

ESG Analytics for the Fixed Income Universe

ESG analytics for the fixed income universe in a single integrated solution

Sustainable Investment principles in Fixed Income are rapidly being adopted by market participants as enhanced risk management, demand for positive impact, and increasing regulation drive uptake.

Despite the complexities of the asset class, ~40% of the ~\$53trn AUM managed according to SI and ESG principles is within fixed income, with double digit growth over the last decade.¹

As a trusted source for in-depth fixed income risk analytics and complex portfolio analysis for over 30 years, LSEG Yield Book introduces our integrated analytics solution for assessing ESG impact across sub-asset classes of the fixed income universe. Combining Yield Book's proprietary ESG Framework for securitised assets with Beyond Ratings' and LSEG Data & Analytics' climate and ESG data on sovereigns and corporate bonds, Yield Book enables you to easily and flexibly incorporate sustainability into your decision-making.

Integrate MBS, corporate, and sovereign ESG fixed income metrics into your investment process

Yield Book's solution offers an unprecedented level of customisation and precision. Clients can leverage climate and ESG portfolio-level analytics to understand the driving underlying factors behind their position and enhance asset allocation in line with ESG principles.

Clients can access ESG metrics at the single security level and portfolio level, providing the unique ability to leverage Yield Book analytics to truly define a full picture of the impact of ESG on their portfolios. Yield Book's analytical library spans over 2,800 keywords, allowing clients to conduct fixed income analysis such as yields, durations, spreads, and convexities alongside Sustainable Investment principles with ease.

570+

Accessible ESG and climate metrics across corporates and sovereigns

~960 K

Securities with ESG scores and underlying metrics





\$92 trn+

Active fixed income securities with ESG credentials' notional outstanding

¹ Sources: World Bank, *Incorporating ESG Factors into Fixed Income Investment*, Celent *ESG in Portfolio Management*, GSIA *Global Sustainable*




Key use cases include:

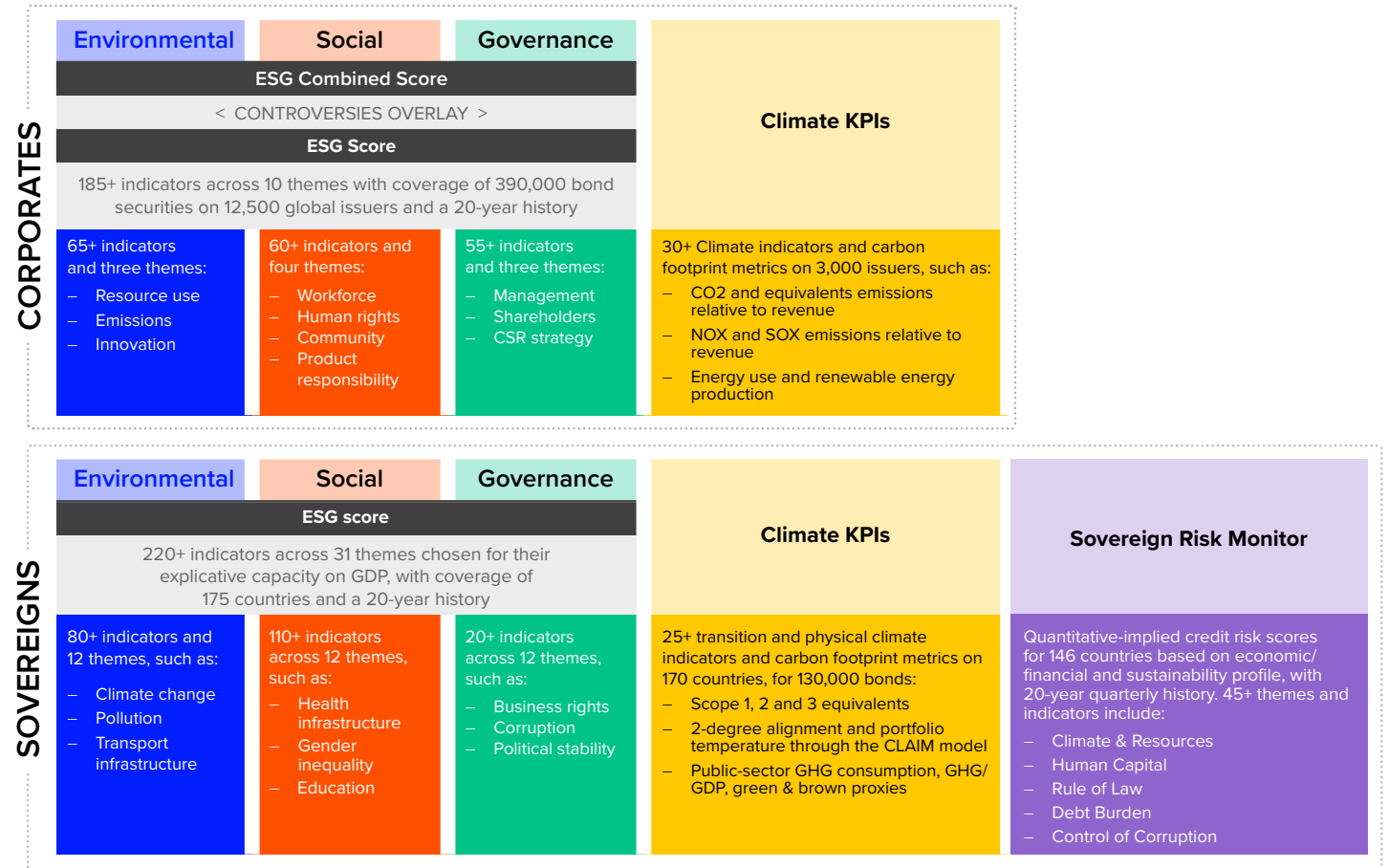
	Conduct augmented credit risk analysis with systemic integration of 40+ ESG measures on MBS, 330+ ESG metrics on 170+ sovereigns, and 200+ metrics on 390,000 corporate bonds alongside traditional financial analytics
	Conduct ESG-adjusted portfolio analytics on-demand through the Yield Book Add-In and API, with transparency into underlying Environment, Social and Governance drivers
	Alignment of portfolios to climate objectives, including carbon footprint of your fixed income portfolios, current temperature trajectories and gap to 2-degree scenarios
	Automate customised reports for snapshotting climate and ESG performance and for fulfilment of numerous international disclosure standards such as TCFD, SFDR, GRI and SASB

Leverage unique and quantitative ESG analytics and data

Leveraging our proprietary ESG analytics as the first ESG framework provider for securitised assets alongside Beyond Ratings and LSEG Data & Analytics, Yield Book brings client industry-leading ESG data providers in one integrated solution.

	Yield Book	 LSEG DATA & ANALYTICS	LSEG
COVERAGE	560,000 securities	~400,000 fixed income instruments, global spread of corporates	~130,000 securities across 170+ sovereign entities
HISTORY	2015	2002 (for 10,000 companies)	1999 (data model dependent)
DATA POINTS	40+	200+	330+
	<p>Yield Book's proprietary framework for ESG in securitised assets offers 20+ purely quantitative ESG metrics and scores across the thematic areas of Responsible Lending and Responsible Servicing, both key Governance themes for the securitised market. Using the latest techniques in data science and machine learning, we have derived purely quantitative insights into very large datasets to detect these and provide monthly ESG measures on 560,000+ US Agency RMBS and CMOs, augmenting a range of other socio-economic data, green and ESG flags.</p>	<p>Beyond Ratings provides 330+ ESG, climate metrics and KPIs on over 170 sovereigns across 130,000 securities, to facilitate incorporation of sustainability into investment decision-making, including projected gap to 2° scenario based on the proprietary Climate Liabilities Assessment Integrated Methodology (CLAIM) model, and credit risk scores that systematically incorporate ESG factors alongside standard financial considerations.</p>	<p>LSEG Data & Analytics offers one of the most comprehensive ESG databases in the industry on corporate bonds, covering over 85% of the global market cap, with a history going back to 2002. LSEG Data & Analytics has ESG data coverage for over 12,500 global companies, across 76 countries, spanning major global and regional indices. The LSEG Data & Analytics corporate bond ESG dataset measures a company's relative ESG performance, commitment and effectiveness across 10 main themes.</p>

Access to four ESG and Climate models across sovereigns and corporates



Integrated workflow processes with Yield Book API and Add-In

A core component of Yield Book’s capabilities is its inherent open architecture, whereby users can specify custom inputs and outputs for truly bespoke analytics. Clients can access ESG metrics interactively using the Yield Book API or Microsoft Excel® Add-in, with the ability to flexibly define and output portfolio analytics or reports.

LSEG Yield Book FOR **LSEG DATA ANALYTICS** **LSEG**

ESG and Climate Portfolios

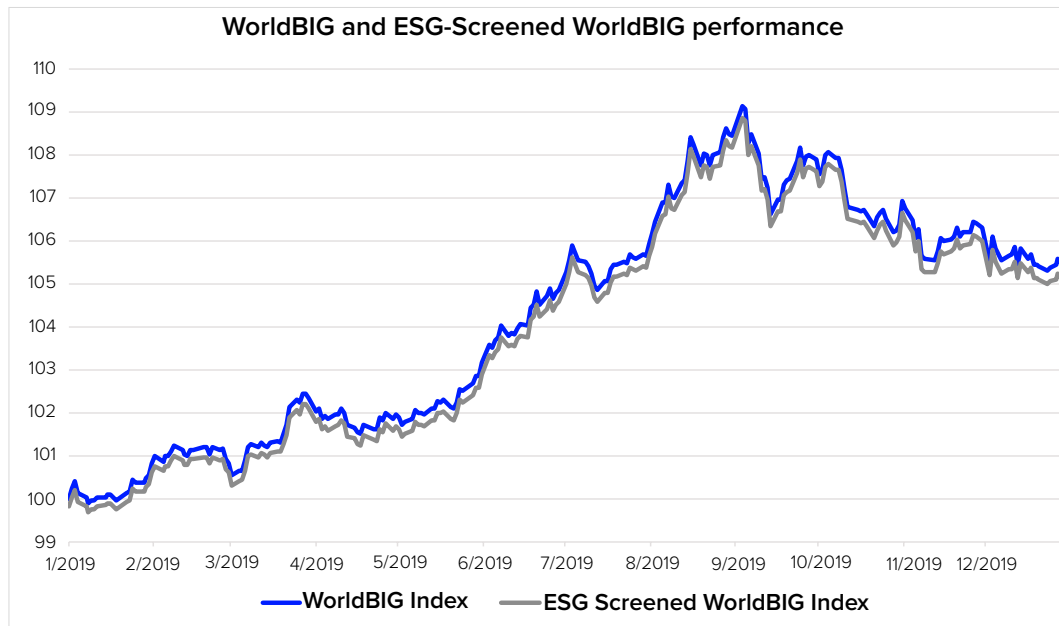
Pricing Setup				Portfolio level metrics									
Standard Calculations				Yield Book Analytics					ESG and climate metrics				
Curve Type:	TsyModel	Issues	50	BR Credit Risk Score	70.9								
Curve Date:	1/1/2020	Mkt Val (M)	714	ESG Global Score	82.7								
Settle Date:	Market	Index Rating	AA	Environmental Score	82.9								
		Price	130.75	Social Score	82.9								
		Coupon	1.53	Governance Score	81.5								
		Yield	0.50	ESGSustainableGDP	57,082.3								
		Effective Duration	13.64	CarbonGHGGDPRatio	297.7								
		Effective Convexity	4.456										
		WAL	10.06										

Identifier	Par Amt (M)	Price	Base Market Value	Country	Cpn	Yield	Eff Dur	Eff Convx ty	WAL	S&P	ESG			
											ESG Score	Environmental	Social	Governance
012796000	108	100.0	108	US	0.0	0.01	0.50	0.01	0.5	AA+	86.8	86.6	87.0	86.4
012796000	35	100.0	35	US	0.0	0.02	0.32	0.00	0.3	AA+	86.8	86.6	87.0	86.4
012796000	5	99.2	5	CHI	2.2	2.51	2.88	0.11	3.0	A+	61.8	58.6	61.8	64.1
012796000	34	115.0	40	SP	2.0	0.49	9.52	1.06	10.6	A	78.0	78.0	77.4	78.0
012796000	2	104.0	2	US	1.6	0.77	4.58	0.24	4.8	AA+	40.3	17.1	51.7	33.9
012796000	3	108.9	3	US	3.2	1.81	5.98	0.31	6.8	BBB+	85.1	93.8	80.8	87.5
012796000	33	102.3	34	GER	0.0	-0.48	4.79	0.28	4.8	AAA	85.4	85.4	86.2	84.3
012796000	2	105.6	2	LUX	1.1	0.33	6.72	0.35	7.2	A	65.3	77.9	88.7	28.7

Source: Yield Book. For illustrative purposes only.

Index analytics and historical back-testing

Assess the impact of ESG on portfolios, including tracking error and price. This graph shows relative performance of the World Broad Investment-Grade Bond Index (WorldBIG) and a rebased equivalent with a negative screen on the lowest decile of ESG scores, with coverage of ~75% by notional outstanding.



Source: Yield Book. For illustrative purposes only.

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LSEG DATA & ANALYTICS