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Truvalue Labs

ESG Investing: The Global State of GSSS Bonds

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FACTSET › SEE THE ADVANTAGE

ESG-RELATED FIXED INCOME PRODUCTS

› A LOOK INTO THE GREEN, SOCIAL AND
SUSTAINABLE BOND MARKET

James Cardamone, Associate Director ESG Product

Agenda

- What are some of the different types of ESG-related bonds & 2020 Trends
- History of the Green Bond Market, Growth and Breakdown of Composition
- Use of Proceeds 2020 Highlights
- Composition of Investors & Investment Considerations
- “Greenium” effect
- FactSet and Truvalue Demo
 - How to track the universe? Narrowing a Green Bond Screen for specific Use of Proceeds
 - Evaluating an issuer (MUFG) using TVL Platform
 - Green Bond portfolio (ETF) vs. comparable global Fixed Income benchmark
- Q&A

ESG-Related Fixed Income Products

- Largest segment **\$1.27T** in size (\$200B YTD) with over 1400 Issuers (Gov, Supra, Corp)
- 4 Components for **Green Bond Principle** Alignment: 1. Use of Proceeds, 2. Process for Project Eval & Selection, 3. Management of Proceeds, 4. Reporting
- Smallest 2020 growth of the segments despite size (290bn)



- **\$20bn** (Dec 2020) with expectations for **\$50-60bn** of issuance in 2021.
- **5 Components for SLBP**: 1. Selection of KPIs, 2. Calibration of Perf Targets (SPTs), 3. Bond Characteristics, 4. Reporting, 5. Verification
- KPI evaluation is critical to avoid greenwashing given no specific Use of Proceeds.

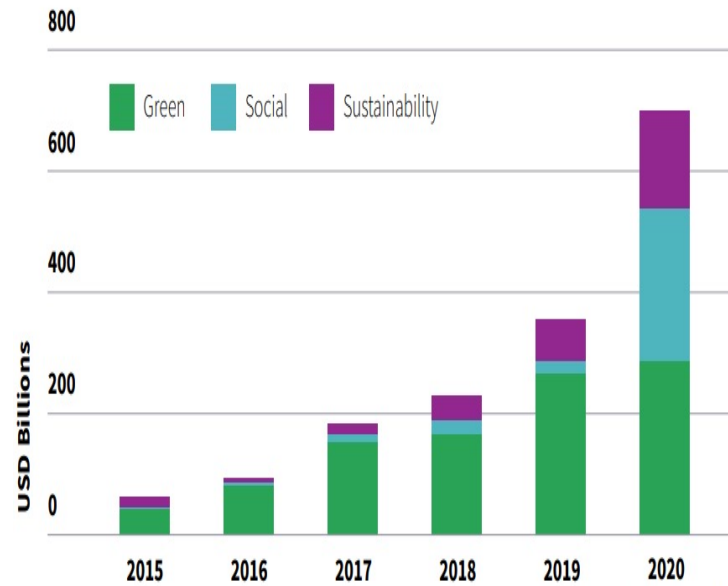
- **\$317bn** (Dec 2020) with 200 Issuers
- Follows same GBP components but serves both Green & Social Projects.
- **Alphabet's \$5.8 bn** deal finances energy efficiency, affordable housing, racial equity & other areas

- **\$316bn** (Dec 2020) with over 600 Issuers majority coming from 2020 Issuance (\$250bn)
- Follow same components as Green Bonds
- **2020 10x growth** with pandemic bonds accounting for 34% of 2020 Social bond Issuance

Green, Social, & Sustainability Bond Highlights from CBI's [Global State of the Market 2020](#)

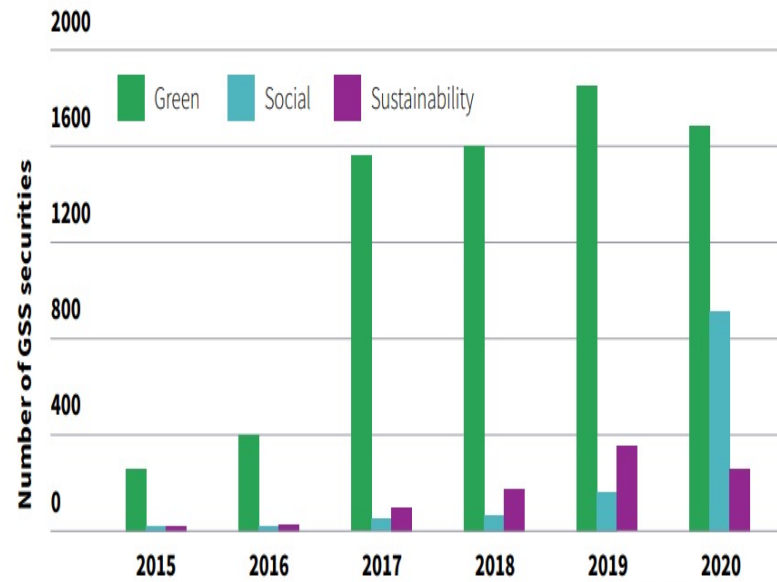
- Overall GSS reached \$1.7tn by end of 2020 with \$700bn in new issuance. Green Bonds reached the \$1tn mark and Social bonds grew 10x largely due to Pandemic bonds.
- Sovereign issuers took charge including 10 new issuers bringing the total to 22 increasing size of GSS market.
- Sustainability bonds also grew 2.3x and notably average issue size doubled to \$630m/instrument

Green, social, and sustainability bond issuance doubled in 2020



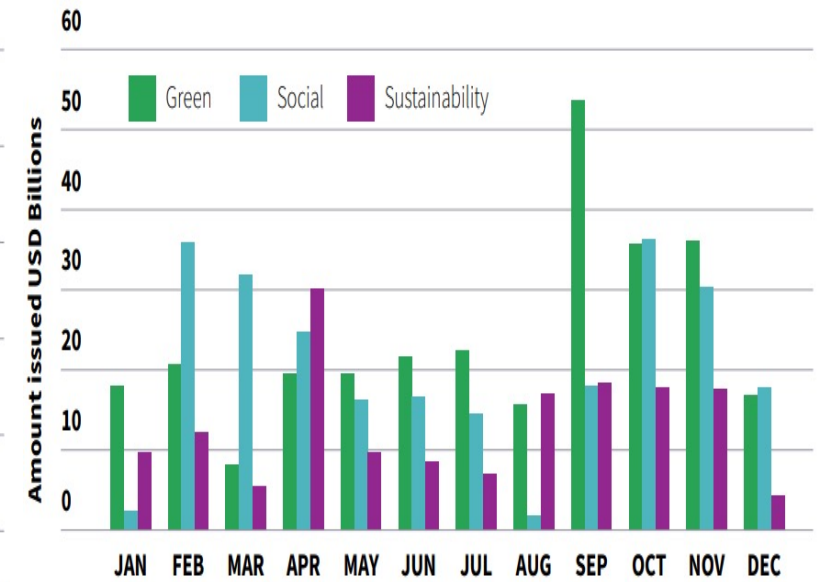
Source: Climate Bonds Initiative, 2021

Social bonds increased sharply in response to COVID-19



Source: Climate Bonds Initiative, 2021

Green bonds had a strong finish



Source: Climate Bonds Initiative, 2021

2020 Issuance by the numbers



Green bond market score card 2020

2020	Percent change from prior year
Size of market USD290bn	9%
Number of issuers 634	14%
Number of instruments: 1696	-9%
Average size of instrument USD171m	19%
Number of countries 55	6%
Number of currencies 34	0%



Sustainability bond market score card 2020

2020	Percent change from prior year
Size of market USD160 bn	131%
Number of issuers 83	5%
Number of instruments: 253	-26%
Average size of instrument USD630m	214%
Number of countries 23	0%
Number of currencies 25	-14%



Social bond market score card 2020

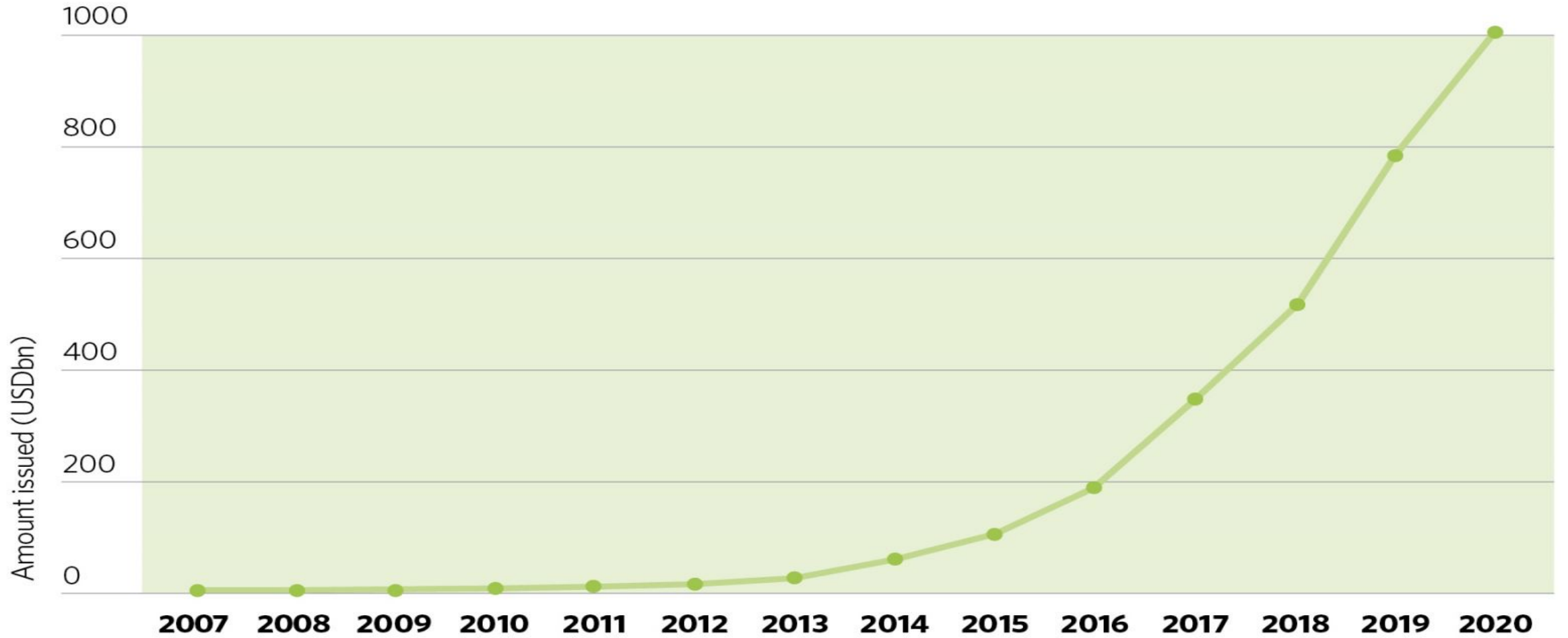
2020	Percent change from prior year
Size of market USD249bn	1017%
Number of issuers 543	1107%
Number of instruments: 911	488%
Average size of instrument USD273m	90%
Number of countries 29	89%
Number of currencies 18	64%

Green Bond History



Green Bond Progression

The \$1 trillion: cumulative progression

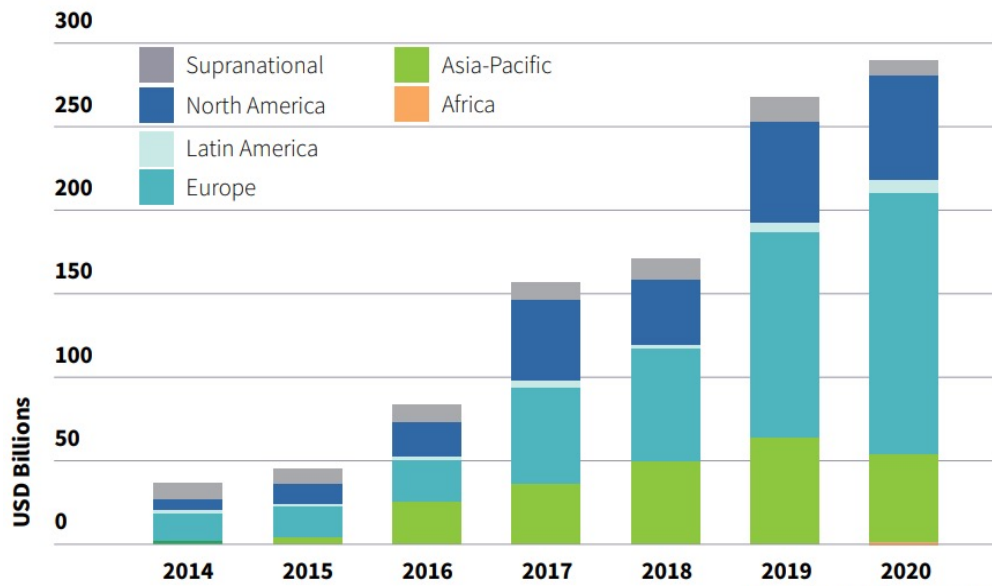


© Climate Bonds Initiative 2020

Green Bond Details

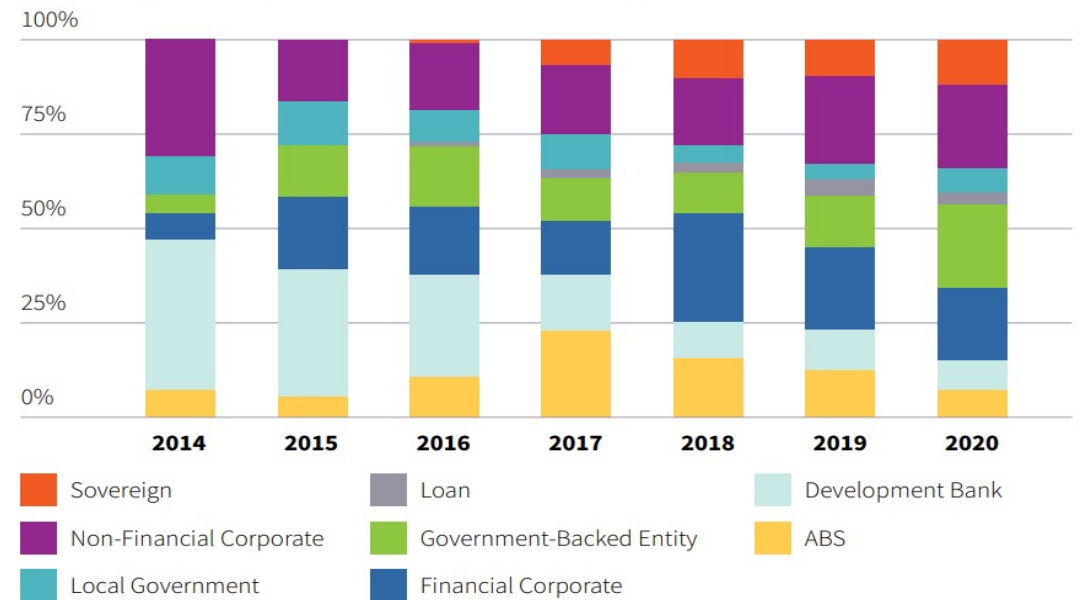
- Predominantly “Use of Proceeds” based where green projects are earmarked but backed by the issuer’s entire balance sheet
- Europe still leads the charge in Green Bond Issuance as EU launches [European Green Bond Standard](#) (7/6/2021)
 - “Gold Standard” and unlike GBP is based on EU Taxonomy helping show alignment to climate goals. External checks verifying proceeds are spent on intended projects will be overseen by EU’s market regulators
- Sovereign & Public Sector slightly outpaced privates in 2020. Govt backed Entities, Local Govt, Sovereigns led the charge.

Europe was the dominant region for green debt in 2020



Source: Climate Bonds Initiative, 2021

Sovereigns and public sector entities lead growth in 2020

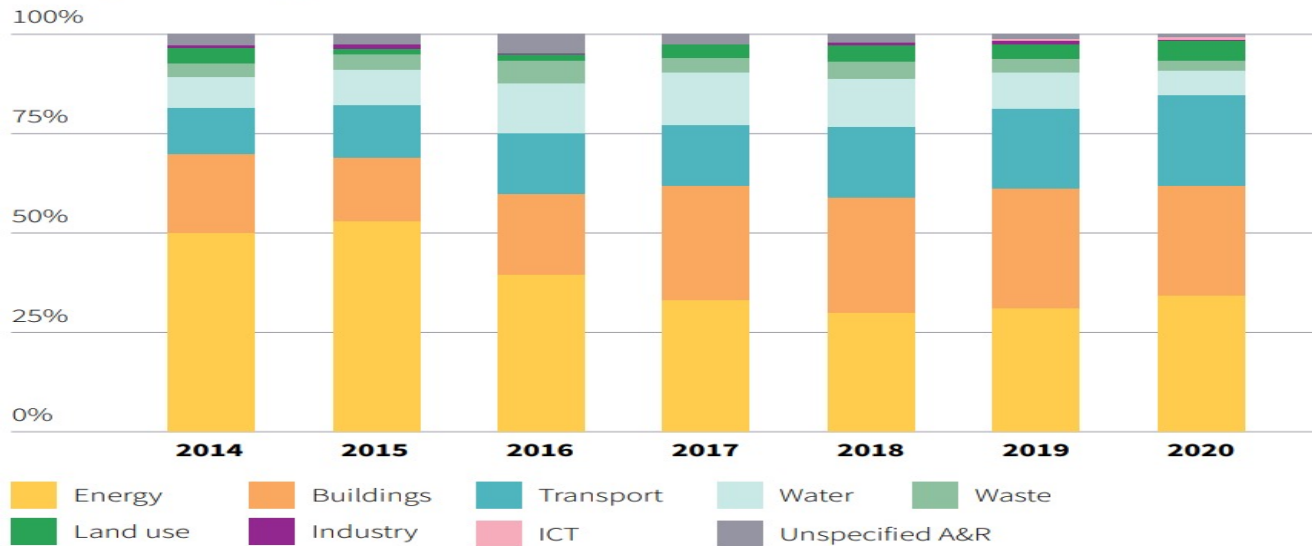


Source: Climate Bonds Initiative, 2021

Green Bond Use of Proceeds 2020 Highlights

- Transport saw 26% YoY growth as Sovereigns & Govt Backed Entities continued to support longer term infrastructure investments less impacted by the pandemic. France and China led the charge in this area with almost 20bn in issuance.
- Renewable Energy also grew 19% with almost half coming from corporates. [Verizon prices 2nd Green Bond](#) to support construction of solar & wind facilities hoping to source or generate 50% of total annual electricity by 2025.
- “Build Back Better” ensuring governments consider green and sustainable economic recovery post pandemic.
 - Thailand’s Sovereign Sustainability bond financing green infrastructure transit & social projects including essential healthcare along with small & medium sized loans to benefit employees impacted by COVID-19 & farmers.
 - Nigeria removed fossil fuel subsidies removing the price cap for gasoline, plans to install solar home systems for approximately 25m people among other investments in clean energy, agriculture, and infrastructure.

Energy, Buildings and Transport dominate UoP



Source: Climate Bonds Initiative, 2021

GSS Consumers

GSS Issuance is soaring, but who's on the buying end? According to a recent BAML research piece, key Buyers Include:

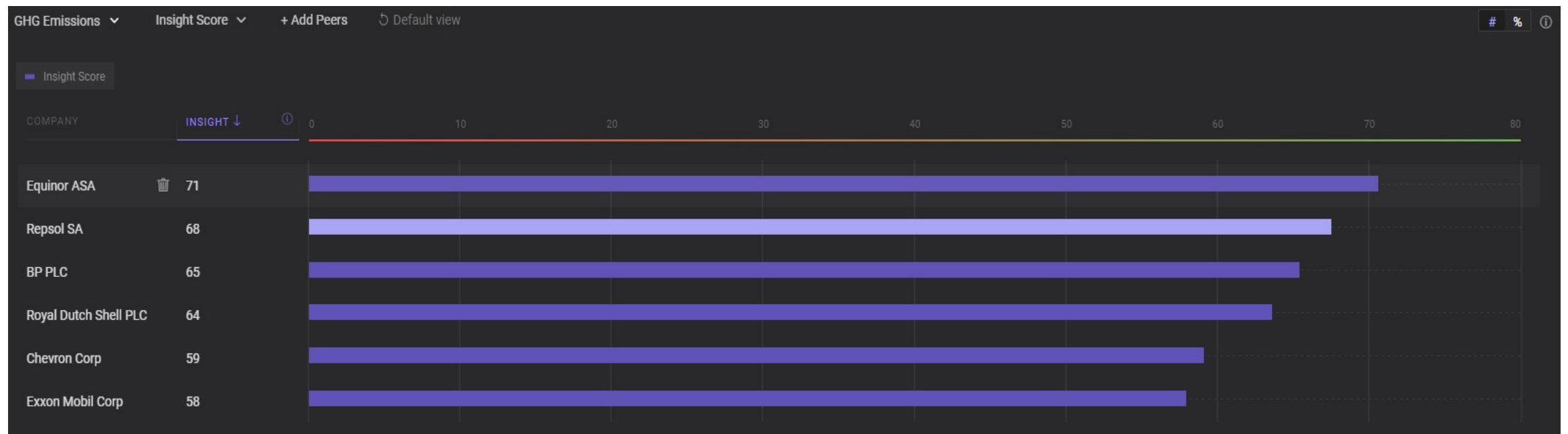
1. ESG/SRI institutions and/or specialist investors who specifically buy labeled instruments, including central banks, bank treasuries and government agencies,
2. Investors who see relative value in a labeled instrument or who are benchmarked to an index that includes labeled instruments (these investors are not necessarily drawn by the label specifically). These may include fund managers, insurance companies and/or pension funds,
3. Investors who have an ESG/SRI investment strategy. These investors may screen out or exclude some issuers in order to focus on those with stronger environmental, social or governance attributes, but they are not required to invest specifically or exclusively in labeled issuance.

But what are some of the considerations? To get some answers I spoke with a Senior Global Credit PM on his take:

- 1) Green Company over Green Bond. Assess green efforts holistically vs. individual green bond issuance
- 2) Issuers simply refinancing older, non green debt and replacing it with new Green bonds in hopes of finding green projects going forward. These require careful review.
- 3) Further standardized disclosure would be extremely helpful. The SEC is pursuing ESG related disclosures but nothing in place yet.
- 4) For SLB's ensuring that KPI's are not too vague. Understanding optionality. Will the bond be called before KPI's can be achieved?

Green Bonds in Non-Green Industries

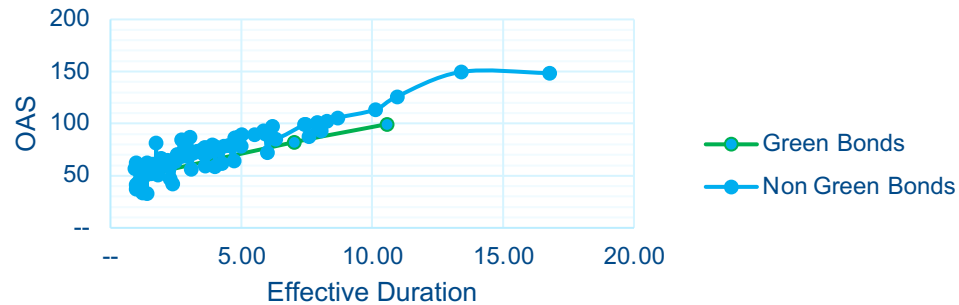
- One challenge managers face is to consider green debt from “brown” companies. In 2017 [Repsol](#) was the first Oil Company to issue a green bond.
- On paper the bond followed GBP guidelines, was verified and showed clear disclosures but the intent was on creating efficiencies in existing process to slightly reduce emissions (1.2m CO2/year) vs. outright investment in renewables.
- Some investors expect larger initiatives so bonds like this one will be excluded by certain mandates.
- Repsol has since made strides in renewables and with its transition plan ranks as one of the better O&G names on the Truvalue Platform in the GHG Emissions SASB category.



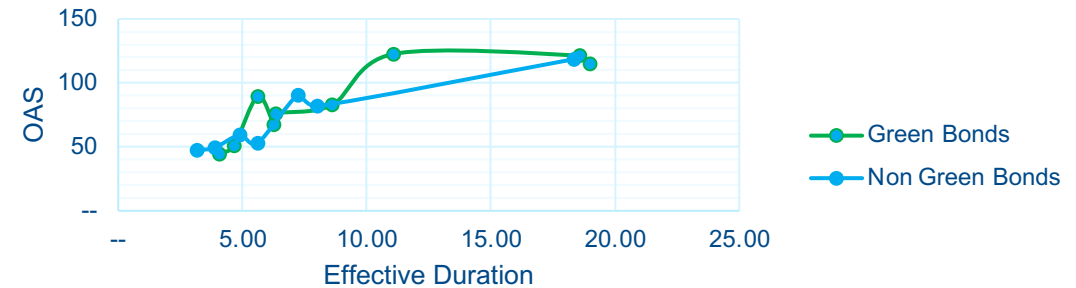
“Greenium” Effect?

- Using FactSet’s Portfolio Analytics tool we’ve taken bonds from the iShares Global Green bond ETF and Barclays Global Credit comparing both green & non green bonds for particular issuers. The results are mixed as seen below.
 - VW seems to trade inside comparable Non Green benchmark bonds
 - Whereas with Equinix we see the Green Bonds both below and above the Non Green cohort
 - Sumitomo Green Bonds mostly show the “Greenium” effect trading below the spreads of other Non Green issues

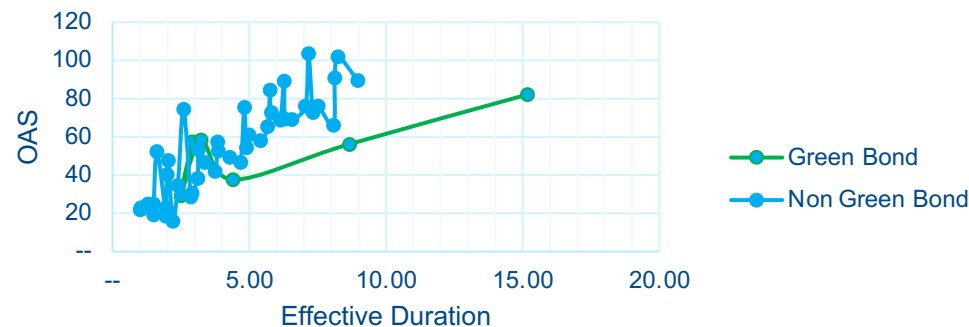
VW Green vs. Non Green Bonds



Equinix Green vs. Non Green Bonds



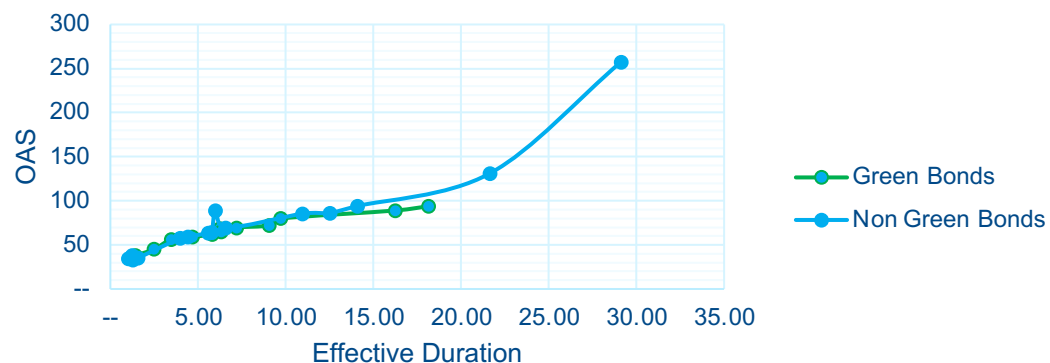
Sumitomo Green vs. Non Green Bonds



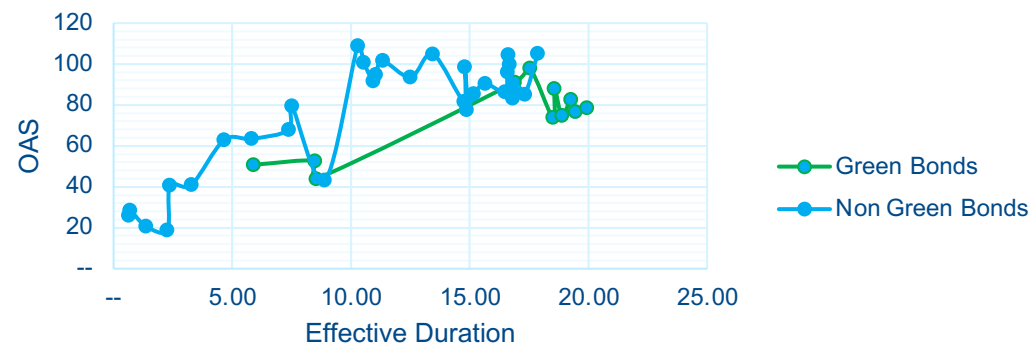
“Greenium” Effect for Utilities

- Looking at Utilities Issuers Engie, Excel Energy, Iberdrola, & E.ON spreads are at or inside Non-Green Bonds peers
- Considerations should include green bond sample size, issuance at the subsidiary level, currency

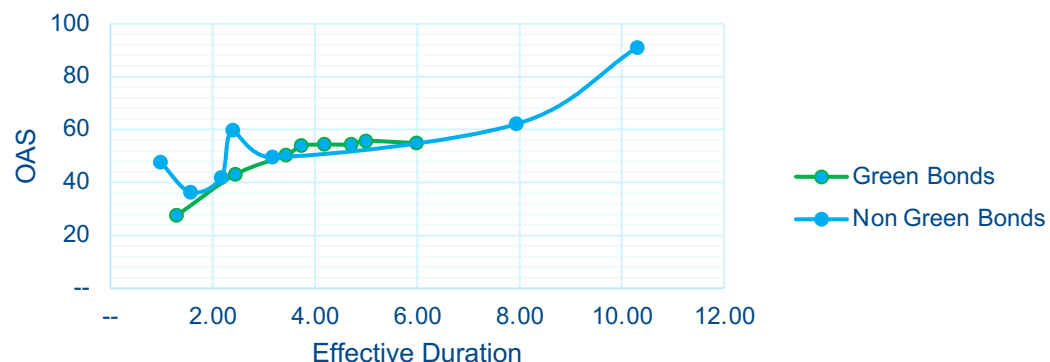
Engie Green vs. Non Green Bonds



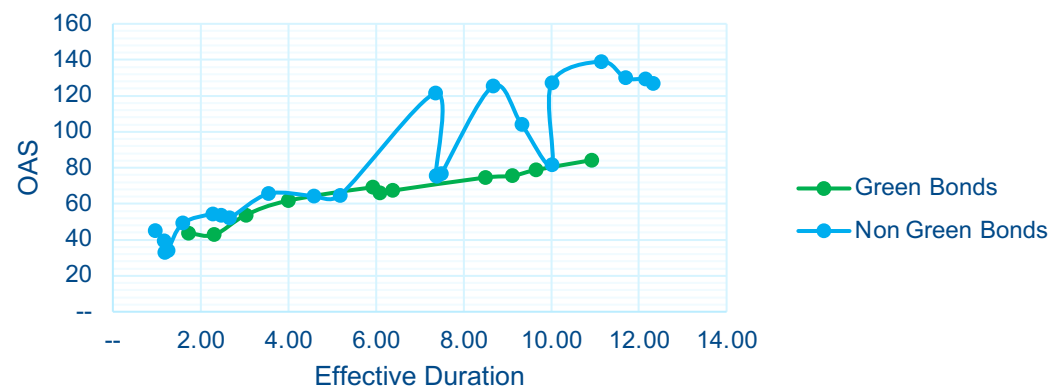
Xcel Green vs. Non Green Bonds



Iberdrola Green vs. Non Green Bonds



E.ON Green vs. Non Green Bonds



Demo of FactSet's Universal Screening

- First we will show FactSet's Universal Screening tool to display bonds flagged as Green Bonds with Use of Proceeds focused on Renewable Energy
 - Combines both bond level & Issuer level data. Can show bond level analytics as well as how the issuers themselves score using some of Truvalue's Environmental categories (GHG Emissions & Energy Management)

RESULTS: 140 Variables Results Charting Param

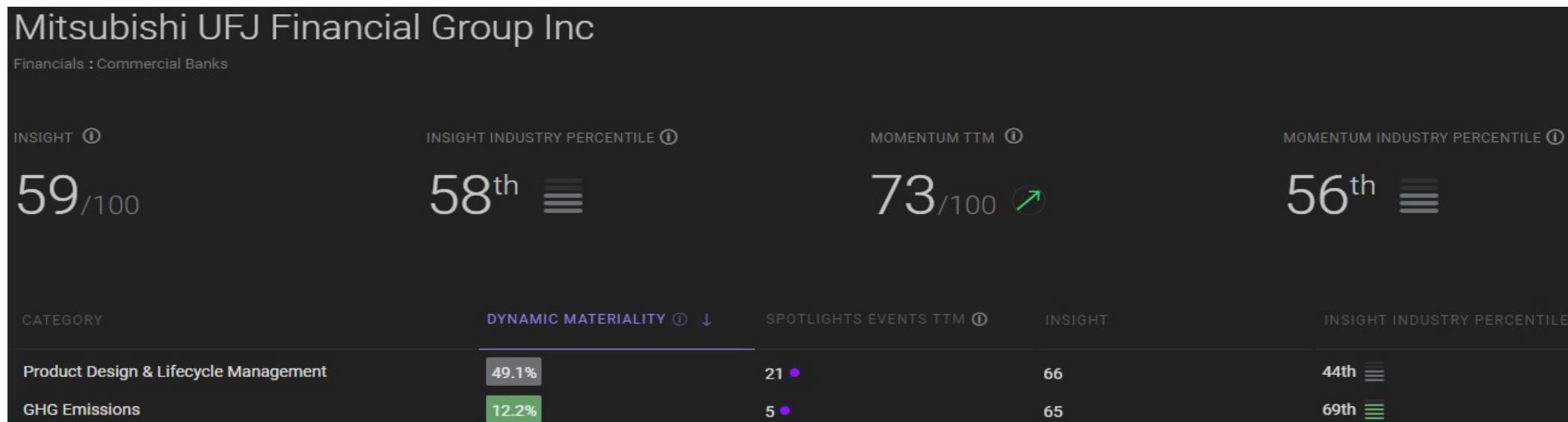
Summary +

Add Columns Modify

	Issue Name	Type	Offer Amount	Issue Date	Years to Maturity	Coupon	Green Bond Flag	Green Bond Use of Proceeds	Country of Risk	Volume Category	GHG Emissions DM	GHG Emissions Insight	Prod Des Lifecycle Mgmt DM	Prod Des Lifecycle Mgmt Insight
	Total													
	Japan													
	Mitsubishi UFJ Financial Group, Inc.													
1	Mitsubishi UFJ Financial Group, Inc. 2.19% 13-SEP-2021	Corporate	1,500.0	09/13/2016	.1	2.2	1	Renewable Energy	Japan	High	12.2	65.1	49.0	65.7
2	Mitsubishi UFJ Financial Group, Inc. 2.527% 13-SEP-2023	Corporate	500.0	09/13/2016	2.1	2.5	1	Renewable Energy	Japan	High	12.2	65.1	49.0	65.7
3	Mitsubishi UFJ Financial Group, Inc. 2.757% 13-SEP-2026	Corporate	1,000.0	09/13/2016	5.1	2.8	1	Renewable Energy	Japan	High	12.2	65.1	49.0	65.7
4	Mitsubishi UFJ Financial Group, Inc. FRN 13-SEP-2021	Corporate	1,000.0	09/13/2016	.1	1.2	1	Renewable Energy	Japan	High	12.2	65.1	49.0	65.7

Demo of Truvalue Labs Platform

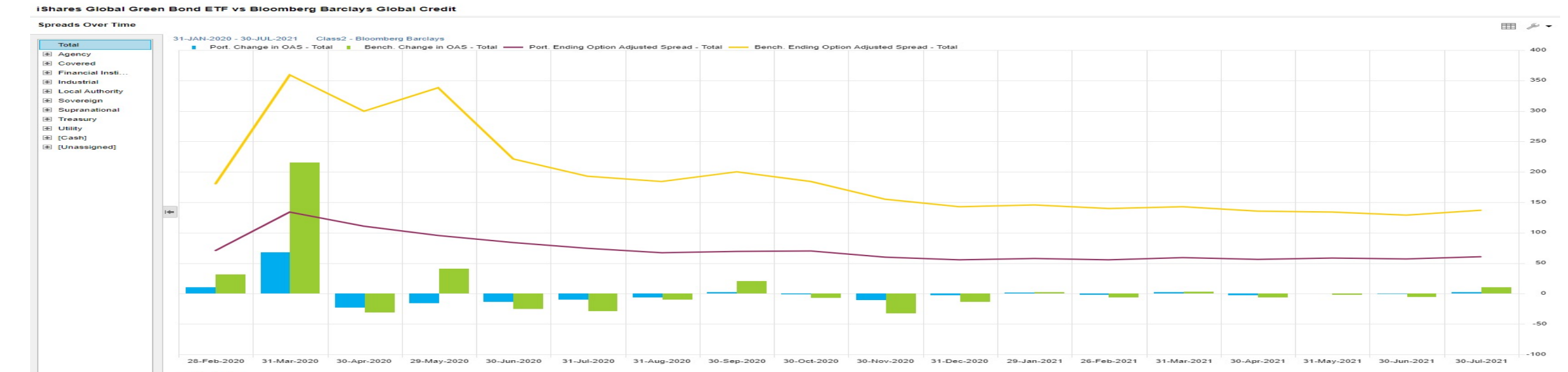
- Next we drill into Mitsubishi UFG in the Truvalue Platform to understand how it's performed on GHG Emissions to get a sense of how the outside stakeholder perspective is viewing MUFG's lending from an Emissions standpoint.
- Overall GHG Emissions is 12.2% of the total information for MUFG and it ranks positively (69th %) for Commercial Banks
- Recently MUFG joined the UN Net Zero banking alliance, aims for net zero emissions by 2050 in its finance portfolio, contributed to Blackrock's Climate infrastructure fund for EM countries, and provided subsidies for hydrogen fuel cell buses.
- **It's important however to evaluate ALL behavior.** MUFG has been the 3rd largest global lender to coal over the last 2 years, 6th largest fossil fuel banker since the Paris Agreement, and the 7th largest banker to the Palm Oil Industry.
- MUFG is making strides but are they enough and will they continue current financing behaviors?



Demo of FactSet's Portfolio Analysis 3.0

Next in Portfolio Analysis we take a look at the iShares Global Green Bond ETF vs. the Bloomberg Barclays Global Credit Index to get a sense of Green vs Non Green.

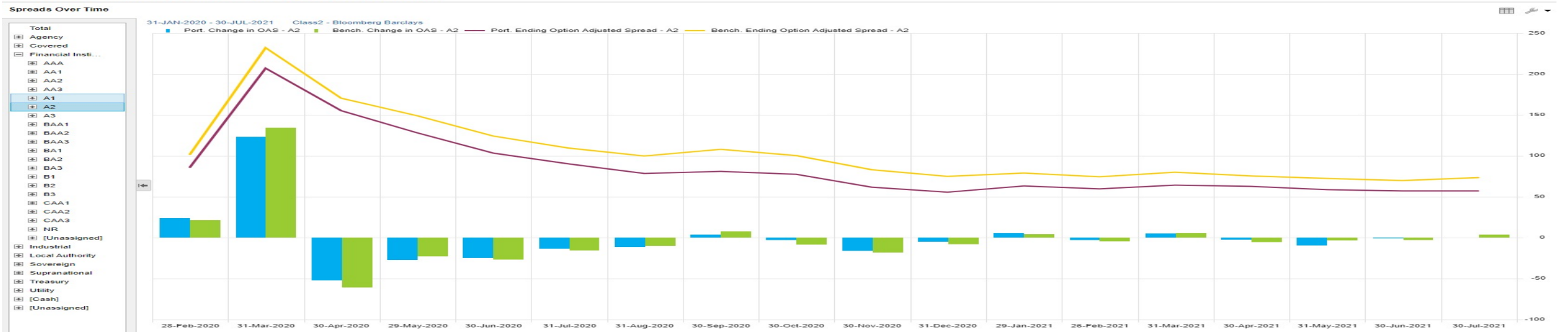
- In the first chart we take a look at the last 18 months including the beginning of the pandemic to see how Global Green bonds fared vs. non green counterparts by Industry and Quality.
- Using time series reporting we can track the monthly spread changes for both the Green and non Green cohort down to credit quality buckets to get a fairly reasonable comparison.
- Overall the Green Bond spreads are lower at almost all levels (Total portfolio, industry, credit quality buckets).
 - Worth noting is how they reacted to the stress of March/April 2020 when the pandemic wreaked havoc on the markets.
 - Pretty much across the board we see far less spread widening and quicker returns to pre pandemic spread levels.



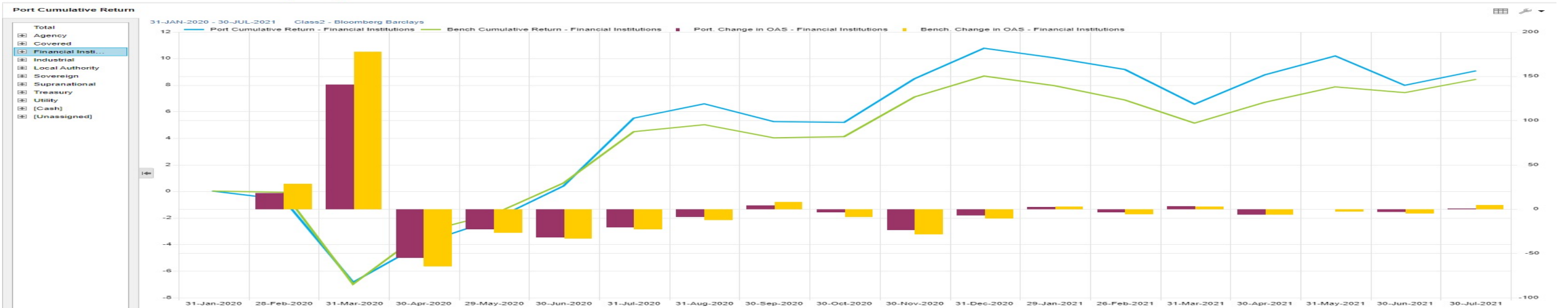
Spread & Total Return Analysis - Financials

- Focusing more specifically on Financials (largest corporate sector for Green bonds) and then A quality bonds we can see the lower overall levels of spreads, less widening in March, and a quicker return to pre pandemic levels.
- Below we overlay cumulative return and see Green Bond Financials have slightly outperformed for this period.

iShares Global Green Bond ETF vs Bloomberg Barclays Global Credit



iShares Global Green Bond ETF vs Bloomberg Barclays Global Credit



Questions?