

Arabesque



Omar Selim, CEO of Arabesque

Mission Statement



Sustainability

Big Data

Make sustainable investing financially attractive and available to the mainstream.

We integrate Environmental, Social and Governance (ESG) data with quantitative investment strategies to generate financial outperformance.



Sustainability should not be about...

- Imposing moral or faith based values
- About greenwashing
- Implementing values at the expense of performance
- A mixed services provider



Technology and sustainability: accelerating market transformation

- Silent revolution
- Global momentum
- Growing support of the business case
- Regulatory changes
- Reporting revolution



Disrupting the financial industry

- Rise of the quants
- Equity is the new Fixed Income
- Banking models, savings, and pensions will change
- Surge in ESG big data and computing power, with new models to process information
- Demand for “lifestyle” finance by Millennials – Generation S

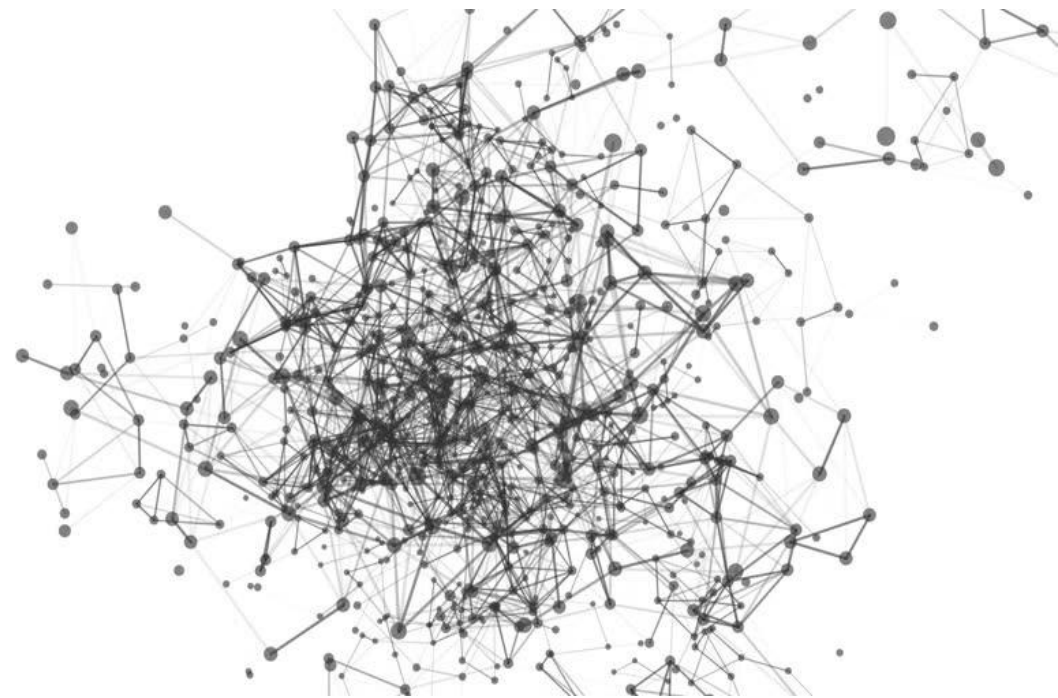


ESG is to finance what electricity is to the auto industry



ESG Big Data

- Over 90% of all the world's data was generated in the past two years
- Current level of ESG data is a fraction of what it will be in five years
- Investor demand for ESG is growing rapidly
- ESG to finance is what the X-Ray was to medicine
- A new dimension to investing

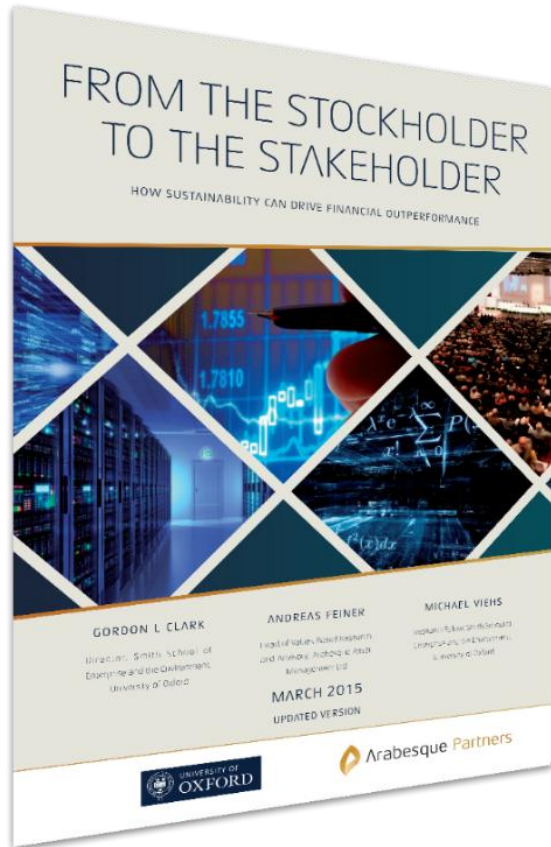


The Age of AI

- AI infiltrating into everything we do, from Apple's Siri, to Amazon's Alexa
- Arabesque's technology capable of processing billions of data points
- Arabesque's quant models extract information out of data through pattern recognition and machine learning
- AI and sustainability big data combined
- Our mission is to make this technology accessible to more investors



Innovation Based on Sound Research



- Overview of current research on ESG (Environment, Social and Governance)
- Collaboration between Oxford and Arabesque
- Meta-study of over 200 papers
- 85% of the world's 250 largest companies report on sustainability

ESG ~ lower cost of capital

90% of studies

ESG ~ better operational performance

88% of studies

ESG ~ better stock price performance

80% of studies



Information Environment

ESG information provides a gauge to management quality and company strategy

Financial Data

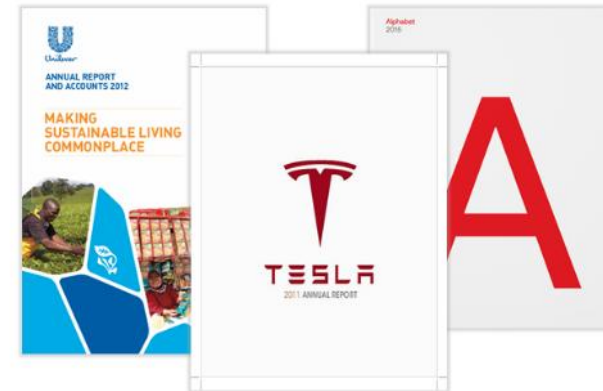
Backward Looking



Revenues, Profitability, Assets,
Leverage, Cash Flow

ESG Data

Forward Looking



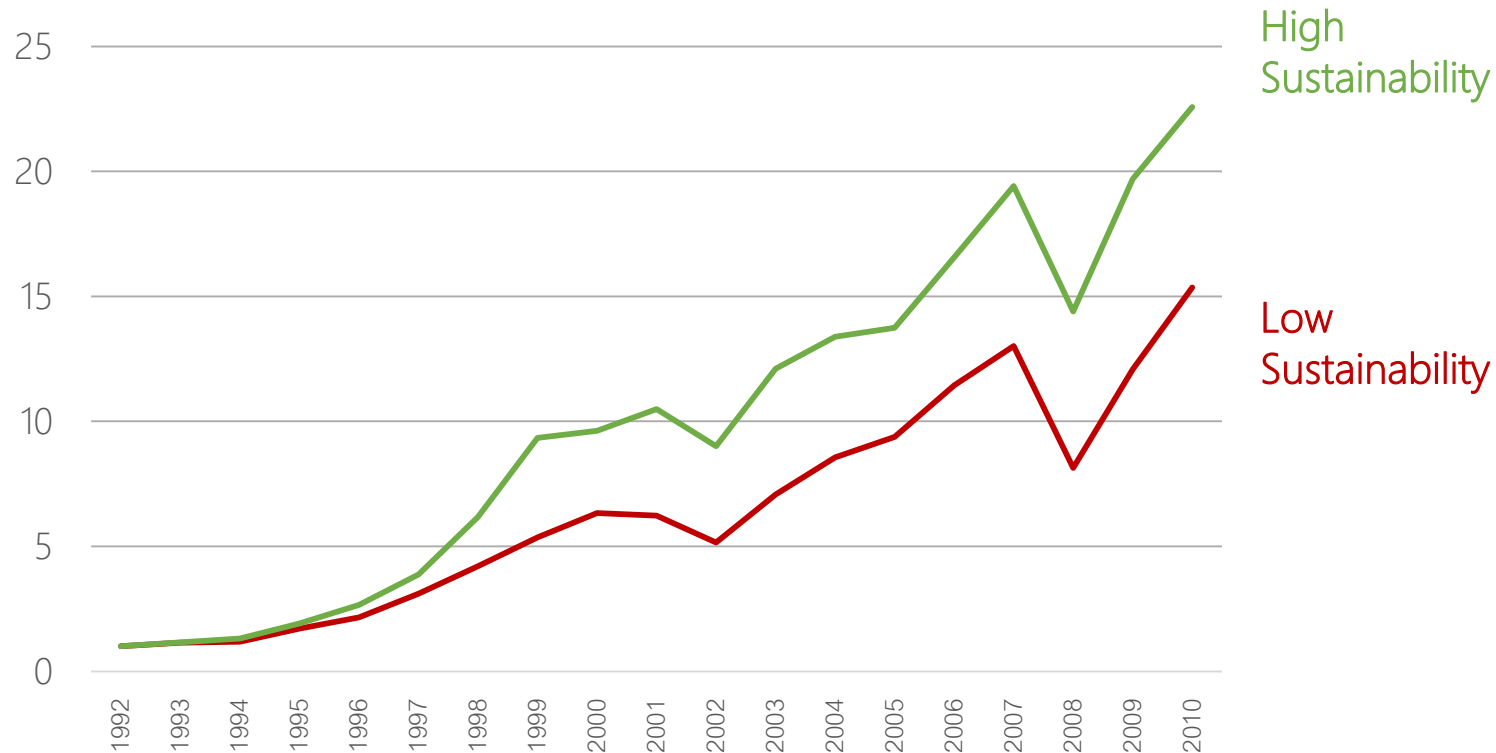
Carbon emissions, Employee
relations, Board structure



ESG & Market Performance

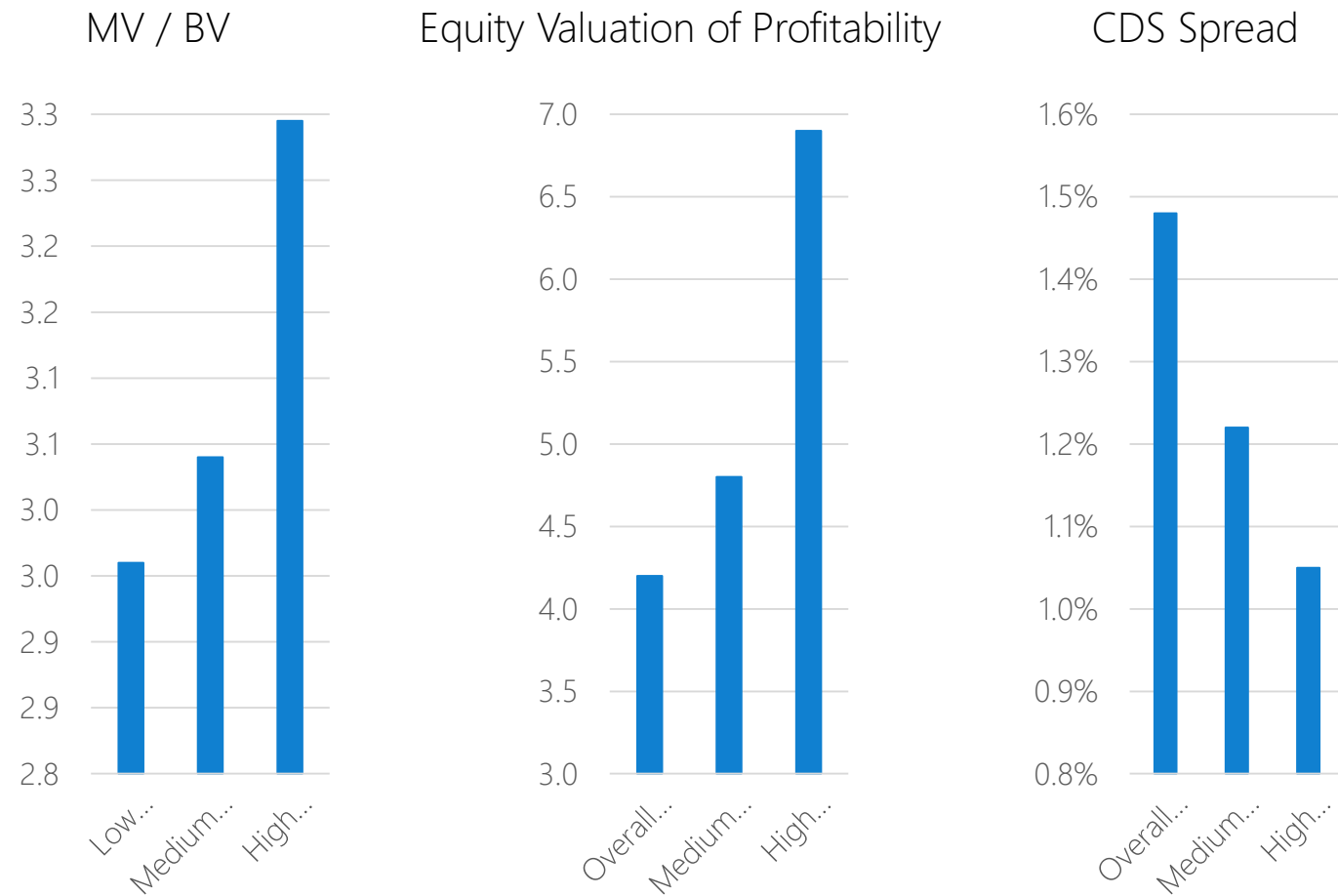
Stocks of sustainable companies tend to significantly outperform their less sustainable counterparts

Evolution of \$1 invested in the stock market in value-weighted portfolios



ESG & Corporate Performance

Valuations of firms with better ESG reflect higher expected growth and lower cost of capital



Progress

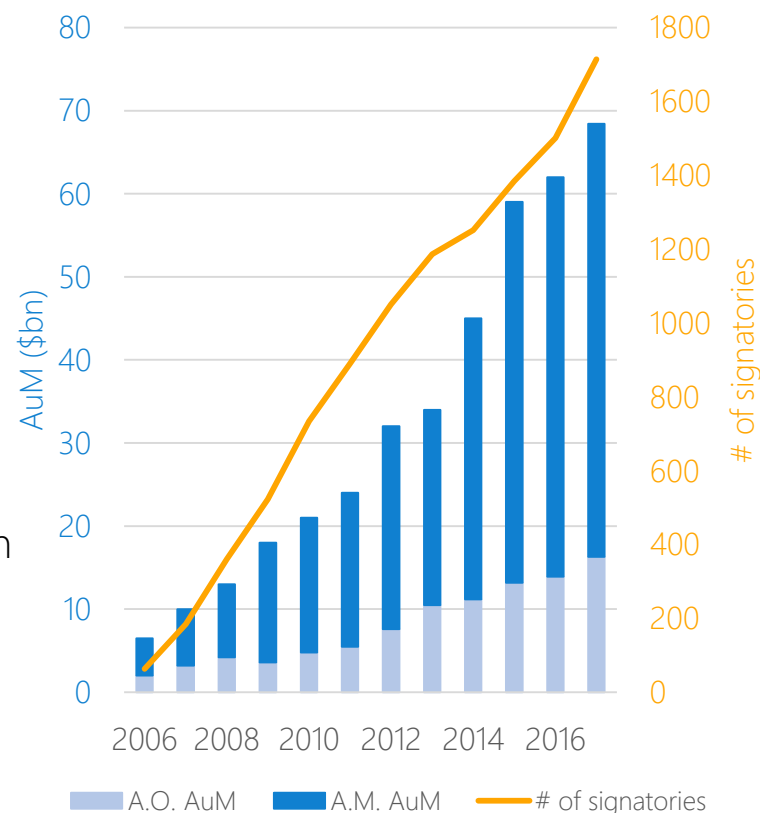
Market actors who have signed into the Principles of Responsible Investing have committed to account for sustainability topics in their portfolios



1714 Signatories, US\$68 trillion

Principles

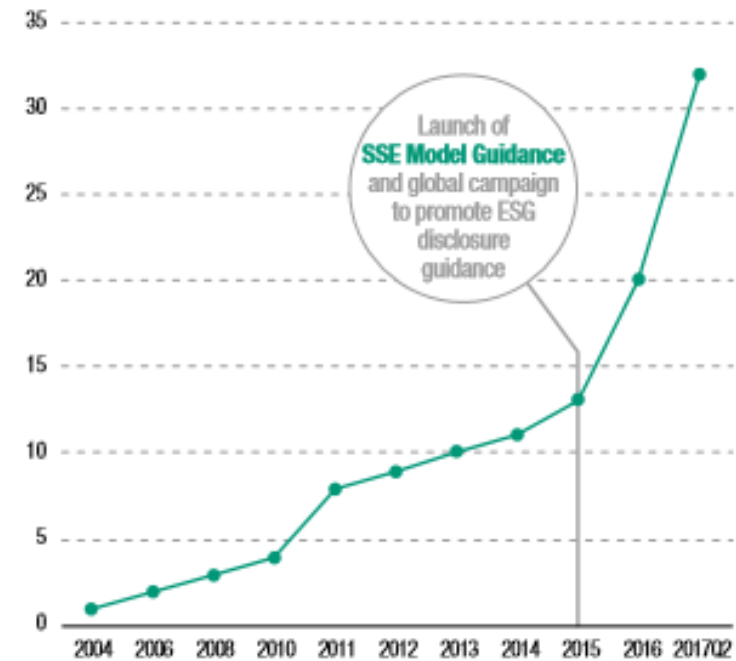
1. Integrate ESG in capital allocation
2. Active ownership
3. Seek ESG disclosure
4. Promote ESG
5. Collective effort on implementation
6. Report on progress



ESG and the SSE

- ESG indices are the most popular sustainability instrument
- 38 of 82 exchanges provide them
- Over 100 ESG themed indices world-wide

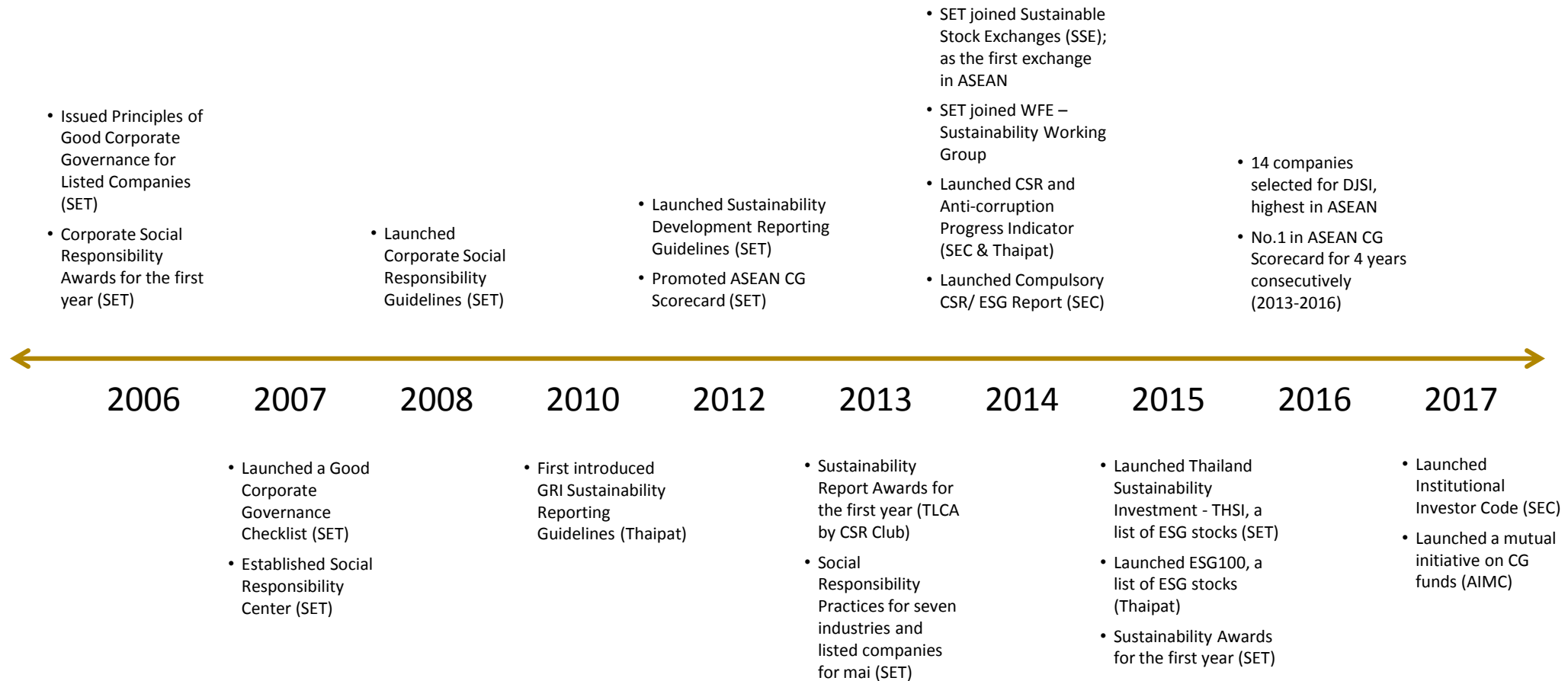
Figure III.28. Global trend in stock exchange ESG disclosure guidance, 2004–2017 Q2
(Number of stock exchanges with guidance)



Source: ©UNCTAD, SSE initiative database.



Sustainability Journey in Thai Capital Market over the last 10 years



What's Next?

Technology won't replace managers, but
managers who use technology will replace those who don't

Aviation in the Past



Aviation Now



The Opportunity

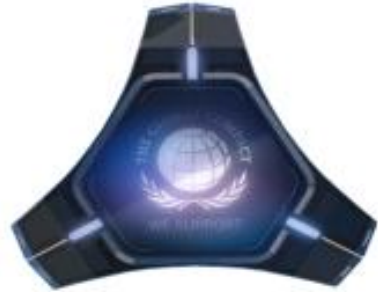
- The race to lead ESG investing into the mainstream will be won by whoever sets the standards
- ...and can explain the link between ESG and alpha
- This will open a new dimension to investing
- ...and have a self-fulfilling effect



What the battery is to Tesla,
S-Ray is to Arabesque

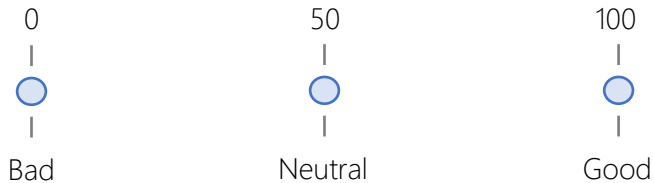


Three Pillars of S-Ray™



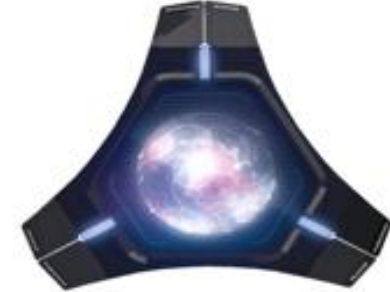
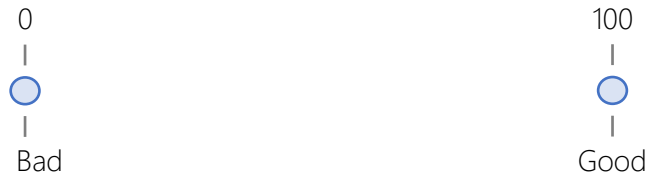
GC Score

A normative assessment of each company based on the core principles of the United Nations Global Compact



ESG Score

A sector specific analysis of each company's performance on financially material environmental, social and governance (ESG) issues



Preferences

A search tool that allows anyone to check the business involvements of companies against their personal values



- S-Ray™ is a transparency tool



Search company

reset

Country

Sector

Size

국

Overview

List

Companies 4120 / 4120

Countries 47

*Latest available date: 27 Jan 2017

Trend over time

-3 Years

-1 Year

-6 Months

-3 Months

27 Jan 2017

GC

①

60

40

20

0

20

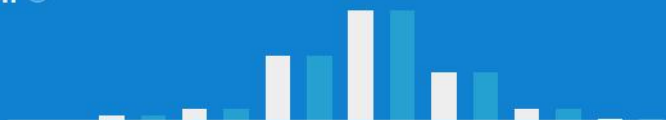
40

60

ESG ①

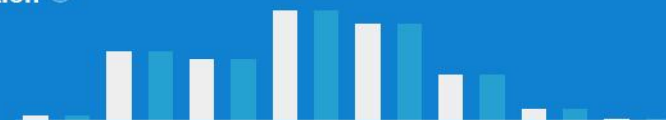
GC distribution

average 43.79

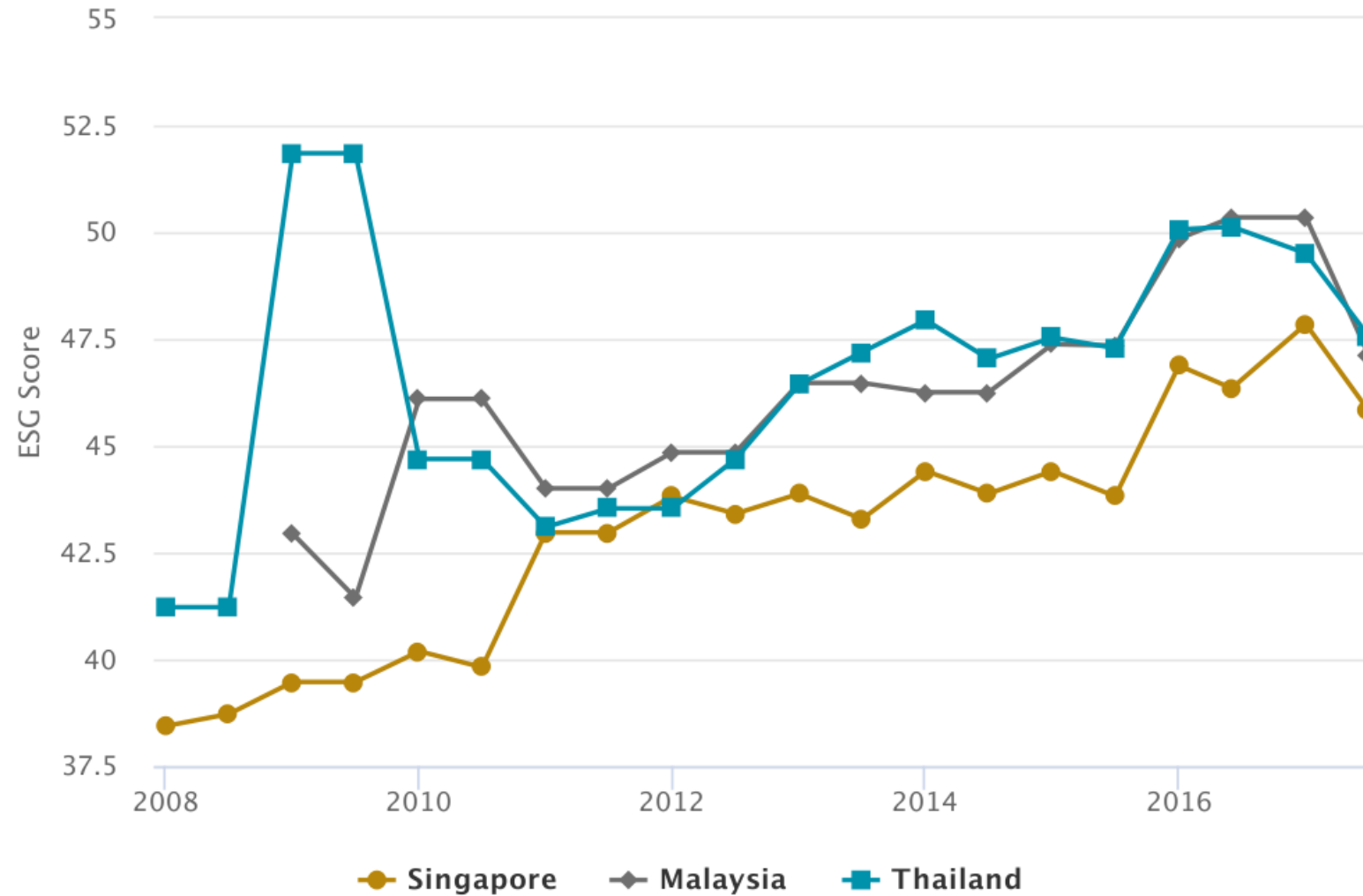


ESG distribution

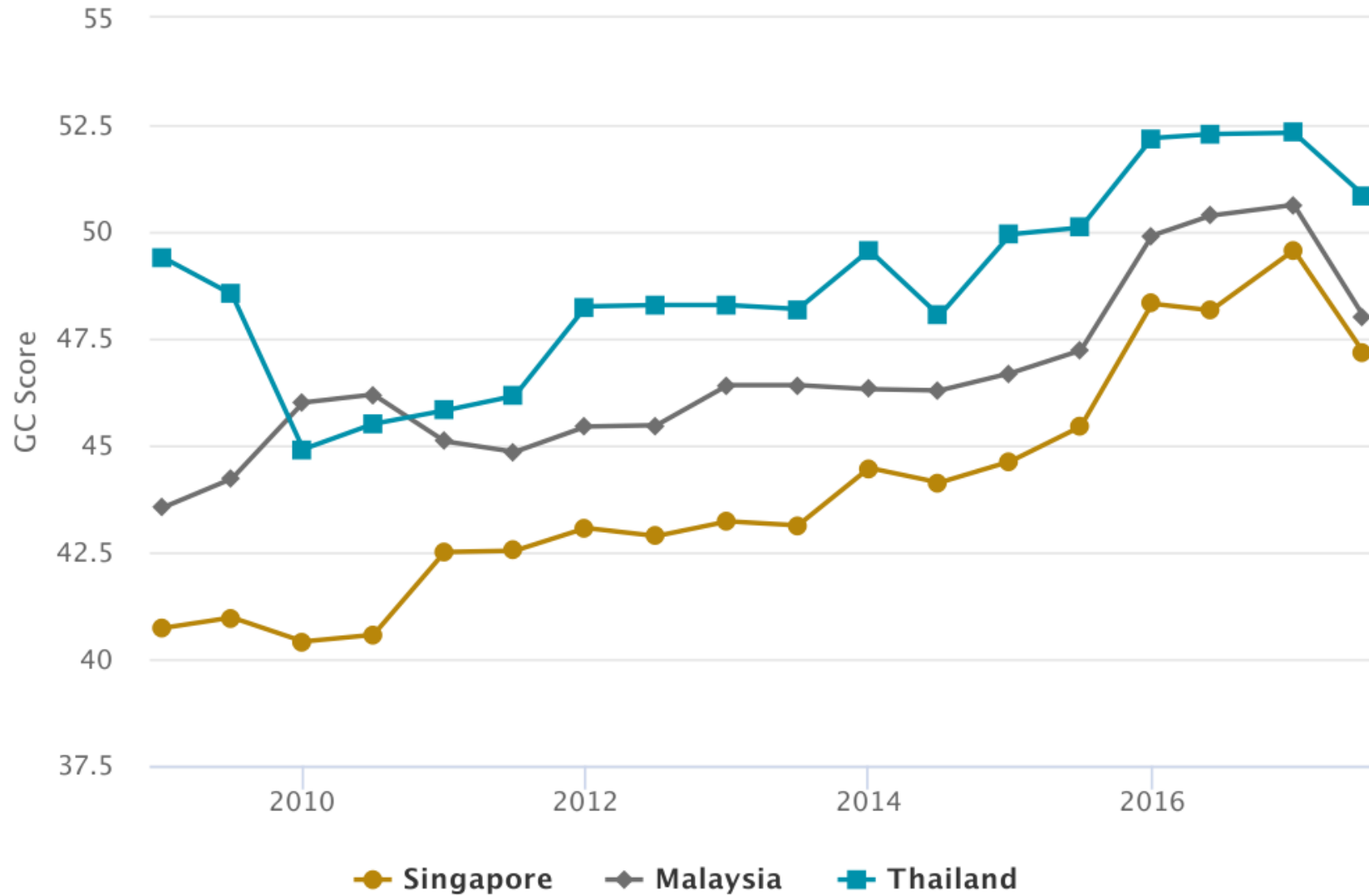
average 45.26



Average ESG Score for Region



Average GC Score for Region



Search company

You are managing your **Thailand Portfolio**

reset

Country

Sector

Size

≡

Overview

List

Companies **38** / 6978

Countries **1**

Trend over time

-3 Years

-1 Year

-6 Months

-3 Months

14 Aug 2017

GC Score

ⓘ

⌵

⌶

55

50

45

40

35

30

25

20

15

25

30

35

40

45

50

55

60

65

ESG Score ⓘ

GC distribution ⓘ

average ⓘ

50.47

ESG distribution ⓘ

average ⓘ

47.62

More statistics on current selection of companies [Top movers ranking](#)

Top GC Momentum ⓘ

Robinson Public Company Ltd

21%

BEC World Public Co., Ltd.

16%

Thai Union Group Public Company Limited

13%

Thai Airways International Public Co. Ltd.

10%

Top ESG Momentum ⓘ

BEC World Public Co., Ltd.

22%

Delta Electronics (Thailand) Public Co. Ltd.

21%

Robinson Public Company Ltd

18%

Bangkok Bank Public Company Limited

7%

More statistics on current selection of companies [Top movers ranking](#) ▾

Top GC Momentum ⓘ

Robinson Public Company Ltd	21%
BEC World Public Co., Ltd.	16%
Thai Union Group Public Company Limited	13%
Thai Airways International Public Co. Ltd.	10%
CP All Public Co. Ltd.	9%
Electricity Generating Public Co., Ltd.	8%
Delta Electronics (Thailand) Public Co. Ltd.	8%
Minor International Public Co., Ltd.	7%
Bangkok Bank Public Company Limited	7%
Siam Commercial Bank Public Company Limited	6%

Top ESG Momentum ⓘ

BEC World Public Co., Ltd.	22%
Delta Electronics (Thailand) Public Co. Ltd.	21%
Robinson Public Company Ltd	18%
Bangkok Bank Public Company Limited	7%
Siam Commercial Bank Public Company Limited	6%
Banpu Public Co. Ltd.	6%
Thai Oil Public Co. Ltd.	5%
Home Product Center Public Co., Ltd.	4%
Electricity Generating Public Co., Ltd.	4%
Minor International Public Co., Ltd.	3%

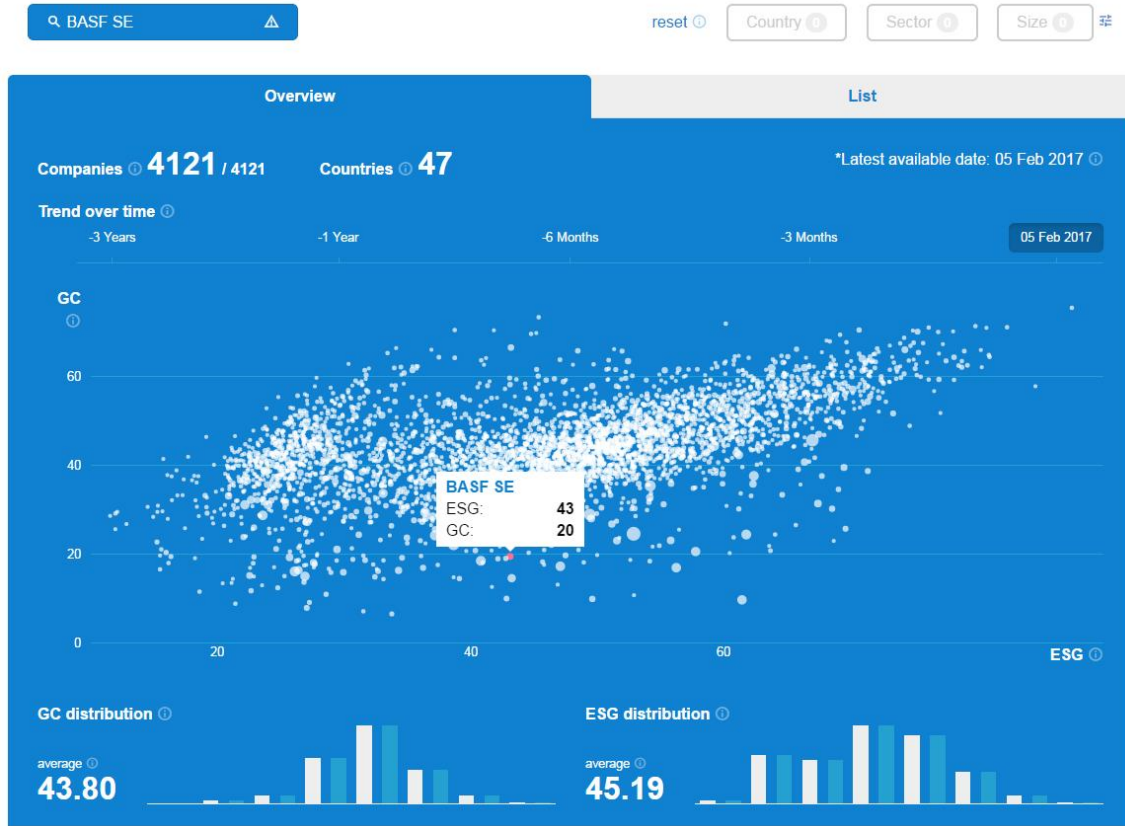
Company name	Country	Sector	GC ⓘ	ESG ⓘ
Advanced Info Service Public C...	Thailand	Communications	● 43.16 >	● 49.12 >
Airports of Thailand Public Co. ...	Thailand	Transportation	● 47.28 >	● 47.19 >
Bangkok Bank Public Company...	Thailand	Finance	● 36.75 >	● 42.06 >
Bangkok Dusit Medical Service...	Thailand	Health Services	● 36.03 >	● 39.81 >
Banpu Public Co. Ltd.	Thailand	Energy Minerals ⚠	● 19.56 >	● 27.44 >
BEC World Public Co., Ltd.	Thailand	Consumer Services	● 38.16 >	● 47.75 >
Berli Jucker Public Co. Ltd.	Thailand	Process Indu... ⚠	● 31.30 >	● 21.44 >
BTS Group Holdings Public Co....	Thailand	Finance	● 46.66 >	● 35.06 >
Bumrungrad Hospital Public Co...	Thailand	Health Services	● 37.16 >	● 39.53 >
Central Pattana Public Co. Ltd.	Thailand	Finance	● 51.53 >	● 58.03 >

Company name	Country	Sector	GC ⓘ	ESG ⓘ
Charoen Pokphand Foods Publi...	Thailand	Process Industries	● 27.50 ▸	● 22.34 ▸
CP All Public Co. Ltd.	Thailand	Retail Trade	● 37.75 ▸	● 38.59 ▾
Delta Electronics (Thailand) Pu...	Thailand	Electronic Techn...	● 47.00 ▾	● 49.56 ▸
Electricity Generating Public Co...	Thailand	Utilities ▲	● 44.53 ▸	● 35.91 ▲
Glow Energy Public Co., Ltd.	Thailand	Utilities ▲	● 41.75 ▸	● 55.72 ▸
Home Product Center Public Co...	Thailand	Retail Trade	● 42.38 ▸	● 44.72 ▸
Indorama Ventures Public Co. L...	Thailand	Process Industries	● 46.56 ▸	● 40.12 ▸
IRPC Public Co., Ltd.	Thailand	Energy Minerals ▲	● 53.41 ▸	● 66.44 ▾
Kasikornbank Public Co. Ltd.	Thailand	Finance	● 54.75 ▸	● 60.28 ▸
KCE Electronics Public Co., Ltd.	Thailand	Electronic Techn...	● 47.75 ▲	● 44.38 ▲

Company name	Country	Sector	GC ⓘ	ESG ⓘ
Minor International Public Co., ...	Thailand	Consumer Se... ▲	● 47.50 ▾	● 50.75 ▾
PTT Exploration & Production Plc	Thailand	Energy Minerals ▲	● 35.66 ▾	● 34.34 ▾
PTT Global Chemical Plc	Thailand	Process Industries	● 57.94 ▾	● 55.59 ▾
PTT Public Co., Ltd.	Thailand	Energy Minerals ▲	● 33.09 ▾	● 41.88 ▾
Robinson Public Company Ltd	Thailand	Retail Trade	● 42.47 ▾	● 38.16 ▾
Siam Cement Public Co. Ltd.	Thailand	Process Industries	● 49.53 ▾	● 66.50 ▾
Siam Commercial Bank Public ...	Thailand	Finance	● 48.84 ▾	● 54.91 ▾
Thai Oil Public Co. Ltd.	Thailand	Energy Minerals ▲	● 66.19 ▾	● 68.50 ▾
Thai Union Group Public Comp...	Thailand	Consumer Non-D...	● 28.00 ▾	● 25.89 ▾
TMB Bank Public Co., Ltd.	Thailand	Finance	● 44.47 ▾	● 49.84 ▾
True Corp. Public Co., Ltd.	Thailand	Communications	● 35.72 ▾	● 22.30 ▾



We create chemistry



EXPLORE MY PORTFOLIO

About Free Version

Search: BASF SE

reset Country Sector Size

Overview | List

GENERAL | GC DETAIL | ESG DETAIL




Company name	Country	Sector	GC	ESG
× BASF SE Company dashboard	Germany	Process Indus... ▲	19.59 ▼ Country rank: 4.03 Sector rank: 3.51	43.12 ▲ Country rank: 37.86 Sector rank: 41.48
Gamuda Bhd.	Malaysia	Industrial Services	33.66 ▶	23.25 ▶
Gap, Inc.	United States	Retail Trade	30.03 ▶	53.94 ▶
Garmin Ltd.	United States	Electronic Techno...	46.62 ▶	49.31 ▶
Gartner, Inc.	United States	Commercial Servi...	41.56 ▶	49.44 ▶
Gas Natural SDG, S.A.	Spain	Utilities ▲	55.56 ▶	67.38 ▶







GC Score:

 37.25	 40.72	 43.13	 53.75
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ESG Score:

 62.75	 41.75	 36.31
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Negative GC factors:

Fipronil ban 	Tax avoidance 	Plant blasts 	UNGC watch-list 
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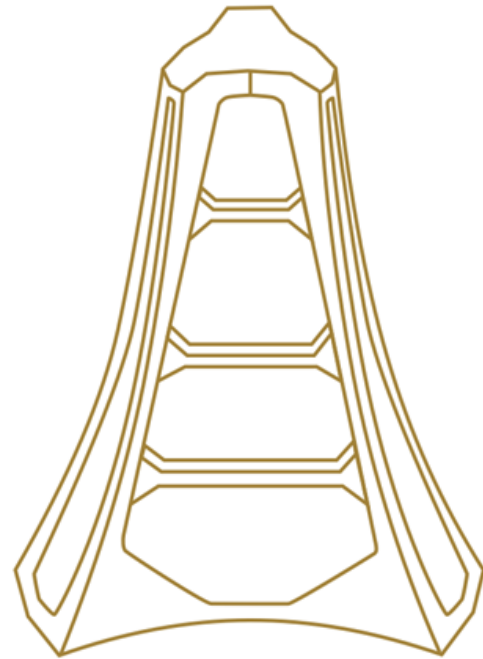
ESG performance:

Top 38% country peers	Top 42% sector peers	Top 20% sector peers in 'E'
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A Global Equity Universe



Arabesque's global database covers all listed stocks

Strong emphasis on data quality

Internal 'Data Fingerprint' verification is applied to ensure data integrity

No. of Equities (circa)

77,000 Global
Universe

2,900 Arabesque
Universe

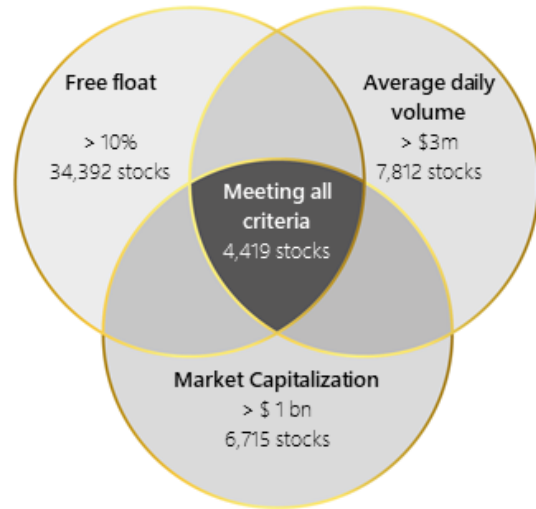
330 Arabesque Prime

100 Arabesque Systematic

We analyze all listed stocks



Portfolio Liquidity



The best strategy is worthless if it cannot be executed owing to liquidity constraints

Liquidity maintains a healthy and agile portfolio, and minimizes transaction costs

Minimum requirements on size, free float, and daily volume

% of Total Market Cap

76 %

Average Market Cap

**USD
13.2 BN**

UCITS V

Compliant

Focus on large and liquid stocks





S-Ray™ - Global Compact Performance



Georg Kell
Former Executive Director, United Nations Global Compact

The UN has established the largest corporate responsibility initiative in the world.

A normative assessment of each company based on the core principles of the United Nations Global Compact.

We exclude companies that:

- are in violation of any of the UNGC principles and,
- the bottom 5% of companies according to their S-Ray™ GC Score

Principles



Human Rights



Anti-Corruption



Labour Rights



Environment

We respect the UNGC principles





S-Ray™ - ESG Performance

ESG Materiality Matrix

Identification of financially material ESG factors by sector

Calculation of a proprietary ESG score per stock

Best in class screening to select the top 75% stocks within an industry

ESG momentum screening may however include companies from the bottom 25% if ESG scores increase over previous periods

ESG performance

75 % included

25 % excluded

Reducing portfolio risk and enhancing performance





S-Ray™ - Preference Filter

Stock: LVMH



We analyze the nature of a company's revenue generating operations and balance sheet.

We exclude companies significantly involved in activities such as the production of weapons, tobacco, or gambling

Enabling the investor to construct a bespoke eligible investment universe with the required characteristics

Business involvement screening

Balance sheet analysis

Bespoke Solutions

Implementing investors' preferences





Arabesque Universe

Performance since Inception

(Backtested, as of end July 2017)

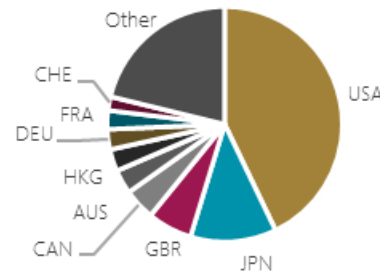


A large, global, diversified, portfolio of liquid equities

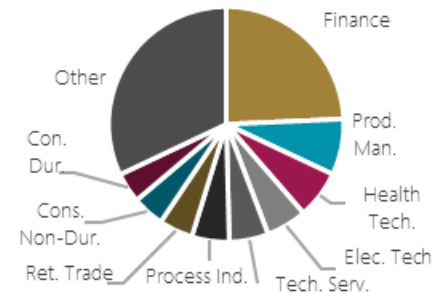
Segregated investment universe for Arabesque Prime and Arabesque Systematic

Transparent to investors

Country Segmentation



Sector Segmentation



Note: As of June 30th 2017. Based on number of companies.

c. 2,900 companies

Rebalancing

Quarterly

Monitoring

Daily

Outperformance powered by sustainability



F & G Score and Earnings Pressure



F - Score

Identifies strong balance sheets and cash flows

G - Score

Identifies firms showing continued growth and increasing earnings

Earnings Pressure

Utilizes behavioral patterns of sell-side research analysts

F - Score

Cash flow from operations

Return on assets

Long-term debt

Gross profit margin

Current sales

G - Score

R&D

Capital expenditure

Cash flow

Earnings per share

Advertising expenses

Unconstrained bottom-up fundamental stock screening



Arabesque Prime*



Total Return since inception
(as of 31/7/2017, net of fees)

+5.65%
p.a.

Morningstar Comparison
(as of 30/07/2017, net of fees, compared to the EAA OE Global Large Cap Blend Equity Peer group)

Top 30%

Combining values and performance

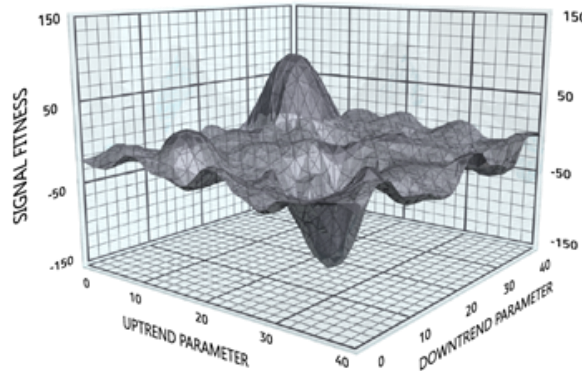
* The fundamental investment technology was implemented in Arabesque Prime with effect from 1 February 2015. From August 2014 to 31 January 2015, it tracked the performance of Arabesque Universe.





Quantitative Assessment of Individual Stocks

Momentum Landscape per Single Stock



Based on a systematic quantitative approach to capture behavioural biases in the market

1,600 signals are analyzed per equity to determine its individual strength and overall market momentum

The calculated strength indicator is a key ingredient for the built-in risk management system

Number of technical indicators

**1,600 per
stock**

Recalibration Frequency

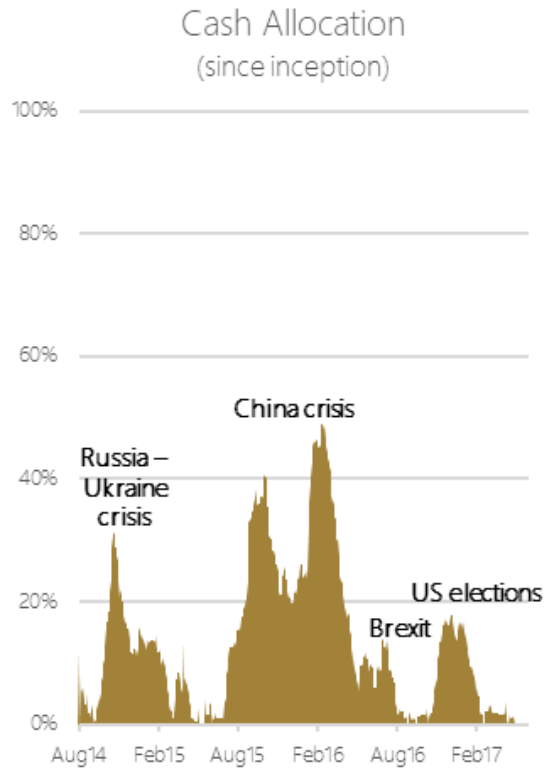
Monthly

Self-calibrating system to measure stock momentum





Identifying Optimal Equity Risk Exposure

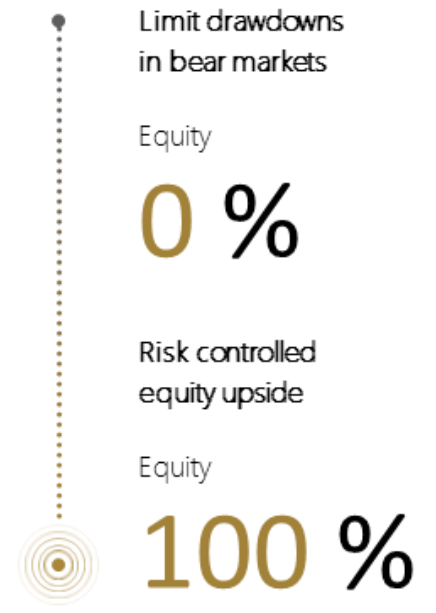


Our built-in risk management system dynamically allocates between cash and equity to balance exposure according to market movements

The dynamic cash allocation results from a bottom-up aggregation of individual equity strengths

The main effects of the dynamic cash allocation are reduced volatility and smaller drawdowns

Risk Management



Average market trend determines allocation between cash and equity



Global Investment Universe

Arabesque Investment Universe

PrimeFund

Systematic Fund

Arabesque Systematic

Arabesque Systematic is a long only global equity fund built on quantitative systems capturing market trends

Arabesque Systematic integrates sustainability with momentum analysis and advanced risk management techniques to limit maximum drawdowns and deliver superior performance

Arabesque Systematic is monitored on a daily basis

Total Return since inception
(as of 31/7/2017, net of fees)

+7.68%
p.a.

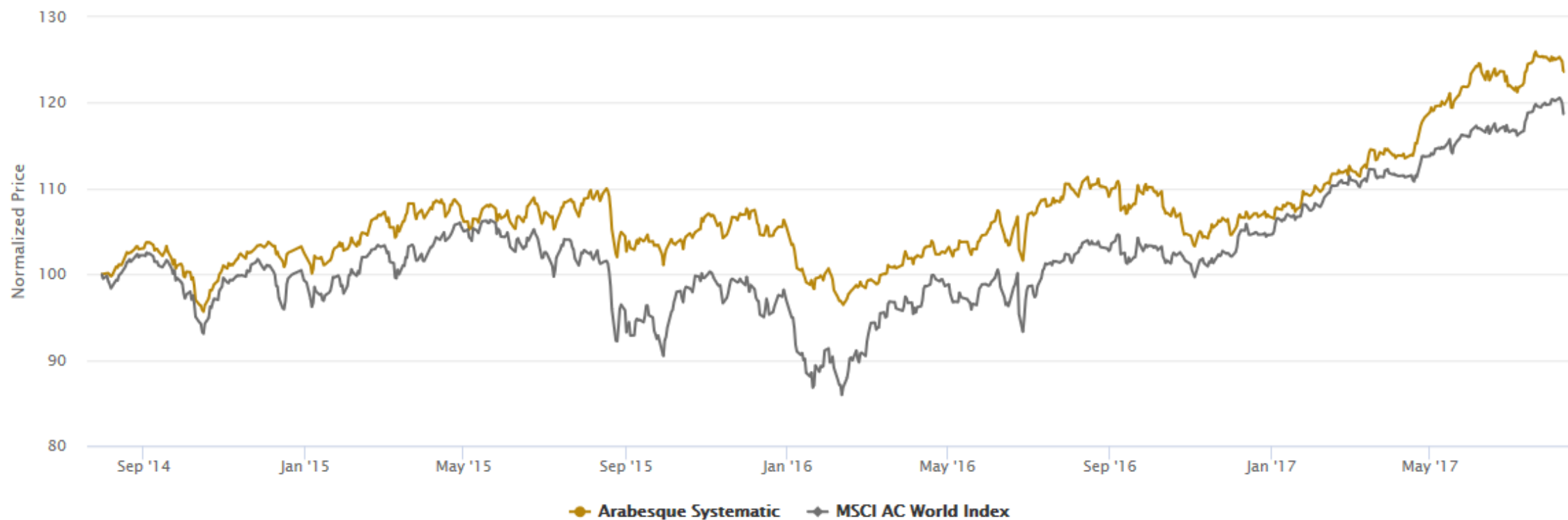
Morningstar Comparison
(as of 31/7/2017, net of fees, compared to the EAA OE USD Flexible Allocation peer group)

Top 10 %



Systematic Performance

(USD, net of fees)



Backtest Performance Comparison - Systematic Global All Countries with and without S-Ray





A new perspective on finance





Sustainability now available to all