THE PATH AHEAD

Analysis of Analyst Estimates for Insights on the Economic Recovery

Forecast Engine Industry Impact Study / Issue 1, June 2020
BDO's Valuation & Business Analytics (VBA) Practice
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Introduction

Following the initial shock of the pandemic-related economic crisis, business leaders are quickly taking inventory of the impact to their businesses and analyzing the path toward a potential return to pre-COVID-19 financial expectations. While no one claims to have a crystal ball, in this inaugural study we perform a systematic analysis of hundreds of thousands of market data points to help bring the future picture more into focus. Our Valuation & Business Analytics (VBA) practice has utilized our proprietary Forecast Engine to help analyze over 20,000 equity analyst estimates for 428 public companies spread across 24 industries*. Leveraging data algorithms and dashboard analytics, we’ve synthesized the estimates by industry to assist in answering three pressing questions:

1. How have forecasted revenues and earnings been impacted by the economic crisis and, on a relative basis, which industries are expected to be hit the hardest and which are expected to see lesser impact?

2. Is there an industry consensus that revenues and earnings will return to pre-COVID-19 expectations at some point in the foreseeable future? If so, what is the estimated timeline and path to that return to normalcy?

3. How strongly are market equity prices correlated with the post-COVID-19 analyst revisions? Are investors placing more emphasis on near-term impacts or an industry’s prospects of returning to pre-COVID-19 expectations in the more distant future?

While this initial study was necessitated by the current economic crisis, it is the first in a series that will follow the changing path toward and through recovery over the coming months and years.

*A detailed description of the study methodology is included in the Methodology Overview.
Study Highlights

While nearly everyone now appreciates the extent of the short-term COVID-19 impacts reverberating through the global economy, opinions diverge on the duration of the impact and the extent of an eventual recovery. Many share the view of a V-shaped or eventual U-shaped recovery; however, the aggregate data indicates a steeper and longer degradation in revenues and profits than many would hope. Though the aggregate data is insightful, and perhaps relevant for broader policy decisions, an analysis of the expected impact by industry is necessary to provide actionable insights at the enterprise level.

Analyzing the results by industry shows stark differences, both in terms of near-term impacts as well as the timing and extent of recovery. Although decline in expected revenues and profits is to be expected for certain industries, the magnitude of the reductions and long-term impact conveyed by analyst estimates is severe.
The table shown here displays the percentage change in 2020 analyst forecasted revenue by industry as of January 31, 2020 ("pre-COVID-19") and May 31, 2020 ("post-COVID-19").

Source for all subsequent graphs: Data analyzed from S&P Global’s Capital IQ database.
PERCENT CHANGE IN 2020 EBIT FROM 1/31/2020 TO 5/31/2020

- Airlines: -216.5%
- Gaming, Hospitality, Leisure: -111.8%
- Natural Resources: -69.6%
- Retail - Discretionary & Luxury: -67.0%
- Banks: -46.6%
- Restaurants: -41.6%
- Distribution: -39.9%
- Manufacturing: -35.5%
- Healthcare - Medical Devices: -28.9%
- Construction - Multi Family: -27.0%
- Media & Entertainment: -25.9%
- Healthcare - Provider: -25.2%
- Insurance: -24.1%
- Retail - Online: -24.0%
- Construction - Single Family: -22.7%
- Construction - Commercial: -21.0%
- Construction - Infrastructure: -21.0%
- Technology - Hardware & Equipment: -13.2%
- Telecommunications: -11.7%
- Retail - Consumer Staples: -10.9%
- Technology - Software & Services: -6.4%
- Technology - Semiconductors & Products: -6.3%
- Healthcare - Life Sciences: -1.9%
- Healthcare - Payer: -1.0%

Due to operating leverage differences between industries, the impacts to profitability are even more severe and disparate.

For the banking industry set we have utilized earnings before taxes (EBT) instead of EBIT.
The second set of tables displays the change in forecasted revenue and EBIT between pre-COVID-19 estimates and post-COVID-19 estimates for the furthest available forecast year* by industry.

*To determine the furthest available forecast year, we identified the last year in which substantially all of the companies had analyst estimates for the subject metric. Additionally, to ensure the integrity of the trend analyses and negate any impact from a survivorship bias, a company included in the long-term analysis must have not only had analyst estimates for the furthest available forecast year, but also all years in the interim, and for all dates in which the estimates were pulled (e.g., 1/31/2020, 2/29/2020, etc.).
As the analysis indicates, very few industries are expected to escape unscathed by the global disruption. Additionally, it’s also abundantly clear that the short-term and long-term impacts are expected to vary considerably by industry. In the following sections, we dive deeper to provide additional insights and foreshadow the potential path ahead.
Deeper Dive Topics

Market Value Comparison and Insights

As an additional analytical step, we have calculated the change in aggregate total enterprise value (TEV) for each of the 24 industries from January 31, 2020 to May 31, 2020*.

*For the banking industry set we have utilized market capitalization instead of enterprise value.
PERCENT CHANGE IN TEV FROM 1/31/2020 TO 5/31/2020

- Airlines: -27.1%
- Gaming, Hospitality, Leisure: -23.2%
- Insurance: -18.5%
- Construction - Commercial: -15.7%
- Natural Resources: -13.5%
- Distribution: -12.6%
- Construction - Infrastructure: -11.7%
- Manufacturing: -10.3%
- Construction - Multi Family: -9.1%
- Retail - Discretionary & Luxury: -8.9%
- Construction - Single Family: -8.0%
- Restaurants: -7.1%
- Healthcare - Provider: -6.1%

We then plotted the relative TEV change for each industry against relative changes in both 2020 EBIT and long-term EBIT, as demonstrated on the following pages. Plots above the line represent industries where the TEV performance of the industry was higher/better than the relative decrease in corresponding EBIT (i.e., relative to other industries market value performed better than analyst estimates would suggest). Whereas plots below the line represent industries where TEV performance was lower/worse than the relative decrease in corresponding EBIT (i.e., relative to other industries market value performed worse than analyst estimates would suggest). Plots close to or on the trend line had TEV performance consistent with the relative movement in corresponding EBIT (i.e., relative to other industries market value performed as would be expected based on changes to estimates).
2020 EBIT DECREASES VS. TEV PERFORMANCE

- Better Performance →
- TEV PERFORMANCE
- Worse Performance ←

Less Impacted →
- More Impacted ←

- Retail - Online
- Healthcare - Payer
- Healthcare - Life Sciences
- Tech. - Semiconductors & Products
- Tech. - Software & Services
- Retail - Consumer Staples
- Healthcare - Medical Devices
- Media & Entertainment
- Construction - Single Family
- Construction - Multi Family
- Construction - Commercial
- Insurance
- Construction - Infrastructure
- Tech. - Hardware & Equipment
- Telecommunications
- Retail - Consumer Staples
- Retail - Discretionary & Luxury
- Natural Resources
- Distribution
- Manufacturing
- Gaming, Hospitality, Leisure
- Banks

- Airlines
- Restaurants
- Healthcare - Provider
- Media & Entertainment
Market Value Comparison Additional Insights

For many industries, both the near-term and long-term estimates appear to be consistent and have strong correlation with the TEV performance. The following sections highlight observations for industries that invite additional analysis due to inconsistent results.
Market Underperformers / Airlines

The Airlines industry set represents the largest negative outlier, as market values have fallen dramatically yet there is little change to long-term EBIT estimates. While airlines are expected to be severely impacted in 2020, post-COVID-19 estimates as of May 31 show a V-shaped recovery in earnings. Relative to other industries, airlines are by far the most impacted in the short term (24th ranked), while their long-term impact is expected to be less than most industries. However, the relative TEV performance is consistent with its relative change in 2020 EBIT estimates, indicating that investors are more focused on near-term impacts in the airline industry.
As seen below, revenue is expected to be notably lower. As such, the expected recovery in EBIT is attributed to expansion in EBIT margin. From January 31 to
May 31, the median expected EBIT margin for 2023 increased by 2.4%.

The Trend Analysis graphs below include the aggregate estimate for the companies in the industry set as of each month end from January 31 to May 31. The estimates extend out for each future period in which meaningful data is available. The aggregate estimates for each year (and at each point in time) are
common sized to the aggregate actual result for 2019. For example, a 2020 estimate of 110% would indicate an expected 10% growth for the industry set, whereas a 2020 estimate of 90% would indicate a 10% expected decline.

These graphs show a time lapse of the movement in estimates and provide insights for how both the near-term impact as well as the path toward recovery have changed since the beginning of the economic crisis.
Examining the estimates of specific companies within the industry confirms the consistency in which analysts expect a margin recovery in 2021 and 2022 and then a mild expansion in 2023.
Insurance stands out as another market underperformer as relatively minor long-term EBIT estimate declines would suggest significantly better relative TEV performance. Further examination shows that different companies within the industry are expected to have starkly different reactions to the crisis. Overall, the industry estimates have declined considerably, as seen in the following graphs.
However, an examination of the EBIT trends shows a surprising rebound from March 31 to April 30. An analysis of the company-specific trends provides the reason why and highlights how companies within the same industry may diverge. As of April 30, 2020, the estimates for The Allstate Corporation and The Progressive Corporation were revised higher, presumably as the expectation for a prolonged U.S. shutdown, and resulting drop in miles driven by policy holders and related claims, became evident.
For the Retail – Discretionary & Luxury industry group, on a relative basis to other industries, relative market values have not declined as significantly as relative earnings estimates. Per the subsequent graphs, the impact is driven by an expected significant pause in demand and a parallel shift in the revenue curve from pre-COVID-19 to post-COVID-19 estimates. The drop in revenue is also accompanied by a forecasted longer-term decrease in margin. In this instance, the long-term EBIT estimates show a long-term decline.
Despite showing some of the most severe reductions to near-term and long-term EBIT estimates, market values have performed relatively better as compared to other industries.
Market Overperformers / Retail – Online; Healthcare – Medical Device

The market performance of both the online retail and medical device industries have significantly outperformed what would be expected based on the downward revisions from pre-COVID-19 to post-COVID-19 2020 EBIT estimates. However, the market performance is very closely aligned with the long-term EBIT estimates. It’s clear that investors are looking past the near-term drop in profitability and toward the long-term industry prospects.
LONG-TERM EBIT TREND ANALYSIS
Retail - Online

LONG-TERM EBIT TREND ANALYSIS
Healthcare - Medical Devices
The Spring Value Divergence

As many of the prior graphs show, analyst estimates continued to deteriorate from March 31 through May 31. However, a review of the Market Value Performance over the same period shows that stock prices often moved in the opposite direction. The table below displays the percent decrease in 2020 EBIT and long-term EBIT from March 31 to May 31, along with the percent change in aggregate enterprise value over the same period.
PERCENT CHANGE IN TEV FROM 3/31/2020 TO 5/31/2020

As seen here, the aggregate total enterprise value for every industry increased from March 31 to May 31. However, none of the 24 analyzed industries observed an increase in 2020 estimated EBIT over that same time period. Additionally, only four of the 24 industries had upward revisions for long-term EBIT. The remaining 44 data points were revised lower from March 31 to May 31, many of them significantly.

While the disconnect in market values and future earnings estimates are pervasive, certain industries stand out as extreme outliers. For example, the Technology – Semiconductor set shows a minor 2020 EBIT reduction and a meaningful long-term EBIT increase. However, there are six industry sets with greater market value gains despite all having downward estimate revisions. In particular, the Retail – Discretionary & Luxury, Construction – Multi Family, and Construction – Single Family industry sets show large reductions in estimates yet some of the largest increases in market value.

Despite the apparent disconnect, in the next section we analyze recent trends in May that potentially foreshadow a bottom to the precipitous decline in estimates.
### PERCENT CHANGE IN TEV FROM 3/31/2020 TO 5/31/2020

<table>
<thead>
<tr>
<th>Industry</th>
<th>TEV Change Rank</th>
<th>% Change TEV</th>
<th>% Change 2020 EBIT</th>
<th>% Change LT EBIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction - Single Family</td>
<td>1</td>
<td>40.8%</td>
<td>-15.4%</td>
<td>-16.4%</td>
</tr>
<tr>
<td>Construction - Multi Family</td>
<td>2</td>
<td>36.0%</td>
<td>-16.0%</td>
<td>-12.6%</td>
</tr>
<tr>
<td>Retail - Online</td>
<td>3</td>
<td>27.0%</td>
<td>-21.5%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Retail - Discretionary</td>
<td>4</td>
<td>24.1%</td>
<td>-52.0%</td>
<td>-17.3%</td>
</tr>
<tr>
<td>Technology - Hardware &amp; Equipment</td>
<td>5</td>
<td>22.2%</td>
<td>-6.2%</td>
<td>-7.5%</td>
</tr>
<tr>
<td>Media &amp; Entertainment</td>
<td>6</td>
<td>21.3%</td>
<td>-16.5%</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Technology - Semiconductors &amp; Products</td>
<td>7</td>
<td>20.7%</td>
<td>-0.3%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Technology - Software &amp; Services</td>
<td>8</td>
<td>20.1%</td>
<td>-3.0%</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Healthcare - Medical Devices</td>
<td>9</td>
<td>19.3%</td>
<td>-22.2%</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Healthcare - Payer</td>
<td>10</td>
<td>18.2%</td>
<td>0.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>11</td>
<td>18.0%</td>
<td>-35.8%</td>
<td>-14.5%</td>
</tr>
<tr>
<td>Distribution</td>
<td>12</td>
<td>17.4%</td>
<td>-31.4%</td>
<td>-8.4%</td>
</tr>
<tr>
<td>Gaming, Hospitality, Leisure</td>
<td>13</td>
<td>17.0%</td>
<td>-134.7%</td>
<td>-11.6%</td>
</tr>
<tr>
<td>Restaurants</td>
<td>14</td>
<td>16.4%</td>
<td>-26.0%</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Retail - Consumer Staples</td>
<td>15</td>
<td>15.2%</td>
<td>-6.5%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Healthcare - Life Sciences</td>
<td>16</td>
<td>13.9%</td>
<td>-0.7%</td>
<td>-1.5%</td>
</tr>
<tr>
<td>Construction - Commercial Manufacturing</td>
<td>17</td>
<td>12.7%</td>
<td>-13.3%</td>
<td>-6.3%</td>
</tr>
<tr>
<td>Construction - Infrastructure</td>
<td>18</td>
<td>12.2%</td>
<td>-24.9%</td>
<td>-7.6%</td>
</tr>
<tr>
<td>Healthcare - Provider</td>
<td>19</td>
<td>11.9%</td>
<td>-16.0%</td>
<td>-9.7%</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>20</td>
<td>10.8%</td>
<td>-23.2%</td>
<td>-6.7%</td>
</tr>
<tr>
<td>Airlines</td>
<td>21</td>
<td>9.7%</td>
<td>-9.6%</td>
<td>-6.8%</td>
</tr>
<tr>
<td>Banks</td>
<td>22</td>
<td>7.5%</td>
<td>-40.7%</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Insurance</td>
<td>23</td>
<td>7.3%</td>
<td>-984.7%</td>
<td>-20.6%</td>
</tr>
<tr>
<td>Insurance</td>
<td>24</td>
<td>2.3%</td>
<td>-7.2%</td>
<td>-2.7%</td>
</tr>
</tbody>
</table>
Trend Analysis Insights

While forward estimates for nearly every industry have decreased from pre-COVID-19 to post-COVID-19 expectations, some recent observations suggest that some industries may be near a bottom. Through March and April, nearly all industries saw reductions in forward estimates. However, beginning in May, there is evidence to suggest that the trend is beginning to slow and, in some cases, even reverse. For example, 11 of the 24 industries saw little change in both near-term and long-term revenue and EBIT estimates from April 30 to May 31. Four industries saw mild recoveries in estimates over that same period. However, nine industries continued the steady march downward and hit new lows as of May 31. Regardless, the magnitude and rate of downward revisions in May offer some hope that COVID-19 considerations have been fully incorporated into forward estimates.
INCREASED ESTIMATES IN MAY

- Retail - Discretionary & Luxury
- Retail - Online
- Technology Semiconductors & Products
- Construction - Single Family

FLAT OR LITTLE CHANGE IN MAY

- Airlines
- Natural Resources
- Restaurants
- Healthcare - Life Sciences
- Healthcare - Payer
- Telecom
- Retail - Consumer Staples
- Technology - Hardware & Equipment
- Technology - Software & Services
- Construction - Multi Family
- Construction - Commercial

DECREASED ESTIMATES IN MAY

- Construction - Infrastructure
- Distribution
- Healthcare - Medical Devices
- Healthcare - Provider
- Manufacturing
- Media & Entertainment
- Insurance
- Gaming, Hospitality, Leisure
Below, we provide additional detail on the four industries that have shown meaningful increases in estimates from April 30 to May 31.

The estimates for the Retail – Consumer Staples industry set have shown a slowing of the long-term EBIT estimates’ degradation from February through the end of April. In May, the long-term EBIT estimates have ultimately flipped to be revised higher.

**LONG-TERM EBIT / Retail - Consumer Staples**

- January to February: -0.4%
- February to March: -2.1%
- March to April: -0.4%
- April to March: 1.5%
- Total Change: -5.0%

**LONG-TERM REVENUE / Retail - Online**

- January to February: -0.5%
- February to March: -0.4%
- March to April: 1.0%
- April to May: 3.1%
- Total Change: 3.2%

The estimates for the Retail – Online industry group have understandably been one of the strongest performers over the entire observation period. The industry experienced small declines in total revenue estimates in February and March and significant increases in April and May.
The estimates for the Semiconductor industry group have also been one of the stronger performers over the entire observation period. In May, the industry group estimates rebounded on both Revenue and EBIT for 2020.

**2020 EBIT / Technology - Semiconductors & Products**

- January to February: 1.0%
- February to March: -7.0%
- March to April: -1.9%
- April to May: 1.6%
- Total Change: -6.3%

**2020 REVENUE / Technology - Semiconductors & Products**

- January to February: 0.8%
- February to March: -4.6%
- March to April: -0.4%
- April to May: 1.0%
- Total Change: -3.2%
The estimates for the Construction – Single Family industry group suffered steep reductions in 2020 estimates in March and April. However, in May the industry group estimates rebounded on both Revenue and EBIT for 2020.

### 2020 EBIT / Construction - Single Family

- **January to February:** -0.1%
- **February to March:** -8.6%
- **March to April:** -16.8%
- **April to May:** 2.7%
- **Total Change:** -22.7%

### 2020 REVENUE / Construction - Single Family

- **January to February:** 2.0%
- **February to March:** -5.0%
- **March to April:** -9.1%
- **April to May:** 0.9%
- **Total Change:** -11.2%
Implications for the Finance Function

The expected impacts of COVID-19 on near-term and long-term operating results have implications throughout the finance function of an enterprise.

First and foremost are likely the near-term considerations for financial reporting as companies look to digest the economic crisis and the potential impact on goodwill and asset impairment considerations. An examination of the 428 companies included in the study shows that 89% have goodwill recorded on their balance sheets as of their last public financial statement, and only 5% of those companies recorded an impairment in Q1. Additionally, those impairments represented less than 1% of the total goodwill balance of the companies included in the study. Further, the number and magnitude of the impairments is heavily weighted toward the Natural Resources industry set, as impairments taken by companies in the Natural Resources set account for approximately 80% of the total impairment amount.

However, every industry is expected to record lower 2020 EBIT than was expected pre-COVID-19. Additionally, 20 of the 24 industries examined are expected to have forecasted EBIT degradation out through their long-term projections.

As previously shown, much of the expected degradation in operating profit is seen in April and May, which is after Q1 filings for calendar year-end filers. With the steep drop in expected operating performance in April and May, there are implications for Q2 triggering events and potential impairments. However, in certain industries, market prices have recovered most if not all of the initial declines in market value from February and March. The biggest disconnects appear to be in the continued degradation of analyst estimates through May alongside the positive performance of stocks. These disconnects likely require detailed considerations of the facts and circumstances for the specific enterprise but can be bolstered with benchmarking to estimates for peers.
Beyond the initial considerations for financial reporting, there are potential implications for the tax, treasury, financial planning, and corporate development functions.

For example, transfer pricing policies are predicated on the future resembling the past in terms of revenue growth, expenses, and operating margins. Based on the above data, the future operating profits are expected to significantly diverge from past performance.

Additionally, as the long-term results show, that divergence is not expected to correct itself for years, rather than months, in many industries. Understanding these trends enables companies to combine their enterprise forecasts with the most up-to-date analyst forecasts of comparable companies, in order to make informed, real-time adjustments to their transfer pricing policies.

For Treasury, intercompany lending and cash management considerations are paramount in the current crisis. However, given the change in balance sheets and expected operating results for legal entities, geographies, and industries, any prior credit benchmarking and intercompany lending rate analyses are almost certainly obsolete and not reflective of the current market environment.

For FP&A groups, bottom-up, company-specific considerations are critical as always. However, given the unprecedented uncertainty these groups are facing, benchmarking to market expectations for peers may provide confirmation to support specific assumptions or, alternatively, raise a red flag to reevaluate certain inputs.

Finally, while the deal market has all but halted in recent months, M&A activity will undoubtedly resume as the world emerges from varying degrees of quarantine and lockdown. However, deal teams will be faced with unprecedented uncertainty. Adding to the complications are an apparent disconnect between company financials and market values.
Industry Spotlight Guide

LONG-TERM EBIT TREND ANALYSIS

The Trend Analysis graphs include the aggregate EBIT estimate for the companies in the industry set as of each month end from January 31 to May 31. The estimates extend out for each future period in which meaningful data is available. The aggregate estimates for each year (and at each point in time) are common sized to the aggregate actual result for 2019. For example, a 2020 estimate of 110% would indicate an expected 10% growth for the industry set, whereas a 2020 estimate of 90% would indicate a 10% expected decline.

These graphs show a time lapse of the movement in estimates and provide insights for how both the near-term impact as well as the path toward recovery have changed since the beginning of the economic crisis.

To determine the furthest available forecast year, we identified the last year in which substantially all of the companies had analyst estimates for the subject metric. Additionally, to ensure the integrity of the trend analyses and negate any impact from a survivorship bias, a company included in the long-term analysis must have not only had analyst estimates for the furthest available forecast year, but also all years in the interim and for all dates in which the estimates were pulled (e.g., 1/31/2020, 2/29/2020, etc.). The "Change in 2020 EBIT" highlighted on the graphs includes all companies in the industry set, while the "Change in Long-Term EBIT" highlight (and related graph) only include those companies that meet the above criteria.

MARKET CAPITALIZATION CHART

The market capitalization of each company in the industry set, as reported by S&P Capital IQ, is summed to derive a market capitalization value for the industry set. The resulting charts and movements in market capitalization value are therefore "value weighted", meaning the movement is more heavily influenced by companies with higher values. The "value weighted" amounts are then compared to the movement in the S&P 500 index for the same period.

HISTORICAL & FORECAST INDUSTRY STATISTICS

These graphs include the statistical measures of minimum, lower quartile, median, upper quartile, and maximum. The light blue bars represent the total range of observations within the industry set for a given year. The dark blue bars represent the interquartile range of observations within the industry set for a given year. The dotted line represents the median from year to year. These graphs are intended to inform users to both the historical and expected profit margins observed in each industry set as well as highlight any anticipated changes. Such data can also serve to benchmark a forecast for a subject entity, helping to identify inconsistencies and assess reasonableness.

The model calculates the statistical measures for all companies for which data is available in a given year. As such, caution is advised when considering year over year changes, especially in the latter years of the forecast period, as the results may be influenced by companies entering or leaving the data set for a given year.
LONG-TERM EBIT TREND ANALYSIS

-11% Change in Long-Term EBIT

-216% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-39% Change in Median 2019 to 2020

MARKET CAPITALIZATION TREND ANALYSIS

-43.3% Over/(Under) S&P 500

-39% Change in Median 2019 to 2020

Industry Market Capitalization & S&P 500
LONG-TERM EBIT TREND ANALYSIS

-12% Change in Long-Term EBIT

-47% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-16% Change in Median 2019 to 2020

MARKET CAPITALIZATION TREND ANALYSIS

-22.9% Over/(Under) S&P 500

S&P 500
LONG-TERM EBIT TREND ANALYSIS

-12% Change in Long-Term EBIT

-21% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

1% Change in Median 2019 to 2020

MARKET CAPITALIZATION TREND ANALYSIS

-14.6% Over/(Under) S&P 500


Industry Market Capitalization S&P 500

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CONSTRUCTION - INFRASTRUCTURE

LONG-TERM EBIT TREND ANALYSIS

-12% Change in Long-Term EBIT

-21% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-10.9% Over/(Under) S&P 500

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CONSTRUCTION - MULTI FAMILY

LONG-TERM EBIT TREND ANALYSIS

-21% Change in Long-Term EBIT

-27% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

MARKET CAPITALIZATION TREND ANALYSIS

-9.5% Over/(Under) S&P 500

-21% Change in Long-Term EBIT

-27% Change in 2020 EBIT

-1% Change in Median 2019 to 2020
DISTRIBUTION

LONG-TERM EBIT TREND ANALYSIS

MARKET CAPITALIZATION TREND ANALYSIS

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020
**GAMING, HOSPITALITY, LEISURE**

**LONG-TERM EBIT TREND ANALYSIS**

-19% Change in Long-Term EBIT

-112% Change in 2020 EBIT

**MARKET CAPITALIZATION TREND ANALYSIS**

-28.7% Over/(Under) S&P 500

-14% Change in Median 2019 to 2020

-19% Change in Long-Term EBIT

-112% Change in 2020 EBIT

**EBIT MARGIN DISTRIBUTION AS OF 5/31/2020**

-14% Change in Median 2019 to 2020
HEALTHCARE - PROVIDER

LONG-TERM EBIT TREND ANALYSIS

-6% Change in Long-Term EBIT

-25% Change in 2020 EBIT

MARKET CAPITALIZATION TREND ANALYSIS

-5.1% Over/(Under) S&P 500

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-3% Change in Median 2019 to 2020
**LONG-TERM EBIT TREND ANALYSIS**

- 2% Change in Long-Term EBIT
- 2% Change in 2020 EBIT

**MARKET CAPITALIZATION TREND ANALYSIS**

10.0% Over/(Under) S&P 500

**EBIT MARGIN DISTRIBUTION AS OF 5/31/2020**

4% Change in Median 2019 to 2020
LONG-TERM EBIT TREND ANALYSIS

-7% Change in Long-Term EBIT
-29% Change in 2020 EBIT


EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-4% Change in Median 2019 to 2020

MARKET CAPITALIZATION TREND ANALYSIS

5.0% Over/(Under) S&P 500

-7% Change in Long-Term EBIT
-29% Change in 2020 EBIT


Industry Market Capitalization S&P 500

-4% Change in Median 2019 to 2020

Total Range Interquartile Range Median
LONG-TERM EBIT TREND ANALYSIS

-1% Change in Long-Term EBIT

-1% Change in 2020 EBIT


MARKET CAPITALIZATION TREND ANALYSIS

15.5% Over/(Under) S&P 500

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

0% Change in Median 2019 to 2020

THE PATH AHEAD / VBA FORECAST ENGINE INDUSTRY IMPACT STUDY, ISSUE 1
LONG-TERM EBIT TREND ANALYSIS

-15% Change in Long-Term EBIT

-24% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

MARKET CAPITALIZATION TREND ANALYSIS

-17.8% Over/(Under) S&P 500

-1% Change in Median 2019 to 2020
MANUFACTURING

LONG-TERM EBIT TREND ANALYSIS

-12% Change in Long-Term EBIT

-36% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-1% Change in Median 2019 to 2020

MARKET CAPITALIZATION TREND ANALYSIS

-8.4% Over/(Under) S&P 500

-12% Change in Long-Term EBIT

-36% Change in 2020 EBIT

-8.4% Over/(Under) S&P 500
NATURAL RESOURCES

LONG-TERM EBIT TREND ANALYSIS

MARKET CAPITALIZATION TREND ANALYSIS

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-30% Change in Long-Term EBIT

-70% Change in 2020 EBIT

-13.1% Over/(Under) S&P 500

-5% Change in Median 2019 to 2020

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RESTAURANTS

LONG-TERM EBIT TREND ANALYSIS

-11% Change in Long-Term EBIT

-42% Change in 2020 EBIT

MARKET CAPITALIZATION TREND ANALYSIS

-4.7% Over/(Under) S&P 500

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-6% Change in Median 2019 to 2020
RETAIL - CONSUMER STAPLES

LONG-TERM EBIT TREND ANALYSIS

-5% Change in Long-Term EBIT

-11% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-2% Change in Median 2019 to 2020

MARKET CAPITALIZATION TREND ANALYSIS

10.4% Over/(Under) S&P 500

-5% Change in Long-Term EBIT

-11% Change in 2020 EBIT

-2% Change in Median 2019 to 2020
RETAIL - DISCRETIONARY & LUXURY

LONG-TERM EBIT TREND ANALYSIS

-34% Change in Long-Term EBIT

-67% Change in 2020 EBIT

MARKET CAPITALIZATION TREND ANALYSIS

-5.9% Over/(Under) S&P 500

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-3% Change in Median 2019 to 2020
LONG-TERM EBIT TRENDS

- 3% Change in Long-Term EBIT
- -24% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

MARKET CAPITALIZATION TRENDS

- 28.9% Over/(Under) S&P 500

- 3% Change in Long-Term EBIT
- -24% Change in 2020 EBIT

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

- 0% Change in Median 2019 to 2020
TECHNOLOGY - SEMICONDUCTORS & PRODUCTS

LONG-TERM EBIT TREND ANALYSIS

MARKET CAPITALIZATION TREND ANALYSIS

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020
LONG-TERM EBIT TREND ANALYSIS

-1% Change in Long-Term EBIT

-6% Change in 2020 EBIT

MARKET CAPITALIZATION TREND ANALYSIS

11% Over/(Under) S&P 500

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-15.0%
-10.0%
-5.0%
0.0%
5.0%
10.0%
15.0%
20.0%
25.0%
30.0%
35.0%
40.0%
45.0%


0% Change in Median 2019 to 2020

% Change in Long-Term EBIT

-6% Change in 2020 EBIT

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Technology - Software & Services
MEDIA & ENTERTAINMENT

LONG-TERM EBIT TREND ANALYSIS

-9% Change in Long-Term EBIT

-26% Change in 2020 EBIT

MARKET CAPITALIZATION TREND ANALYSIS

7.5% Over/(Under) S&P 500

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

-1% Change in Median 2019 to 2020
LONG-TERM EBIT TREND ANALYSIS

-9% Change in Long-Term EBIT
-12% Change in 2020 EBIT

MARKET CAPITALIZATION TREND ANALYSIS

1.6% Over/(Under) S&P 500

EBIT MARGIN DISTRIBUTION AS OF 5/31/2020

1% Change in Median 2019 to 2020
Methodology Overview

Study Methodology

- Industry Identification
- Company Searching & Identification
- Long-Term Year Identification
- Unique Circumstances
- Data Source & Model

INDUSTRY IDENTIFICATION

For this inaugural study, we have identified 24 industry groups across numerous sectors. These industry groups were identified based on consideration of the following factors:

- Traditional industry classification metrics (SIC Codes, GICS Sectors, Standard & Poor’s Classifications)
- Availability of a meaningful number of companies with discrete profiles that fit each industry considered
- Industries most highly impacted by the COVID-19 environment

COMPANY SCREENING & SELECTION

Company Screening

This study utilizes S&P’s Global Capital IQ database as the primary source for company screening, identification, and selection. For each industry included in this study, we considered both broadly-identified industries and sub-industries and, in certain situations, a combination of S&P-identified industries. Doing so required professional judgement and discretion from BDO.

The companies considered for each of the 24 industries identified in this study were limited to the top 20 companies by market capitalization in April 2020.

The companies with the highest market capitalization were used in order to maximize the amount of equity analyst coverage in each industry given the focus of the study.

Healthcare – Life Sciences is an exception, as the top companies were selected by revenue given the facts and circumstances of the industry.

COMPANY SELECTION

We reviewed the fundamentals, business descriptions, and operational profile of the companies returned from the screening criteria for 1) appropriateness to the identified industry and 2) sufficient comparability to the other companies identified within the industry. From this review, certain companies returned by the screening methodology were ultimately excluded from the final industry set. Online travel booking sites such as Expedia Group, Inc. and Booking Holdings Inc. were excluded from the “Online Retail” industry, for example.
LONG-TERM YEAR IDENTIFICATION

A key assumption in the study is the identification of the “Long-Term” year for each industry. A “Long-Term” year was selected for each industry based on 1) the number of companies within the industry set with equity analyst availability through that date, and 2) consideration of the percentage of the aggregate amount of revenue and EBIT those companies comprise of the total. This required a significant amount of professional judgement, as the amount of equity analyst coverage and forecast periods of equity analyst coverage vary industry by industry. Ultimately, we identified the “Long-Term” year for each industry by ensuring it comprised a majority of the companies in the industry group and a large majority of the percentage of the aggregate amount of revenue.

For a company to be included in the “Long-Term” analysis, the company was required to have equity analyst estimates for each year of the trend analysis and as of each forecast date analyzed in the study. A company included in a 2023 trend analysis was required to have equity analyst estimates for each period beginning in 2019 through 2023 as of each forecast date considered in the trend analysis, for example. In general, more companies have analyst estimates in the near-term (e.g. 2020 and 2021) than the long-term (e.g. 2023 and 2024) though this varies from industry to industry.

Thus, the selection of the “Long-Term” year for each industry required a balance between having a meaningful number of companies included in the trend analysis but also having the trend analysis go through a sufficient number of forecast years to provide information value. The table to the right presents the “Long-Term” year for each industry in the study.

UNIQUE CIRCUMSTANCES

After the selection of industries, companies, and “Long-Term” year, we performed a company-by-company review to identify any final adjustments required. Primarily, we identified companies with recent M&A transactions that would distort the trend analysis for the industry(s) in which the company is included. For example, T-Mobile US, Inc. was excluded from the long-term trend analysis as the acquisition of Sprint Corporation is included in the equity analyst estimates and results in forecasted financials that are not comparable prior year financials.
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