



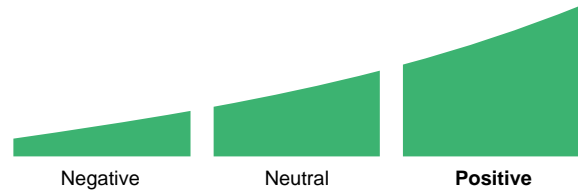
The sector Semiconductors represents approximately 20% of the market capitalization of the group Technology and approximately 4% of the World market with 127 companies being regularly followed by the Screener.

The sector Semiconductors is currently trading at its 52 week high and 58% above its 52 week low (bi-weekly closing).

Performance since October 8, 2019: 40.6% vs. 42.0% for the group Technology and 8.5% for the TSC_World.

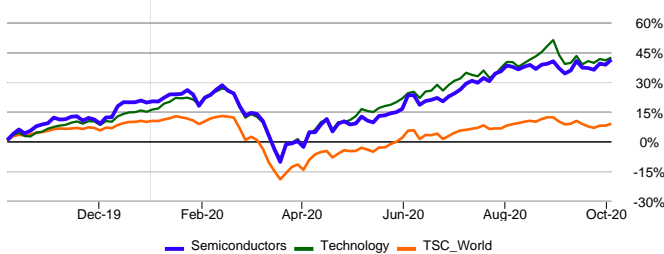
The current % of stocks over their Medium Term technical trend (MTT) is 52.0%.

Global Evaluation



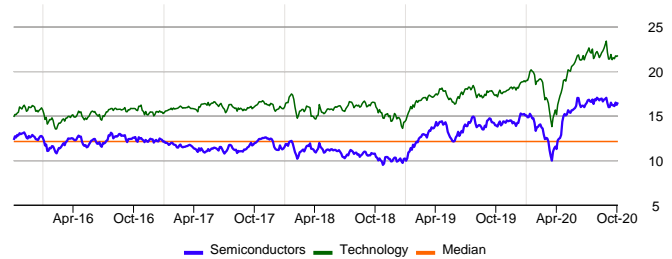
	Market Value	Perf YtD	Nb of Stocks	Mkt Cap in \$bn	Stars	Sensitivity	LT P/E	LT Growth	4wk Rel Perf	Div	Global Evaluation
Semiconductors (WO)	403.23	18.3%	127	3,289.41	★★★★★		16.4	19.4%	5.0%	1.9%	
Technology (WO)	526.22	23.9%	642	15,740.23	★★★★★		21.7	20.0%	2.0%	1.1%	
TSC_World (WO)	325.85	-0.9%	6,341	79,094.28	★★★☆☆		12.9	23.0%	0.3%	2.5%	

Comparison October 8, 2019 - October 6, 2020



"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 12.1.



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 higher than 0.9 indicates that the index's price includes a discount to growth of -30.5%.

Earnings revision trend ★

Compared to seven weeks ago, the analysts have raised (6.9%) their earnings estimates. This positive trend began June 9, 2020 at a price of 351.7.

Technical Trend and Performance ★★

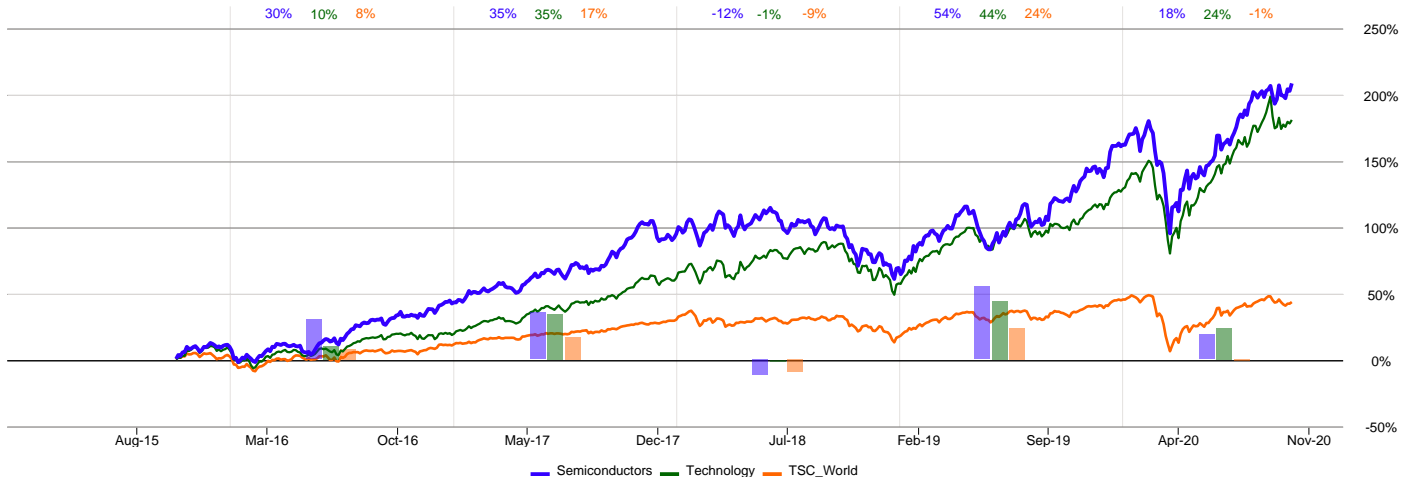
The 40-day Medium Term Technical Trend has been positive since May 8, 2020. The confirmed Technical Reverse point is currently 5% lower.

Checklist

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Global Evaluation	Positive
Interest	★★★★★ Very strong interest since September 15, 2020.
Earnings Rev Trend	★ Analysts positive since June 9, 2020
Valuation Rating	★ Strongly undervalued
MT Tech Trend	★ Market positive since May 8, 2020
4wk Rel Perf	★ vs. TSC_World
Sensitivity	The industry has been on the moderate-sensitivity level since June 19, 2020.

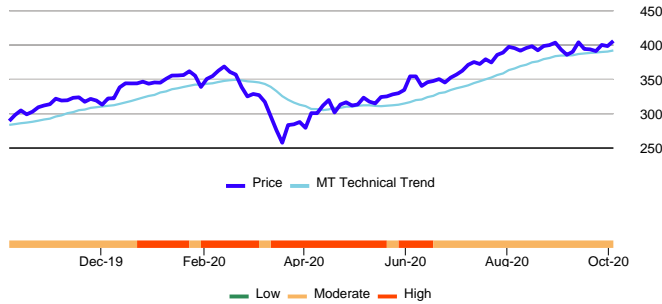
Comparison October 6, 2015 - October 6, 2020



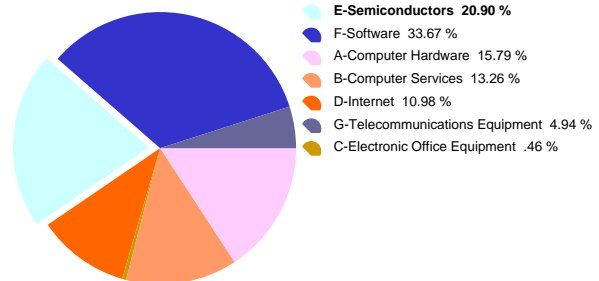


	Market Value	Perf YtD	Nb of Stocks	Mkt Cap in \$bn	Stars	Sensitivity	LT P/E	LT Growth	4wk Rel Perf	Div	Global Evaluation
Semiconductors (WO)	403.23	18.3%	127	3,289.41	★★★★★		16.4	19.4%	5.0%	1.9%	

Price & Sensitivity Evolution



Allocation by sector, of the group Technology



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 (19.6%) is higher than the last few years' average of (18.1%). The high magnitude of short term price fluctuations indicates the market is very nervous.

On the other hand, long term volatility 27.1% of the sector is similar to that of the group Technology (23.9%), reflecting almost identical price variations between the sector and the group to which it belongs.

The largest sector in terms of market capitalization Software represents 33.7% of the group Technology. These sectors follow, in size order, Semiconductors with 20.9% and Computer Hardware with 15.8%.

Sensitivity factor in declining markets

The "Bear Market Factor" measures the behavior of a sector in declining markets. In this context, the sector Semiconductors has a tendency to drop in the same proportion as the index TSC_World.

The sector shows average sensitive reactions to market corrections.

Sensitivity factor in rising markets

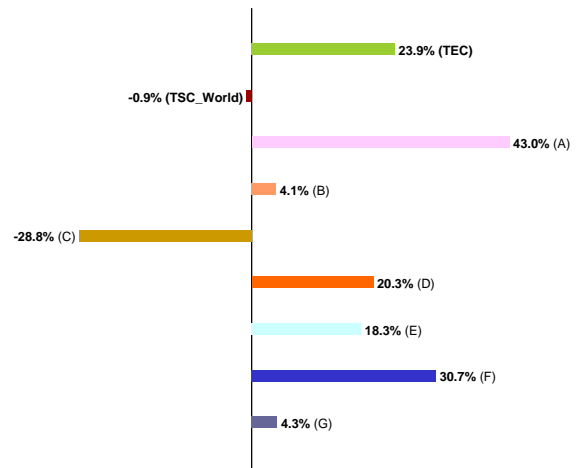
The "Bad News Factor" measures a sector's corrections in a rising market phase. In this configuration, the market slightly sanctions the sector Semiconductors when there is specific pressure in this particular economic activity.

When the sector declines in a rising market its average deviation is -1.46%.

Sensitivity analysis summary

Generally speaking, the Semiconductors sector shows an average sensitive behaviour with an average Bear Market and a low Bad News factor.

2020 sector evolution



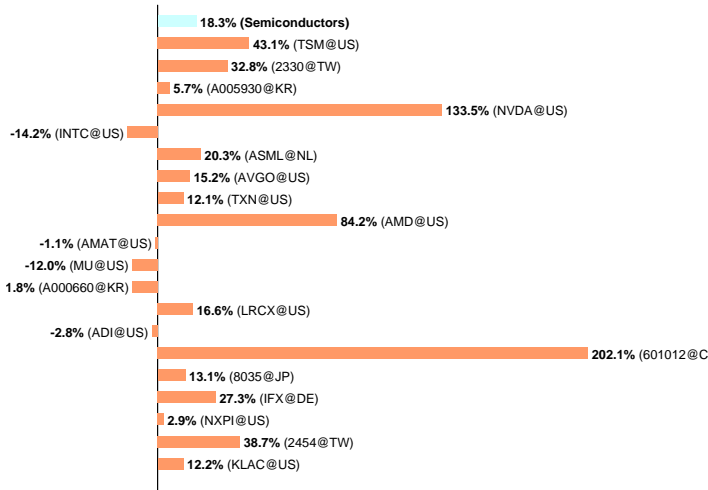
From the beginning of the year, the sector Semiconductors recorded a variation of 18.3%, while the group Technology evolved by 23.9%. This industry group is made up of 7 sectors, in which the extreme variations were from -28.8% to 43.0%.



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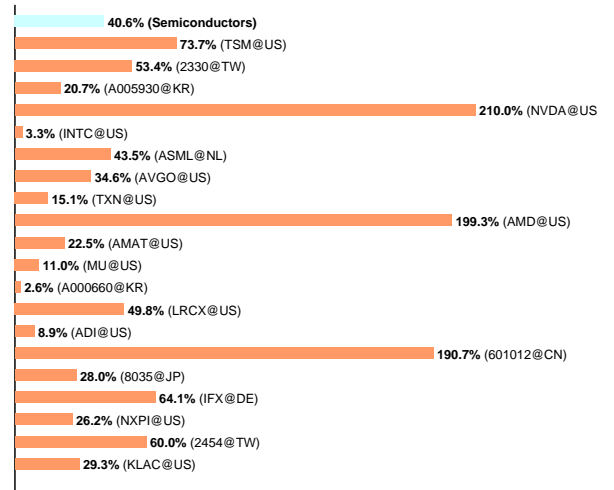
The performance of the 20 largest stocks of the sector is presented below.

Year to date performance



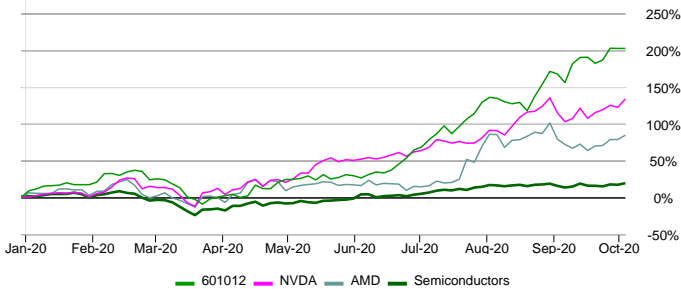
The analysis and details of the above stock can be found on page 6

12 months performance



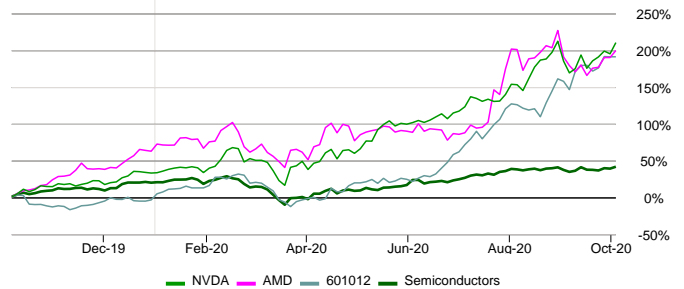
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Top Stocks 2020



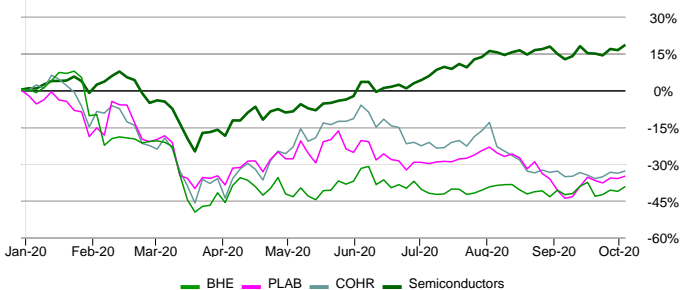
From the beginning of the year, the performance of the sector was 18.3%; as for the three best stocks, (LONGI GREEN ENERGY T (601012), NVIDIA (NVDA) and ADVANCED MICRO DEVICES (AMD)), their performance was 202.1%, 133.5% and 84.2% respectively.

Top Stocks 12 months



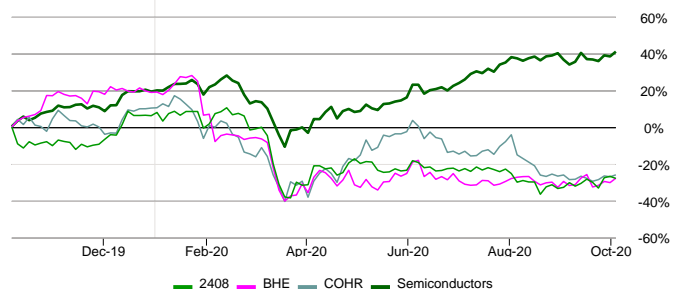
Since 12 months ago, the performance of the sector has been 40.6%; the three best stocks, (NVIDIA (NVDA), ADVANCED MICRO DEVICES (AMD) and LONGI GREEN ENERGY T (601012)) recorded a performances of 210.0%, 199.3% and 190.7% respectively.

Flop Stocks 2020



BENCHMARK ELECTRONIC (BHE), PHOTRONIC (PLAB) and COHERENT (COHR) with -39.3%, -35.0% and -32.9% recorded the three worst performances from the beginning of the year. For the sector Semiconductors, the variation was 18.3%.

Flop Stocks 12 months



The three worst performances in 12 months were recorded by NANYA TECHNOLOGY (2408), BENCHMARK ELECTRONIC (BHE) and COHERENT (COHR) with -28.0%, -27.9% and -26.0%. As for the sector Semiconductors, it recorded a variation of 40.6%.

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



The stock selection below has been specifically chosen for this univers. **The proposals cannot consider the reader's personal financial situation nor his appetite or aversion to risk; stock ownership should not be assessed either if appropriate to the reader. Please request personalised alternatives from your financial advisor.**

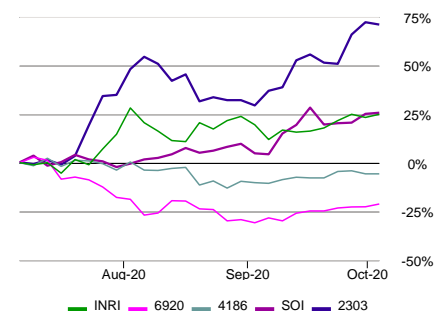
Stocks of interest

Company Name	Market	Group	Best Evaluation	Defensive Stocks	High Dividends	Low PE
ARROW ELECTRONICS	US	Technology				✓
ASUSTEK COMPUTER	TW	Technology			✓	
BROADCOM	US	Technology			✓	
INARI AMERTRON	MY	Technology	✓			
LASERTEC	JP	Technology	✓	✓		
MYCRONIC	SE	Technology		✓		
NOVATEK MICROELECT	TW	Technology			✓	
SAMSUNG ELECTRONICS	KR	Technology				✓
SK HYNIX	KR	Technology				✓
SOITEC	FR	Technology	✓	✓		
TOKYO OHKA KOGYO	JP	Technology	✓	✓		
UTD MICROELECTRONICS	TW	Technology	✓		✓	✓
VANGUARD INTL SEMI	TW	Technology			✓	
VITROX CORPORATION	MY	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
INRI MY	INARI AMERTRON Semiconductors	2.31 MYR	1.82	37.2%	★★★★★		
6920 JP	LASERTEC Semiconductors	8,820.00 JPY	7.87	3.7%	★★★★★		
4186 JP	TOKYO OHKA KOGYO Semiconductors	5,410.00 JPY	2.31	3.3%	★★★★★		
SOI FR	SOITEC Semiconductors	128.10 EUR	5.01	-8.4%	★★★★★		
2303 TW	UTD MICROELECTRONICS Semiconductors	28.35 TWD	12.05	23.6%	★★★★★		

Evolution over the last 3 months



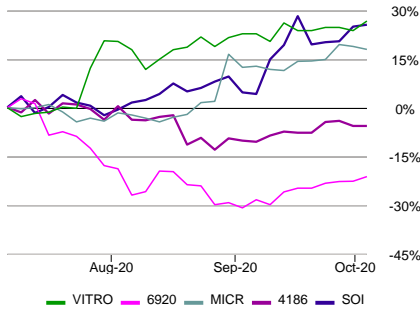
The Global Evaluation is a multi-criteria approach to identify the stocks with the best overall outlook. The assessment is the compilation of fundamental (PE, growth, earnings revisions, dividend, etc.), technical (moving average, relative performance), and sensitivity (behaviour in declining markets 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.



	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)	403.23	18.3%	127	3,289.41	★★★★		16.4	19.4%	5.0%	1.9%	

The best defensive stocks

Evolution over the last 3 months



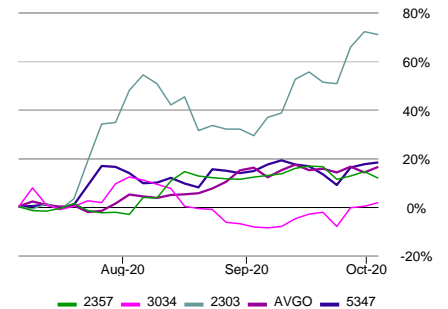
Symbol Market	Name Sector	Price Ccy	Mkt Cap in \$bn	Bear Mkt Factor	Stars	Sensitivity	Global Evaluation
VITRO MY	VITROX CORPORATION Semiconductors	12.90 MYR	1.47	-102	★★★★		
6920 JP	LASERTEC Semiconductors	8,820.00 JPY	7.87	-98	★★★★		
MICR SE	MYCRONIC Semiconductors	204.80 SEK	2.25	-82	★★★★		
4186 JP	TOKYO OHKA KOGYO Semiconductors	5,410.00 JPY	2.31	-81	★★★★		
SOI FR	SOITEC Semiconductors	128.10 EUR	5.01	-74	★★★★		

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
2357 TW	ASUSTEK COMPUTER Semiconductors	247.50 TWD	6.39	6.3%	★★★★		
3034 TW	NOVATEK MICROELECT Semiconductors	269.50 TWD	5.70	5.7%	★★★★		
2303 TW	UTD MICROELECTRONICS Semiconductors	28.35 TWD	12.05	5.3%	★★★★		
AVGO US	BROADCOM Semiconductors	363.98 USD	147.23	3.9%	★★★★		
5347 TW	VANGUARD INTL SEMI Semiconductors	96.70 TWD	5.51	3.8%	★★★★		

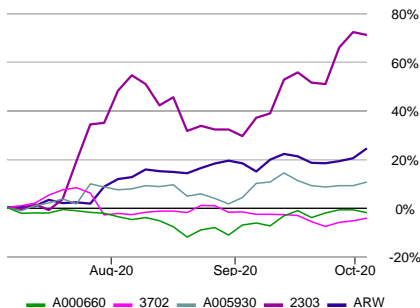
Evolution over the last 3 months



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



Symbol Market	Name Sector	Price Ccy	Mkt Cap in \$bn	LT P/E	Stars	Sensitivity	Global Evaluation
A000660 KR	SK HYNIX Semiconductors	83,000.00 KRW	52.04	6.8	★★★★		
3702 TW	WPG HOLDINGS Semiconductors	39.35 TWD	2.64	7.7	★★★★		
A005930 KR	SAMSUNG ELECTRONICS Semiconductors	59,000.00 KRW	339.45	9.0	★★★★		
2303 TW	UTD MICROELECTRONICS Semiconductors	28.35 TWD	12.05	9.6	★★★★		
ARW US	ARROW ELECTRONICS Semiconductors	82.01 USD	6.37	9.8	★★★★		

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.



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The 20 top stocks classified by market capitalization

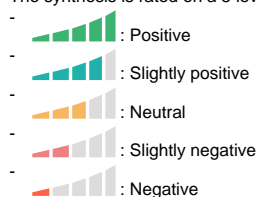
Symbol Market	Name Sector	Price Ccy	Perf YtD	Mkt Cap in \$bn	Stars	Sensitivity	LT P/E	LT Growth	4wk Rel Perf	Div	Global Evaluation
TSM US	TAIWAN SEMICON.MNFG.CTD. Semiconductors	83.12 USD	43.1%	396.25	★★★★★		24.3	19.8%	7.3%	2.5%	
2330 TW	TAIWAN SEMICON.MNFG. Semiconductors	439.50 TWD	32.8%	396.25	★★★★★		18.2	15.9%	1.9%	2.8%	
A005930 KR	SAMSUNG ELECTRONICS Semiconductors	59,000.00 KRW	5.7%	339.45	★★★★★		9.0	18.8%	5.4%	2.7%	
NVDA US	NVIDIA Semiconductors	549.46 USD	133.5%	339.02	★★★★★		44.5	37.6%	10.8%	0.1%	
INTC US	INTEL Semiconductors	51.37 USD	-14.2%	218.48	★★★★★		11.1	5.3%	4.5%	2.6%	
ASML NL	ASML HOLDING Semiconductors	317.20 EUR	20.3%	159.21	★★★★★		26.0	27.3%	3.0%	0.9%	
AVGO US	BROADCOM Semiconductors	363.98 USD	15.2%	147.23	★★★★★		13.6	13.8%	2.2%	3.9%	
TXN US	TEXAS INSTRUMENTS Semiconductors	143.85 USD	12.1%	131.76	★★★★★		23.1	13.7%	4.3%	2.9%	
AMD US	ADVANCED MICRO DEVICES Semiconductors	84.48 USD	84.2%	99.18	★★★★★		46.9	51.3%	4.9%	0.0%	
AMAT US	APPLIED MATERIALS Semiconductors	60.40 USD	-1.0%	55.16	★★★★★		10.6	12.7%	1.0%	1.7%	
MU US	MICRON TECHNOLOGY Semiconductors	47.32 USD	-12.0%	52.57	★★★★★		7.2	29.7%	3.7%	0.0%	
A000660 KR	SK HYNIX Semiconductors	83,000.00 KRW	-11.8%	52.04	★★★★★		6.8	32.9%	4.8%	1.5%	
LRCX US	LAM RESEARCH Semiconductors	340.98 USD	16.6%	49.47	★★★★★		12.2	18.2%	4.3%	1.6%	
ADI US	ANALOG DEVICES Semiconductors	115.54 USD	-2.8%	42.70	★★★★★		19.9	17.5%	0.3%	2.2%	
601012 CN	LONGI GREEN ENERGY T Semiconductors	75.01 CNY	202.1%	41.54	★★★★★		20.3	23.0%	17.1%	0.5%	
8035 JP	TOKYO ELECTRON Semiconductors	27,050.00 JPY	13.1%	40.26	★★★★★		14.7	15.6%	-2.3%	2.8%	
IFX DE	INFINEON TECHNOLOGIES Semiconductors	25.80 EUR	27.3%	39.73	★★★★★		20.5	30.9%	11.6%	1.1%	
NXPI US	NXP SEMICONDUCTORS Semiconductors	130.90 USD	2.9%	36.55	★★★★★		19.3	23.1%	5.6%	1.2%	
2454 TW	MEDIATEK Semiconductors	615.00 TWD	38.7%	33.97	★★★★★		14.5	23.7%	1.5%	3.2%	
KLAC US	KLA Semiconductors	199.83 USD	12.2%	31.00	★★★★★		13.9	12.1%	5.3%	1.9%	

Glossary - Equities

Global Evaluation

The rating results from several factors : fundamental and technical analysis, measure of sensitivity and benchmark trend.

The synthesis is rated on a 5 level scale:



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.com's star rating system is designed to enable you to identify high-quality stocks quickly and easily.

In this easy-to-use rating system, stars are earned for each element specified below:

- Earnings Rev Trend 🟢 = ★★★★★
- Valuation Rating 🟢, 🟢🟢, 🟢🟢🟢 = ★★★★★
- MT Tech Trend 🟢 = ★★★★★
- 4 week Relative Performance > 1% = ★★★★★

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% (<-1%)

Div

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 symbol 🟢 shows that compared with their earnings revisions of seven weeks ago, the analysts have now raised their estimates (7wk EPS Rev; > 1%); the symbol 🔴 indicates that compared with their earnings revisions of seven weeks ago, the analysts have now lowered their estimates (7wk EPS Rev < -1%).

When the earnings revisions (7wk EPS Rev) fall between +1% and -1%, the trend is considered to be neutral 🟡.

The symbol 🟢 indicates that the last significant revisions have been trending positive.

The symbol 🔴 indicates that the last significant revisions have been negative.

7wk EPS Rev

This is an abbreviation for 7 week Earnings Per Share Revision. This column indicates the value of these revised earnings. A figure of 2.8 signifies that compared with seven weeks

ago, the analysts have now revised and raised their estimates by 2.8%. On the contrary, a negative number means that the earnings would have been revised lower.

G/P/E Ratio

In order to establish our Valuation Rating, we calculate the estimated growth of future earnings (LT Growth) plus dividend in %, divided by the estimated future PE ratio (Long Term P/E).

LT PE

This is the relationship between the price (P) 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 MT Tech Trend indicates the current trend, positive 🟢 or negative 🔴, and the Tech Reverse indicates up to which price this trend will remain valid.

When a price falls to 1.75% above or below the Tech Reverse, the MT Tech Trend is considered neutral 🟡.

Once the price breaks out of the +1.75% neutral zone, the MT Tech Trend will change to positive.

The symbol 🟢 indicates that the previous MT Tech Trend was positive.

The symbol 🔴 indicates that the previous MT Tech Trend was negative.

4wk (Rel) Perf.

This figure measures the 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. In this purely objective analysis, the actual reasons for a stock's behavior are not important. 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 12 M

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.

% of Stocks in Uptrend

This is the percentage of stocks in a given list that have a positive Medium Term Technical Trend. If, for example, the aggregate of Technology / World, (which is made up of 458 stocks) has 8% "of stocks in Uptrend," it means that 38 of the stocks within that aggregate have a positive Medium Term Technical Trend.

Beta

Beta is often used as a 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.

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If the investment currency differs from the currency of the investment instrument, currency fluctuations can have a strong influence on the performance of the investment instrument, so that it can be significantly higher or lower.

More information: www.thescreener.com/home/method/

Price data, financial ratios and earnings estimates provided by REFINITIV