ADVANTAGE GREENGATE

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Sustainability Scoring

Risk Analysis and Sustainability Scoring Model – February 2021

The knowledge of choices

The Company

Introducing Advantage GreenGate

Advantage GreenGate provides consulting services to corporate and investment funds on sustainability and green economy.

Advantage GreenGate offers specialized advisory on ESG footprint and develops scoring methodologies to assess sustainability.

More info on:

https://www.advantagegreengate.com

The Model

The underlying rationale

Advantage GreenGate's proprietary models are based on literature and internal research, backed by studies developed since 2011. *Omega Score* model extends to a broader concept of sustainability the relationship between ecological impacts, ESG data, efficiency, probability of default and other financial risk metrics.

A multiple statistical correlation approach is used to detect the relationships among sustainability and financial variables across companies, sectors, geographical areas and their evolution over time, so to allow clustering and benchmarking.

The outcome of the model consist of several metrics and analytics that allow a comprehensive and straightforward vision of sustainability risk across sectors, markets, geographical areas and time, and dependencies vs. financial variables.
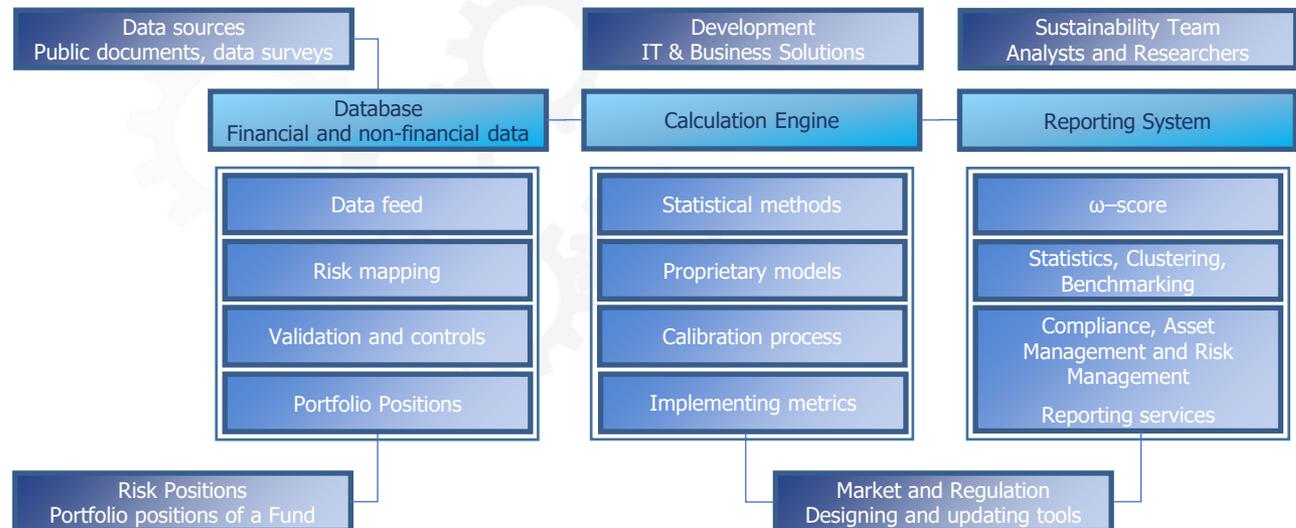
ω-score is then calculated as a risk-sensitive measure, and ESG weights are not arbitrarily defined, but derived through an endogenous calculation process.

Data processing

Data and key features

The computational framework is organized as a comprehensive database of financial and non-financial information, data processes, control procedures, calculation routines and reporting tools. Data integrity is guaranteed through extensive controls and robust procedures. A dedicated team of analysts and researchers continuously maintains and validates data, results and models.

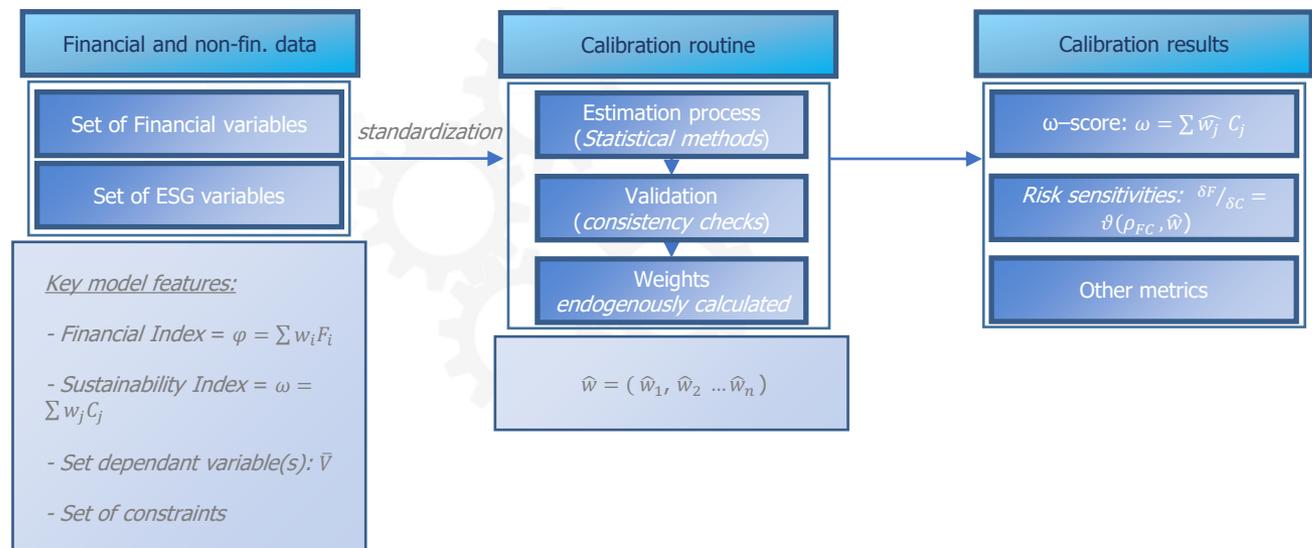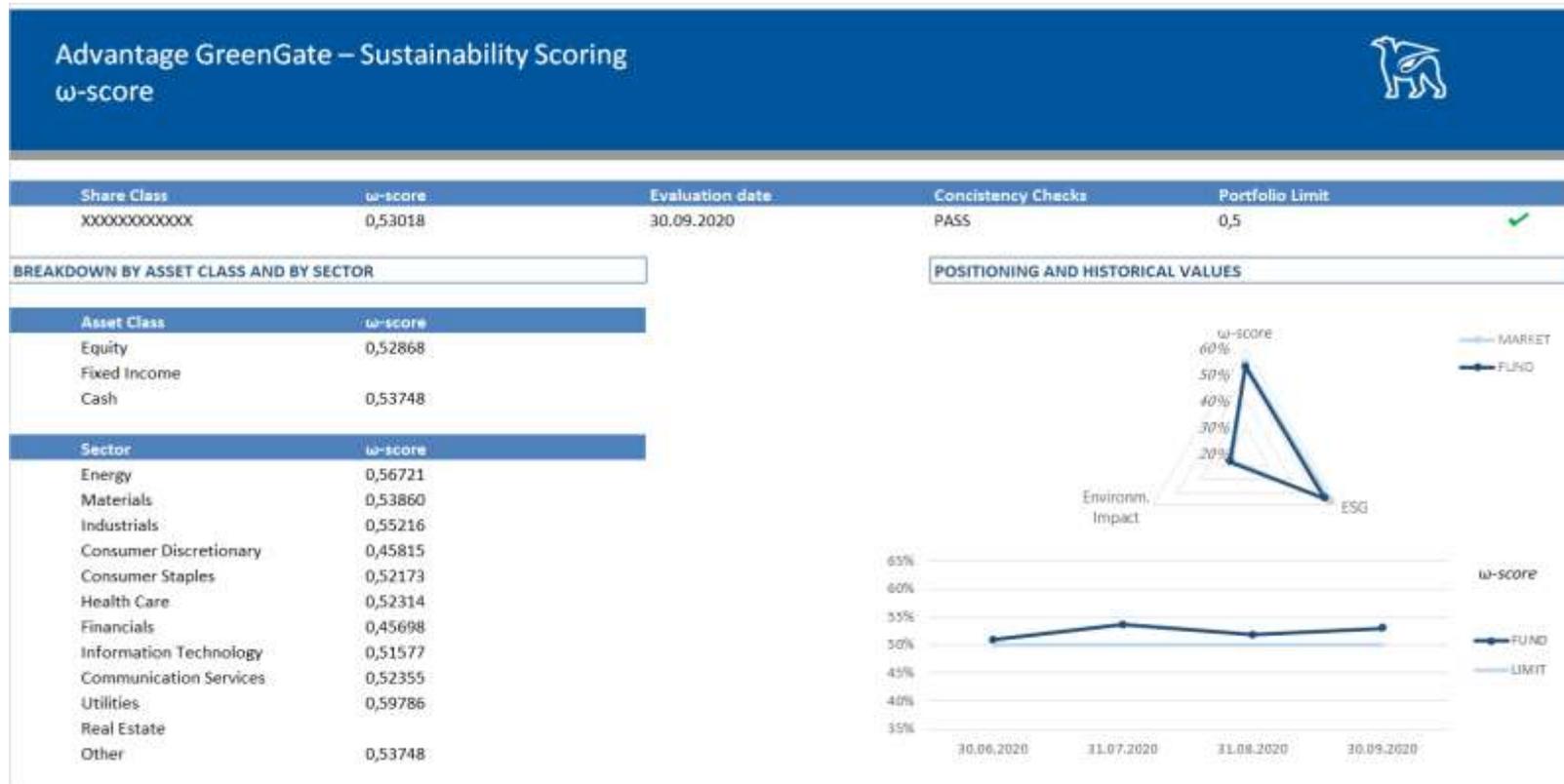| Data sources Public documents, data surveys	Development IT & Business Solutions	Sustainability Team Analysts and Researchers
Database Financial and non-financial data	Calculation Engine	Reporting System
Data feed	Statistical methods	ω–score
Risk mapping	Proprietary models	Statistics, Clustering, Benchmarking
Validation and controls	Calibration process	Compliance, Asset Management and Risk Management
Portfolio Positions	Implementing metrics	Reporting services
Risk Positions Portfolio positions of a Fund	Market and Regulation Designing and updating tools	

Data processing

Model Calibration

In the proprietary model, an objective function (dependent variable) $\bar{V}$ is assumed or financial covariates F_i are used as the input of the calibration process (through canonical correlation). Weights w_j are calibrated by simultaneously taking into consideration both classes of variables.

Financial and non-fin. data
- Set of Financial variables
- Set of ESG variables

Key model features:

- *Financial Index* $= \varphi = \sum w_i F_i$
- *Sustainability Index* $= \omega = \sum w_j C_j$
- *Set dependant variable(s):* $\bar{V}$
- *Set of constraints*

standardization

Calibration routine
- Estimation process (*Statistical methods*)
- Validation (*consistency checks*)
- Weights *endogenously calculated*

$\hat{w} = (\hat{w}_1, \hat{w}_2 \ldots \hat{w}_n)$

Calibration results
- ω–score: $\omega = \sum \widehat{w_j} \; C_j$
- Risk sensitivities: $\delta F / \delta C = \vartheta(\rho_{FC}, \hat{w})$
- Other metrics

Asset Management

Simple and effective tools

Advantage GreenGate – Sustainability Scoring
ω-score

Share Class	ω-score	Evaluation date	Concistency Checks	Portfolio Limit	
XXXXXXXXXXXX	0,53018	30.09.2020	PASS	0,5	✓

BREAKDOWN BY ASSET CLASS AND BY SECTOR

POSITIONING AND HISTORICAL VALUES

Asset Class	ω-score
Equity	0,52868
Fixed Income	
Cash	0,53748

Sector	ω-score
Energy	0,56721
Materials	0,53860
Industrials	0,55216
Consumer Discretionary	0,45815
Consumer Staples	0,52173
Health Care	0,52314
Financials	0,45698
Information Technology	0,51577
Communication Services	0,52355
Utilities	0,59786
Real Estate	
Other	0,53748

Risk Management and Compliance

Reporting: Company report

Advantage GreenGate – Sustainability Scoring
XYZ CORP

Sustainability Scoring:

Company Name	Report date
XYZ CORP	01/07/2019

Risk Summary

Key indicators	Value
COMPANY ID	-
COUNTRY	USA
REGION	AMERICA
INDUSTRY SECTOR	Cons. non-cyclical
INDUSTRY GROUP	Pharmaceuticals
INDUSTRY SUBGROUP	Medical-Drugs
SECTOR	Health Care
CURRENCY	USD
REFERENCE INDEX	SPX Index
WEB	-
TOTAL ASSETS (MN)	-

Reference values as of 30.06.2019. Values collected and estimated by Advantage, based on internal and external data and providers.

ESG SUSTAINABILITY MAP

Disclosure of ESG information for each pillar

ESG - Governance 72%
ESG - Environmental 43%
ESG - Social 57%

Advantage estimates based on internal and external data and providers.
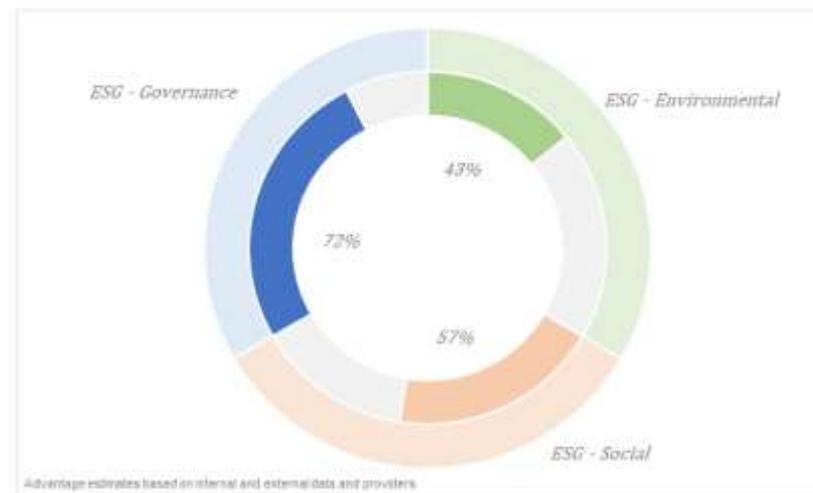
Risk Management and Compliance

Sustainability Score as the output of the calibration process

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Advantage GreenGate – Sustainability Scoring
ABC FUND

Sustainability Scoring:

Fund Name	Report date	NAV date	Currency	Fund NAV	Category
ABC FUND	01/07/2019	30/06/2019	EUR	XXXX.XX	UCITS

Risk Summary

Risk Indicator	Value	Warning	Limit	Status
ESG - Environment	42%	55%	50%	●
ESG - Social	65%	55%	50%	●
ESG - Governance	61%	55%	50%	●
ESG - Score	56%	55%	50%	●
Calibration	YES			●
Risk Mapping	YES			●
Exceptions	0%	5%	10%	●
ESG - Score (Risk-adjusted)	51%	55%	50%	●
Risk - Environment	0.57%			
Risk - Social	0.53%			
Risk - Governance	0.34%			

Risk Management and Compliance

Keeping pace with evolving legislation and regulation

Asset managers can rely on the ω–score to easily rank and assess companies, and target a desired risk-reward profile.

Compliance, Internal Limits and Risk Assessments can be built on more solid and risk-consistent basis.

Updating risk valuations and scores, consistently with evolving regulatory provisions and EU directives.

Underlying methodology ensures that the computed index is risk-sensitive

Index weights computed endogenously through the calibration process:
$$\hat{w} = (\hat{w}_1, \hat{w}_2 \dots \hat{w}_n)$$

ω–score: $\omega = \sum \hat{w_j}\ C_j$

Risk sensitivities:
$$\vartheta_i = {}^{\delta F}/_{\delta C} = \vartheta(\rho_{FC}, \hat{w})$$

Contacts

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