

Green Bonds: Trends in Emerging Markets

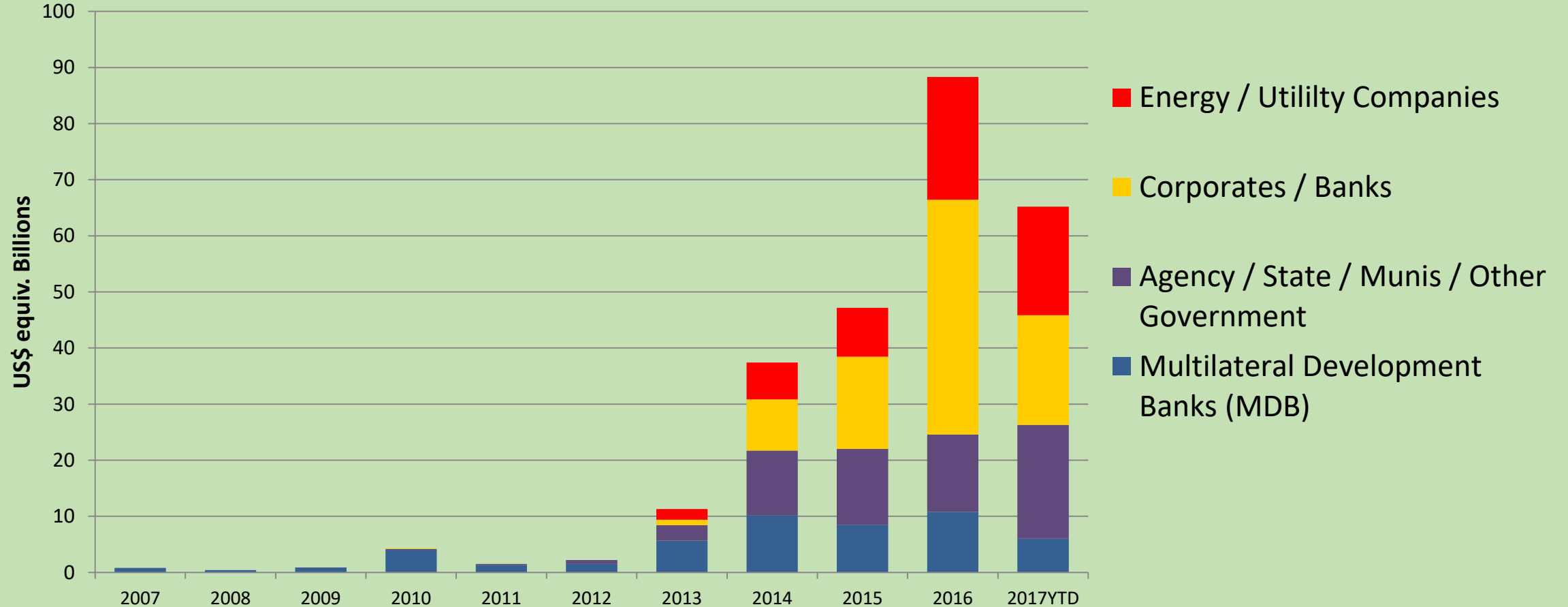
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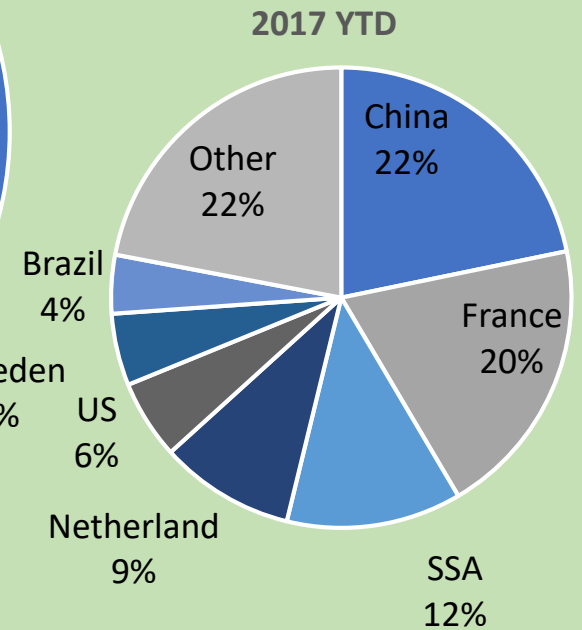
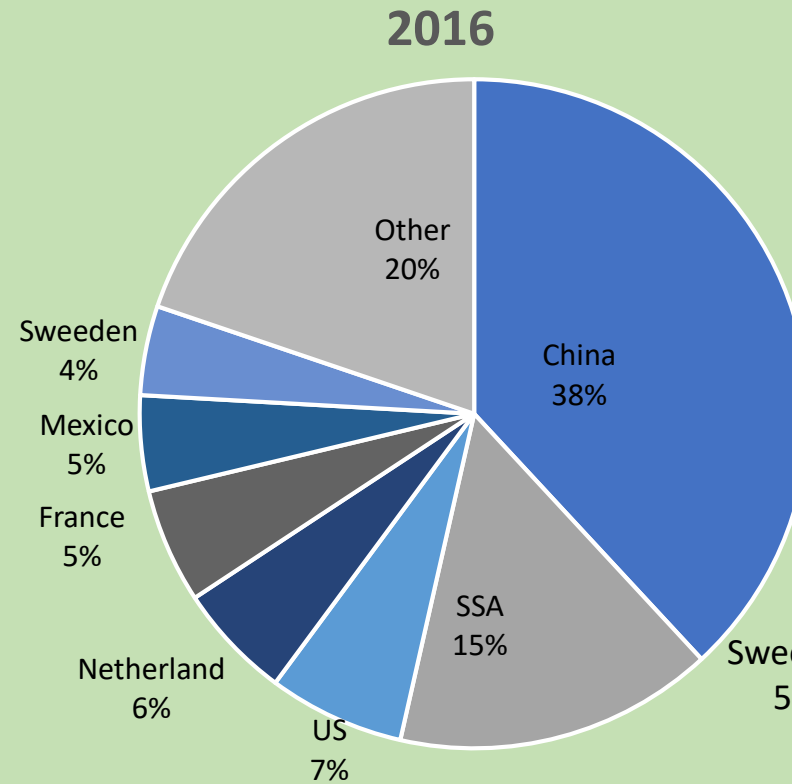
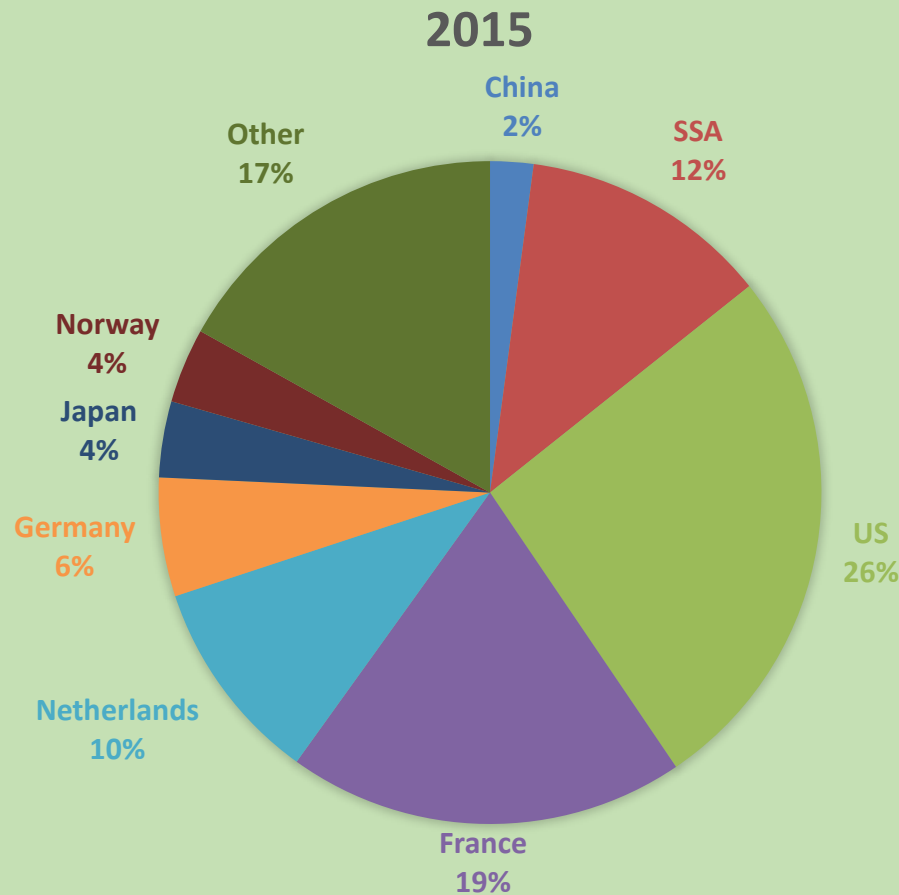
Diversification of Issuers

Annual Green Bond Issuance By Issuer Type



Source: WB Treasury based on Bloomberg and other sources

Changing Composition of Origin



Source: WB Treasury based on bonds issued during year. (SSA = Sub-Sovereign Agencies, e.g., MDBs)

Diversification: origin, currency, placement

- Origin (38): Argentina; Australia; Austria; Belgium; Canada; Chile; China; Colombia; Denmark; Estonia; France; Finland; Germany; Greece; Hong Kong, China; India; Italy; Japan; Korea; Latvia; Lithuania; Malaysia; Mexico; Morocco; the Netherlands; Norway; Peru; the Philippines; South Africa; Slovenia; Spain; Sweden; Singapore; Taiwan; Turkey; UAE; the United Kingdom; and the United States.
- Currencies (26): AUD, BRL, CAD, CHF, CNY, COP, EUR, GBP, HUF, IDR, INR, JPY, MAD, MXN, MYR, NOK, NZD, PEN, PLN, RMB, RUB, SEK, TRY, TWD, USD, ZAR.
- Some emerging market issuers have targeted foreign investors (e.g., Brazil's BRF EUR 500 million; Chinese issuers have placed about USD 4 billion offshore)

China

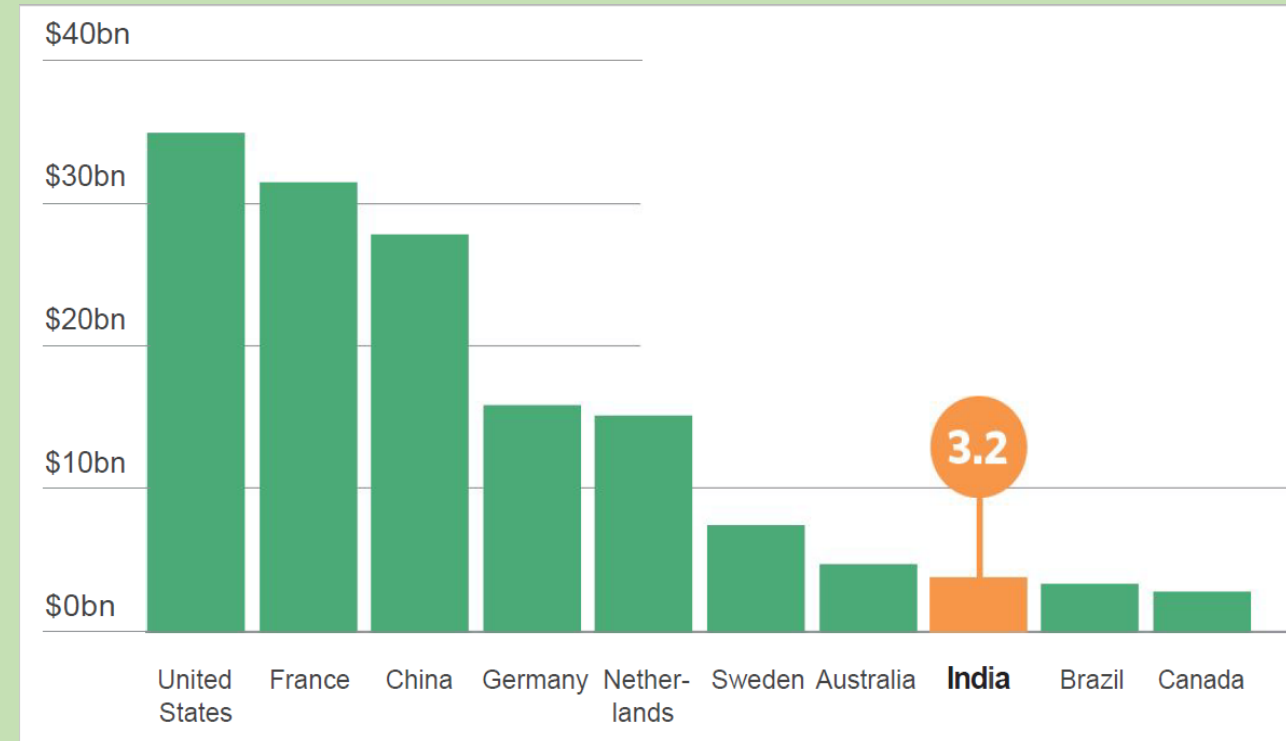
- Needs US\$ 320 bn/yr to meet its environmental targets under 13th Five Year Plan (2016-20)
- Govt can cover only 15% (PBoC)
- Issued about USD 30 bn in 2016 and USD 8 Bn so far in 2017
- Green bonds seen as way to fix inter-bank maturity mismatch
- Regulations for: approved definitions and disclosures
- Reported swifter bond approval

Class of Instrument	Market	Relevant Regulator
Treasury bonds, local government municipality bonds	Interbank Exchange ⁴	Ministry of Finance
Financial bonds ⁵	Interbank	PBoC
SOE enterprise bonds	Interbank Exchange	NDRC
Non-financial enterprise debt financing instruments ⁶	Interbank	National Association of Financial Markets Institutional Investors(NAFMII)
Corporate bonds ⁷	Exchange	China Securities Regulatory Commission (CSRC)

Source: Reed Smith LLP

India

- USD 200 million to meet India's RE target -125 GW through 2022
- About US\$5 billion issued so far
- Supportive regulations by SEBI for disclosure (May 2017)
- Green categories clarified; 3rd party reviewer left optional
- Relaxes escrow account requirement but asks for tracking and ex-post audit



Source: CBI. Bonds Outstanding as of June 30, 2017

Other Countries

- Mexico: Nacional Financiera USD 500 M (11/15) & MXN 2 billion (08/16); Grupo Rotoplas MXN 2 Bn (06/17); Mexico City MXN 1 bn (12/16); Mx City Airport Trust USD 2 Bn (09/16)
- Brazil: Itarema Geração BRL 111.8 M (06/17), BNDES USD 1 Bn (05/17), Susano Celulose
- Poland: EUR 750 million sovereign green bond
- Malaysia: Tadau Energy (unit of Edra Power) MYR 250 M sukuk
- Possibly upcoming later this or next year: Kenya, Nigeria

Drivers of Supply and Demand in EMs

Supply:

- Strong Promotion and “First-in-country” competition
- Established issuers seeking international SRI investors; visibility.
- Corporate issuers in clean energy sector interested in tapping national institutional investors

Demand:

- If credit conditions are met, including known currency risks, why not?
- Growing interest by investors and stock exchanges in promoting SRI/ESG investing

Challenges Unique to Emerging Markets

Supply:

- Green project pipelines in insufficient volume and readiness: policies not mature
- Even when projects exist, bond markets not developed. Other traditional debt instruments or equity will be sought
- Hesitation: lack of pricing advantage vis-à-vis extra issuance costs

Demand:

- Domestic investor base generally small. Typically buying government bonds
- Lack of: credit rating systems, hedging against currency risk, sufficient liquidity
- Limited familiarity / interest in non-financial aspects of investments

What can governments do?

- Continue developing enabling conditions for bond markets: business climate, rule of law, investment and competition regime, level playing field between private and public issuers.
- Facilitate flow of green projects: Align/improve policies and public investments to increase their financial feasibility, e.g., in RE electricity markets and support infrastructure.
- Reduce information/perception gaps: Contribute to information exchange, harmonization of definitions, and exemplify good behavior.
- If financial incentives are chosen, target carefully to avoid distortions in risk perception.

In closing, don't forget fundamentals...

- Environmental investment competes with many other areas of investment by governments, enterprises, people
- Not helpful to re-state the huge financing “needs” without addressing the pre-existing policy distortions, public expenditure inefficiency, and affordability issues (e.g., low tariffs or fiscal constraints)
- Private investment flows according to expected risk-adjusted returns and tends to avoid environments of high uncertainty and discretion
- Green bonds help raise awareness in the investment community, but the institution/finance system development work can't be avoided!