

Recommendation [as of August 08, 2019]:



GICS Sector: Energy

Sector Ranking: Marketweight

SPGMI's Quality Ranking: B

GICS Industry: Oil & Gas Refining & Marketing

**Business Summary:** Delek US Holdings, Inc. engages in the integrated downstream energy business in the United States. The company's Refining segment processes crude oil and other purchased feedstocks for the manufacture of various grades of gasoline, diesel fuel, aviation fuel, asphalt, and other petroleum-based products that contd...



Price	Performance
60	Stock Price
45	
30	
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10	Vol.(Min)
5 0	
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	2015 2016 2017 2018 2019

Risk Evaluation :	MODERATE
Asset/Market Size Risk	Low
Financial Leverage Risk	Moderate
Price Volatility Risk	High
Liquidity Risk	Low



YTD	1Yr	3Yr	5Yr
9.4	-33.1	36.8	3.5
30.6	-14.9	10.0	.8
32.6	5.1	12.7	11.0
	9.4	9.4 -33.1 30.6 -14.9	9.4 -33.1 36.8 30.6 -14.9 10.0

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)

#### **Model Ranking Commentary**

- NYSE: DK's STRONG 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 NYSE: DK's STRONG 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.
- NYSE: DK's overall score ranked in the 4th percentile of all stocks in the model universe (1 = best and 100 = worst).

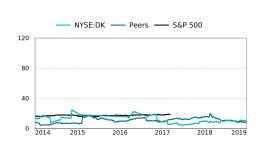
Key Statistics	
Market Cap (MIn of USD)	2,549
52-Wk Range (USD)	29.51 - 56.36
Value of USD 10K Invested 5 Yrs ago	11,839
Beta vs S&P 500	1.63
Common Shares Outstanding(Mln)	75.3
Average Daily Volume (Mln)	1.314
Insider Ownership(%)	1.53

Dividend Data Currency: USD							
		5Yr Low	5Yr Hi				
Indicated Rate/ Share	1.16						
Yield [%]	3.4	1.5	5.4				
Payout Ratio [%]	17.5	NM	1772.3				

Payment Details									
Amount [USD]	Ex Div Date	Record Date	Payment Date						
0.29	Aug 16	Aug 19	Sep 03, 2019						
0.28	May 17	May 20	Jun 03, 2019						
0.27	Mar 04	Mar 05	Mar 19, 2019						
0.26	Nov 19	Nov 20	Dec 04, 2018						

Compound Annual Growth Rates										
Revenue - %CAGR	1Yr	3Yr	5Yr							
Company	1.6	30.6	3.1							
Peer Average	15.1	18.4	-1.3							
S&P 500	6.2	6.7	3.9							
Operating EPS - %CAGR										
Company	47.3	476.7	36.7							
Peer Average	-50.1	22.4	-8.5							
S&P 500	9.0	16.0	5.4							

<b>5 year P/E Ratio Comparisons</b> [forward 12-month Diluted EPS estimates]						
Current						
NYSE:DK	8.7		- NYSE:			
Peer Average	10.3	120				
S&P 500	17.2					
5-Year Average		80				
NYSE:DK	11.6	40				
Peer Average	14.6	40				
S&P 500	17.2	0				
		-	2014 2015			





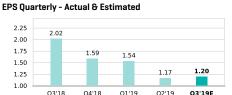
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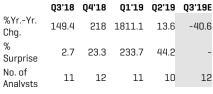




#### EPS Per Share and Revenues [Millions USD, except per share]

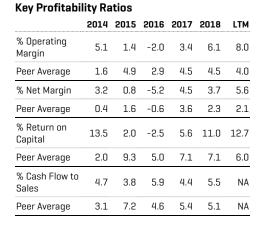
Fiscal year ends Dec 31





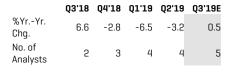






# 2,550 2,495 2,480 2,413





#### Revenues Annual - Actual & Estimated 10,172 9,774 10,500 9.545 9,000 7.267 7.500 6,000 4.198 4,500 3.000 2016 2017 2018 2019E 2020E



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 Valuation Ratios									
	2014	2015	2016	2017	2018	Current			
Fwrd P/E - High	8.0	42.0	NM	28.1	12.8	10.3			
Fwrd P/E - Low	6.0	28.2	NM	17.3	7.6	7.2			
Peer Average	NM	9.1	65.0	17.1	34.4	NM			
Avg EV/EBITDA	4.0	5.2	44.4	7.9	4.3	5.4			
Peer Average	22.0	24.3	47.2	34.8	43.2	43.3			
Avg Price to Sales	NM	NM	NM	NM	NM	NM			
Peer Average	NM	NM	NM	NM	NM	NM			
Avg Price to Book	1.5	1.5	0.9	1.1	1.7	1.3			
Peer Average	1.4	1.5	1.2	1.4	2.2	1.1			

Income Statement, Cash Flow and Balance Sheet Data [Millions USD, except per share] Fiscal Year Ending: Dec								ding: Dec. 31 .
	2011	2012	2013	2014	2015	2016	2017	2018
Revenue	7,198	8,727	8,707	7,019	4,782	4,198	7,267	10,233
Operating Income	297	473	238	359	65	-84	245	623
Net Income	158	273	118	198	13	-240	295	349
Operating Cash Flow	130	463	91	330	180	248	320	560
Capital Expenditures	81	132	210	221	188	46	172	322
Earnings Per Share	2.78	4.57	1.96	3.33	0.21	-3.88	4.08	4.05
Dividends Per Share	0.15	0.21	0.55	0.60	0.60	0.60	0.60	0.96
Dividend Payout Ratio	5%	5%	28%	18%	NM	NM	15%	24%
Free Cash Flow Per Share	0.86	5.55	-2.00	1.83	-0.24	3.25	1.97	2.73
Cash and Short Term Investments	226	602	400	444	287	689	932	1,079
Long Term Debt	362	315	379	532	711	749	876	1,751
Total Debt	437	367	413	587	805	839	1,539	1,783
Common Equity	653	899	935	1,002	1,153	992	1,651	1,633

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)



Recommendation [as of August 08, 2019]:





#### **Peer Group Comparison**

Peer Group	Stock Symbol	Stk.Mkt.Cap (MIn USD)	Beta	Recent Stock Price[USD]	52 Week Low/High[USD]	Dividend Yield[%]	Fwrd P/E	P/B Ratio	Ranking <sup>1</sup>	Return On Revenue[%]		LTD to Cap[%]
Delek US Holdings, Inc.	NYSE:DK	2,548.59	1.63	33.83	29.54/55.42	3.4	8.7	1.5	Strong Buy	5.6	31.9	50.1
Calumet Specialty Products Partners, L.P.	NasdaqGS:CLMT	347.06	1.79	4.48	2.02/7.05	Nil	NM	5.2	* * *	0.1	4.5	85.7
HollyFrontier Corporation	NYSE:HFC	7,933.39	1.44	48.56	37.98/76.19	2.7	10.4	1.3	* * * *	5.7	15.7	29.5
Marathon Petroleum Corporation	NYSE:MPC	31,856.07	1.68	48.39	45.99/86.39	4.4	10.6	0.9	* * * *	3.2	11.3	39.8
Par Pacific Holdings, Inc.	NYSE:PARR	1,089.12	0.64	21.98	13.73/23.06	Nil	16.4	1.8	Sell	2.2	17.7	-
Rabigh Refining and Petrochemical Company	SASE:2380	4,684.84	NA	5.35	4.75/6.85	Nil	4.3	0.4	NA	0.2	0.8	59.0
Saras S.p.A.	BIT:SRS	1,578.23	0.99	1.68	1.39/2.51	Nil	14.8	1.5	Hold	0.9	7.9	20.8
Valero Energy Corporation	NYSE:VLO	32,675.71	1.47	78.85	68.94/121.21	4.6	8.7	1.5	* * * *	2.5	11.8	31.2

<sup>1</sup> 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.

#### **Wall Street Consensus Estimates**



Fiscal Years	Avg Est.	High Est	Low Est.	# of Est.	Est. P/E
2020	3.87	4.71	2.89	11	8.7
2019	4.26	5.33	3.20	12	7.9
2020 vs. 2019	▼-9%	▼-12%	▼ -10%	▼ -8%	<b>▲</b> 10%

Source: S&P Global Market Intelligence (SPGMI)

Forecasts are not reliable indicator of future performance.

Note: A company's earnings outlook plays a major part in any investment decision. S&P Global Market Intelligence organizes the earnings estimates of over 2,300 Wall Street analysts, and provides their consensus of earnings over the next two years, as well as how those earnings estimates have changed over time. Note that the information provided in relation to consensus estimates is not intended to predict actual results and should not be taken as a reliable indicator of future performance.



Recommendation [as of August 08, 2019]:





#### **Business Summary**

Delek US Holdings, Inc. engages in the integrated downstream energy business in the United States. The companyâs Refining segment processes crude oil and other purchased feedstocks for the manufacture of various grades of gasoline, diesel fuel, aviation fuel, asphalt, and other petroleum-based products that are distributed through owned and third-party product terminals. This segment owns and operates four independent refineries located in Tyler, Texas; El Dorado, Arkansas; Biq Spring, Texas; and Krotz Springs, Louisiana. This segment also owns and operates two biodiesel facilities in Crossett, Arkansas, and Cleburne, Texas; and a crude oil refinery. Its Logistics segment gathers, transports, and stores crude oil, intermediate, and refined products; and markets, distributes, transports, and stores refined products for third parties. This segment owns or leases capacity on approximately 400 miles of crude oil transportation pipelines, approximately 450 miles of refined product pipelines, an approximately 600-mile crude oil gathering system, and associated crude oil storage tanks with an aggregate of approximately 9.6 million barrels of active shell capacity; and owns and operates nine light product terminals, as well as markets light products using third-party terminals. The companyas Retail segment owns and leases 279 convenience store sites located primarily in Texas and New Mexico. This segmentas convenience stores offer various grades of gasoline and diesel under the Alon brand name; and food products and service, tobacco products, beverages, and general merchandise, as well as money orders to the public under the 7-Eleven and Alon brand names. The company serves oil companies, independent refiners and marketers, jobbers, distributors, utility and transportation companies, independent retail fuel operators, and the U.S. government. Delek US Holdings, Inc. was founded in 2001 and is headquartered in Brentwood, Tennessee.

Key Develop	ments	
Aug-06-2019	M&A Transaction Announcements	Delek US Holdings, Inc. [NYSE:DK] agreed to acquire 15% interest in Wink to Webster Long-Haul Pipeline.
Aug-05-2019	Earnings Calls	Delek US Holdings, Inc., Q2 2019 Earnings Call, Aug 05, 2019
Aug-05-2019	Earnings Release Date	Delek US Holdings, Inc. to Report Q2, 2019 Results on Aug 05, 2019
Aug-05-2019	Dividend Increases	Delek US Holdings, Inc. Declares Regular Quarterly Cash Dividend, Payable on September 3, 2019
Aug-05-2019	Announcements of Earnings	Delek Us Holdings, Inc. Reports Earnings Results for the Second Quarter Ended June 30, 2019
Jun-19-2019	Company Conference Presentations	Delek US Holdings, Inc. Presents at J.P. Morgan Energy Conference, Jun-19-2019
Jun-12-2019	Company Conference Presentations	Delek US Holdings, Inc. Presents at Wells Fargo 4th Annual West Coast Energy Conference, Jun-12-2019
Jun-05-2019	Company Conference Presentations	Delek US Holdings, Inc. Presents at RBC Capital Markets Global Energy & Power Conference, Jun-05-2019
May-06-2019	Earnings Calls	Delek US Holdings, Inc., Q1 2019 Earnings Call, May 06, 2019
May-06-2019	Earnings Release Date	Delek US Holdings, Inc. to Report Q1, 2019 Results on May 06, 2019
Apr-30-2019	Annual General Meeting	Delek US Holdings, Inc., Annual General Meeting, Apr 30, 2019
Apr-01-2019	Company Conference Presentations	Delek US Holdings, Inc. Presents at 3rd Annual Mizuho Energy Summit, Apr-01-2019
Mar-26-2019	Company Conference Presentations	Delek US Holdings, Inc. Presents at Scotia Howard Weil 47th Annual Energy Conference 2019, Mar-26-2019
Mar-05-2019	Executive Changes - CFO	Delek US and Delek Logistics Announces Chief Financial Officer Transition
Mar-04-2019	Company Conference Presentations	Delek US Holdings, Inc. Presents at Raymond James 40th Annual Institutional Investors Conference, Mar-03-2019 through Mar-06-2019
Feb-20-2019	Earnings Calls	Delek US Holdings, Inc., Q4 2018 Earnings Call, Feb 20, 2019
Feb-19-2019	Dividend Increases	Delek US Holdings, Inc. Declares Regular Quarterly Cash Dividend, Payable on March 19, 2019
Feb-19-2019	Announcements of Earnings	Delek US Holdings, Inc. Announces Unaudited Consolidated Earnings Results for the Fourth Quarter and Full Year Ended December 31, 2018

#### **Corporate Information**

Investor Contact

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Brentwood

Tennessee

37027

**United States** 

Brentwood , Tennessee 37027

**United States** 

#### Telephone

615-771-6701

#### Web Site

www.delekus.com

#### **Key Officers**

Chairman, President & CEO

E. U. Yemin

Vice President of Investor Relations

K. Johnson

**Executive Vice President** 

D. L. Gordon

**Executive Vice President** 

M. T. Page

Executive VP & COO

F. C. Green

Senior Vice President of Investor Relations and Market Intelligence

B. M. Fernandez

Executive VP & Chief Commercial Officer

A. Soreq

Executive Vice President of Retail

A. L. Miller

**Executive Vice President** 

J. P. Serff

Executive VP, General Counsel & Secretary

R. B. Jones

Executive VP & CFO

A. Ginzburg

Chief Accounting Officer

D. Norris

Vice President of Government Affairs, Public Affairs  $\boldsymbol{\vartheta}$ 

Communications

M. P. Ralsky

**Executive Vice President** 

L. Labella

#### **Board Members**

C. E. Jord $\tilde{A}_i$ , D. Wiessman, E. U. Yemin, G. M. Sullivan, S. Zohar, V. Sutil, W. J. Finnerty

#### State of Incorporation

Delaware

#### **Employees**

3.717



#### Glossary

## Quantitative Model Overall Recommendation and drivers of the recommendation

CFRAs 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 capsulize 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  $\ensuremath{\mathsf{NM}}$ 

#### **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 verse all other stocks in the benchmark index each week. Weekly readings are accumulated to form the cumulative Relative Strength line.

#### Relevant benchmarks:

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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**

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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.

#### **Ouantitative 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.

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