



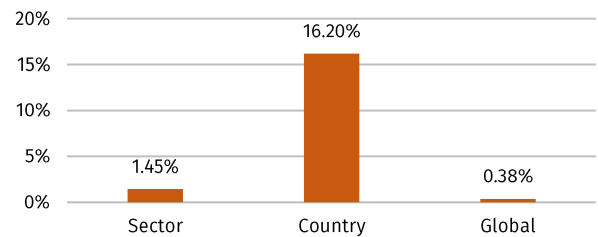
## Description

SAP SE is a multinational software company. The Company develops business software, including e-business and enterprise management software, consults on organizational usage of its applications software, and provides training services. SAP markets its products and services worldwide.

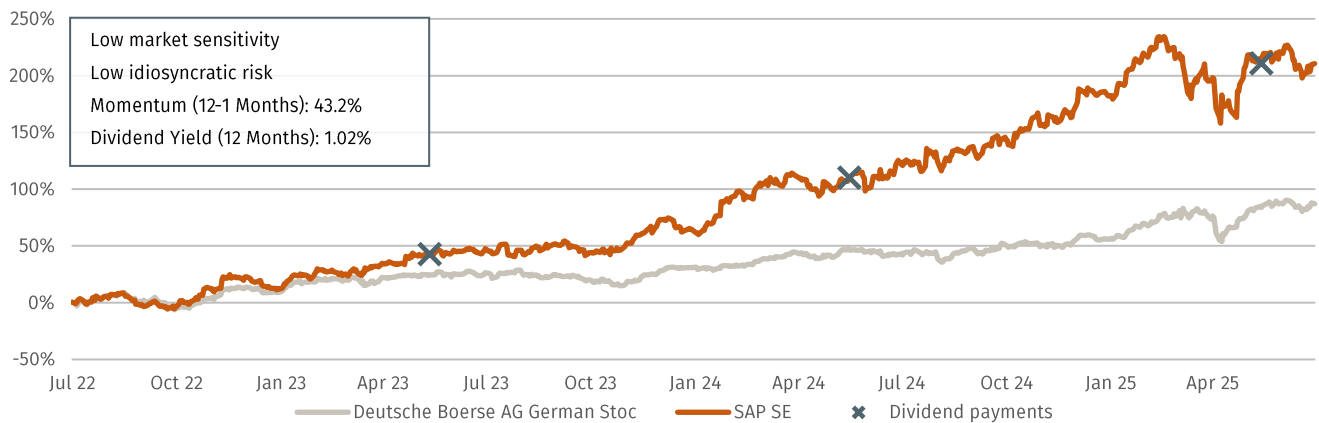
## Overview

Bloomberg Ticker	SAP GR Equity
Name	SAP SE
Country	Germany
Sector	Information Technology
Industry Group	Software & Services
Market Cap	€ 316.9 bn.

## Weight in Index



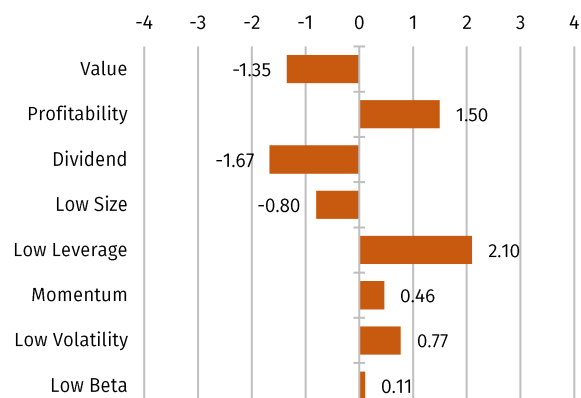
## Performance 3 Years



## Factor Descriptors

Factor	Descriptor	Company	Country	Global
Value	Price/Book Ratio	4.27	1.33	2.42
Profitability	Operating Profitability	10.7%	5.8%	17.5%
Dividend	Dividend Yield	1.02%	2.70%	1.92%
Size	Market Cap	€ 316.9 bn.	€ 116.1 bn.	€ 640.4 bn.
Leverage	Net Debt/Enterprise Value	0.0%	18.3%	10.2%
Momentum	12-1 Month Return	43.2%	43.9%	17.9%
Volatility	Idiosyncratic Volatility	20.2%	23.4%	25.7%
Beta	Beta	0.84	1.00	1.00

## Factor Exposures vs. Benchmark (Country-neutral)

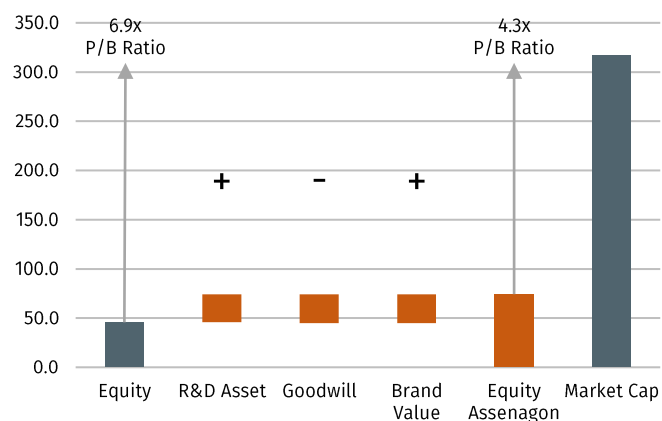




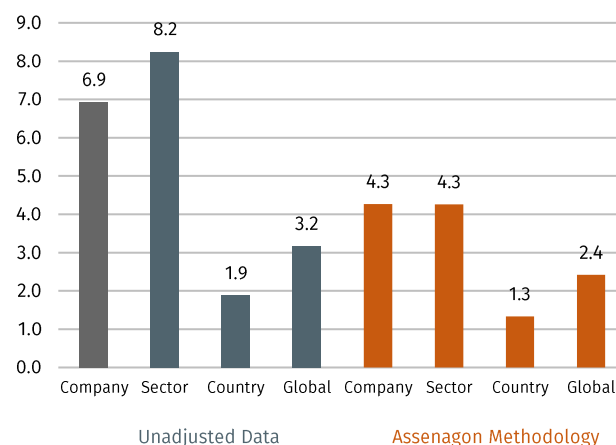
## Fundamental Adjustments

Factor	Descriptor	Adjustments
Value	Price/Book Ratio	Adjust for inventory LiFo reserve and intangible assets: Include R&D and brand assets, deduct excessive goodwill
Profitability	Operating Profitability	Defined as operating income / total assets, exclude one-time gains, but include one-time losses
Dividend	Dividend Yield	Dividend payments over last 12 months / average price over same period
Size	Market Cap	Market capitalisation in EUR as reliable measure of company size
Leverage	Net Debt/Enterprise Value	Deduct cash & marketable securities, include pension and off-balance sheet liabilities (e.g. operating leases)
Momentum	12-1 Month Return	Momentum over 1 year excl. last month (short term reversal), average starting/ending stock price over 1 week
Volatility	Idiosyncratic Volatility	Residual volatility after adjusting for systematic (market) risk
Beta	Beta	3 year daily beta vs. local benchmark index, shrinkage towards 1 depending on goodness of fit of raw beta

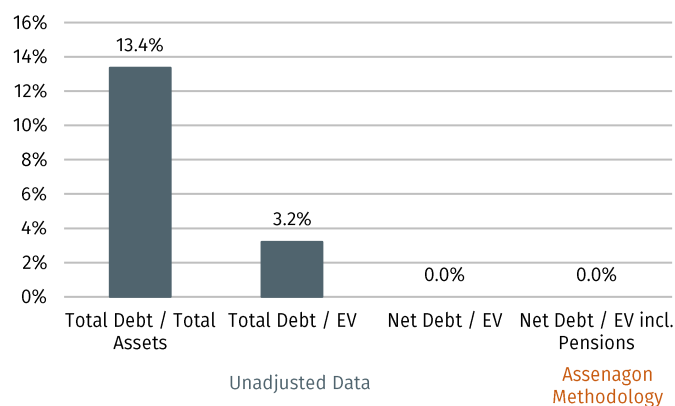
## Adjusted Equity (in EUR bn.)



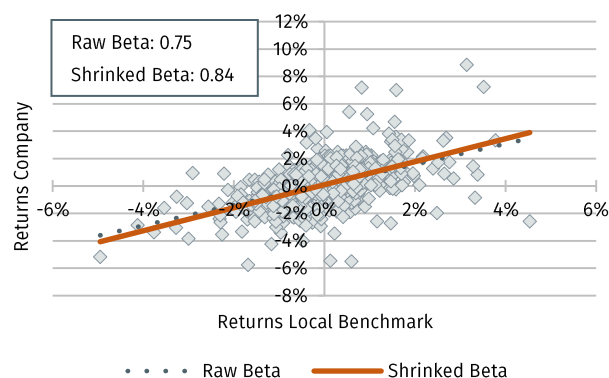
## Price/Book Ratio



## Leverage



## Beta



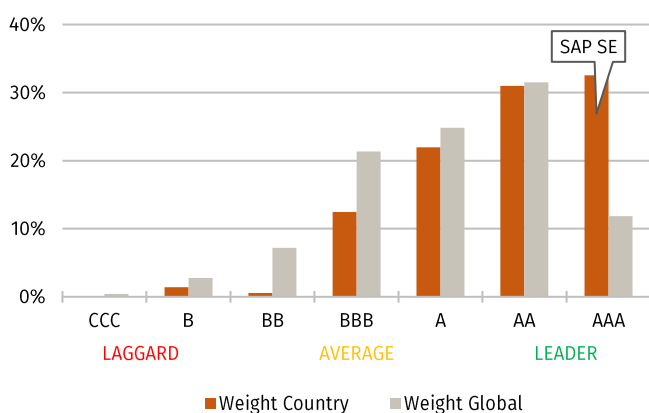


## Sustainability Indicators

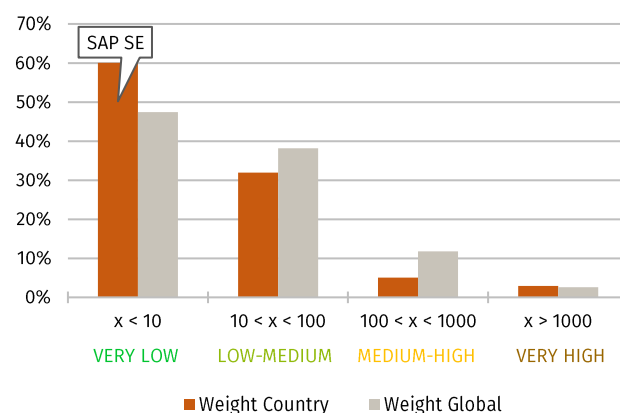
SAP SE has an MSCI ESG Rating of 'AAA', compared to an average rating of 'AA' for the country and 'A' for the global stock market (incl. emerging markets).

Metric	Company	Country	Global
ESG Score (Industry-adjusted)	10.00	7.71	6.58
ESG Score (Weighted Average)	6.80	5.99	5.42
E-Score	7.20 (Weight 16%)	7.15 (Weight 20%)	6.64 (Weight 19%)
S-Score	7.20 (Weight 47%)	5.39 (Weight 40%)	5.06 (Weight 43%)
G-Score	6.00 (Weight 37%)	5.91 (Weight 40%)	5.60 (Weight 38%)
Carbon Intensity Scope 1+2	7.0	103.4	112.6
Carbon Intensity Scope 1+2+3	147.4	886.8	691.5
Taxonomy Revenue	29.24%	10.01%	8.12%
Other Environmental Revenue	0%	-0.49%	1.15%
Social Revenue	0%	3.73%	2.62%

## MSCI ESG Rating Distribution



## Carbon Intensity Scope 1+2 Distribution



## Business Involvement by Revenue

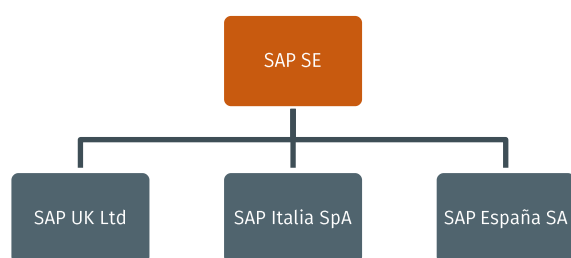
Description	Company	Threshold	Excluded Weight Country	Excluded Weight Global
Global Norms incl. UN Global Compact	Yellow Flag	Red Flag	0%	0.14%
Controversial Weapons	0%	Any Involvement	0%	2.03%
Defence	4.99%	Revenue > 10%	4.83%	2.02%
Coal	0%	Revenue > 30%	0%	0.14%
Unconventional Oil & Gas	0%	Revenue > 30%	0%	0.45%
Tobacco	0%	Revenue > 5%	0%	0.80%
Gambling	0%	Revenue > 30%	0%	0.25%



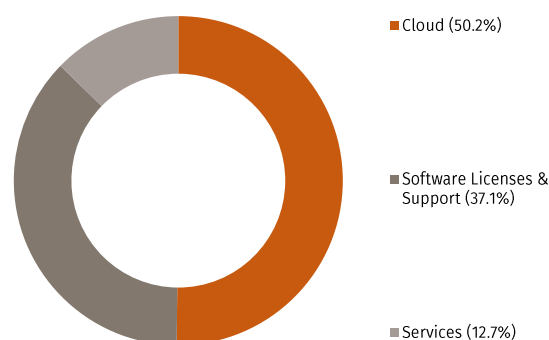
## Thematic Exposures

Highest Exposure	Cluster	Exposure	Lowest Exposure	Cluster	Exposure
Cloud	Innovative Tech	2.48	Advanced Materials	Innovative Tech	-0.31
Big Data	Innovative Tech	1.89	Batteries	Sustainability / Innovative Tech	-0.22
Future of Work	Innovative Tech	1.86	Sustainable Construction	Sustainability	-0.11
Cybersecurity	Innovative Tech	1.77	Sustainable Transportation	Sustainability	-0.04
Digitalization	Innovative Tech	1.74	Sustainable Food and Agriculture	Sustainability	-0.04
Artificial Intelligence	Innovative Tech	1.70	New Energy Vehicles	Sustainability / Innovative Tech	-0.02
ECommerce	Innovative Tech	1.62	Autonomous Vehicles	Innovative Tech	0.04
Internet of Things	Innovative Tech	1.41	Sustainable Finance	Sustainability	0.07
Blockchain	Innovative Tech	1.37	Quantum Computing	Innovative Tech	0.18
Consumer Trends	Sustainability / Macro	1.31	Demographics	Macro	0.19

## Corporate Structure



## Revenue Split



## Transaction Costs

Metric	Company
Broker Fee	1.5 bps
Daily Liquidity	€ 483.0 mln.
Trading Characteristics	Small Queue Time, Rather Thin Queue, Liquid, Large Price Move

Type of Fee	Buy	Sell
Exchange Fee	-	-
Financial Transaction Tax	-	-
Stamp Duty	-	-

## Transaction Costs according to Square Root Law

