Semiconductors

Sector WO | Analysis of **07-Feb-2024** | Closing Price of **06-Feb-2024**

The sector Semiconductors represents approximately 30% of the market capitalization of the group Technology and approximately 7% of the World market with 139 companies being regularly followed by theScreener.

The sector is currently trading at its 52 week high and 60% above its 52 week low (bi-weekly closing).

Performance since February 7, 2023: 52.3% vs. 31.6% for the group Technology and 11.5% for the TSC_World.

The current % of stocks over their Medium Term technical trend (MTT) is 43.9%.

Global Evaluation
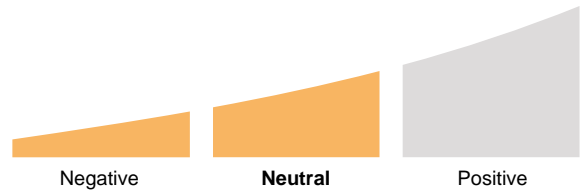
Negative · **Neutral** · Positive

	Market Value	Perf YtD	Nb of Stocks	Mkt Cap in $bn	Stars	Sensitivity	LT P/E	LT Growth	4wk Rel. Perf.	Div	Global Evaluation
Semiconductors (WO)	820.21	9.8%	139	6,872.53	★★★☆		18.5	28.6%	8.6%	1.2%	
Technology (WO)	840.05	4.6%	687	23,193.38	★★★★		20.2	21.3%	3.7%	0.9%	
TSC_World (WO)	455.85	2.0%	6,172	100,608.14	★★★★		11.6	17.5%	2.6%	2.5%	

Comparison February 7, 2023 - February 6, 2024

Legend: Semiconductors — Technology — TSC_World
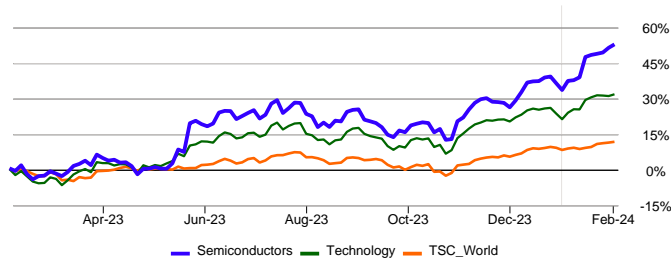
"Price to Estimated Earnings" (PE) - Evolution over five years

The estimated PE is calculated on the basis of the underlying stocks.
The sector is currently trading significantly higher than its historical median of 15.3.

Legend: Semiconductors — Technology — Median
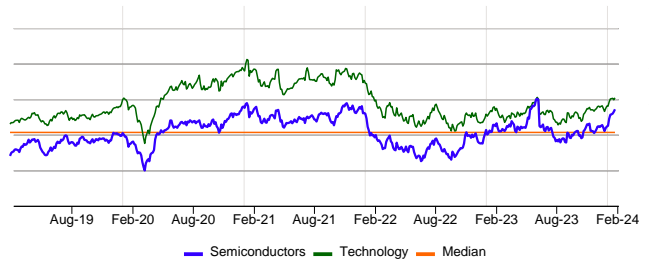
Price evaluation rating ★
In order to assess how an index is valued, we compare, among other, the projected earnings growth and dividend with the estimated PE ratio.
Based on this approach, we feel this sector is currently strongly undervalued.
The G/PE ratio of the sector is above 1.6. The projected high growth is due to a base effect caused by companies in an exceptional situation.

Earnings revision trend ☆
Compared to seven weeks ago, the analysts have lowered (-1.7%) their earnings estimates. This negative pressure began February 2, 2024 at a price of 812.5.

Technical Trend and Performance ★★
The 40-day Medium Term Technical Trend has been positive since November 3, 2023. The confirmed Technical Reverse point is currently 9% lower.

Checklist
Nyon, 07-Feb-2024 06:30 GMT+1

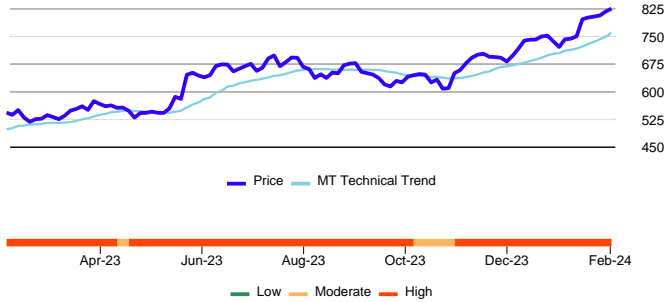|		
Global Evaluation		**Neutral**
Stars	★★★☆	**Strong interest since February 2, 2024.**
Earnings Rev Trend	☆	Analysts negative since February 2, 2024
Valuation Rating	★	Strongly undervalued
MT Tech Trend	★	Market positive since November 3, 2023
4wk Rel. Perf.	★	vs. TSC_World
Sensitivity		**The industry has been on the high-sensitivity level since November 3, 2023.**

Comparison February 8, 2019 - February 6, 2024

| 42% 42% 11% | 38% 29% 21% | -34% -29% -13% | 69% 46% 17% | 10% 5% 2% |

Legend: Semiconductors — Technology — TSC_World

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Semiconductors

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Price & Sensitivity Evolution

Allocation by sector, of the group Technology

- **E-Semiconductors 29.63 %**
- F-Software 29.54 %
- A-Computer Hardware 14.79 %
- D-Internet 13.62 %
- B-Computer Services 8.04 %
- G-Telecommunications Equipment 4.03 %
- C-Electronic Office Equipment .34 %

The largest sector in terms of market capitalization Semiconductors represents 29.6% of the group Technology.These sectors follow, in size order, Software with 29.5% and Computer Hardware with 14.8%.

Volatility
The volatility is also used as a sensitivity factor. It measures the magnitude of the upward and downward movements of a stock or index. The higher the volatility, the more sensitive a sector is considered to be.
As of the last update, the monthly volatility of (19.7%) is lower than the last few years' average of (23.4%). The low magnitude of short term price fluctuations indicates a lull in the market.
On the other hand, long term volatility 23.9% of the sector is clearly higher than that of the group Technology (17.4%), reflecting much higher price variations at the sector level than at the level of the group to which it belongs.

Sensitivity factor in declining markets
The "Bear Market Factor" measures the behavior of the sector Semiconductors in declining markets. In this context, the sector Semiconductors has a tendency to amplify the drops of the index TSC_World.
This indicates a highly sensitive behaviour during market declines. The Semiconductors sector has a tendency to amplify the drops in the index by 0.11%.
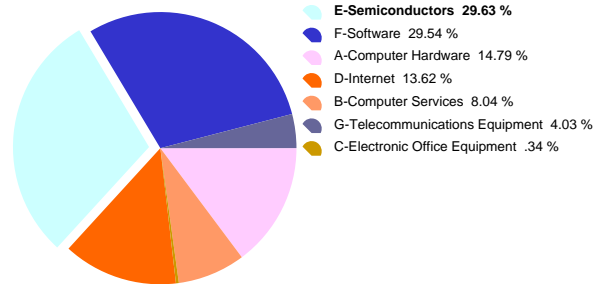
Sensitivity factor in rising markets
The "Bad News Factor" measures a sector's corrections in a rising market phase.
In this configuration, the market slightly sanctions the sector Semiconductors when there is specific pressure in this particular economic activity.
When the sector declines in a rising market its average deviation is -1.30%.
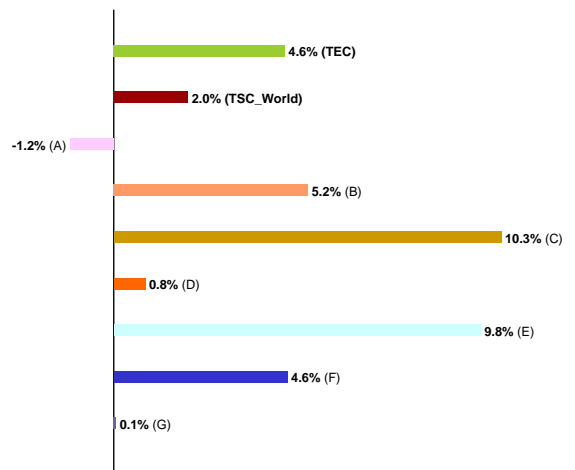
Sensitivity analysis summary
Generally speaking, the Semiconductors sector shows a highly sensitive behaviour illustrated by a high Bear Market factor.
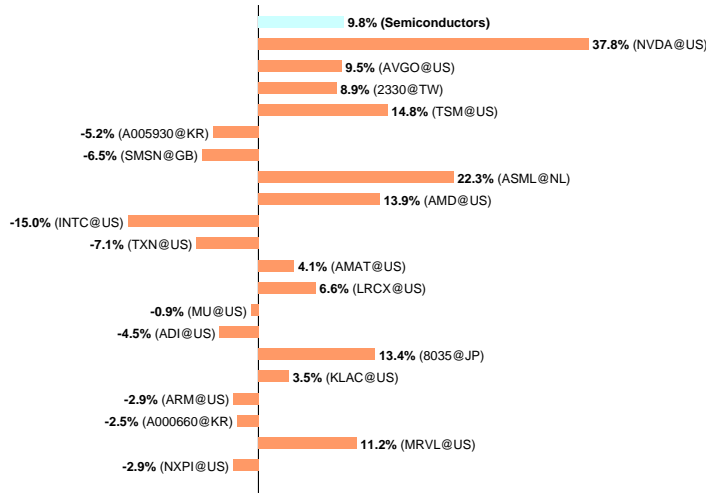
2024 sector evolution

From the beginning of the year, the sector Semiconductors recorded a variation of 9.8%, while the group Technology evolved by 4.6%. This industry group is made up of 7 sectors, in which the extreme variations were from -1.2% to 10.3%.
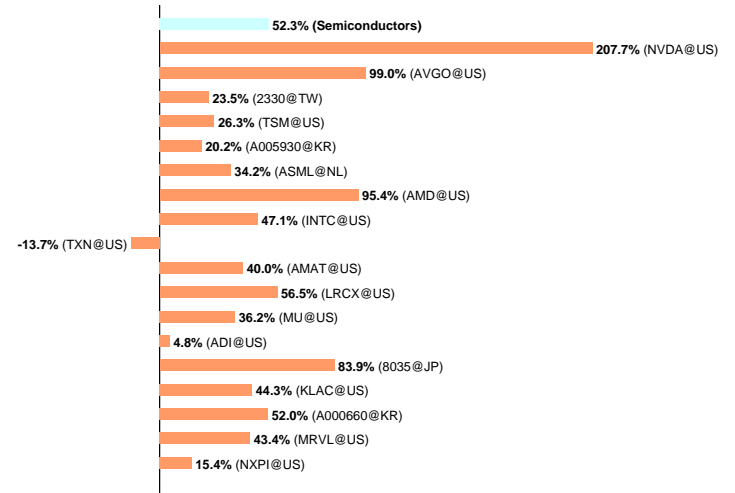
Semiconductors

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Semiconductors (WO)	820.21	9.8%	139	6,872.53	★★★☆		18.5	28.6%	8.6%	1.2%	

The performance of the 20 largest stocks of the sector is presented below.
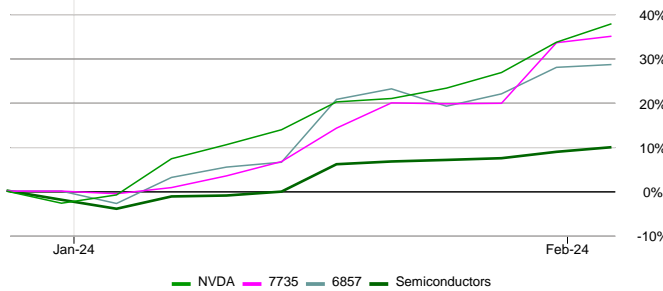
Year to date performance

- 9.8% (Semiconductors)
- 37.8% (NVDA@US)
- 9.5% (AVGO@US)
- 8.9% (2330@TW)
- 14.8% (TSM@US)
- -5.2% (A005930@KR)
- -6.5% (SMSN@GB)
- 22.3% (ASML@NL)
- 13.9% (AMD@US)
- -15.0% (INTC@US)
- -7.1% (TXN@US)
- 4.1% (AMAT@US)
- 6.6% (LRCX@US)
- -0.9% (MU@US)
- -4.5% (ADI@US)
- 13.4% (8035@JP)
- 3.5% (KLAC@US)
- -2.9% (ARM@US)
- -2.5% (A000660@KR)
- 11.2% (MRVL@US)
- -2.9% (NXPI@US)

The analysis and details of the above stock can be found on page 6

Top Stocks 2024

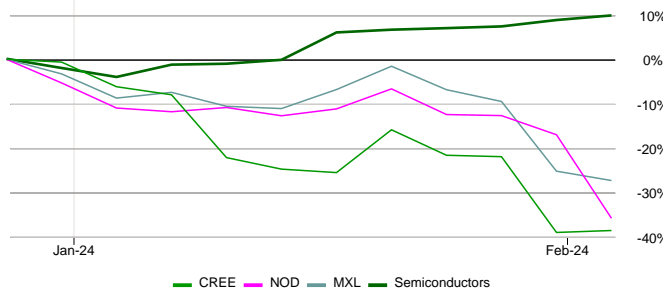
Legend: NVDA — 7735 — 6857 — Semiconductors

From the beginning of the year, the performance of the sector was 9.8%; as for the three best stocks, (NVIDIA (NVDA), SCREEN HOLDINGS (7735) and ADVANTEST (6857)), their performance was 37.8%, 35.0% and 28.6% respectively.

Flop Stocks 2024

Legend: CREE — NOD — MXL — Semiconductors

WOLFSPEED (CREE), NORDIC SEMICONDUCTOR (NOD) and MAXLINEAR (MXL) with -38.6%, -35.9% and -27.4% recorded the three worst performances from the beginning of the year. For the sector Semiconductors, the variation was 9.8%.

Only companies with a market capitalization exceeding $500 million are mentioned.

12 months performance

- 52.3% (Semiconductors)
- 207.7% (NVDA@US)
- 99.0% (AVGO@US)
- 23.5% (2330@TW)
- 26.3% (TSM@US)
- 20.2% (A005930@KR)
- 34.2% (ASML@NL)
- 95.4% (AMD@US)
- 47.1% (INTC@US)
- -13.7% (TXN@US)
- 40.0% (AMAT@US)
- 56.5% (LRCX@US)
- 36.2% (MU@US)
- 4.8% (ADI@US)
- 83.9% (8035@JP)
- 44.3% (KLAC@US)
- 52.0% (A000660@KR)
- 43.4% (MRVL@US)
- 15.4% (NXPI@US)

The analysis and details of the above stock can be found on page 6

Top Stocks 12 months
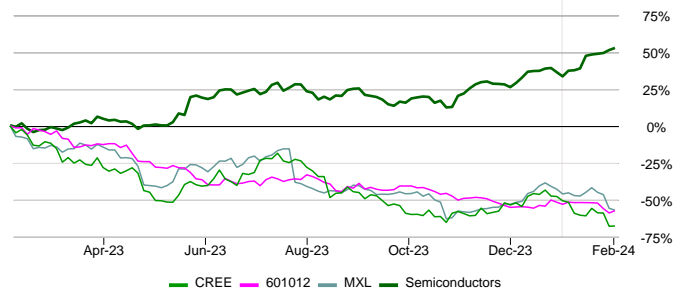

Legend: 6315 — 6146 — 7735 — Semiconductors

Since 12 months ago, the performance of the sector has been 52.3%; the three best stocks, (TOWA (6315), DISCO (6146) and SCREEN HOLDINGS (7735)) recorded performances of 302.8%, 222.2% and 214.2% respectively.

Flop Stocks 12 months

Legend: CREE — 601012 — MXL — Semiconductors

The three worst performances in 12 months were recorded by WOLFSPEED (CREE), LONGI GREEN ENERGY T (601012) and MAXLINEAR (MXL) with -67.8%, -57.4% and -57.1%. As for the sector Semiconductors, it recorded a variation of 52.3%.

The lists below present a selection of stocks with particular characteristics of interest to many investors. **The selection is not meant as a recommendation to buy or sell any securities by the reader, as it cannot and does not consider the reader's personal financial situation nor its appetite for or aversion to risk. Please request personalised guidance from your financial advisor prior to any action.**

Stocks of interest

Name	Market	Group	Best Evaluation	Defensive Stocks	High Dividends	Low PE
ARROW ELECTRONICS	US	Technology				✔
ASE TECHNOLOGY HOLDING	TW	Technology				✔
ASMPT	HK	Technology	✔	✔		
BE SEMICONDUCTOR INDUSTRIES	NL	Technology	✔			
CELESTICA INC.	CA	Technology	✔	✔		✔
CELESTICA INC.	US	Technology				✔
POWERTECH TECHNOLOGY	TW	Technology			✔	
SILICON MOTION TECH.CORP	US	Technology			✔	
SK HYNIX	KR	Technology				✔
TECHNOPROBE SPA	IT	Technology	✔	✔		
TOWA	JP	Technology	✔	✔		
WPG HOLDINGS	TW	Technology			✔	

Stocks with the best valuations

Symbol Market	Name Sector	Price Ccy	Mkt Cap in $bn	7wk EPS Rev	Stars	Sensitivity	Global Evaluation
522 HK	ASMPT Semiconductors	87.70 HKD	4.56	11.5%	★★★★		
CLS CA	CELESTICA INC. Semiconductors	48.90 CAD	4.40	10.0%	★★★★		
BESI NL	BE SEMICONDUCTOR INDUSTRIES Semiconductors	149.00 EUR	12.61	2.7%	★★★★		
TPRO IT	TECHNOPROBE SPA Semiconductors	9.50 EUR	6.01	-3.1%	★★★☆		
6315 JP	TOWA Semiconductors	7,910.00 JPY	1.28	-9.8%	★★★☆		

Evolution over the last 3 months


Legend: 522, CLS, BESI, TPRO, 6315
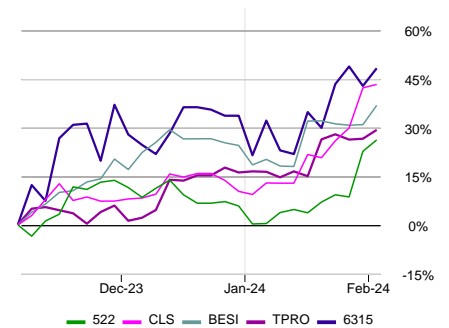
The Global Evaluation is a multi-criteria approach to identify the stocks with the best overall outlook. The assessment is the compilation of fundamental (PE, growth, earnings revisions, dividend, etc.), technical (moving average, relative performance), and sensitivity (behaviour in declining markets and sensitivity to bad news) factors. In order to present a relevant selection, only companies with a market capitalization above $1bn and showing good earnings growth valuations, are listed. Furthermore, the eligible stocks must have a minimum rating of two stars, a neutral to positive valuation, and a low to moderate sensitivity. When the global rankings are identical, the analysts' 7 week earnings per share revision (7 wk EPS rev) acts as the deciding classification element.

Semiconductors

	Market Value	Perf YtD	Nb of Stocks	Mkt Cap in $bn	Stars	Sensitivity	LT P/E	LT Growth	4wk Rel. Perf.	Div	Global Evaluation
Semiconductors (WO)	820.21	9.8%	139	6,872.53	★★★☆		18.5	28.6%	8.6%	1.2%	

The best defensive stocks

Evolution over the last 3 months

Legend: CLS, 6315, 522, 3702, TPRO
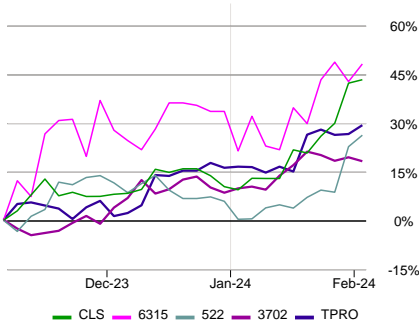
Symbol Market	Name Sector	Price Ccy	Mkt Cap in $bn	Bear Mkt Factor	Stars	Sensitivity	Global Evaluation
CLS CA	CELESTICA INC. Semiconductors	48.90 CAD	4.40	-165	★★★★		
6315 JP	TOWA Semiconductors	7,910.00 JPY	1.28	-159	★★★☆		
522 HK	ASMPT Semiconductors	87.70 HKD	4.56	-128	★★★★		
3702 TW	WPG HOLDINGS Semiconductors	87.60 TWD	4.69	-112	★★☆☆		
TPRO IT	TECHNOPROBE SPA Semiconductors	9.50 EUR	6.01	-105	★★★☆		

The sensitivity assessment is based on essentially two criteria: the stock's "behaviour in declining markets" (Bear Market Factor), and the stock's "sensitivity to bad news" (Bad News Factor). By positioning a stock according to the world averages, three sensitivity levels can be attributed (low, moderate, high). Combining these elements makes it possible to create a final ranking of stocks in the market. To present the most useful selection, only companies with a market capitalization greater than $1bn and showing good earnings growth valuations are listed. Furthermore, the eligible stocks must have a minimum rating of two stars, a neutral to positive valuation, and a low to moderate sensitivity. In case of a tie, the stock's "behaviour in declining markets" will act as the deciding classification element.

The stocks with attractive dividends

Symbol Market	Name Sector	Price Ccy	Mkt Cap in $bn	Div	Stars	Sensitivity	Global Evaluation
6239 TW	POWERTECH TECHNOLOGY Semiconductors	147.50 TWD	3.53	4.6%	★★★★		
SIMO US	SILICON MOTION TECH.CORP Semiconductors	64.93 USD	2.15	3.1%	★★★☆		

Evolution over the last 3 months

Legend: 6239, SIMO
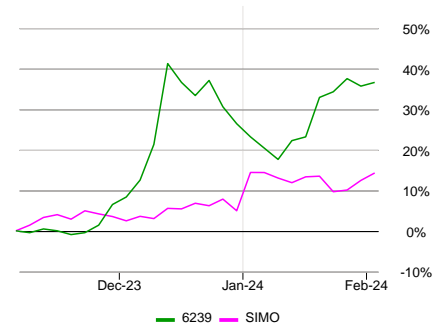
Within this category, the equities that have been chosen are based on the expected dividend yield over the next 12 months. The selection takes into consideration only companies with payout dividends totalling not more than 70% of their forecasted income. This is to ensure that only companies are included that show a strong potential for a continued payout of dividends in the future. This profile also requires a minimum of 2 stars and a market value greater than one billion USD.

The stocks with the lowest PE

Evolution over the last 3 months

Legend: ARW, A000660, 3711, CLS, CLS
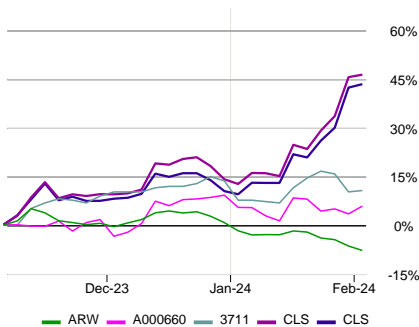
Symbol Market	Name Sector	Price Ccy	Mkt Cap in $bn	LT P/E	Stars	Sensitivity	Global Evaluation
ARW US	ARROW ELECTRONICS Semiconductors	109.70 USD	5.95	6.2	★★☆☆		
A000660 KR	SK HYNIX Semiconductors	138,000.00 KRW	68.50	6.3	★★★☆		
3711 TW	ASE TECHNOLOGY HOLDING Semiconductors	130.00 TWD	17.89	10.3	★★★☆		
CLS US	CELESTICA INC. Semiconductors	36.26 USD	4.40	10.6	★★★★		
CLS CA	CELESTICA INC. Semiconductors	48.90 CAD	4.40	10.8	★★★★		

The price to earnings ratio (PE) may help to find undervalued stocks. If the PE of a stock is much lower than the PE of its reference market, the stock could have upside price potential. In order to present a relevant selection, only companies with a market capitalization greater than $1bn and showing good earnings growth valuations are listed. Furthermore, the eligible stocks must have: a minimum rating of two stars, a neutral to positive valuation, a low to moderate sensitivity. When the PE ratios are identical, the analysts' 7 week earnings per share revision (7 wk EPS rev) acts as the deciding classification element.

Semiconductors

	Market Value	Perf YtD	Nb of Stocks	Mkt Cap in $bn	Stars	Sensitivity	LT P/E	LT Growth	4wk Rel. Perf.	Div	Global Evaluation
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The 20 top stocks classified by market capitalization

Symbol Market	Name Sector	Price Ccy	Perf YtD	Mkt Cap in $bn	Stars	Sensitivity	LT P/E	LT Growth	4wk Rel. Perf.	Div	Global Evaluation
NVDA US	NVIDIA Semiconductors	682.23 USD	37.8%	1,712.50	★★★☆		28.2	35.1%	26.6%	0.0%	
AVGO US	BROADCOM Semiconductors	1,222.65 USD	9.5%	581.95	★★★☆		21.0	18.4%	9.8%	1.8%	
2330 TW	TAIWAN SEMICON.MNFG. Semiconductors	646.00 TWD	8.9%	534.56	★★★☆		13.6	17.0%	7.8%	2.2%	
TSM US	TAIWAN SEMICONDUCTOR Semiconductors	119.38 USD	14.8%	534.56	★★★★		15.6	18.1%	12.8%	1.9%	
A005930 KR	SAMSUNG ELECTRONICS Semiconductors	74,400.00 KRW	-5.2%	371.84	★★☆☆		12.0	42.5%	-3.6%	1.9%	
SMSN GB	SAMSUNG ELECTRONICS Semiconductors	1,401.00 USD	-6.5%	371.84	★☆☆☆		12.0	42.8%	-5.8%	1.9%	
ASML NL	ASML HOLDING Semiconductors	833.80 EUR	22.3%	350.74	★★★★		24.4	23.3%	25.8%	0.8%	
AMD US	ADVANCED MICRO DEVICES Semiconductors	167.88 USD	13.9%	281.52	★★★★		30.1	36.8%	10.8%	0.0%	
INTC US	INTEL Semiconductors	42.74 USD	-14.9%	180.83	★☆☆☆		21.7	35.6%	-15.8%	1.2%	
TXN US	TEXAS INSTRUMENTS Semiconductors	158.37 USD	-7.1%	144.49	★☆☆☆		28.4	14.6%	-10.0%	3.3%	
AMAT US	APPLIED MATERIALS Semiconductors	168.70 USD	4.1%	142.36	★★★☆		18.7	13.3%	7.3%	0.8%	
LRCX US	LAM RESEARCH Semiconductors	834.62 USD	6.6%	111.61	★★★☆		23.3	17.2%	6.2%	1.0%	
MU US	MICRON TECHNOLOGY Semiconductors	84.60 USD	-0.9%	96.02	★★★☆		11.0	376.0%	-4.4%	0.5%	
ADI US	ANALOG DEVICES Semiconductors	189.71 USD	-4.5%	95.48	★★☆☆		21.7	11.4%	-3.6%	2.0%	
8035 JP	TOKYO ELECTRON Semiconductors	28,630.00 JPY	13.4%	89.28	★★★★		25.4	24.9%	7.8%	1.5%	
KLAC US	KLA Semiconductors	601.62 USD	3.5%	83.15	★★★☆		21.3	16.3%	3.0%	1.0%	
ARM US	ARM HOLDINGS Semiconductors	72.98 USD	-2.9%	75.12	★☆☆☆		42.1	34.3%	-3.8%	0.0%	
A000660 KR	SK HYNIX Semiconductors	138,000.00 KRW	-2.5%	68.50	★★★☆		6.3	66.2%	0.6%	0.9%	
MRVL US	MARVELL TECHNOLOGY Semiconductors	67.08 USD	11.2%	57.94	★★★★		23.8	30.0%	0.6%	0.4%	
NXPI US	NXP SEMICONDUCTORS Semiconductors	223.00 USD	-2.9%	56.97	★★★☆		14.4	10.7%	1.1%	2.0%	

Glossary - Equities

Global Evaluation

The rating results from several factors: fundamentals, technical analysis, measures of sensitivity, and the benchmark trend.
The synthesis is rated on a 5 level scale:

- : **Positive**, almost all or all the factors are positive
- : **Slightly positive**, a majority of factors are positive
- : **Neutral**, balance between positive and negative factors
- : **Slightly negative**, a majority of factors are negative
- : **Negative**, almost all or all the factors are negative

The synthesis for the Indices and Industries is rated on a 3 level scale: Positive, Neutral and Negative.

Number of Stocks

The number of stocks in the index that can be analyzed.

Mkt Cap in $bn

This number represents the Market Capitalization in USD bn. It is calculated by multiplying a firm's share price by the number of outstanding shares. For reasons of comparison, all results are in USD.

Valuation Rating

Our Valuation Rating indicates if a stock is "expensive" or "cheap" relative to its growth potential. This is used to determine whether or not the investor is paying a premium for anticipated growth.
To estimate a stock's value relative to its current price, our Valuation Rating combines:
- stock price
- projected earnings
- projected earnings growth
- dividends
We establish our rating by combining these elements.
There are five ratings, ranging from strongly undervalued to strongly overvalued.

Stars

theScreener's star rating system is designed to enable you to identify high-quality stocks quickly and easily.
Stars are earned for each element specified below:
- Earnings Rev Trend
- Valuation Rating
- MT Tech Trend
- 4 week Relative Performance
Therefore, a stock can earn a maximum of four stars.
The lowest rating a stock can have is no stars.
Once a stock has earned a star, it will keep it until:
- Earnings Rev Trend becomes negative
- Valuation Rating becomes negative
- MT Tech Trend becomes negative
- 4 week Relative Performance drops below -1%

Dividend

This is the dividend in % for the next 12 months.
Even if the same number is shown, the dividend value can appear in one of four colors, depending on the earnings coverage:
- 0%, no dividend
- 4%, the dividends are covered (between 0% and 40% of earnings)
- 4%, the dividends represent between 40% and 70% of earnings
- 4%, the dividends are higher than 70% of earnings, which implies that the dividend coverage is not guaranteed.

Earnings Rev. Trend

The earnings revision trend represents the analysts' consensus and is based on their earnings per share revisions in the last seven weeks. To ensure reliable estimates, theScreener only analyzes titles that are covered by at least three analysts.
Revisions exceeding ±1% are interpreted as positive or negative earnings revision trends.

Financials Rating

Financials are rated on a three-level scale (positive, neutral, and negative). The overall rating is based on the subratings that take the mid- and long-term development into account as well as the industry average.

Target Price

The target price is an estimate of the stock's price in 12 months.

LT PE

This is the relationship between the price and the estimated long-term future earnings.

LT Growth

This is the estimated annual growth rate of future earnings, normally projected over the next two to three years.

MT Tech. Trend

The medium-term (40d) technical trend indicates the current trend, positive, neutral, or negative.
When a price falls to 1.75% above or below the technical trend, the MT technical trend is considered neutral.
Once the price breaks out of the 1.75% neutral zone, the MT technical trend will change to positive or negative.

4-week (Relative) Performance

This figure measures the dividend-adjusted performance of a stock relative to its national or regional index (compared to four weeks ago). As for an Index, it measures the net performance over 4 weeks.

Bad News Factor

To determine the "Bad News Factor" we analyze a stock's declines in rising markets. If a stock price falls while its relative index goes up, it can be assumed that the stock's performance has been affected by bad news - hence the name, "Bad News Factor".
Here a stock's movements are measured on a bi-weekly basis, during a sliding 52 week period. Every time a stock drops while its reference index rises, the difference is calculated in %, integrated into a yearly average and expressed in basis points.
The higher the "Bad News Factor," the more a stock has proven to be sensitive to bad news. The lower the "Bad News Factor," the less the stock has proven to be sensitive to bad news.

Bear Market Factor

To determine the "Bear Market Factor" we analyze a stock's price movements in declining markets.
This is the analysis of the movements, in a bi-weekly intervals, during a sliding 52 week period.
The higher the "Bear Market Factor," the greater the probability a stock would drop when its relative index drops.
A "Bear Market Factor" that is strongly negative means the stock has been more resistant to losses in declining markets.

Sensitivity

Stock price developments are generally volatile and contain high risks that can result in a total loss. Based on a their historical behaviour, stocks are classified by sensitivity level. These sensitivity levels have to be considered solely in relative historical comparison to other stocks. Please note that even "Low Sensitivity" stocks are equities and therefore high risk investments that can lose up to all of their value, and that past performance is no indication of current or future performance.
"Sensitivity" is determined by measuring the "Bear Market Factor" and the "Bad News Factor" against its benchmark.
There are three grades of sensitivity levels:
- Low Sensitivity: The sensitivity indicators fall below the world reference average.
- Moderate Sensitivity: The sensitivity indicators are situated higher than the world reference average, but lower than standard deviation.
- High Sensitivity: The sensitivity indicators are at levels higher than standard deviation.

Volatility

Volatility measures the magnitude of upwards and downwards movements of a stock or index. The volatility 12 M shows the average volatility over the last 12 months.

Beta

Beta is a common measure of sensitivity. Where a Beta is greater than 100, the stock is more volatile than its reference index.

Correlation

Correlation is the degree of similarity in which a stock fluctuates in relation to its reference index.