

Oclaro, Inc.

Recommendation [as of January 02, 2018]: **BUY**

Risk Evaluation: MODERATE Price: 6.980 [Jan 02, 2018 close] Trading Currency: USD Country: United States

GICS Sector: Information Technology

Sector Ranking: Marketweight

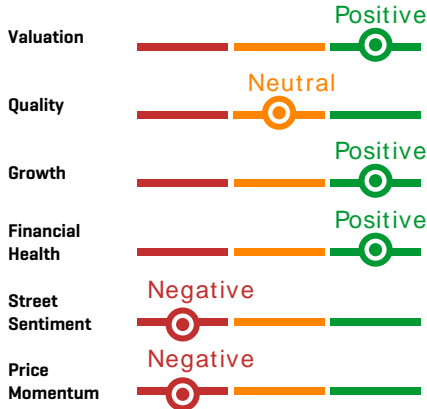
SPGMI's Quality Ranking: NA

GICS Industry: Communications Equipment

Business Summary: Oclaro, Inc. designs, manufactures, and markets optical components, modules, and subsystems for the long-haul, metro, and data center markets worldwide.

Quantitative Model Drivers [as of January 02, 2018]

Recommendation: **BUY**



Price Performance



Relative Strength vs Index
40-Week Mov. Avg.

As Reported Earnings vs Previous Year
▲ Up ▼ Down ► No Change

Volume
Below Avg. Above Avg.

Quantitative Ranking

Total Return[%CAGR]	YTD	1Yr	3Yr	5Yr
NasdaqGS:OCLR	-24.7	-26.3	52.8	34.3
Peer Average	-1.8	-2.9	4.9	4.7
S&P 500	0.0	21.8	11.4	15.2

Quantitative Rankings: SB = Strong Buy, H = Hold, SS = Strong Sell
Past performance is not an indication of future performance and should not be relied upon as such.
Source: CFRA, S&P Global Market Intelligence [SPGMI]

Risk Evaluation :

MODERATE

Asset/Market Size Risk	High
Financial Leverage Risk	Low
Price Volatility Risk	High
Liquidity Risk	Low

Model Ranking Commentary

- NasdaqGS: OCLR's BUY recommendation is based on its score from CFRA's quantitative model for the United States.
- Valuation and Growth model sub-categories are the two largest drivers of NasdaqGS: OCLR's BUY recommendation.
- Valuation includes factors such as price to earnings, price to EBITDA, and price to cash flow.
- Growth includes factors that measure EPS growth and stability and cash flow growth and stability.
- NasdaqGS: OCLR's overall score ranked in the 12th percentile of all stocks in the model universe [1 = best and 100 = worst].

Key Statistics

Market Cap [Mln of USD]	1,178
52-Wk Range [USD]	5.865 - 11.300
Value of USD 10K Invested 5 Yrs ago	41,796
Beta vs S&P 500	-1.03
Common Shares Outstanding[Mln]	168.78
Average Daily Volume [Mln]	5.575
Insider Ownership[%]	2.28

Dividend Data

Currency: USD

	5Yr Low	5Yr Hi
Indicated Rate/Share	NIL	
Yield [%]	NIL	NIL
Payout Ratio [%]	NIL	NIL

Payment Details

-No Dividend Data Available

Compound Annual Growth Rates

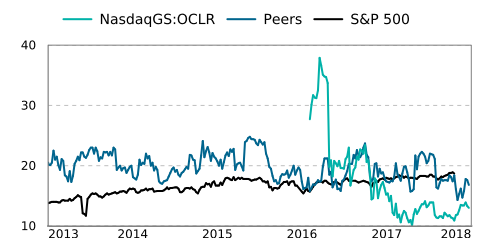
Revenue - %CAGR	1Yr	3Yr	5Yr
Company	36.2	17.4	10.6
Peer Average	7.2	6.8	7.4
S&P 500	5.8	1.5	2.2

Operating EPS - %CAGR

	1Yr	3Yr	5Yr
Company	171.0	NM	NM
Peer Average	20.4	17.9	7.4
S&P 500	10.1	4.1	5.3

5 year P/E Ratio Comparisons [forward 12-month EPS estimates]

	Current
NasdaqGS:OCLR	13.5
Peer Average	17.4
S&P 500	18.7
	5-Year Average
NasdaqGS:OCLR	17.4
Peer Average	19.7
S&P 500	16.6





Oclaro, Inc.

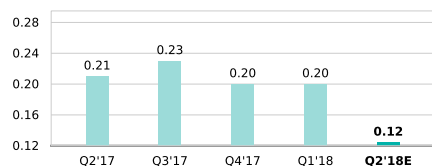
Recommendation [as of January 02, 2018]: **BUY**

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Earnings Per Share and Revenues (Millions USD, except per share)

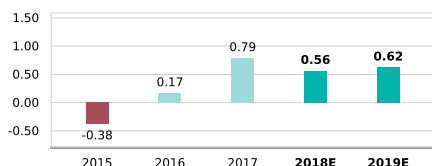
Fiscal year ends Jul 1. Next earnings report expected: Late Jan.

EPS Quarterly - Actual & Estimated



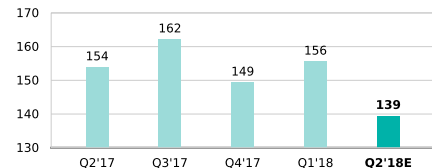
	Q2'17	Q3'17	Q4'17	Q1'18	Q2'18E
%Yr.-Yr Chg.	NM	NM	81.8	42.9	-40.9
% EPS Surprise	15.4	17.3	17.1	12.6	-
No. of Analysts	10	10	12	13	12

EPS Annual - Actual & Estimated



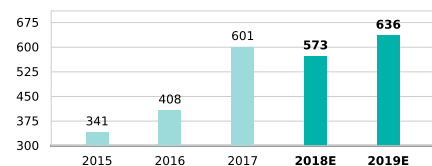
	2015	2016	2017	2018E	2019E
%Yr.-Yr Chg.	NM	NM	NM	-28.6	10.7
Forward P/E	-	-	-	11.9	10.8
No. of Analysts	4	8	12	12	9

Revenues Quarterly - Actual & Estimated



	Q2'17	Q3'17	Q4'17	Q1'18	Q2'18E
%Yr.-Yr Chg.	63.5	60.4	19.3	14.8	-9.4

Revenues Annual - Actual & Estimated



	2015	2016	2017	2018E	2019E
%Yr.-Yr Chg.	-12.7	19.5	47.3	-4.7	11.0

Source: S&P Global Market Intelligence

Note: EPS & Revenues in graphs above may represent analyst-adjusted actuals and estimates and therefore may not match numbers in the financial data presentation below.

Key Profitability Ratios

	2013	2014	2015	2016	2017	LTM
% Operating Margin	-33.3	-21.6	-13.1	3.9	19.8	21.2
Peer Average	-0.1	1.1	2.3	4.1	5.5	5.3
% Net Margin	-29.7	-26.1	-14.1	2.1	21.3	24.3
Peer Average	-1.2	-1.1	-0.3	1.6	5.3	4.8
% Return on Capital	-37.2	-22.1	-12.8	4.4	19.8	17.7
Peer Average	-0.2	0.9	0.6	3.4	4.5	4.2
% Cash Flow to Sales	-21.6	-20.8	-13.6	1.5	14.5	19.5
Peer Average	6.8	4.6	7.4	9.0	10.0	9.0

Key Valuation Ratios

	2013	2014	2015	2016	2017	Current
Fwd P/E - High	NM	NM	NM	36.6	32.0	13.5
Fwd P/E - Low	NM	NM	NM	18.8	9.8	
Peer Average	20.4	23.9	20.2	19.6	22.0	17.3
Avg EV/EBITDA	NA	NA	NA	37.1	41.0	5.8
Peer Average	15.4	25.7	25.7	23.7	18.0	13.5
Avg Price to Sales	0.2	0.5	0.5	0.9	2.3	2.0
Peer Average	1.4	1.7	1.7	1.2	1.6	1.8
Avg Price to Book	0.6	1.0	1.1	2.7	4.1	2.2
Peer Average	1.8	2.6	2.2	2.3	2.8	2.1

Income Statement, Cash Flow and Balance Sheet Data (Millions USD, except per share)

Fiscal Year Ending: Jun. 30

	2011	2012	2013	2014	2015	2016	2017	LTM#
Revenue	467	194	405	391	341	408	601	621
Operating Income	-7.4	-67.1	-134.7	-84.4	-44.6	15.9	118.9	131.9
Net Income	-46	-64	-120	-102	-48	9	128	151
Operating Cash Flow	-4.6	-26.7	-87.5	-81.2	-46.3	6.3	87.4	120.9
Capital Expenditures	41.6	20.3	17.2	8.8	18.1	27.8	61.9	67.6
Earnings Per Share	-0.96	-1.27	-1.37	-1.03	-0.45	0.08	0.77	0.87
Dividends Per Share	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Dividend Payout Ratio	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Free Cash Flow Per Share	-0.96	-0.93	-1.19	-0.91	-0.59	-0.19	0.15	0.31
Cash and Short Term Investments	62.8	61.8	84.8	99.1	111.8	95.9	256.8	279.5
Long Term Debt	NIL	NIL	23.0	NIL	61.2	62.1	NIL	NIL
Total Debt	Nil	25.5	105.8	9.9	66.0	67.9	3.7	3.6
Common Equity	229	168	154	208	153	167	514	544

#LTM Last 12 months ended Sep 30,2017. For balance sheet items, data is as of Sep 30,2017.

Note: Data may be restated; before results of discontinued operations/special items. Per share data adjusted for stock dividends as of ex-dividend date.

NA = Not Available. NM = Not Meaningful.

Source: S&P Global Market Intelligence (SPGMI)



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Peer Group Comparison

Peer Group	Stock Symbol	Stk.Mkt.Cap [Mln USD]	Recent Stock Price[USD]	52 Week Low/High[USD]	Beta	Dividend Yield[%]	Fwrd P/E	P/B Ratio	Ranking ¹	Return On Revenue[%]	Return On Equity[%]	LTD to Cap[%]
Oclaro, Inc.	NasdaqGS:OCLR	1,178	6.980	5.865/11.300	-1.03	Nil	13.5	2.2	Buy	24.3	32.7	0.2
ADTRAN, Inc.	NasdaqGS:ADTN	963.0	20.00	18.65/25.10	-0.41	1.8	27.9	1.9	★ ★	6.0	8.7	5.0
Acacia Communications, Inc.	NasdaqGS:ACIA	1,451	36.85	35.36/69.57	NA	Nil	27.1	2.8	Sell	28.0	29.0	NA
Applied Optoelectronics, Inc.	NasdaqGM:AAOI	734.8	37.91	21.88/103.41	NA	Nil	11.4	2.3	Hold	21.3	32.2	10.2
Calix, Inc.	NYSE:CALX	292.3	5.800	4.650/7.750	0.17	Nil	NM	1.9	Sell	-16.2	-44.3	NA
Ciena Corporation	NYSE:CIEN	3,049	21.22	19.40/27.98	-1.15	Nil	16.3	1.4	★ ★ ★	45.0	87.0	20.9
Extreme Networks, Inc.	NasdaqGS:EXTR	1,440	12.70	5.100/14.340	0.57	Nil	15.6	10.6	Strong Buy	0.2	1.4	49.4
Finisar Corporation	NasdaqGS:FNSR	2,416	21.19	17.20/36.41	-0.39	Nil	18.4	1.5	Sell	14.3	14.0	30.7
Infinera Corporation	NasdaqGS:INFN	996.0	6.670	6.270/12.500	-0.64	Nil	NM	1.4	Strong Sell	-21.6	-20.4	NA
Lumentum Holdings Inc.	NasdaqGS:LITE	3,109	50.15	34.15/68.63	NA	Nil	12.8	4.9	Sell	-9.3	-16.3	30.8
Viavi Solutions Inc.	NasdaqGS:VIAV	2,038	8.960	8.210/11.890	-0.76	Nil	23.5	2.7	Sell	10.4	10.8	24.2

¹ Quantitative Rankings : Strong Buy , Buy , Hold , Sell , Strong Sell ; Qualitative Rankings(STARS) : 5 = Strong Buy , 4 = Buy , 3 = Hold , 2 = Sell , 1 = Strong Sell

Rankings are not predictive of future performance. For full definitions of Rankings, see the glossary section of this report.

Note: Peer Group selection is performed using CFRA's proprietary peer ranking system. Peers are selected based on factors such as similarity of analyst coverage, industry, size, and region. The subject company is ranked against a universe of companies (the "Universe") which has been compiled by CFRA and consists of a list of companies with similar characteristics, but may not include all the companies within the same industry and/or that engage in the same line of business. The subject company and some of the companies in the Peer Group may be ranked by two different ranking systems. For the purpose of the overall ranking/recommendation, the subject company is ranked against all the companies in the Universe and not necessarily against the companies listed in the Peer Group.



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Business Summary

Oclaro, Inc. designs, manufactures, and markets optical components, modules, and subsystems for the long-haul, metro, and data center markets worldwide. The company's products generate, detect, combine, and separate light signals in optical communications networks. It offers client side transceivers, including pluggable transceivers; line side transceivers; tunable laser transmitters, such as discrete lasers and co-packaged laser modulators; lithium niobate modulators to manipulate the phase or the amplitude of an optical signal; transponder modules for transmitter and receiver functions; and discrete lasers and receivers for metro and long-haul applications. The company markets its products through direct sales force, as well as through sales representatives and resellers. It serves network equipment manufacturers of telecommunications and datacom systems, and hyperscale data center operators. The company was formerly known as Bookham, Inc. and changed its name to Oclaro, Inc. in April 2009. Oclaro, Inc. was founded in 1988 and is headquartered in San Jose, California.

Key Developments

Dec-13-2017	Company Conference Presentations	Oclaro, Inc. Presents at D.A. Davidson Laser/Optical Forum, Dec-14-2017
Dec-13-2017	Company Conference Presentations	Oclaro, Inc. Presents at Cowen & Co. 4th Annual Networking & Cybersecurity Summit, Dec-13-2017 08:45 AM
Dec-05-2017	Company Conference Presentations	Oclaro, Inc. Presents at Raymond James Technology Investors Conference, Dec-05-2017 11:55 AM
Nov-17-2017	Annual General Meeting	Oclaro, Inc., Annual General Meeting, Nov 17, 2017
Nov-16-2017	Company Conference Presentations	Oclaro, Inc. Presents at MKM Partners Entertainment, Travel & Technology Conference 2017, Nov-16-2017 09:40 AM
Nov-14-2017	Company Conference Presentations	Oclaro, Inc. Presents at Needham Networking & Security Conference, Nov-14-2017 02:10 PM
Nov-13-2017	Company Conference Presentations	Oclaro, Inc. Presents at UBS Global Technology Conference 2017, Nov-13-2017 03:30 PM
Nov-09-2017	Company Conference Presentations	Oclaro, Inc. Presents at Stifel 2017 One-on-One Growth Conference, Nov-09-2017 08:00 AM
Nov-01-2017	Earnings Release Date	Oclaro, Inc. to Report Q1, 2018 Results on Nov 01, 2017
Nov-01-2017	Earnings Calls	Oclaro, Inc., Q1 2018 Earnings Call, Nov 01, 2017
Nov-01-2017	Announcements of Earnings	Oclaro, Inc. Announces Unaudited Consolidated Earnings Results for the First Quarter Ended September 30, 2017; Provides Earnings Guidance for the Second Quarter Ending December 30, 2017 and Full Year of Fiscal 2018
Sep-12-2017	Company Conference Presentations	Oclaro, Inc. Presents at Deutsche Bank 2017 Technology Conference, Sep-12-2017 07:40 AM
Sep-07-2017	Company Conference Presentations	Oclaro, Inc. Presents at Citi 2017 Global Technology Conference, Sep-07-2017 09:30 AM
Sep-05-2017	Company Conference Presentations	Oclaro, Inc. Presents at Piper Jaffray Companies Tech Select, Sep-06-2017
Aug-28-2017	Company Conference Presentations	Oclaro, Inc. Presents at Jefferies Semiconductors, Hardware & Communications Infrastructure Summit, Aug-29-2017
Aug-02-2017	Earnings Release Date	Oclaro, Inc. to Report Q4, 2017 Results on Aug 02, 2017
Aug-02-2017	Earnings Calls	Oclaro, Inc., Q4 2017 Earnings Call, Aug 02, 2017

Corporate Information

Office

225 Charcot Avenue
San Jose, California 95131
United States

Telephone

408-383-1400

Web Site

www.oclaro.com

Key Officers

Chairman

M.T.Peterson BSc (MECH), MBA (Harvard), Hon
Doctorate (MGMT)
CEO, Director & Interim President of Integrated
Photonics Business

G.P.Dougherty

Chief Financial Officer

P.J.Mangan

Executive VP, General Counsel & Corporate Secretary

D.L.Teichmann

Executive Vice President

J.Haynes

Chief Commercial Officer

A.Carter

Board Members

E.B.Collins J.D., K.W.Cowan, G.P.Dougherty, D.Haylor,
M.T.Peterson BSc (MECH), MBA (Harvard), Hon
Doctorate (MGMT), I.Small, W.L.Smith, J.A.Smith III

State of Incorporation

Delaware

Founded

1988

Employees

1,876

Glossary

Quantitative Model Overall Recommendation and drivers of the recommendation

CFRA's global quantitative stock reports provide a 5-tier recommendation assigning a Strong Buy, Buy, Hold, Sell, or Strong Sell recommendation based on a series of quantitative inputs from four separate regional models:

- United States
- Canada
- Developed Europe
- Developed Asia excluding Japan

Each of these regional models is based on between 25 and 40 different investment factors (financial ratios), selected from S&P Global Market Intelligence's Alpha Factor Library.

To provide its recommendation, CFRA ranks a universe of common stocks based on 5 measures or model categories: Valuation, Quality, Growth, Street Sentiment, and Price Momentum. In the U.S., a sixth sub-category for Financial Health will also be displayed.

Within these categories, factors are chosen based on their historical predictive strength [alpha] within the region and their correlation with other factors. Each regional model contains two separate sub-models; one that uses factors specific to financial companies and one that focuses on non-financial companies. Due to the large number of banks in the U.S., the U.S. model also has a third sub-model specifically for banks.

Each company within a region is grouped with a universe of stocks and receives a score on each of the five (or six in the U.S.) model categories. Percentile scores are used to compare each company to all other companies in the same universe for each model category. The five [six] model category scores are then weighted and rolled up into a single percentile ranking for that company. Rankings are then assigned investment labels, as follows:

Strong Buy: top 10% by model score

Buy: next 20%

Hold: next 40%

Sell: next 20%

Strong Sell: bottom 10%

Risk Evaluation

Risk Evaluation is a relative ranking, which represents an assessment of the risk of investing in a company's stock relative to the risk of investing in other companies' stocks in the same universe. To perform this assessment the following risk categories are evaluated:

Asset/Market Size Risk
Financial Leverage Risk
Price Volatility Risk
Liquidity Risk

Each company's stock is percentile ranked from 1 to 100 against the other companies within the universe on each of the four risk categories mentioned above, with 1 being low risk and 100 being

high risk. The overall risk evaluation represents the combined scores on these Risk categories, calculated as an equal-weighted average of percentile ranks of the 4 risk categories. The highest 40% of companies in each universe receive a high risk ranking, the next 35% receive a moderate risk ranking and, the lowest 25% receive a low risk ranking.

All investments carry some sort of risk and a low risk ranking represents a relative ranking of CFRA's assessment of the risk of investing in a company's stock versus the risk of investing in other companies that are part of that company's universe. Therefore, a low risk ranking should not be interpreted as an absolute risk evaluation, but as a relative measurement of the risk of investing in a company's stock.

Sector Ranking

CFRA's Investment Policy Committee (IPC) consists of a team of five seasoned investment professionals. It meets weekly to discuss market trends and projections, maintain an S&P 500 12-month forward price target, and make asset allocation/sector recommendations. The IPC establishes over, market, and underweight recommendations on the 10 sectors within the S&P 500. Overweight and underweight recommendations imply that the group expects these sectors to outperform or underperform the S&P 500 during the coming six-to-12 month period, respectively. A "marketweight" recommendation indicates that the sector is expected to be a market performer during this same timeframe. The IPC analyses economic projections, fundamental forecasts, technical considerations, and historical precedent when making such recommendations. Changes in recommendations can be made more frequently than every six-12 months as market conditions evolve. Sector rankings will only be made available for sectors in the S&P 500. If a ranking is not available, the value will be N/A.

Qualitative STARS Ranking system and definition:

★★★★★ 5-STARS (Strong Buy):

Total return is expected to outperform the total return of a relevant benchmark, by a wide margin over the coming 12 months, with shares rising in price on an absolute basis.

★★★★ 4-STARS (Buy):

Total return is expected to outperform the total return of a relevant benchmark over the coming 12 months, with shares rising in price on an absolute basis.

★★★ 3-STARS (Hold):

Total return is expected to closely approximate the total return of a relevant benchmark over the coming 12 months, with shares generally rising in price on an absolute basis.

★★ 2-STARS (Sell):

Total return is expected to underperform the total return of a relevant benchmark over the coming 12 months, and the share price not anticipated to show a gain.

★ 1-STAR (Strong Sell):

Total return is expected to underperform the total return of a relevant benchmark by a wide margin over the coming 12 months, with shares falling in price on an absolute basis.

S&P Global Market Intelligence's Quality Ranking

[also known as S&P Global Market Intelligence's Earnings & Dividend Rankings]- Growth and stability of earnings and dividends are deemed key elements in establishing S&P Global Market Intelligence's earnings and dividend rankings for common stocks, which are designed to encapsulate the nature of this record in a single symbol. It should be noted, however, that the process also takes into consideration certain adjustments and modifications deemed desirable in establishing such rankings. The final score for each stock is measured against a scoring matrix determined by analysis of the scores of a large and representative sample of stocks. The range of scores in the array of this sample has been aligned with the following ladder of rankings:

A+ Highest	B Below Average
A High	B- Lower
A- Above Average	C Lowest
B+ Average	D In Reorganization
NR Not Ranked	

S&P Capital IQ Consensus Estimates

S&P Capital IQ Consensus Estimates represent the aggregation of individual estimates provided by analysts that are covering a public company. A consensus number can be provided as either the mean or the median. The size of the company and the amount of analyst coverage will determine the size of the group from which the Consensus is derived. All of the available analysts' estimates may not necessarily be included in the Consensus. The Consensus will only include analysts' estimates that are based on the same methodology. Consensus Mean: The mathematical average of the detailed estimates after the appropriate exclusions have been applied. Consensus Median: This represents the midpoint of the range of estimates that are ranked from highest to lowest after the appropriate exclusions have been applied. If the number of estimates is even, then the average of the middle two figures is the median.

Global Industry Classification Standard (GICS)

An industry classification standard, developed by Standard and Poor's in collaboration with Morgan Stanley Capital International (MSCI). Under the GICS structure, companies are classified in one of 154 sub-industries, which are grouped into 68 industries, 24 industry groups, and 10 economic sectors [consumer discretionary, consumer staples, energy, financials, health care, industrials, information technology, materials, telecom services, and utilities]. This four-tier structure accommodates companies across the world and facilitates sector analysis and investing.

Glossary

Peer Group

A subset of a universe that groups companies by specific criteria, such as industry/across industry, lines of business, geography (local, regional, national, and international), size of business (e. g. in terms of revenue), performance criteria, etc.

Universe

A set of companies that shares a common feature such as the same market capitalization, industry or index.

Beta

Beta is a measurement of the sensitivity of a company's stock price to the overall fluctuation of a given benchmark index. The beta values used in this report are levered, unadjusted and derived from a least squares regression analysis using stock and benchmark index returns based on a monthly frequency. Beta is calculated using 60 monthly returns (each as of month end) but if the company's trading history is too short to provide such a sample, fewer than 60 but not fewer than 24 monthly returns are used to run the regression. Beta in this report uses five different benchmark indices to better estimate a stock's volatility against a respective market: the S&P 500 for all US stocks, the S&P/TSX index for all Canadian stocks, the S&P Europe 350 for all European stocks, the S&P/ASX 200 index for all Australian stocks, and the S&P Global 1200 for all other international stocks.

Free Cash Flow (FCF)

Operating Cash Flow minus Capital Expenditures over the past 12 months

Funds from Operations (FFO)

Funds from Operations (FFO) represents a REIT's net income, excluding gains or losses from sales of property, plus real estate depreciation.

Not Meaningful (NM)

Value is available but it is not meaningful. Examples are certain negative ratios such as P/E, as well as certain ratios that are over +/- 100%

Not Available (NA)

Value is not available for this data item

Return on Capital

$EBIT / [(Total\ Equity + Total\ Debt + Deferred\ Tax\ Liability\ Non\ Current + Deferred\ Tax\ Liability\ Current)]$ Notes:

[1] If the denominator is less than or equal to zero then the ratio will be shown as NM

[2] If the return is less than (300%) then the value will be shown as NM

Return on Equity

$Earnings\ From\ Continuing\ Operations / [(Total\ Equity[t] + Total\ Equity[t-1]) / 2]$ Notes:

[1] If both periods of data (t and t-1) are not available then the ratio will be shown as NM

[2] If the denominator is less than or equal to zero then the ratio will be shown as NM

Relative Strength vs Index

Relative Strength vs Index measures the stock performance of the company versus all other stocks in the benchmark index each week. Weekly readings are accumulated to form the cumulative Relative Strength line.

Relevant benchmarks:

Region	Country	Index
US	US	S&P 500 Index
Canada	Canada	S&P/TSX Composite Index
Europe	All	S&P Europe 350 Index
Asia ex Japan	Australia	S&P/ASX 200 Index
Asia ex Japan	All except Australia	S&P Global 1200

Abbreviations used in CFRA Equity Research Reports

CAGR	Compound Annual Growth Rate
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest Taxes Depreciation and Amortization
EPS	Earnings Per Share
EV	Enterprise Value
FCF	Free Cash Flow
FFO	Funds from Operations
LTD	Long Term Debt
NM	Not Meaningful [see definition above]
P/E	Price/Earnings

Dividends on American Depository Receipts (ADRs) and American Depository Shares (ADSs) are net of taxes (paid in the country of origin).

Disclosures

S&P GLOBAL is used under license. The owner of this trademarks is S&P Global Inc. or its affiliate, which are not affiliated with CFRA Research or the author of this content.

Stocks are ranked in accordance with the following ranking methodologies:

STARS Stock Reports:

Qualitative STARS recommendations are determined and assigned by equity analysts. For reports containing STARS recommendations refer to the Glossary section of the report for detailed methodology and the definition of STARS rankings.

Quantitative Stock Reports:

Quantitative recommendations are determined by ranking a universe of common stocks based on 5 measures or model categories: Valuation, Quality, Growth, Street Sentiment, and Price Momentum. In the U.S., a sixth sub-category for Financial Health will also be displayed. Percentile scores are used to compare each company to all other companies in the same universe for each model category. The five [six] model category scores are then weighted and rolled up into a single percentile ranking for that company. For reports containing quantitative recommendations refer to the Glossary section of the report for detailed methodology and the definition of Quantitative rankings.

STARS Stock Reports and Quantitative Stock Reports:

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