

The background of the slide features a dark blue grid with several overlapping financial charts. On the left, there is a green line chart showing fluctuations. In the center and right, there are candlestick charts with red and blue bars, and a yellow line chart that trends upwards from the bottom left towards the top right.

Greenium: are investors ready to pay more for green bonds?

December 2020



STATE
DEVELOPMENT
CORPORATION

Global green bonds market: rapidly growing with demand significantly exceeding supply

Rapid growth of demand

Annual growth of AuM (Assets under management) of bond funds, % CAGR

 **+50%** Green bond funds

 **+8%** Traditional fixed income funds

Supply does not catch up with the demand

Demand

\$40.5 trln

AuM of funds with ESG screening

\$500 bn

AuM of green and social bond funds alone

Supply

\$740 bn

Total volume of outstanding green bonds

Does this mismatch affect the price?

Note: AuM growth of bond funds during the last 3 years, demand data for mid 2020, volume of outstanding green bonds for November 2020
Source: Environmental finance, Cbonds, Pensions & Investments Online, Morningstar

Greenium: definition and estimated size

Greenium

=

The difference in yield to maturity of a green bond compared to a conventional bond with identical characteristics

=

15-25¹

bps

(~6% of average yield to maturity)



Bonds issued by the same issuers have been compared in order to eliminate credit quality and country differences

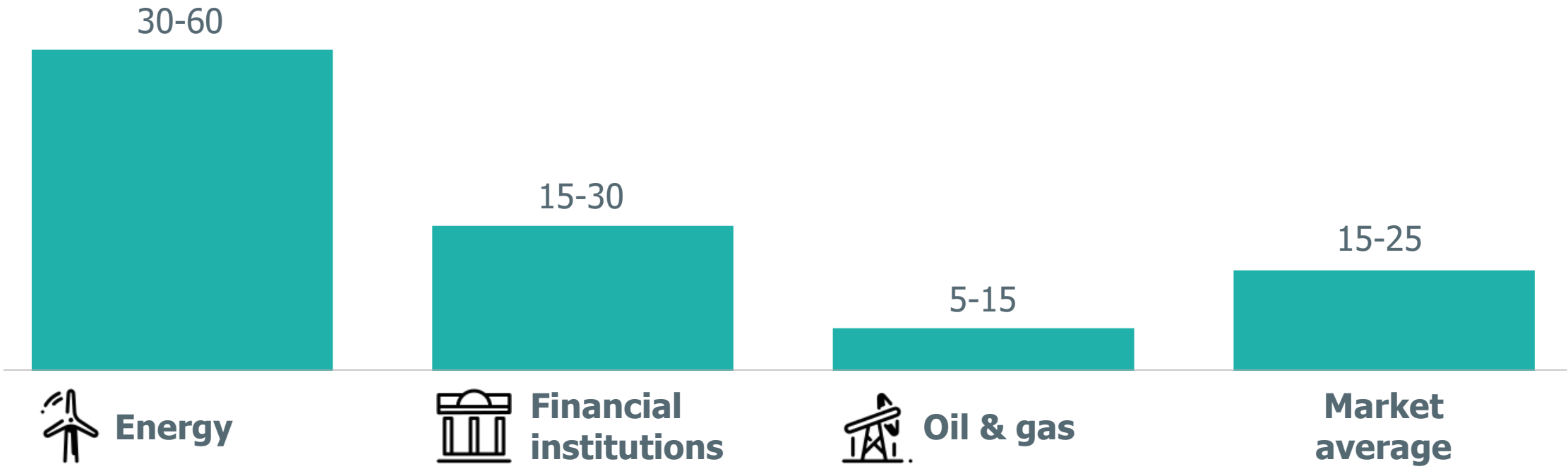


Yield to maturity (which represents current market value of a bond; and not yield at placement) was analyzed in order to eliminate differences in underwriting and in dates of placement

¹ Greenium for USD bonds, as of June 2020
Total number of observations – 167
Source: VEB.RF analysis

Industry-specific greeniums

Average greenium by industry¹, bps



Total volume of outstanding bonds by industry², \$ billion



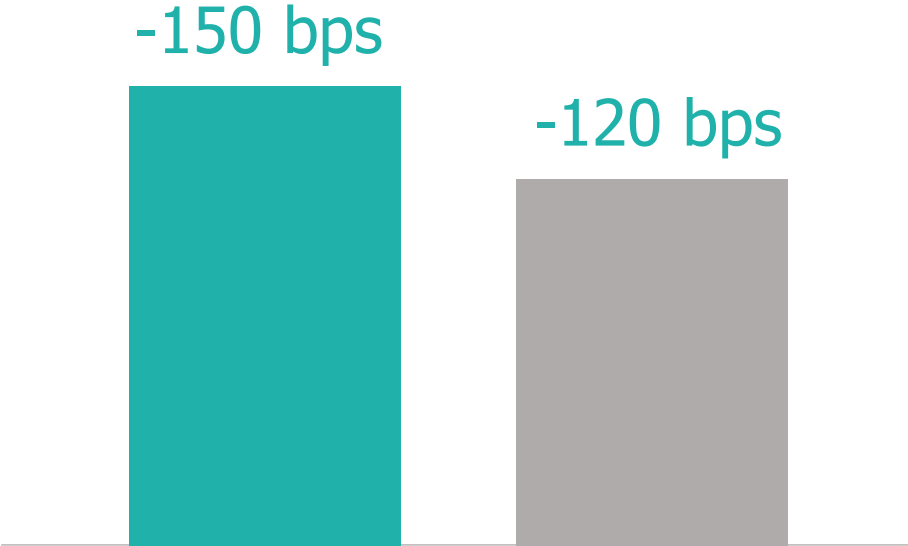
¹ Greenium for USD bonds, as of June 2020
² Total for all currencies – industry structure for major currencies (USD, EUR) is identical
Source: Cbonds, VEB.RF analysis

Green bonds: increase in price due to high demand and resilience during crisis

Green bonds Non green bonds

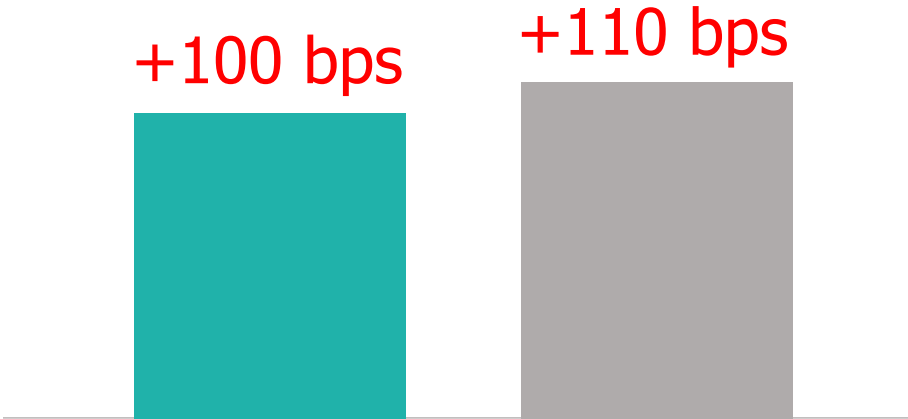
Elevated demand for green bonds leads to an increase in their price....

Average compression of yield to maturity (moves inversely to bond price) after placement for bonds placed during the last 2 years, basis points



...green bonds have also demonstrated resilience during the recent financial shock

Increase in yield to maturity (moves inversely to bond price) during the Covid-19 related financial markets shock (02.12.2019 – 23.03.2020), basis points



Source: Cbonds, Bloomberg, VEB.RF analysis