonds is more intensive than conventional bonds

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Outcome-based impact bonds can finance smaller projects

Stakeholder	Action
Private investor	Invests in the bond for fixed term and target KPI
Local government	Pays investor principle +/- a financial return (or interest payment) at end of term. Payment is set forth in the contract and based on the target. For example, a reduction in CO2 reduction of 20% or more may earn the investor a financial payment that equates to an 8% annualized return
Implementing agency	Receives capital and implements the project

Requirements:

- **Performance metric that can be objectively measured**
- **Historical track record of client and/or project activities**
- **Strong project safeguards – critical for building investor confidence**

Example: Wildlife Conservation Bond

USD150 million bond issued in March 2022

WB issued a 5-year outcome-based impact bond that mobilized private capital to directly finance conservation activities, and transferred project outcome risk from donors to capital market investors

Key features of the bond transaction include:

- **Front-loads financing** for rhino conservation activities at two designated parks in South Africa, through forgone investor bond coupon payments, paid by WB to the parks
- **Transfers project outcome risk** from donors to investors
  - Project success is measured based on rhino population growth rate at the parks, calculated and verified by independent parties
- **Principal protected bond:** the bond principal finances World Bank sustainable development lending program and investors are guaranteed to receive 100% capital back at maturity
  - This structure, unusual for impact bonds, was more attractive to institutional investors

Potential to scale up and replicate for climate action or conservation

- Improve sustainable fishing
- Promote reforestation in critical areas
- Finance climate change mitigation projects that produce carbon credits
- Protect other endangered species

Catastrophe bond can insure local government infrastructure assets

- Catastrophe linked swap agreement between the local govt. and the World Bank
- Cat Bond issued by the World Bank under the World Banks Capital At Risk Notes Program
- Coupon paid to investors = risk margin (paid by local govt.) + 3-month USD LIBOR + funding margin
- Principal reduction, and payout under the swap agreement, only if the modeled loss for an event exceeds the modeled emergency loss attachment point as determined by calculation agent

There are challenges

- Many SNGs are not empowered to borrow.
- Most have low creditworthiness.
- Market-based financial instruments at the state and municipal level may result in exposure to various types of financial risks such as refinancing, interest rate, currency, and operational risks.
- Mismanaged subnational debt and unsustainable debt structures can create significant contingent liabilities for central/federal governments and threaten the financial stability of a country.
- Most SNGs issue in the domestic market, rather the international markets.
- SNGs in developing countries suffer from significant knowledge gap.

Developing domestic financial markets and mobilizing private financing for local investment is therefore key.

Contacts

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