

# Coronavirus and Business Valuation

A Survey and Treatise as of August 2020

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*Published by*

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## Introduction

No single event since World War II has had a more profound impact on our way of life than the arrival of the coronavirus into the US in January of 2020. The full range of effects cuts across all areas of our society including a profound impact on our economy – and the value of businesses which permeate our day to day lives. The following analysis is an attempt to survey the landscape of business valuation as it has evolved to address the unique nuances of the COVID-19 era.

### Pre-COVID Versus Post-COVID

When evaluating a business in today's climate, the first major caveat is to clearly distinguish between the “pre-COVID” and “post-COVID” timeframes due to their extreme differences with respect to the operating and economic climate.

#### **Pre-COVID:**

- Relatively high market multiples
- Strong cash flow with generally low risk from historical perspective
- Expectations of continued macroeconomic and industry-specific growth

#### **During-COVID:**

- Some firms (industries) have benefitted but most have suffered by way of lower revenues and profits and higher risk
- Uncertainty at a maximum with corresponding negative impact on multiples for small and large entities alike from virtually every industry
- Unique time period wherein the recent past was still relevant – but increasingly less so each day
- Impact varies by size of company, industry, geographic location/target markets and time

#### **Post-COVID:**

- Future economic impact still not fully “known or knowable” but patterns and insights are emerging
- Economic downturn is now factual and has become a triggering event for updated valuations, e.g. ASC 350 (intangible asset impairment), ASC 360 (property, plant and equipment), ASC 718 (stock-based compensation), matrimonial dissolution, estate and gift tax planning (opportune time to transfer ownership stakes at lower valuations), SBA change of ownership loans, etc.
- Market volatility continues but expectations for a return to growth underlies improving equity values and valuation multiples
- Impact varies by size of company, industry, geographic location/target markets and time

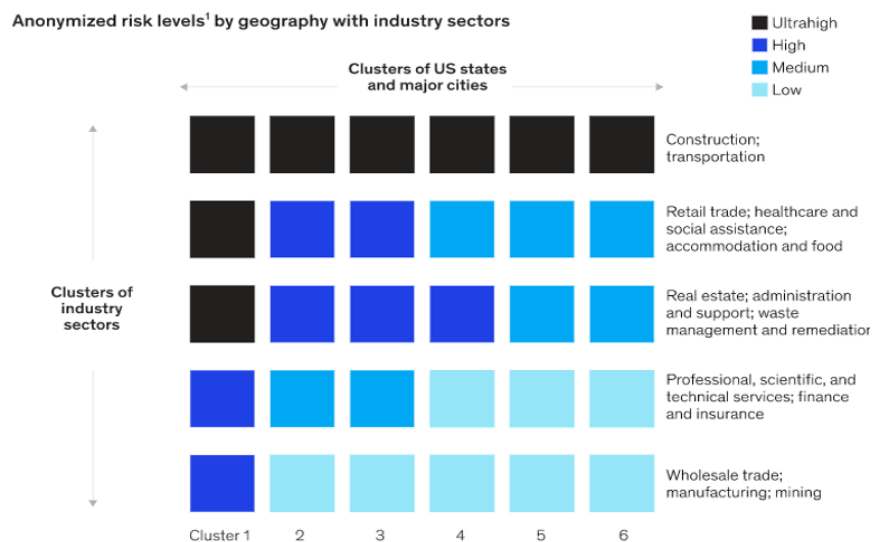
**COVID-19 has impacted the socioeconomic environment to an extent unparalleled in US history.** Macroeconomic developments have depressed company profits/cash flows and elevated their riskiness, providing a double-whammy to business value. As clarified later, it has also changed the way that business valuations are being performed. For example, one prominent appraiser recommends usage of a “1% COVID-19 risk premium” in the derivation of pertinent discount rates. Dealmakers, bankers and appraisers are also referring to a new measure of cash flow known as “EBITDAC” or earnings before interest, income taxes, non-cash expenses like depreciation and the coronavirus, i.e. EBITDA before coronavirus.

### Impact Varies by Industry, Geography and Time

The second major caveat is that every business must be evaluated based on its own unique set of circumstances as there will be variability in risk and future cash flows across different industries, different sizes of companies within the same industry and over time. Some companies were deemed essential and remained open, while others were required to close. Some businesses could shift employees to remote work, while others were ill equipped for the transition. These disparate impacts are likely to grow the longer the virus remains front and center in our collective consciousness.

The following charts were published by **McKinsey & Company** and provide perspective as to the divergent impact on businesses located in different industry-geographic intersections and within the same industry (automotive) and over time.

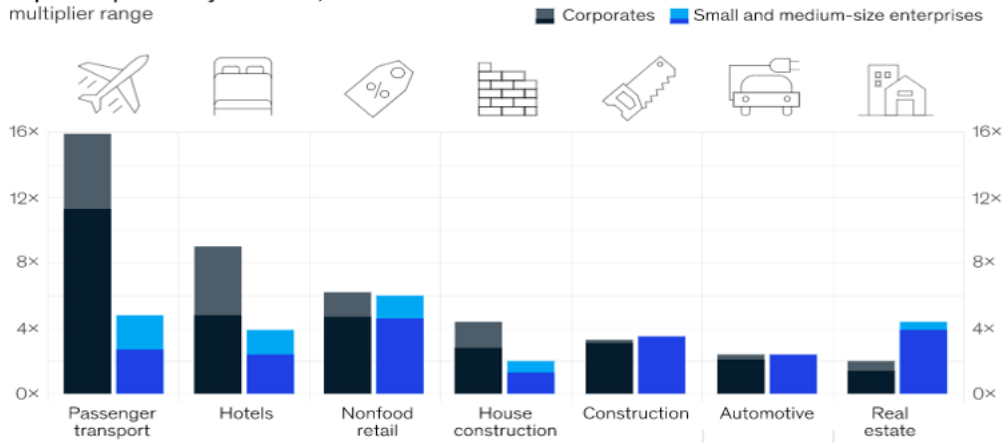
**A US bank assessed the impact of COVID-19 lockdowns, using risk levels for each industry–geography intersection.**



**McKinsey & Company**

**Sector analysis shows that probability-of-default shocks differ among subsectors.**

Impact on probability of default, multiplier range



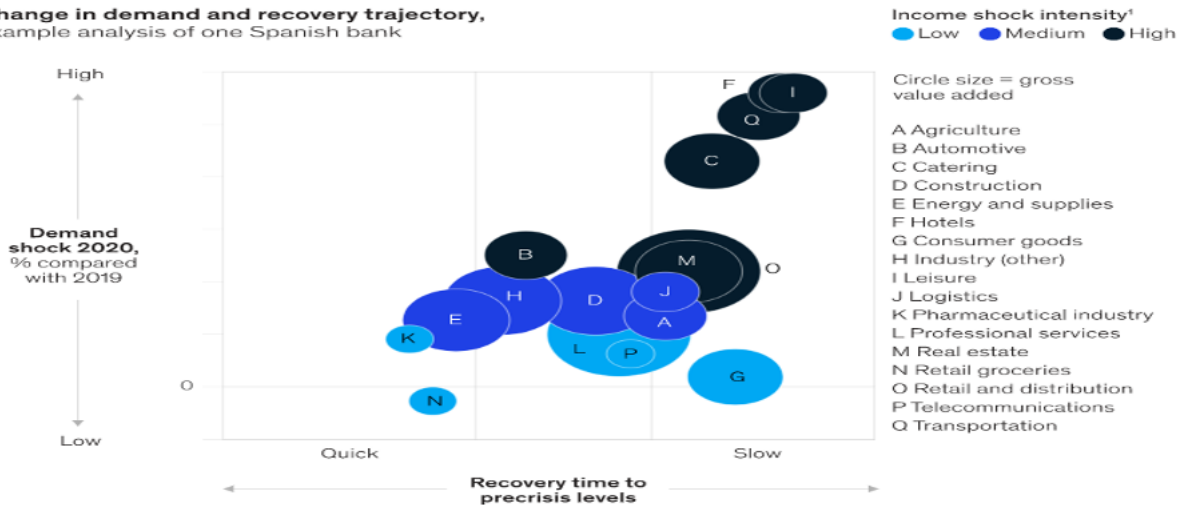
Automotive subsector focus, qualitative scale

- ↑ Maintenance and repair of motor vehicles
- ⊖ Manufacture of tires and tubes; retreading, rebuilding tires
- ↓ Manufacture of motor vehicles
- ↑ Manufacture of parts and accessories for motor vehicles
- ⊖ Wholesale trade of motor-vehicle parts and accessories
- ↓ Manufacture of motorcycles
- ↑ Sale, maintenance, and repair of motorcycles and related parts and accessories
- ⊖ Manufacture of bodies for motor vehicles
- ↓ Sale of cars and light motor vehicles
- ⊖ Manufacture of trailers and semitrailers
- ↓ Sale of other motor vehicles

McKinsey & Company

**The crisis-induced shock to profit and loss will differ by sector and subsector, along with recovery paths.**

Change in demand and recovery trajectory, example analysis of one Spanish bank



<sup>1</sup>Calculations are based on a sample of more than 500,000 companies in SABI database; estimated impact is a summary of more detailed calculations. Recovery trajectories are plotted to the AI scenario developed by McKinsey and Oxford Economics; this scenario foresees a muted global recovery, including a 10% GDP contraction in the eurozone in 2020, as well as slow long-term growth. Bubble sizes reflect gross-value-added contributions, calculated as GDP + subsidies – product taxes (for the real-estate industry, 65% of the value corresponding to owner-occupied rentals has been added). Excluded are the following sectors: financial institutions (including insurance), defense, health and social security, and education. Source: Eurostat

McKinsey & Company

## Fundamental Changes to Work and the Economy

As the financial impact from COVID-19 unfolds, many companies continue to grapple with sudden and dramatic shifts in demand for their goods and services. For some, lockdown orders which last for months will mean significantly reduced revenues and higher costs due to supply chain disruption and other issues, i.e. profits and cash flow measures such as EBITDA (earnings before interest, taxes, depreciation, and amortization) will be depressed. Even those firms which are not affected by business closures may still be incurring additional costs to keep their workforces safe.

One survey conducted during the first week of April, 2020 was published in the Proceedings of the National Academy of Sciences and revealed the following:

On average, firms rated the disruptions resulting from supply chain challenges to be 35 on the 100-point scale (which is in the “slightly disruptive” part of the scale). Concerns about employee health were more prominent, with firms rating it as 57 out of 100 (which maps to “somewhat disruptive”). Reductions in demand were even more disruptive, with firms rating the importance of this to be 79 out of 100 (extremely disruptive). While closed firms noted worse disruptions due to demand, the basic ranking of the different disruptions was consistent across different types of firms. These findings suggest, thus far, that supply chain problems have been less pronounced, relative to disruptions resulting from demand shocks and concerns about employee health.

Freedonia Group reports that there is renewed interest in examining supply chains, in some cases expanding the US manufacturing base and in other cases diversifying the supply chain rather than counting on a single or limited number of source locations. The White House has even gone on record stating that any future stimulus must invest in creating manufacturing jobs in the US.

While there has been an emphasis on such industries as personal protective gear, the fact of the matter is that a wide range of manufacturing industries are interested in reshoring production in the US. For instance, a number of companies in the building and construction industry are equally interested in seeing more US firms doing manufacturing locally rather than globally. The advantages of this shift would include:

- minimized risk of supply dislocations – more firms operating closer to US customers would boost market responsiveness
- local economic growth – US manufacturing firms tend to offer high wages, which would enhance the purchasing power of US consumers
- continued development of natural resources – US energy costs, supported by rising use of low-cost natural gas and solar power, can allow domestic manufacturers to spend more on production or technical development

At the same time, rising wages in many parts of Asia, coupled with increasing automation in US factories, is making reshoring a more cost efficient proposal for certain industries.

A paper published by IBM in their THINK Blog concludes that “business agility” will be essential going forward into the post-COVID era. As we move through the pandemic, and states and businesses in the United States begin to carefully re-open, U.S. consumers’ attitudes toward life and work are continuing to evolve, according to new research from the IBM Institute for Business Value (IBV).

The IBV polled more than 18,000 U.S. adults in May and early June to understand how COVID-19 has affected their perspectives on topics that include remote work; the return to the workplace; where they want to live; how they want to shop; and their preferred forms of transportation. The research follows a similar study conducted in April, which had already identified significant shifts in consumer attitudes as a result of the pandemic.

The results signal that consumers are preparing themselves for more permanent changes in behavior because of the pandemic and their fears about future outbreaks. Two of every three respondents said they were concerned about a second wave of COVID-19 hitting later in 2020. More than 60 percent said they believed there were likely to be more global pandemic events like COVID-19 in the future.

Some of the key findings included:

- Living in Urban Areas is Becoming Less Desirable
- Mobility Patterns Will Change and Personal Vehicles Are Likely to Win
- Remote Work is Here to Stay
- Employees Will Demand a Careful Re-Entry to On-Site Work
- Consumer Retail Preferences Have Shifted Significantly

The new research suggests that organizations in every industry must pay attention to their customers’ shifting preferences. And they must respond with agility: by adopting technology, rethinking processes and most importantly addressing culture in order to emerge from the pandemic smarter and stronger.

Customer behaviors have changed in response to the pandemic, with many people embracing more digital experiences across all aspects of their lives. Many of those changes will be permanent. Across every industry, organizations are seeking to better understand these changing needs and adjust products, services, policies and culture to not only adapt, but also to emerge stronger.

The future is still uncertain, of course. But there are two trends that seem likely to differentiate winning enterprises: accelerated adoption of technology, specifically Cloud and AI; and investment in people, culture and skills as much or more as they invest in technology.

While the severity and length of the pandemic remain uncertain and longer-term repercussions unclear, many companies are closely monitoring the effects of the pandemic on EBITDA, a key measure often used in financing arrangements and in valuing a business. Indeed, we find some companies are adjusting EBITDA for the impact of COVID-19 and have coined the term “EBITDAC,” to represent EBITDA before coronavirus.

## Winners and Losers

For many business owners in specific industries such as Food Service (bars and restaurants and buffets), Gyms and Health Clubs, Hair and Nail Salons and most segments of the travel industry, the effect on the business and therefore the business owner, employees and landlords has been devastating.

For other businesses in different industries such as Niche Manufacturing, Telecommunications, Business Services and Wholesale/Distribution companies there has been some affect, but it has been limited.

Some industries such as Construction, Logistics, Information Technology, Entertainment and Packaging have seen a benefit.

For example, Residential Construction or Residential Service industries such as HVAC, Landscape and Gardening, Windows and Doors are doing well because the stimulus money from the CARES Act is allowing home owners to spend their money on upgrading their homes now many are working more from home.

Looking to the future, the Freedonia Group’s “COVID-19 Economic Impact Tracker” report includes predictions for changing product and service demand over time and specifically into the cooler and colder weather of Fall and Winter:

- space and outdoor heaters, for more comfortable socializing on patios, decks, and elsewhere outdoors as the temperatures drop
- garage conversion kits, to organize the piles of stuff and turn those space into workout/hobby/office area or extra room for semi-outdoor, physically distant socializing
- canning supplies and freezers, since people will want to store all that summer garden bounty
- indoor gardening and smaller hydroponics kits, as some consumers will carry that gardening urge indoors



- enhanced IT infrastructure, as families will likely need more devices (additional laptops and tablets) and more bandwidth to handle regular remote learning, sometimes for more than one child while one or both parents are also still working remotely
- indoor air cleaners with HEPA filters and UV lights, which are being targeted to improve air quality and possibly slow the spread of the coronavirus
- air duct cleaning, as homeowners will be looking to get rid of dust and potential build-up of other breathing hazards as the windows start to stay closed
- professional deep cleaning of surfaces (walls, ceilings, floors); a lot of homeowners undertook renovation projects, so now it's time to clean up
- golf equipment, as many schools have identified as one they will consider still offering since it is by nature a no-contact, physically distant outdoor activity
- winter outdoor sports equipment, since skiing, snowboarding, snowshoeing are all options for no-contact physically distant outdoor activities in the winter
- video game systems: a reward for bored kids? A way for parents to get some peace and quiet? Connected systems to allow kids another way to play with their friends, but not in person? Sure. It doesn't hurt that the next generation of PlayStation and XBOX consoles will be available in November, also.
- sheds, tiny houses, and granny pods: whatever you want to call them, these supplemental structures provide an option for additional office space, classrooms, and play space, as well as room for guest stays and clean socializing (keeping people out of the main home)

<https://www.freedoniagroup.com/Content/COVID-19-Economic-Impact-Tracker>

In the public stock realm, Deutsche Welle reports that companies such as Tesla, Netflix, Peleton, Nintendo, Spotify, Apple, Microsoft, Amazon, Facebook, Paypal, Twilio, 3M and others have been big winners.

## **US Chamber of Commerce/MetLife Coronavirus Impact Poll (July 2020)**

Across the country, more small businesses report reopening and have cautious optimism about the future despite concerns about a resurgence of the coronavirus according to the latest MetLife & U.S. Chamber of Commerce Small Business Coronavirus Impact Poll (conducted via online survey due to virus).

The survey focused on the ongoing impact from the coronavirus. This month, more small businesses say they are open, mostly due to an increase in businesses saying they are fully open. Small businesses that temporarily closed at some point since the pandemic began are more likely to say that they reopened this month (69%) than in late May (43%). This month, 86% of small businesses surveyed report they are either fully (52%) or partially (34%) open, up seven points from 79% in May.

Still, most small businesses are concerned about financial hardship due to prolonged closures (70%) and more than half worry about having to permanently close (58%). This month, more expressed concern over the lack of guidance on proper reopening procedures, up eight percentage points from late May (56% vs. 48% in May).

Though small businesses are pressing onward, concern over a second wave remains high. Two-thirds of small businesses (65%) are concerned about having to close again or stay closed if there is a second wave of COVID-19. Concern is particularly high among small businesses that already had to temporarily close (85%). The most common actions taken to prepare for a second wave are purchasing additional supplies or products to prevent a future shortage (32%), updating websites or social media profiles (29%), and increasing e-commerce or digital payment options (25%).

When it comes to the economy, perceptions of the national economy have steadied after declining sharply earlier this year. Though the overall number saying the national economy is in poor health is unchanged, slightly more say it is “very poor” compared to late May (24% now vs. 18% then). At the other end of the spectrum, 28% say the national economy is “good” (statistically similar to 24% who said the same in May).

Fewer small businesses perceive their local economy as in poor health (39%) when compared to the national economy (55%). Overall, small business views of the local economy are steady: 31% view their local economy as in “good” health compared to 28% in May. 39% see the local economy in “poor” health, statistically unchanged from May (38%).

55% of small businesses report good overall health, statistically similar to what was seen in late May (53%). In comparison, 65% reported being in good health in the first quarter of this year.

Comfort with cash flow holds steady this month (55% reporting comfort now versus 56% late May), although significantly below historical readings (above 80% in each quarter of 2019).

Over the long term, small businesses show signs of guarded optimism, but feel it will be some time before things return to normal. More than half of small businesses believe it will take six months to a year before the small business climate returns to normal (56%), in line with late May’s 55%. Another 7% think that it will never return to normal.

More than half expect next year’s revenues to increase (53% vs. 50% in May and 47% in April), while 18% expect them to decrease. Small businesses are now more likely to report plans to increase investments in the upcoming year (35%), up eight percentage points from May.

Staffing levels are in flux. 60% of small businesses report maintaining the same size staff over the last year (down from 67% in May), 20% report increasing staff over the same period (up from 13% in May), and 17% report decreasing staff during that time (similar to 18% in May). However, hiring expectations are somewhat improved: More small businesses anticipate increasing staff in the next year, up seven percentage points (30% versus 23% in late May).

## Changing Economy and Changing Valuation Considerations

For the majority of businesses, COVID-19 has changed the ways they operate and in many cases these changes will be permanent. This has led to changes in the way business appraisers value businesses. As valuers prepare business valuations over the coming weeks and months, they will likely pay closer attention to:

- Their use of subsequent events;
- Their selection of valuation methods, and;
- The subject company's cash flow and risk level, cash reserves and access to capital

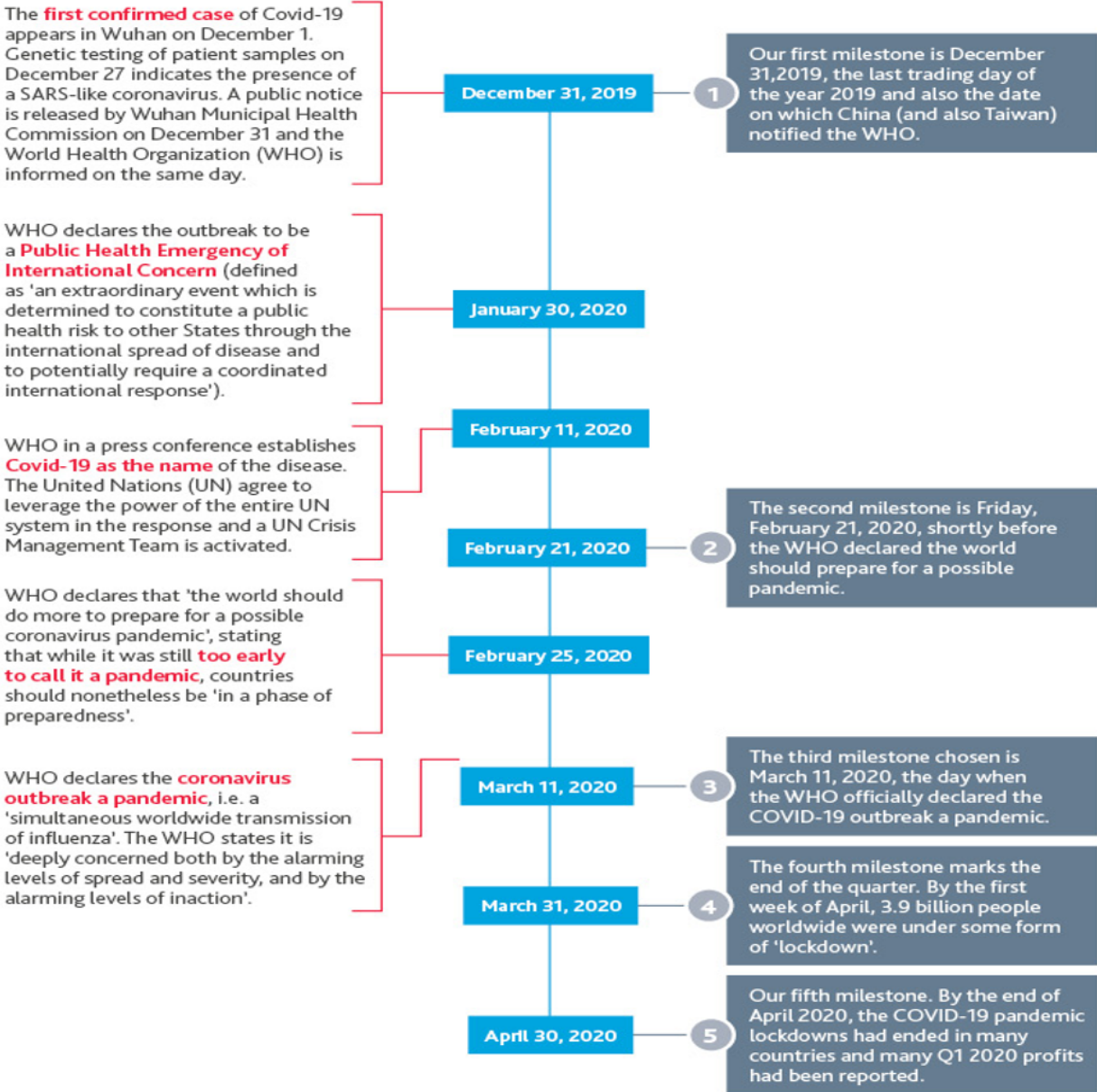
### Valuation Date, Subsequent Events and Selection of Valuation Methods

The decision upon which valuation date should be adopted becomes more important than ever. The underlying concept of business value is that it is determined at a specific point in time. To determine the value of a company at a valuation date, a business valuator can only consider information and facts that were known or would have been foreseen at the valuation date.

Accordingly, if the valuation date would be December 31, 2019, the wide-ranging impact of COVID-19 that we now understand could not have been foreseen. That means the value of a company as at December 31, 2019 will almost assuredly be very different than its value as of June 30, 2020.

In determining if the impact was known or knowable as of the valuation date, a valuator needs to understand the timeline of key events associated with COVID-19 in the U.S. Most valuation experts believe that as of December 31, 2019, COVID-19's impact was not known or knowable. The first documented case in the US was on January 21st of 2020 (close to 7 months ago).

## THE EMERGENCE OF COVID-19 – TIMELINE AND MILESTONES



Source: WHO, BDO analysis

For valuation dates effective in March through July, valuers will have to make an assessment based on the specific valuation date, the information that was known and available as of that date, and to what extent it should be taken into account in the valuation.

The impact of COVID-19 on business valuations performed during the second quarter of 2020 (and into the 3rd quarter) is not solely based on what was known or knowable. Even if a certain fact or assumption was not “known or knowable” as of a specific date, the valuator must also consider the purpose of the valuation and the equity of either including or excluding COVID-19 impacts.

In general, valuations which involve litigation are strengthened by the inclusion of actual, real-world events (such as COVID-19) into the valuation analysis, i.e. professional standards allow for the disclosure of significant subsequent events. For example, the AICPA business valuation standards state that “in situations in which a valuation is meaningful to the intended user beyond the valuation date, the events may be of such nature and significance as to warrant disclosure in a separate section of the report in order to keep users informed.”

Therefore, a valuation expert may include additional analysis and language explaining the impact of the subsequent event (COVID-19) on the performance and value of the subject company. As with many other valuation decisions, whether to account for the COVID-19 pandemic in a valuation will be based on each valuation’s specific facts and circumstances.

The use (or avoidance) of subsequent events in a valuation will have a direct impact on the application of valuation methods. For example, the dramatic impact of COVID-19 on many businesses and their probable future cash flows will force many valuers to utilize a multiple period discounting method (aka discounted cash flow analysis) in lieu of a single period capitalization method. The “multiple period” component allows for the proper modeling of future cash flows which incorporate a “return to normalcy” as the economy stabilizes and returns to growth.

The fact that a DCF approach is more suitable under COVID-19 conditions does nothing to affect the accuracy or reliability of the value estimate. To the contrary, this method will be even more challenging to apply (as compared to the pre-COVID world) due to the rising uncertainty and corresponding difficulties of predicting future financial performance.

Professional standards require use of “the most likely” future cash flows with many appraisers relying on a three-scenario presentation including “pessimistic”, “most likely” and “optimistic” cash flow projections.

## Business Value Depends on Expected Future Cash Inflows

Valuations are based in part on projections and estimates. The quality of cash flow projections is a critical determinant of the credibility of valuations during these unprecedented times. As noted, the DCF model has become the preferred methodology as it allows for careful evaluation of the probability attached to various scenarios in order to take into account events such as a second wave or the availability of a vaccine.

Cash flow projections not only take into consideration the drop (or growth) in sales but also factors such as government loans and subsidies or rising costs due to changes in operations or required personal protection equipment, etc.

### Macro and Micro Considerations

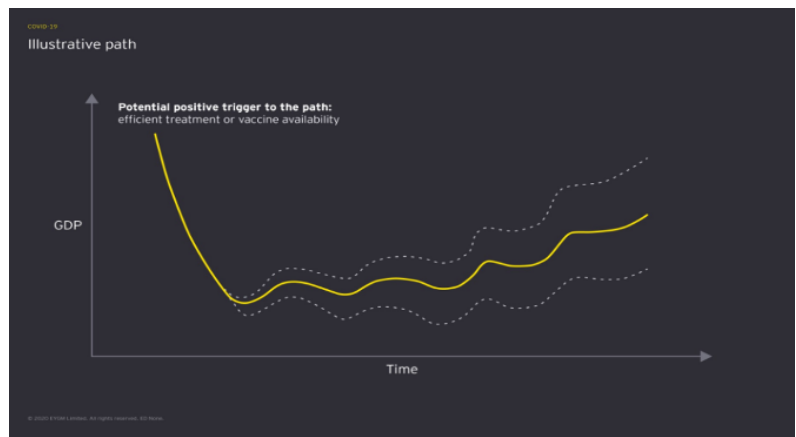
When assessing COVID-19’s impact on a business and its future cash flows, there are two general sets of considerations that play a key role: macroeconomic and business- and industry-specific. Investors and valuers alike put a premium on stability and predictability of cash flows. After all, value is a function of normalized future income. Adjustments will likely be necessary to normalize profitability and account for the sustainability of business lines and future cash flow expectations within the COVID context.

### Changes in Macroeconomic Conditions

Prognosticators have put forth a variety of expectations with respect to probable future macroeconomic output in the US economy. V-shaped? L-shaped? U-shaped? A new perspective has been proposed by Ernst & Young in the form of a repeating “WW” or “saw-shaped” recovery based on the assumption that no widespread effective treatment will be found for COVID-19 in the next 12 to 18 months. While governments and health services will be continually fighting flare-ups, they will have learned more sophisticated ways to suppress future outbreaks.

“While spikes in infections remain highly likely, the full national lockdowns that have brought economic activity to a standstill are less so,” says Patrick Winter, EY Asia Pacific Area Managing Partner. “The net result will be varying rates of growth for sectors and geographies, with periods of acceleration offset by setbacks.”

Companies should increase agility and build resilience for a ‘saw-toothed’ economic recovery and a fast-changing environment. E&Y believes that the most likely macroeconomic scenario is this saw-toothed economic recovery:



Besides changing profit and cash flow patterns, pertinent valuation multiples (or discount/capitalization rates) are also evolving. Several factors related to COVID-19 have impacted the determination of valuation multiples, cap rates and discount rates. One common approach for estimating pertinent discount rates (risk-adjusted, required rates of return) is the “buildup method”. A basic variant of this method is as follows:

Risk-Free Rate  
+ Equity Risk Premium  
+ Size Premium  
+ Company Specific Risk Premium

Discount Rate (expected or required rate of return)

The equity risk premium alone has increased by 0.5% to 1.50% post COVID-19 based on various sources and valuation organizations. This metric is a component of discount rate and valuation multiple calculations. The increase in the equity risk premium indicates that the required rate of return is now higher to compensate for the risk of investing in the stock market over a risk-free investment. This factor alone reduces the multiple to be applied in valuing a company.

The size premium in essence accounts for the fact that larger firms with greater profits and cash flows are less risky than smaller firms with lower profits and cash flows.

Company Specific Risk Premium (Changes to Business and Industry-Specific Conditions)

Other company and industry-specific factors are reflected within the company specific risk premium which impacts the cost of equity and debt should also be examined carefully. This premium accounts for the incremental risk over and above that associated with the smallest of publicly-traded companies as captured by the “base” or “Pre-CSRP” discount rate (presented later in this section). Some of these risk elements are addressed below:

Is the industry resilient? How is the subject business coping with the new environment? Is there ample access to liquidity? flexibility, innovation and strong Are management personnel flexible, innovative and stable?

### **COVID-19 as “Black Swan Event”**

Many financial experts including those from E&Y have discussed the COVID-19 crisis as a type of “black swan” event. A black swan is an unpredictable event that is beyond what is normally expected of a situation and has potentially severe consequences. Black swan events are characterized by their extreme rarity, their severe impact, and the widespread insistence they were obvious in hindsight

- A black swan is an extremely rare event with severe consequences. It cannot be predicted beforehand, though many claim it should be predictable after the fact.

- Black swan events can cause catastrophic damage to an economy, and because they cannot be predicted, can only be prepared for by building robust systems.
- Reliance on standard forecasting tools can both fail to predict and potentially increase vulnerability to black swans by propagating risk and offering false security.

The Covid-19 pandemic has created considerable uncertainty regarding the short-term outlook for the economy and business activity and the recovery period for the broader economy. No one can project or predict with certainty the magnitude of the short-term economic consequences resulting from the pandemic.

Bizequity believes that the long-term prospects for the United States' economy remain favorable after the Covid-19 pandemic ends as we are already starting to see an uptick in economic activity now that many states are easing restrictions and lifting shelter in place/lockdown orders. From a long-term perspective, this black swan event is likely to have a transitory impact on the economy and business values. The pandemic will end at some point and people will return to work as businesses resume operations.

The "black swan" events from history provide ample evidence that investing in a small business is inherently risky. Each small business has different risk characteristics. As implied earlier, investors or buyers of these businesses are compensated for this risk via a higher rate of return in the form of the company specific risk premium.

This is a subjective risk premium based on the appraiser's judgment, assessment of risk factors and analysis of total risk and return.

Other factors that an appraiser may consider in developing the company specific risk premium include:

- the business's historical, current and anticipated financial performance (income statement) and position (balance sheet)
- the long-term outlook and stability of the industry
- the depth of the company's management and the importance of key personnel
- competition and competitive advantages/disadvantages
- the company's location/geographic region and extent of customer base
- product/service, personnel, supplier and customer diversification
- customer concentration
- leverage and financial risk
- activity and profitability assessments



**Impact of Changing Discount Rate on Equity Value**

Both or either rising cash flows and a lower risk assessment will serve to raise company or equity value. Conceptually, appraisers can account for the pandemic’s impact on the value of a business in two ways:

- 1) consideration of the impact on the company’s cash flow
- 2) an adjustment to the risk profile via the company specific risk premium

Seasoned and well respected appraiser Z. Christopher Mercer is recommending use of a 1% COVID-19 risk premium (as follows):

**Increase in Discount Rate Based on COVID-19 Risk Premium of 1% (prior to CSRP)**

	Pre-COVID	During-COVID
Risk-Free Rate	3%	3%
+ Equity Risk Premium	5%	5%
+ Size Premium	6%	6%
+ COVID-19 Risk Premium	<u>0%</u>	<u>1%</u>
Base (Pre-CSRP) Discount	14%*	15%*

14% to 15% represents a relative increase of nearly 7%

*\*For purposes of exposition, both of these are “base” discount rates which reflect the risk associated with the smallest of publicly-traded companies. Private firms are subject to incremental risk in the form of the company specific risk premium or CSRP.*

The premiere publisher of risk premia for business valuers Duff & Phelps (D&P) has raised their recommended “risk-free rate plus equity risk premium” to 3% plus 6% or 9% overall from its lower pre-COVID level of 8% overall. The equity risk premium was raised from 5% to 6% and the risk-free rate

For perspective, consider that a 1% increase in the company specific risk premium amounts to an approximate 7% increase in the overall discount rate and a 7% reduction in business value (as follows):

**Increase in D&P Base Discount Rate Due to COVID-19 (prior to CSRP)**

	Pre-COVID	During-COVID
Risk-Free Rate	3%	3%
+ Equity Risk Premium	5%	6%
+ Size Premium	<u>6%</u>	<u>6%</u>
Base (Pre-CSRP) Discount	14%*	15%*

14% to 15% represents a relative increase of nearly 7%

*\*For purposes of exposition, both of these are “base” discount rates which reflect the risk associated with the smallest of publicly-traded companies. Private firms are subject to incremental risk in the form of the company specific risk premium or CSRP.*

**Effect on Equity Value Due to 1% Increase in D&P Base Discount Rate**

Value of Equity Based on \$100K Net Cash Flow and 14% Cap Rate	\$714K
Value of Equity Based on \$100K Net Cash Flow and 15% Cap Rate	\$667K
Absolute Decline in Value Based on 1% Increase in Discount Rate	\$47K
Relative Decline in Value Based on 1% Increase in Discount Rate	7%

**Final Comments Regarding Use of DCF in COVID-19 Environment**

When using a DCF model to value a business affected by COVID-19 (or any business for that matter), the following perspectives and steps as recommended by KPMG should be considered.

**Using DCF for COVID-19 Affected Businesses**

- Fair market value should reflect market participants’ assumptions based on information available and market conditions as of the valuation effective date.
  - The drivers of value include:
    - What is impact of Covid-19 on business ability to operate through a partial or full shutdown? Ability to control costs and cash flows, inventory and exposure to impacted supply chains, sustainability of product/service lines)?
    - What are the short-term, medium-term and longer-term impacts of a market disruption on the business?
    - What are the special strengths or weaknesses of the company during a pandemic/recession which impact the company’s ability to rebound (recover lost revenues, trajectory)?
    - Does the company have any liquidity, solvency, and/or loan or investor covenant concerns? Does it have access to additional capital and liquidity?
- It is a market-based measurement and the following factors serve as guiding principles when conducting valuation:
  - What are the market conditions and market participant assumptions?
  - What constitutes an orderly transaction?
  - What is known and knowable at the measurement date?
- The greater uncertainty may translate into greater risk and a corresponding higher required return and may have a negative impact on the valuation of businesses.
- Care should be taken not to “double dip” the value (e.g. same risk is reflected on both discount rate and cash flow projections or the lower expected performance has been reflected in the financials but not in market multiples).

- Valuation should be backed by robust documentation with external evidence to support how the changes in assumptions/ inputs are derived.
- Additional sensitivity analysis/scenario analysis should also be done to illustrate the impact of any changes in the key assumptions and include the same in the valuation analysis/disclosures (pessimistic, most likely, optimistic)

## Changing Valuation Methods Due to Arrival of COVID-19

For valuations that were being completed in the first few months of 2020, Jennifer Lynch of Eisner Amper reports that most private equity firms were using a weighted approach between the guideline company method, using market multiples, and a discounted cash flow method, utilizing the projected performance of the subject company. When preparing valuations using the guideline company method, there is a timing disconnect between market cap data, which is as of the valuation date, and earnings data, which is usually from the prior month or prior quarter. During periods of market stability, this timing difference is generally not an issue.

As the COVID-19 pandemic became an increasing concern in early 2020, timing differences started to become problematic when determining multiples of guideline companies. Through March 31, 2020, market caps had decreased 30%-40% due to the uncertainty created by COVID-19, but the earnings being used to derive multiples were from an earlier, pre-COVID 19 period. As a result, multiples in many industries declined consistent with the decline in market caps, as the impact of COVID-19 was not reflected in the earnings used to determine the multiples. Due to this disconnect, many firms opted to reduce or eliminate the weighting of the market approach for March 31, 2020, valuations.

Due to the continued timing issues surrounding the use of the guideline company method, there has been an increased focus on the subject companies themselves, their individual exposure to COVID-19, and how it will impact short- and long-term projected performance (all of which lends itself neatly to a discounted cash flow model).

### **Unique Adjustments to Earnings Stemming from COVID-19 (EBITDAC)**

Irrespective of the many changes outlined throughout the preceding pages, the fact remains that measures of adjusted profits such as EBITDA will remain central to the valuation of most companies.

**Earnings Before Coronavirus**

As noted earlier, the term EBITDAC (with the C standing for Coronavirus) has emerged (as discussed in a CFO article from June 24th, 2020 titled “Shining a Light on Earnings Adjustments”) with the implication being that earnings should be stated on an “as if the coronavirus did not occur” basis.

EBITDA is utilized not only for purposes of valuation, but also as a loan or other types of financial covenants. Credit agreements typically allow for a variety of adjustments when reporting EBITDA including “extraordinary”, “unusual” and “non-recurring”. These are the same types of adjustments made by appraisers to “normalize” earnings and apply valuation methods.

**Table 1: Selected EBITDA Adjustments**

<p><b>Extraordinary</b></p>	<p><b>U.S. GAAP no longer defines (ASU 2015-01, issued January 2015).</b> Under the historical GAAP definition, an underlying event or transaction had to be (i) of an unusual nature and (ii) infrequent, i.e., the type that would not reasonably be expected to occur in the foreseeable future, taking into account the environment in which the entity operates.</p>
<p><b>Nonrecurring</b></p>	<p><b>U.S. GAAP does not define.</b> SEC rules and regulations provide guidance which commonly interpret “nonrecurring” items as those items which have not occurred within the most recent two years and are not expected to occur within the following two years.</p>
<p><b>Unusual</b></p>	<p><b>U.S. GAAP defines.</b> An underlying event or transaction that possesses a high degree of abnormality and is of a type clearly unrelated to, or only incidentally related to, the ordinary and typical activities of the entity, taking into account the environment in which the entity operates.</p>

While the types of allowed adjustments differ by credit agreement, in general, the ability to maximize add-backs provides increased capacity for incremental debt, dividends, and investments. For companies under stress from COVID-19, additional add-backs may mean avoiding default on their credit agreements.

**Cash Expenses Attributed to COVID-19**

The authors of the CFO article note that cash expenses which can be clearly identified and are directly attributable to COVID-19 will be fairly common add-backs. These types of adjustments are consistent with both professional business valuation standards and recently released SEC guidance for disclosing the impact of COVID-19 which highlights that adjustments to EBITDA be both:

- (a) incremental to charges incurred prior to the outbreak and not expected to recur once operations return to normal and
- (b) clearly separable from normal operations

**Lost Revenue or Missing Margin Adjustments**

They have also seen more subjective adjustments such as those that relate to lost revenue or missing margin. These adjustments are inherently more controversial given the amounts are more challenging to isolate, quantify, and factually support. Although it is clear that many businesses are affected by closures and stay-at-home orders, it is difficult to quantify the effects on lost business and separate the effects from other drivers. In addition, there may be significant uncertainty with respect to when activity will return to pre-COVID-19 levels, if ever, for the reporting entity.

**Table 2: COVID-19 Related Adjustments—Examples**

ADJUSTMENT SUBJECTIVITY	
• Hygiene supplies and expenses (e.g., masks, disinfectant, and cleaning products)	• Lost revenue/volumes
• Pandemic planning expenses	• Missing contribution margin
• Hazard pay expenses	• Supply chain disruption
• Event cancellations related to the pandemic	• Operational inefficiencies
• Contract terminations due to the pandemic	• Prospective cost structure changes

**CARES Act Adjustments**

EBITDA measures may also be impacted by participating in U.S. government stimulus programs, such as those provided by the Coronavirus Aid, Relief, and Economic Securities Act (“CARES Act”). This program provides forgivable loans to eligible borrowers through the Paycheck Protection Program (PPP) if certain conditions such as maintaining specified levels of payroll and employment are met.

The impact these loans will have on key financial measures could come down to whether the company meets eligibility and loan forgiveness criteria — and how loan proceeds are accounted for. Unfortunately, U.S. GAAP does not specifically address the accounting for an business entity that obtains a forgivable loan from a government entity. It is the case that emerging accounting interpretation suggests that loans under the PPP may be reported as either debt or an in-substance government grant. Companies that recognize loan proceeds as debt would accrue

interest over the loan term. If any amount is ultimately forgiven, income from loan extinguishment would be recognized as a gain in earnings. In contrast, companies that apply grant accounting would not record any debt. (See summary in Table 3 below.) It will also be important to consider how companies consider any adjustments for loan forgiveness gains to the extent add-backs for other losses are being made.

In practice, we expect the alternatives, coupled with uncertainties about the loan forgiveness criteria, could lead to some diversity in practice around the manner and timing in which the accounting is recognized.

**Table 3: Accounting Alternatives for COVID-19 Government Loans**

<b>Accounting alternative</b>	<b>Accounting consideration</b>	<b>EBITDA Impact</b>
<b>Debt</b>	Treated as debt instrument applying the interest method, which should take into account any payment deferral for the loan.	Debt extinguished when all loan forgiveness conditions are met. Gain recognized when company is legally released from obligation.
<b>In-substance grant</b>	Treated as a conditional grant (akin to a gain contingency) and recognized on the balance sheet as a current liability rather than debt.	Gain is deferred and recognized when uncertainties are resolved and grant forgiveness requirements are satisfied. Gain may be presented as other income, or as an offset to the expenses that the grant was used for.

The authors Jonathan Nus and Michael Tamulis note that a number of other accounting issues have arisen from COVID-19 that could impact EBITDA. These issues include rent concessions provided to tenants impacted by the economic disruption as well as restructuring costs associated with lease exits, severance, and other disposal activities.

## Final Comments

In conclusion, COVID-19 has unleashed a once in a lifetime economic tsunami around the globe. There has been no economy or business which has escaped the wide-ranging impacts of this deadly virus. One unique element of this most recent economic shock is the diverse nature of the impact being felt from one industry to the next, from one geographic area to the next and from small to large businesses. As a result, *generalizations are nearly impossible* and each company must be evaluated on its own unique constellation of strengths, weaknesses, opportunities and threats during the “Post-COVID” era.

Despite the inability to generalize, wide-ranging data collected by Bizequity from myriad sources suggest with high confidence that the average multiples paid for private companies during the 2nd Quarter of 2020 declined from around 4.7 times to 4.4 times EBITDA. This represents an average decline of 6% to the average multiple on top of what was a definite decline in the average level of EBITDA for these companies. *The combined impact of reduced multiples and lower EBITDA generation culminated in an overall decline in average value of approximately 15%.*

By comparison, the Dow Jones Industrial Average rose from 22,327 on 3-31-20 to 25,812 on 6-30-20 or by approximately 15%. The S&P 500 Index rose by a quarterly record of 20% and the NASDAQ rose by a whopping 30%.

Just one quarter before the outbreak in the second quarter of 2020, the United States had record setting growth, employment, and stock market figures. Banks and other financial institutions were better capitalized than they had been in several decades. Private equity groups and venture capital funds were sitting on around \$150 billion in “dry powder” (committed but unallocated capital). Once the pandemic environment was recognized, the Federal Reserve resumed its overly accommodative monetary policy while the federal government was reasonably proactive in supporting both businesses and households.

These favorable conditions have no doubt blunted the potential impact of a literal shutdown of the US economy. It is our belief that we are already in a period of economic recovery as of July 2020. Some industries will rebound or even have rebounded more rapidly and fully than others, while other industries such as retail, aviation, transportation, and some areas of manufacturing will not recover for 18-24 months. *Despite the never seen before depth of decline in output and income levels, the US economy remains in a position to counter this with an unprecedented economic recovery.* As the economy recovers, so too will business values across the economic spectrum.

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