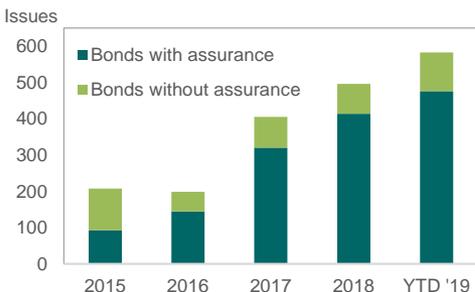


ESG in the Investment Industry

- The Federal Reserve Bank of San Francisco hosted a climate conference and acknowledged that climate change is a risk that they must consider in order to fulfill their mission.
- Lael Brainard, a member of the Federal Reserve's Board of Governors, reiterated that the central bank cannot ignore the potential impact of climate change on the financial system.
 - "Congress has assigned the Federal Reserve specific responsibilities in monetary policy, financial stability, financial regulation and supervision, community and consumer affairs, and payments. Climate risks may touch each of these."
- Entering the 2020 reporting cycle, PRI signatories will complete the now-mandatory Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD)-based questions, which will help investors better understand their exposure to climate risk.

Third Party Verification Increasing for Green Bonds



Note: YTD through 10/31/19
Includes audits and second party opinions

- Record issuance of green bonds continues, with over 500 green bonds issued globally in 2019.
- Global green bond sales total \$253 billion year-to-date, up from \$182 billion in 2018.
- Third-party verification of green bond proceeds has increased significantly as investors fear "greenwashing".

ESG Ratings

- Rating agencies continue to focus on ESG data. Fitch recently launched ESG relevance scoring for structured finance which attempts to answer how ESG risks are represented in their credit ratings.
 - ESG risk scoring shows the relevance and materiality of ESG factors within the credit rating, and not overall ESG performance.
 - This approach is an integral part of Fitch's credit rating analysis.
 - Fitch focuses on underlying collateral when looking at "E" & "S" risks while looking at originators and managers when considering "G" risks.

ESG at IR+M

- As ESG becomes a mainstream topic in the industry, terminology becomes increasingly important. Terms are often used interchangeably but can mean different things to different audiences. At IR+M, we are deliberate in how we use and define each term.
 - We view the landscape of responsible investing as a spectrum, ranging from negative screening, most often associated with Socially Responsible Investing (SRI), to targeting a specific goal, usually referred to as Thematic or Impact Investing.
 - ESG falls in the middle – each factor is considered in the analysis but wholesale exclusions are not necessarily enacted unless explicitly directed by the investor.
- Recent articles have criticized ESG funds with exposure to "bad" ESG companies. Most often the author will move seamlessly between terms without a complete understanding of the objectives of the portfolio. For example, conflating positively tilted ESG thematic strategies (such as low-carbon) with values-based SRI screening.
- As we see with the many ESG rating providers, there are numerous ways to score a company on ESG criteria, making results difficult to compare; lack of specific rules leads to gray areas where fundamental context is required.

Characteristics	Bloomberg Barclays US Aggregate (Agg) & MSCI Focused Sub-Indices			
	Standard	ESG-Weighted	SRI	Sustainability
Yield to Worst	2.30	2.22	2.26	2.20
Duration	5.88	6.05	5.72	5.58
Spread	44	38	40	34
Convexity	0.25	0.40	0.19	0.13
1-Yr Return (%)	10.79	10.85	10.46	10.14

ESG Headline Events

- ESG factors influence headlines and impact credit performance; Bank of America found that S&P 500 companies lost over \$500 billion of value in the last 5 years related to ESG events.
 - + EasyJet, a British airline, recently pledged to offset all of its carbon emissions by investing in renewable energy and planting trees; although EasyJet's near-term GHG emissions are predicted to rise, other airlines could be pressured to follow this carbon-offset approach.
 - Following a leak at a Chevron oil facility, the State of California halted new permits for steam-flooding production, and is examining hydraulic fracturing and other well stimulation methods. While Chevron is not heavily exposed to California legislation, California Resources Corp (CRC) is impacted – CRC shares and high-yield debt fell over 20% on the news.

Sources: Bloomberg, Bloomberg Barclays, FactSet, Financial Times, Federal Reserve Bank of San Francisco, Federal Reserve Board, Fitch Ratings, MSCI, and PRI as of 12/17/2019
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