Recommendation HOLD $\star \star \star \star \star$

## Price

12-Mo. Target Price
Report Currency
USD

Investment Style
Large-Cap Value

Equity Analyst Catherine Seifert
GICS Sector Financials
Sub-Industry Multi-Sector Holdings
Summary This holding company has interests in insurance, railroads, energy, financial services, publishing, retailing, and manufacturing.

Key Stock Statistics [Source: CFRA, SEP Global Market Intelligence [SPGMI], Company Reports]

| 52-Wk Range USD 292. | - 221.88 | Oper.EPS2021E | USD 11.66 | Market Capitalization[B] | USD 627.84 | Beta | 0.91 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Trailing 12-Month EPS US | 56269.56 | Oper.EPS2022E | USD 12.55 | Yield [\%] | N/A | 3-yr Proj. EPS CAGR[\%] | 15 |
| Trailing 12-Month P/E | NM | P/E on Oper.EPS2021E | 24.01 | Dividend Rate/Share | N/A | SPGMI's Quality Ranking | B |
| USD 10K Invested 5 Yrs Ago | 20,381.0 | Common Shares Outstg.[M] | 1.00 | Institutional Ownership [\%] | 53.0 |  |  |



Source: CFRA, SEP Global Market Intelligence
Past performance is not an indication of future performance and should not be relied upon as such.
Analysis prepared by Catherine Seifert on Nov 08, 2021 10:20 AM ET, when the stock traded at USD 292.78.

## Highlights

- We see operating revenues rising by $12 \%-16 \%$ in 2021 and by $8 \%-10 \%$ in 2022 [before the impact of acquisitions], as Berkshire's economically sensitive businesses recover from the effects of the pandemic. Operating revenues declined by $3.6 \%$ in 2020 (in line with our forecast of flat to $5 \%$ lower operating revenues]. We expect some near-term weakness at GEICO to be offset by an acceleration in growth at Berkshire's reinsurance units. Despite limited recent activity, we see acquisitions remaining part of Berkshire’s capital allocation strategy, given the $\$ 149$ billion in cash and short-term investments on hand as at September 30, 2021.
- The improvement in underwriting results expected in 2021 assumes an easing of Covid19 and weather-related catastrophe claims, offset by a deterioration in auto claim trends. Insurance investment income was down 8.9\% in 2020, and we see a still low interest rate environment pressuring investment income in 2021. Operating earnings exclude investment gains and asset write-downs, including the \$11 billion asset impairment charge incurred in 2020.
- We estimate operating EPS of \$11.66 in 2021, $\$ 12.55$ in 2022, and $\$ 13.75$ in 2023, versus EPS of $\$ 9.17$ reported in 2020.


## Investment Rationale/Risk

- Our opinion on the shares is Hold. Berkshire's premium valuation -- versus the broader market and the company's historical averages -- is dependent upon its ability to produce revenue growth and operating profit margins that are superior to broader averages. Berkshire's financial results in 2019 and 2020 did not meet that hurdle, in our view. Operating revenue growth of $2.8 \%$ in 2019 and a $3.6 \%$ decline in 2020 lagged most peers and Berkshire's long-term historical averages.
- Risks to our opinion and target price include a significant erosion in claims and premium pricing trends as well as an erosion in the economy, which would likely dampen demand for many of Berkshire's products.
- Our 12-month target price of $\$ 305$ assumes the shares will trade at $26 \times$ our 2021 operating EPS estimate and at 24.9x our 2022 operating EPS estimate. These multiples compare to Berkshire's 10-year average forward multiple of $19.8 x$ and are a premium to most insurance and reinsurance peers. This premium is warranted amid Berkshire’s superior financial strength, in our view. Our target price also equates to about $1.7 x$ estimated 2021 year-end tangible book value per share.

| Analyst's Risk Assessment |
| :--- |
| LOW |
| MEDIUM |

The low risk represented by the company's diversified revenue and earnings base is partly offset by the corporate governance weaknesses -- we think -- that are embedded in Berkshire as a result of the company's decentralized management style. While we view Chairman and CEO Warren Buffett's advanced age as a risk factor, we think Berkshire has addressed succession issues with the January 2018 appointment of two new vice chairmen.

| Revenue/Earnings Data |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue [Million USD] |  |  |  |  |  |
|  | 10 | 20 | 30 | 4Q | Year |
| 2021 | 64,599 | 69,114 | 70,583 | -- | -- |
| 2020 | 61,265 | 56,840 | 63,024 | 64,381 | 245,510 |
| 2019 | 60,678 | 63,598 | 65,206 | 65,635 | 256,100 |
| 2018 | 58,267 | 62,572 | 63,587 | 63,111 | 247,537 |
| 2017 | 64,830 | 57,191 | 59,815 | 58,815 | 240,651 |
| 2016 | 50,313 | 53,611 | 55,693 | 56,434 | 215,865 |

## Earnings Per Share [USD]

|  | $\mathbf{1 Q}$ | $\mathbf{2 Q}$ | $\mathbf{3 Q}$ | $\mathbf{4 Q}$ | Year |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 2023 | $\mathbf{E} 3.39$ | $\mathbf{E} 3.44$ | $\mathbf{E} 3.50$ | $\mathbf{E} 3.42$ | $\mathbf{E ~} 13.75$ |
| 2022 | $\mathbf{E} 3.09$ | $\mathbf{E} 3.13$ | $\mathbf{E} 3.21$ | $\mathbf{E} 3.12$ | $\mathbf{E} 12.55$ |
| 2021 | 7,638 | 18,488 | 6,882 | $\mathbf{E} 2.80$ | $\mathbf{E} 11.66$ |
| 2020 | 2.41 | 2.28 | 2.30 | 23,019 | 26,668 |
| 2019 | 2.26 | 2.50 | 3.21 | 1.81 | 9.78 |
| 2018 | 2.14 | 2.79 | 2.80 | 2.32 | 10.05 |

Fiscal Year ended Dec 31. EPS Estimates based on CFRA's Operating Earnings; historical GAAP earnings are as reported in Company reports.

## Dividend Data

No cash dividends have been paid in the last year.

## Business Summary Nov 08, 2021

CORPORATE OVERVIEW. This insurance-based conglomerate’s segment operating revenues totaled \$245.5 billion in 2020 [down $3.6 \%$ from $\$ 254.6$ billion in 2019] and were derived as follows: sales and service revenues $52 \%$; insurance earned premiums $26 \%$; railroad energy and utility revenues $17 \%$; interest and dividend income $3 \%$; and leasing revenues $2 \%$.
Berkshire has grown through acquisitions and we think will continue to do so, despite a lack of any meaningful acquisition activity in several years. During 2020, Berkshire incurred an $\$ 11$ billion asset impairment charge, mostly attributable to Precision Cast Parts [acquired in 2016]. During 2020, Berkshire Energy acquired natural gas assets from Dominion Energy Inc for $\$ 2.5$ billion, and expended $\$ 130$ million for several smaller, "bolt-on" acquisitions. In late April 2019, Berkshire committed \$10 billion in a preferred stock investment in Occidental Petroleum [OXY ***] to help fund OXY’s takeover of Anadarko Petroleum. On January 26, 2016, Berkshire acquired Precision Cast Parts, an aerospace components manufacturer, for some $\$ 32.7$ billion in cash and the assumption of debt. Berkshire completed its acquisition of the Duracell battery business from Procter \& Gamble [PG ****] for some $\$ 4.7$ billion in PG stock currently held by Berkshire in February 2016. Duracell also received a $\$ 1.8$ billion cash infusion from PG prior to closing. On December 9, 2013, Berkshire's Mid American unit acquired NV energy, Inc. for \$5.6 billion. On June 7, 2013, Berkshire and 3G Capital acquired H.J. Heinz Company for \$72.50 a share in cash in a transaction valued at $\$ 23.25$ billion. In September 2011, Berkshire acquired Lubrizol [LIZ] for $\$ 9.7$ billion [ $\$ 135$ a share in cash]. In February 2010, Berkshire acquired the 77.5 \% of Burlington Northern Santa Fe it did not already own for \$26.5 billion.
Berkshire's equity holdings had a market value of more than \$281 billion as of December 31, 2020, up from $\$ 248$ billion at December 31, 2019. The largest holdings were Apple Inc. [AAPL] [with a 12/31/20 market value of $\$ 120.4$ billion]; Bank of America [BAC] [ $\$ 31.3$ billion]; the Coca-Cola Company [K0] [ $\$ 21.9$ billion]; American Express [AXP] [ $\$ 18.3$ billion]; and Verizon Communications Inc [VZ] [ $\$ 8.6$ billion]. Among the more significant investments Berkshire made recently was the purchase of AAPL shares, which had a cost basis of \$31.1 billion at year-end 2020. Other significant purchases included the August 2011 purchase of $\$ 5$ billion of BAC $6 \%$ preferred stock that came with warrants to buy 700 million BAC common shares at $\$ 7.14$ a share. At year-end 2020, Berkshire's carrying value of Kraft-Heinz [KHC ****] was $\$ 13.3$ billion, versus KHC's market value of $\$ 11.3$ billion.
CORPORATE STRATEGY. The company has outlined a series of principles that guide its operations and the management of its business. Central, we think, is its long-term goal of maximizing the "average annual rate of gain in intrinsic business value on a per-share basis". To achieve that goal, Berkshire has stressed a preference for directly owning a diversified group of businesses that generate cash and consistently earn above-average returns on capital. The company has also outlined its acquisition criteria. To be considered for acquisition, Berkshire requires a business to be large enough [at least \$75 million in pretax earnings]; have a demonstrated consistent earning power; earn "good" returns on equity with little or no debt; have a management team in place; be simple; and have an offering price. Also, once Berkshire acquires a business, it typically does not plan on selling it. The company's second choice is to invest in similar types of companies through the purchase of marketable common stocks by its insurance subsidiaries. [The degree to which the company is able to do this is influenced by the capital needs of its insurance subsidiaries.] Berkshire also seeks to achieve its goals without an over-reliance on the issuance of debt. Moreover, in instances where it finds it necessary to issue debt, it seeks to do so on a long-term, fixed-rate basis. The company also will not issue stock that it thinks would be dilutive to existing holders. Berkshire also stresses the "partnership" mindset it has with its shareholders and that most directors of the firm have a major portion of their net worth invested in the company.
Under Berkshire's share repurchase program [amended in 2018], the firm may repurchase shares "at any time that both Chairman and CEO Warren Buffet and Vice Chairman Charlie Munger believe that the purchase price is below Berkshire's intrinsic value, conservatively determined". We think this amended plan gives Messrs. Buffet and Munger significant discretion in allocating capital, although we note Berkshire remains committed to maintaining a cash position of \$20 billion. During 2020, Berkshire expended \$24.7 billion on share repurchases.
MANAGEMENT. Famed value investor Warren Buffett is the chairman and chief executive officer of Berkshire Hathaway, a position he has held since 1970. The company stresses that each of its operating units functions independently and with its own management team. Buffett oversees the company's investments and allocation of capital. Because Buffett is in his 80 s, succession planning is an important consideration, in our view. The company has not as of August 2018 publicly announced a successor to Buffett. However, in his annual letter to shareholders Buffett noted in late February 2014 that a successor had been chosen. We think Berkshire took an important step toward succession when it named two new vice chairmen in January 2018: Greg Abel, CEO of Berkshire Energy, and Ajit Jain, head of Berkshire's reinsurance operations.

FINANCIAL TRENDS. During the 10 years ended December 31, 2020, Berkshire grew net revenues at a compound annual growth rate [CAGR] of $6.2 \%$. During this same period, net income [which included realized investment gains and/or losses] grew at a 10-year CAGR of $12.6 \%$.

## Corporate information

## Investor contact

M. D. Hamburg [402-346-1400]

## Office

3555 Farnam Street, Omaha, Nebraska, 68131

## Telephone

402-346-1400
Fax
N/A

## Website

www.berkshirehathaway.com

## Officers

Chairman, President \& CEO VP, Controller \& Principal W. E. Buffett Accounting Officer
Chairman, President \& CEO W. E. Buffett Chairman, President 8 CEO
Senior VP, CFO \& Secretary W. E. Buffett M. D. Hamburg

## Board Members

A. Jain
M. K. Rhinehart
C. C. Davis
M. K. Rose
C. Guyman
O. M. Nicely
C. T. Munger
R. L. Olson
D. S. Gottesman
S. A. Buffett
G. E. Abel
S. B. Burke
H. G. Buffett
S. L. Decker
K. I. Chenault
T. S. Murphy
M. B. Witmer
W. E. Buffett

## Domicile

Auditor
Delaware
Deloitte \& Touche LLP

Founded
1998
Employees
360,000

## Stockholders

N/A

| Quantitative Evaluations |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fair Value Rank | NR | 1 |  | 2 | 3 | 4 | 5 |
|  |  | LOWEST <br> Based on CFRA's proprietary quantitative model, stocks are ranked from most overvalued [1] to most undervalued [5]. |  |  |  |  |  |
| Fair Value Calculation | N/A |  |  |  |  |  |  |
| Volatility |  |  | LOW |  | AVERAGE |  | HIGH |
| Technical Evaluation | NEUTRAL Since November, 2021, the technical indicators for BRK.B have been NEUTRAL" |  |  |  |  |  |  |
| Insider Activity |  | UNFAVORABLE |  |  | NEUTRAL | FAVORABLE |  |


| Expanded Ratio Analysis |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 7}$ |
| Price/Sales | 0.00 | 0.00 | 0.00 | 0.00 |
| Price/EBITDA | 0.00 | 0.00 | 0.02 | 0.01 |
| Price/Pretax Income | 0.01 | 0.00 | 0.08 | 0.01 |
| P/E Ratio | 0.01 | 0.00 | 0.08 | 0.01 |
| Avg. Diluted Shares Outstg. $[\mathrm{M}]$ | 1.59 | 1.63 | 1.64 | 1.64 |

Figures based on fiscal year-end price

| Key Growth Rates and Averages |  |  |  |
| :--- | ---: | ---: | ---: |
| Past Growth Rate [\%] | $\mathbf{1}$ Year | $\mathbf{3}$ Years | $\mathbf{5}$ Years |
| Net Income | NM | NM | 12.04 |
| Sales | -3.58 | 0.67 | 4.02 |

Ratio Analysis [Annual Avg.]

| Net Margin [\%] | 17.32 | 16.97 | 16.15 |
| :--- | ---: | ---: | ---: |
| \% LT Debt to Capitalization | 18.87 | 19.58 | 21.03 |
| Return on Equity [\%] | 9.83 | 10.67 | 11.04 |

## Company Financials Fiscal year ending Dec 31

| Per Share Data [USD] | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tangible Book Value | 219,337 | 191,497 | 143,495 | 142,136 | 102,446 | 111,354 | 103,175 | 94,686 | 74,928 | 61,457 |
| Free Cash Flow | 16,784 | 13,898 | 13,909 | 20,686 | 11,980 | 9,378 | 10,238 | 10,110 | 6,767 | 7,446 |
| Earnings | 26,668 | 49,828 | 2,446 | 27,326 | 14,645 | 14,656 | 12,092 | 11,850 | 8,977 | 6,215 |
| Earnings [Normalized] | 25,554 | 39,089 | 1,483 | 8,808 | 12,586 | 13,091 | 10,507 | 10,725 | 8,121 | 5,503 |
| Dividends | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Payout Ratio [\%] | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM |
| Prices: High | 234.99 | 228.23 | 224.07 | 200.50 | 167.25 | 152.67 | 152.94 | 119.30 | 90.93 | 87.65 |
| Prices: Low | 159.50 | 191.04 | 184.75 | 158.61 | 123.55 | 125.50 | 108.12 | 88.11 | 75.86 | 65.35 |
| P/E Ratio: High | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| P/E Ratio: Low | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Income Statement Analysis [Million USD]

| Revenue | 245,510 | 254,616 | 247,837 | 240,651 | 215,865 | 201,570 | 191,124 | 178,085 | 161,001 | 142,414 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operating Income | 69,721 | 105,577 | 10,403 | 25,210 | 36,299 | 38,181 | 30,928 | 31,056 | 24,344 | 17,325 |
| Depreciation + Amortization | 10,596 | 10,064 | 9,779 | 9,188 | 8,901 | 7,779 | 7,370 | 6,508 | 6,154 | 5,492 |
| Interest Expense | 4,083 | 3,961 | 3,853 | 4,386 | 3,741 | 3,113 | 2,797 | 2,260 | 2,108 | 2,011 |
| Pretax Income | 55,693 | 102,696 | 4,001 | 23,838 | 33,667 | 34,946 | 28,105 | 28,796 | 22,236 | 15,314 |
| Effective Tax Rate | 22.30 | 20.40 | -8.00 | -90.30 | 27.40 | 30.10 | 28.20 | 31.10 | 31.10 | 29.80 |
| Net Income | 42,521 | 81,417 | 4,021 | 44,940 | 24,074 | 24,083 | 19,872 | 19,476 | 14,824 | 10,254 |
| Net Income [Normalized] | 40,746 | 63,870 | 2,438 | 14,486 | 20,689 | 21,510 | 17,268 | 17,629 | 13,410 | 9,079 |

Balance Sheet and Other Financial Data [Million USD]

| Cash | 138,290 | 127,997 | 111,867 | 115,954 | 74,858 | 64,618 | 60,975 | 45,833 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

[^0]E-Estimated. NA-Not Available. NM-Not Meaningful. NR-Not Ranked. UR-Under Review.

## Sector Outlook

CFRA recommends marketweighting the S\&P 500 Financials sector. Year to date through September 7, 2021, the SEP 500 Financials index, which represented $11.2 \%$ of the S\&P 500 index, was up $28.0 \%$ in price, compared with the $20.3 \%$ rise for the SEP 500. In 2020, this sector index fell $4.1 \%$ versus a price gain of $16.3 \%$ for the 500 . There are 12 sub-industry indices in this sector. Diversified banks is the largest, representing $28.3 \%$ of the sector's market value, while reinsurance is the smallest, accounting for 0.24\% of the sector. This sector can be represented by the favorably rated Financial Select Sector SPDR ETF [XLF 38 ****].
The cap-weighted average of this sector's component company CFRA STARS [STock Appreciation Ranking System] is 3.5 out of 5.0, as compared with a cap-weighted average of 3.7 for the S\&P 500. In addition, the sector has an average percentage of component issues with favorable investment recommendations. The subindustries within this sector that currently show the highest average STARS are asset management, investment banking \& brokerage, multi-line insurance, regional banks, and thrifts \& mortgage finance. Those with the lowest average STARS include consumer finance, financial exchanges \& data, insurance brokers, life \& health insurance, and multi-sector holdings.
According to SEP Capital IQ consensus estimates, the sector recorded a 13.8\% year-over-year decline in EPS in 2020, as compared with the SEP 500's EPS drop of $13.1 \%$. Sector EPS are projected to rise $51.4 \%$ in 2021 versus the $40.4 \%$ expected increase for the S\&P 500, while sector revenues are forecast to rise $7.8 \%$ versus the $14.3 \%$ anticipated gain for the S\&P 500. What's more, sector EPS are projected to decline $6.5 \%$ in 2022 versus the 8.9\% expected rise for the S6P 500, while sector revenues are forecast to increase 2.3\% versus the 6.4\% anticipated gain for the SEP 500. The sector's price-to-earnings $[P / E]$ ratio is 15.1x, based on consensus next-12-months' operating EPS estimates, versus the S\&P 500's forward P/E of 22.2x. S\&P Capital IQ also reports that the consensus long-term EPS growth
estimate for this sector is $16.5 \%$ versus the S\&P 500's 17.7\%, giving the sector a P/E-toprojected EPS growth rate [PEG] ratio of 0.9x, as compared with the broader market's PEG of $1.3 x$. This sector pays a dividend yield of $1.8 \%$, versus the yield of $1.3 \%$ for the SEP 500.
Finally, the technical outlook for this sector index is positive, based on its trailing relative strength.

## / Sam Stovall

Industry Performance
GICS Sector: Financials
Sub-Industry: Multi-Sector Holdings
Based on SEP 1500 Indexes
Five-Year market price performance through Nov 20, 2021


NOTE: A sector chart appears when the sub-industry does not have sufficient historical index data.
All Sector \& Sub-Industry information is based on the Global Industry Classification Standard [GICS].
Past performance is not an indication of future performance and should not be relied upon as such
Source: CFRA, S\&P Global Market Intelligence

Sub-Industry: Multi-Sector Holdings Peer Group*: Multi-Sector Holdings

| Peer Group | Stock Symbol | Exchange | Currency | Recent Stock Price | Stk. Mkt. Cap. [M] | $\begin{array}{r} \text { 30-Day } \\ \text { Price } \\ \text { Chg. [\%] } \end{array}$ | $\begin{array}{r} \text { 1-Year } \\ \text { Price } \\ \text { Chg. [\%] } \end{array}$ | $\begin{gathered} \text { P/E } \\ \text { Ratio } \end{gathered}$ | Fair Value Calc. |  | Return on Equity [\%] | $\begin{gathered} \text { LTD to } \\ \text { Cap [\%] } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Berkshire Hathaway Inc. | BRK.B | NYSE | USD | 280.63 | 627,844.0 | -1.5 | 22.0 | NM | N/A | N/A | 9.8 | 18.9 |
| Aker ASA | AKAA.F | ОTCPK | USD | 105.40 | 7,609.0 | 30.7 | 131.6 | 119.0 | N/A | N/A | -6.1 | 46.6 |
| Eurazeo SE | EUZO.F | ОTCPK | USD | 92.43 | 7,101.0 | N/A | 77.4 | NM | N/A | N/A | -4.6 | 38.9 |
| Exor N.V. | EXXR.F | OTCPK | USD | 96.30 | 22,619.0 | 12.7 | 44.6 | NM | N/A | N/A | 0.0 | 39.6 |
| Groupe Bruxelles Lambert SA | GBLB.Y | OTCPK | USD | 11.64 | 17,295.0 | 5.9 | 28.5 | 4.0 | N/A | N/A | 2.1 | 21.2 |
| HAL Trust | HALF.F | OTCPK | USD | 173.30 | 14,971.0 | -1.7 | 23.4 | NM | N/A | N/A | 3.2 | 22.1 |
| Investor AB [publ] | IVSX.F | ОТСРК | USD | 24.06 | 73,234.0 | 8.1 | -64.5 | 12.0 | N/A | N/A | 11.9 | 14.9 |
| Kinnevik AB | KNKB.F | OTCPK | USD | 40.00 | 11,307.0 | 9.3 | -1.5 | 2.0 | N/A | N/A | 43.5 | 2.5 |
| Peugeot Invest Société anonyme | SFFF.F | OTCPK | USD | 138.40 | 3,474.0 | N/A | 80.9 | 22.0 | N/A | N/A | 3.6 | 19.3 |
| Sofina Société Anonyme | SFNX.F | OTCPK | USD | 406.07 | 13,666.0 | N/A | 40.5 | 9.0 | N/A | N/A | 16.7 | N/A |
| Wendel | WNDL.F | ОTCPK | USD | 124.15 | 5,544.0 | -11.6 | 33.1 | NM | N/A | N/A | -3.7 | 58.6 |

[^1]
## Analyst Research Notes and other Company News

## November 08, 2021

08:52 AM ET... CFRA Keeps Hold Opinion on Class B Shares of Berkshire Hathaway Inc. [BRK.B 288.58***]:
We keep our 12-month target price of \$305, or 22.2x our 2023 operating EPS estimate of $\$ 13.75$ (raised by \$0.50) and 24.3x our 2022 EPS estimate of \$12.55 [lifted by $\$ 0.30$ ] versus BRK's three-year average forward multiple of 21.4 x . We trim our 2021 EPS estimate by $\$ 0.07$ to $\$ 11.66$ after BRK posted Q3 operating EPS of $\$ 2.87$ versus $\$ 2.30$, shy of our $\$ 2.95$ EPS estimate and the $\$ 2.93$ consensus forecast on a $12 \%$ rise in operating revenues [versus our 12\% to $16 \%$ forecasted rise] and wider margins that produced $18 \%$ higher operating earnings. Trends were mixed as catastrophes and claim cost inflation produced insurance underwriting losses of $\$ 784 \mathrm{M}$ versus $\$ 213 \mathrm{M}$, while railroad/energy/utility profits rose $11 \%$ and BRK's other businesses posted $15 \%$ higher operating profits. Per share results got a boost from a $27 \%$ rise in YTD buybacks [\$20.2B from \$15.9B]. We think the dividend-less shares, currently trading at $24.7 x$ our 2021 operating EPS estimate, are fairly valued versus historical levels, but worth holding. / Catherine Seifert

## August 08, 2021

11:59 PM ET... CFRA Keeps Hold Opinion on Class B Shares of Berkshire Hathaway Inc. [BRK.B 285.62***]:
We raise our 12-month target price by $\$ 10$ to $\$ 305$, or $23 x$ our 2023 operating EPS estimate of $\$ 13.25$ and $24.9 x$ our 2022 EPS estimate of $\$ 12.25$ [cut by $\$ 0.25$ ], versus the shares' 10-year average forward multiple of 21.4x. We trim our 2021 EPS estimate by $\$ 0.08$ to $\$ 11.73$. Q2 operating EPS of $\$ 2.93$ versus $\$ 2.28$ topped the $\$ 2.65$ consensus forecast but was in line with our \$2.94 EPS estimate and reflected 21.6\% higher operating revenues, 5.7\% fewer shares amid buybacks, and 28\% higher railroad, energy, and utility profits, a more than doubling of profits form other businesses, and a 53\% plunge in insurance underwriting profits. GEICO Q2 pretax underwriting profits fell by $70 \%$ amid a post-Covid-19 surge in driving and accident claims [more so than peers]. We raise our 2021 revenue forecast to 12\%-16\% [from $6 \%-8 \%$ ], and see $8 \%-10 \%$ revenue growth in 2022 [up from $4 \%-6 \%$ ]. Weighing these mixed trends, we view the shares, trading at $24 x$ our 2021 operating EPS estimate, as fairly valued versus historical levels. / Catherine Seifert

## May 03, 2021

08:30 AM ET... CFRA Keeps Hold Opinion on Class B Shares of Berkshire Hathaway Inc. [BRK.B 274.95***]:
We lift our 12-month target price by $\$ 42$, to $\$ 295$, or $25 x$ our 2021 operating EPS estimate of $\$ 11.81$ [raised by $\$ 0.86$ ], 23.6x our 2022 operating EPS estimate of $\$ 12.50$ [upped by $\$ 0.45$ ], versus the shares' 3-year average forward multiple of 20.8x. Q1 EPS of $\$ 3.05$ versus $\$ 2.41$ topped our $\$ 2.61$ EPS estimate, the $\$ 2.57$ consensus as margin gains and share buybacks offset a $5.4 \%$ rise in operating revenues [versus our forecast of $6 \%$ to $8 \%$ growth]. Results reflected a doubling of underwriting profits and $12 \%$ higher rail/energy/utility profits, despite $13 \%$ lower in investment income. We applaud the $33 \%$ rise in energy revenues amid contributions from an acquisition, but rail revenues declined fractionally and insurance premium growth of $4.3 \%$ lagged peers. At current levels, we view the shares as fairly valued versus historical levels. We are disappointed climate change and diversity initiatives failed to be approved at the annual meeting, and think this increases the likelihood of activism in a post-Buffet era. / Catherine Seifert

## February 26, 2021

12:26 PM ET... CFRA Keeps Hold Opinion on 'B’ Shares of Berkshire Hathaway Inc. [BRK.B 242.60***]:
We raise our 12-month target price by $\$ 25$ to $\$ 253$, or 23.1 x our 2021 operating EPS estimate of $\$ 10.95$ and $21 x$ our 2022 operating EPS estimate of $\$ 12.05$ versus the shares' ten-year average forward multiple of 19.2x. Ahead of Q4 results, set to be released Saturday morning February 27, we trim our Q4 operating EPS estimate by $\$ 0.07$ to $\$ 2.35$ and our full-year 2020 operating EPS estimate by $\$ 0.05$ to $\$ 9.36$ versus $\$ 9.78$ of operating EPs Berkshire reported in 2019. [The 0.02 share difference reflects a repurchase-driven change in share count.] We expect operating revenues to be flat to down $5 \%$ in 2020, reflecting declines in investment income, railroad and energy revenues, and mixed revenue growth trends in other segments. We raise our revenue growth forecast to 6\% to 8\% in 2021 [from 3\% to 6\%] on a better macro outlook and forecast revenue growth of $4 \%$ to $6 \%$ in 2022. Currently trading at $22.6 \times$ our 2021 operating EPS estimate, we view the dividend-less shares as fairly valued versus historical levels. / Catherine Seifert

## November 09, 2020

12:50 PM ET... CFRA Keeps Hold Opinion on Class B Shares of Berkshire Hathaway Inc. [BRK.B 208.85***]:
We raise our 12-month target price by $\$ 8$, to $\$ 228$, or $20.8 x$ our 2021 operating EPS estimate of $\$ 10.95$ and $18.9 x$ our newly initiated 2022 operating EPS estimate of $\$ 12.05$, versus the shares' three-year average forward multiple 20.8x. We cut our 2020 operating EPS estimate by $\$ 0.14$ after Q3 operating EPS of $\$ 2.30$ versus $\$ 3.30$ [restated] lagged our $\$ 2.44$ EPS estimate and the $\$ 2.41$ consensus forecast on an insurance operating loss of $\$ 213$ million [versus a profit of $\$ 440$ million], $32 \%$ lower investment income, $8.1 \%$ lower railroad profits, $4.4 \%$ lower manufacturing, and mixed results elsewhere. Per-share results were aided by \$9B in Q3 buybacks [\$16B YTD]. We see flat $-5 \%$ lower operating revenues in 2020 , with gains of $3 \%-6 \%$ in 2021. Weighing Berkshire's exposure to an economic recovery with what we view as some secular challenges in several of its manufacturing units, coupled with operating metrics at GEICO that are starting to lag peers, we view the dividend-less shares as fairly valued versus historical averages. / Catherine Seifert

## October 21, 2020

10:08 AM ET... CFRA Keeps Hold Opinion on Class B Shares of Berkshire Hathaway Inc. [BRK. B 210.06***]:
We keep our 12-month target price of $\$ 220$, which assumes the Class B shares trade at $23 \times$ our 2020 operating EPS estimate of $\$ 9.55$, versus the shares' five year average forward multiple of 20.4x. The U.S. Treasury Department announced that Berkshire agreed to pay a $\$ 4.1 \mathrm{M}$ fine for violating U.S. sanctions with Iran. The fine stems from BRK's indirect wholly owned subsidiary, Iscar Turkey, which sold cutting tools and related equipment to third party distributors, knowing the goods would be shipped to Iran. While the fine is not material for Berkshire, we think this incident highlights the risks and shortcomings of Berkshire's hands off and decentralized approach to management. Further, we note Berkshire has made no public comment about this incident, and since the company does not conduct analyst or investor calls, no follow up inquiries can be made. Berkshire's lack of oversight and transparency continues to temper our view of the dividend-less shares, which we view as fairly valued versus historical averages. / Catherine Seifert

## March 01, 2021

09:31 AM ET... CFRA Keeps Hold Opinion on Class B Shares of Berkshire Hathaway Inc. [BRK.B 240.47***]:
We keep our 12-month target price of \$253, or 23.1x our 2021 operating EPS estimate of $\$ 10.95$ and $21 \times$ our 2022 operating EPS estimate of $\$ 12.05$, above the shares' ten-year average forward multiple of 19.2x. Q4 operating EPS of \$2.15 versus $\$ 1.81$ lagged our $\$ 2.35$ EPS estimate, the $\$ 2.28$ consensus forecast. Fullyear 2020 operating EPS of $\$ 9.17$ versus $\$ 9.78$ lagged our $\$ 9.36$ operating EPS estimate but beat the $\$ 7.78$ consensus forecast on $2.4 \%$ fewer shares amid $\$ 25$ billion of share buybacks in 2020. Operating revenues fell by $3.6 \%$, in line with our forecast of flat to $5 \%$ lower revenues, as $3.8 \%$ higher insurance premiums were offset by weakness in all other segments. We forecast organic operating revenue growth of $6 \%$ to $8 \%$ in 2021, and $4 \%$ to $6 \%$ in 2022 as most of Berkshire's economically sensitive businesses begin to recover, though we see some secular pressures limiting growth. Currently trading at 22x our 2021 operating EPS estimate, we view the dividend-less shares as fairly valued versus historical averages. / Catherine Seifert

Note: Research notes reflect CFRA's published opinions and analysis on the stock at the time the note was published. The note reflects the views of the equity analyst as of the date and time indicated in the note, and may not reflect CFRA's current view on the company.

## Analysts Recommendations


Number of Analysts Following Stock

No. of

|  | No. of <br> Recommendations | \% of Total | $\mathbf{1}$ Mo.Prior | 3 Mos.Prior |
| :--- | ---: | ---: | ---: | ---: |
| Buy | 1 | 33 | 1 | 1 |
| Buy/Hold | 0 | 0 | 0 | 1 |
| Hold | 2 | 67 | 2 | 1 |
| Weak hold | 0 | 0 | 0 | 0 |
| Sell | 0 | 0 | 0 | 0 |
| No Opinion | 0 | 0 | 0 | 1 |
| Total | 3 | 100 | 3 | 4 |

## Wall Street Consensus Opinion

## Buy/Hold

## Wall Street Consensus vs. Performance

For fiscal year 2021, analysts estimate that BRK.B will earn USD 11.82. For fiscal year 2022, analysts estimate that BRK.B's earnings per share will grow by $9.32 \%$ to USD 12.92.


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.
Note: For all tables, graphs and charts in this report that do not cite any reference or source, the source is SEP Global Market Intelligence.

## STARS

Since January 1, 1987, CFRA Equity and Fund Research Services, and its predecessor S\&P Capital IQ Equity Research has ranked a universe of U.S. common stocks, ADRs [American Depositary Receipts], and ADSs [American Depositary Shares] based on a given equity's potential for future performance. Similarly, we have ranked Asian and European equities since June 30, 2002. Under proprietary STARS [Stock Appreciation Ranking System], equity analysts rank equities according to their individual forecast of an equity's future total return potential versus the expected total return of a relevant benchmark [e.g., a regional index [MSCI AC Asia Pacific Index, MSCI AC Europe Index or S\&P 500® Index]], based on a 12-month time horizon. STARS was designed to help investors looking to put their investment decisions in perspective. Data used to assist in determining the STARS ranking may be the result of the analyst's own models as well as internal proprietary models resulting from dynamic data inputs.

## S\&P Global Market Intelligence's Quality Ranking

[also known as S\&P Capital IQ Earnings \& Dividend Rankings] - Growth and SEP Capital IQ Earnings \& Dividend Rankings stability of earnings and dividends are deemed key elements in establishing SEP 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 | C | Lowest |
| B+ Average | D | In Reorganization |
| NC Not Ranked |  |  |

## EPS Estimates

CFRA's earnings per share [EPS] estimates reflect analyst projections of future EPS from continuing operations, and generally exclude various items that are viewed as special, non-recurring, or extraordinary. Also, EPS estimates reflect either forecasts of equity analysts; or, the consensus [average] EPS estimate, which are independently compiled by S\&P Global Market Intelligence, a data provider to CFRA. Among the items typically excluded from EPS estimates are asset sale gains; impairment, restructuring or merger-related charges; legal and insurance settlements; in process research and development expenses; gains or losses on the extinguishment of debt; the cumulative effect of accounting changes; and earnings related to operations that have been classified by the company as discontinued. The inclusion of some items, such as stock option expense and recurring types of other charges, may vary, and depend on such factors as industry practice, analyst judgment, and the extent to which some types of data is disclosed by companies.

## 12-Month Target Price

The equity analyst's projection of the market price a given security will command 12 months hence, based on a combination of intrinsic, relative, and private market valuation metrics, including Fair Value.

## Abbreviations Used in Equity Research Reports

CAGR - Compound Annual Growth Rate
CAPEX - Capital Expenditures
CY - Calendar Year
DCF - Discounted Cash Flow
DDM - Dividend Discount Model
EBIT - Earnings Before Interest and Taxes
EBITDA - Earnings Before Interest, Taxes, Depreciation \& Amortization
EPS - Earnings Per Share
EV - Enterprise Value
FCF - Free Cash Flow
FFO - Funds From Operations
FY - Fiscal Year
P/E - Price/Earnings
P/NAV - Price to Net Asset Value
PEG Ratio - P/E-to-Growth Ratio
PV - Present Value
RED - Research \& Development
ROCE - Return on Capital Employed
ROE Return on Equity
ROI - Return on Investment
ROIC - Return on Invested Capital
ROA - Return on Assets
SGEA - Selling, General \& Administrative Expenses
SOTP - Sum-of-The-Parts
WACC - Weighted Average Cost of Capital
Dividends on American Depository Receipts [ADRs] and American Depository Shares [ADSs] are net of taxes [paid in the country of origin].

## Qualitative Risk Assessment

Reflects an equity analyst's view of a given company's operational risk, or the risk of a firm's ability to continue as an ongoing concern. The Qualitative Risk Assessment is a relative ranking to the U.S. STARS universe, and should be reflective of risk factors related to a company's operations, as opposed to risk and volatility measures associated with share prices. For an ETF this reflects on a capitalization-weighted basis, the average qualitative risk assessment assigned to holdings of the fund.

## STARS Ranking system and definition:

## $\star \star \star \star \star$ 5-STARS [Strong Buy]:

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

## $\star \star \star \star \star 4$-STARS [Buy]:

Total return is expected to outperform the total return of a relevant benchmark over the coming 12 months.
$\star \star \star \star \star$ 3-STARS [Hold]:
Total return is expected to closely approximate the total return of a relevant benchmark over the coming 12 months.
$\star \star \star \star \star$ 2-STARS [Sell]:
Total return is expected to underperform the total return of a relevant benchmark over the coming 12 months.
$\star \star \star \star \star$ 1-STAR [Strong Sell]:
Total return is expected to underperform the total return of a relevant benchmark by a notable margin over the coming 12 months, with shares falling in price on an absolute basis.

## Relevant benchmarks:

In North America, the relevant benchmark is the SEP 500 Index, in Europe and in Asia, the relevant benchmarks are the MSCI AC Europe Index and the MSCI AC Asia Pacific Index, respectively.

## Disclosures

Stocks are ranked in accordance with the following ranking methodologies:

## STARS Stock Reports:

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

## Quantitative Stock Reports:

Quantitative rankings 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 rankings refer to the Glossary section seof the report for detailed methodology and the definition of Quantitative rankings.

## STARS Stock Reports and Quantitative Stock Reports:

The methodologies used in STARS Stock Reports and Quantitative Stock Reports [collectively, the "Research Reports"] reflect different criteria, assumptions and analytical methods and may have differing rankings. The methodologies and data used to generate the different types of Research Reports are believed by the author and distributor reasonable and appropriate. Generally, CFRA does not generate reports with different ranking methodologies for the same issuer. However, in the event that different methodologies or data are used on the analysis of an issuer, the methodologies may lead to different views on the issuer, which may at times result in contradicting assessments of an issuer. CFRA reserves the right to alter, replace or vary models, methodologies or assumptions from time to time and without notice to clients.

## STARS Stock Reports:

Global STARS Distribution as of March 05, 2021

| Ranking | North America | Europe | Asia | Global |
| :---: | :---: | :---: | :---: | :---: |
| Buy | $40.3 \%$ | $32.5 \%$ | $40.0 \%$ | $38.7 \%$ |
| Hold | $49.6 \%$ | $57.1 \%$ | $53.1 \%$ | $51.7 \%$ |
| Sell | $10.1 \%$ | $10.3 \%$ | $6.9 \%$ | $9.6 \%$ |
| Total | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ |

## Analyst Certification:

STARS Stock Reports are prepared by the equity research analysts of CFRA and its affiliates and subsidiaries. Quantitative Stock Reports are prepared by CFRA. All of the views expressed in STARS Stock Reports accurately reflect the research analyst's personal views regarding any and all of the subject securities or issuers; all of the views expressed in the Quantitative Stock Reports accurately reflect the output of CFRA's algorithms and programs. Analysts generally update STARS Stock Reports at least four times each year. Quantitative Stock Reports are generally updated weekly. No part of analysts' or CFRA's compensation was, is, or will be directly or indirectly related to the specific rankings or views expressed in any Stock Report.

## About CFRA Equity Research:

This Research Report is published and originally distributed by Accounting Research \& Analytics, LLC d/b/a CFRA ["CFRA US"], with the following exceptions: In the UK/EU/EEA, it is published and originally distributed by CFRA UK Limited ["CFRA UK"], which is regulated by the Financial Conduct Authority [ $N o .775151$ ], and in Malaysia by CFRA MY Sdn Bhd [Company No. 683377-A] ["CFRA Malaysia"], which is regulated by Securities Commission Malaysia, [No. CMSL/A0181/2007] under license from CFRA US. These parties and their subsidiaries maintain no responsibility for reports redistributed by third parties such as brokers or financial advisors.

## General Disclosure

## Notice to all jurisdictions:

Where Research Reports are made available in a language other than English and in the case of inconsistencies between the English and translated versions of a Research Report, the English version will control and supersede any ambiguities between such versions. Neither CFRA nor its affiliates guarantee the accuracy of any translation.
The content of this report and the opinions expressed herein are those of CFRA based upon publicly-available information that CFRA believes to be reliable and the opinions are subject to change without notice. This analysis has not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. CFRA AND ALL RELATED ENTITIES SPECIFICALLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, to the full extent permitted by law, regarding the accuracy, completeness, or usefulness of this information and assumes no liability with respect to the consequences of relying on this information for investment or other purposes.
No content in this Research Report may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of CFRA, or used for any unlawful or unauthorized purposes. Neither CFRA nor its third-party providers, as well as its/their directors, officers, shareholders, employees or agents, guarantee the accuracy, completeness, timeliness or availability of the content herein

## Past performance is not necessarily indicative of future results.

This document may contain forward-looking statements or forecasts; such forecasts are
not a reliable indicator of future performance.
This report is not intended to, and does not, constitute an offer or solicitation to buy and sell securities or engage in any investment activity. This report is for informational purposes only. Statements in this report are not made with respect to any particular investor or type of investor. Securities, financial instruments or strategies mentioned herein may not be suitable for all investors and this material is not intended for any specific investor and does not take into account an investor's particular investment objectives, financial situations or needs. Before acting on anything in this report, you should consider whether it is suitable for your particular circumstances and, if necessary, seek professional advice. CFRA may license certain intellectual property or provide services to, or otherwise have a business relationship with, certain issuers of securities that are the subject of CFRA research reports, including exchange-traded investments whose investment objective is to substantially replicate the returns of a proprietary index of CFRA. In cases where CFRA is paid fees that are tied to the amount of assets invested in a fund or the volume of trading activity in a fund, investment in the fund may result in CFRA receiving compensation in addition to the subscription fees or other compensation for services rendered by CFRA, however, no part of CFRA's compensation for services is tied to any particular viewpoint or rating. Additional information on a subject company may be available upon request.
CFRA's financial data provider is SEP Global Market Intelligence. THIS DOCUMENT CONTAINS COPYRIGHTED AND TRADE SECRET MATERIAL DISTRIBUTED UNDER LICENSE FROM S\&P GLOBAL MARKET INTELLIGENCE. FOR RECIPIENT'S INTERNAL USE ONLY.
The Global Industry Classification Standard [GICS®] was developed by and/or is the exclusive property of MSCI, Inc. and SEP Global Market Intelligence. GICS is a service mark of MSCI and SEP Global Market Intelligence and has been licensed for use by CFRA.

## Other Disclaimers and Notices

Certain information in this report is provided by S\&P Global, Inc. and/or its affiliates and subsidiaries [collectively "S\&P Global"]. Such information is subject to the following disclaimers and notices: "Copyright © 2018, S\&P Global Market Intelligence (and its affiliates as applicable]. All rights reserved. Nothing contained herein is investment advice and a reference to a particular investment or security, a credit rating or any observation concerning a security or investment provided by S\&P Global is not a recommendation to buy, sell or hold such investment or security or make any other investment decisions. This may contain information obtained from third parties, including ratings from credit ratings agencies. Reproduction and distribution of SEP Global's information and third party content in any form is prohibited except with the prior written permission of S\&P Global or the related third party, as applicable. Neither S\&P Global nor its third party providers guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions [negligent or otherwise], regardless of the cause, or for the results obtained from the use of such information or content. S\&P GLOBAL AND ITS THIRD PARTY CONTENT PROVIDERS GIVE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE AND ALL SEP INFORMATION IS PROVIDED ON AN AS-IS BASIS. SEP GLOBAL AND ITS THIRD PARTY CONTENT PROVIDERS SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, EXEMPLARY, COMPENSATORY, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES, COSTS, EXPENSES, LEGAL FEES, OR LOSSES [INCLUDING LOST INCOME OR PROFITS AND OPPORTUNITY COSTS OR LOSSES CAUSED BY NEGLIGENCE] IN CONNECTION WITH ANY USE OF THEIR INFORMATION OR CONTENT, INCLUDING RATINGS. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice."

## Berkshire Hathaway Inc.

CFRA's Research Reports may be distributed in certain localities, countries and/or jurisdictions by independent third parties or independent intermediaries and/or distributors ["Intermediaries"]. Intermediaries are not acting as agents or representatives of CFRA. In territories where an Intermediary distributes CFRA's Research Reports, the Intermediary, and not CFRA, is solely responsible for complying with all applicable regulations, laws, rules, circulars, codes and guidelines established by local and/or regional regulatory authorities, including laws in connection with the distribution of third party research reports, licensing requirements, supervisory and record keeping obligations that the Intermediary may have under the applicable laws and regulations of the territories where it distributes the Research Reports.

## For residents of the European Union/European Economic Area:

Research reports are originally distributed by CFRA UK Limited [company number 08456139 registered in England \& Wales with its registered office address at New Derwent House, 69-73 Theobalds Road, London, WC1X 8TA, United Kingdom]. CFRA UK Limited is regulated by the UK Financial Conduct Authority [No. 775151].

## For residents of Malaysia:

Research reports are originally produced and distributed by CFRA MY Sdn Bhd [Company No. 683377-A] ["CFRA Malaysia"], a wholly-owned subsidiary of CFRA US. CFRA Malaysia is regulated by Securities Commission Malaysia [License No. CMSL/A0181/2007].

## For Recipients in Canada:

This report is not prepared subject to Canadian disclosure requirements and may not be suitable for Canadian investors.

## For residents of Singapore:

Recipients of the Research reports in Singapore should contact the Intermediary of the Research Reports in respect to any matters arising from, or in connection with, the analysis of the report. The Intermediary accepts all legal responsibility for the contents of the Research Reports. When reports are distributed by Intermediaries in Singapore, the Intermediary, and not CFRA, is solely responsible for ensuring that the recipients of the Research Reports understand the information contained in the Research Reports and that such information is suitable based on the customer's profile and investment objectives.

## For residents of all other countries:

Research reports are originally distributed Accounting Research \& Analytics, LLC d/b/a CFRA.

Copyright © 2021 CFRA. All rights reserved. CFRA and STARS are registered trademarks of CFRA.


[^0]:    Source: S\&P Global Market Intelligence. Data may be preliminary or restated; before results of discontinued operations/special items. Per share data adjusted for stock dividends; EPS diluted.

[^1]:    *For Peer Groups with more than 10 companies or stocks, selection of issues is based on market capitalization
    NA-Not Available; NM-Not Meaningful.
     industry and/or that engage in the same line of business.

