

An Update on COVID-19 and CRE

Special Report

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Executive Summary. The novel coronavirus (COVID-19) will likely cause a near-term economic recession in the U.S. with significant spillover effects into CRE. In this report, we assess the likely length and depth of impact of COVID-19 based on recent medical studies and CDC guidance. The economic fallout will initially be concentrated within select employment sectors, namely: transportation, retail and leisure/hospitality. The expected decline in total U.S. employment will be significant but mitigated to some extent by fiscal and monetary policy responses. The downturn will increase risk on all investments and have implications for CRE cap rates and valuations. We provide an initial estimate of a potential increase in spreads in the CRE market from a current level of 250 bps to 600 bps or more. Given that 10-year Treasuries are now yielding about 1%, this could mean cap rates will rise to as high as .07 over the next four quarters.

Introduction:

As we indicated in our Winter 2020 Outlook, after 10 years of continuous expansion, economic growth would be difficult to sustain. We also noted that the impact of COVID-19 could be a risk to the economy and exacerbate a decline, which it has. What follows are some thoughts on the current situation, likely effects on specific sectors of the economy and related CRE, as well as remedies that have been proposed to ease the impact.

Making assessments of the impact on CRE requires some idea as to the short- and long-term effects on occupancies, NOI, cap rates and value. To do this, we first provide some context to better understand some of the major factors likely to effect the course of this virus.

Length and Depth of Impact:

This aspect of the analysis is very problematic. A very authoritative article has just been published in the New England Journal of Medicine (NEJM)* providing results from a case study of an individual infected by COVID-19 through the entire cycle from pre-hospital admission to recovery. Results from this study indicated that symptoms were present for about 4 days prior to hospitalization, which lasted an additional 8 days (this is consistent with the CDC guidance of 14 days of active monitoring/quarantining for persons exposed). However, other studies from around the world indicate that some patients remained positive from up to 12-32 days after initially presenting symptoms. This makes the period during which the virus remains active difficult to pinpoint and to make estimates.

- It should be pointed out that very healthy patients (thought to be about 80% of the U.S. population) if infected, will naturally progress through the infection of the COVID-19 virus. Although in many cases those affected are likely to go through a period of major discomfort (fever, weakness and body aches) before recovering. There is also early research supporting the idea that patients may retain future immunity against recurrence of this virus.
- Unfortunately, a sizeable segment of the population may not have adequately functioning immune systems or are otherwise immunocompromised due to underlying conditions. This generally includes people over 60 years of age with co-morbidity

* See: New England Journal of Medicine, Holshue, et. al., March 5, 2020.

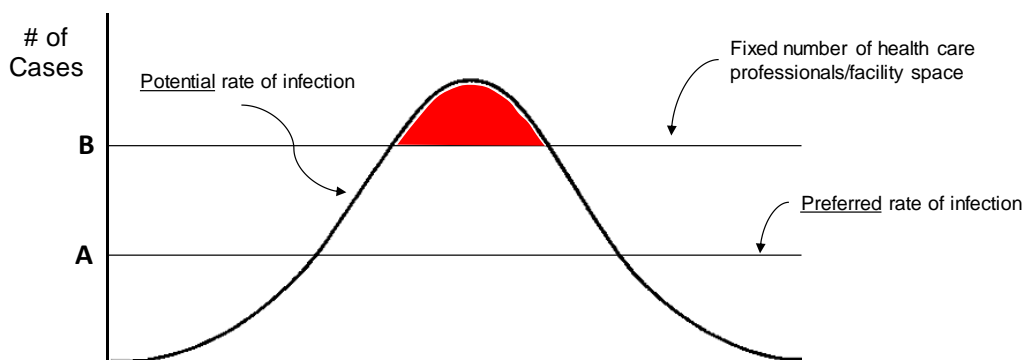
factors including: heart disease, diabetes, other pulmonary problems—COPD as well as HIV, etc^{**}. In these cases, pathways are sometimes created in these individuals for other problems, most notably severe pneumonia, which can be fatal. At present, approximately 70 million people in the U.S. are 60+ years of age, or about 20%+ of the total population. Of those individuals, many have co-morbidity conditions including 16 million (5%) with COPD, 30 million (9%) with diabetes, and 30 million (9%) with heart disease. While these factors total about 75 million, or about 30% of the total population, it is an over-statement of those who are vulnerable because it is not known how many individuals are suffering simultaneously from multiple maladies.

- We also know that (1) not all viruses are transmitted at the same rate; (2) many viruses remain active for different lengths of time; and (3) viruses have very different mortality rates^{***}.
- Because there is no vaccine to prevent COVID-19 or pharmaceuticals to treat the ancillary effects of the virus, public health officials are relying on quarantine, social distancing and “shelter in place” to reduce the spread.

Avoiding the “Spike” and “Flattening the Curve”:

This phrase has been used repeatedly in the media by health care personnel and is depicted conceptually in Exhibit 1. Given that, in the short term, we have a fixed number of health care personnel and space in facilities to treat those infected (Level B), this diagram illustrates the rationale for quarantine/social distancing, and especially “shelter in place” requirements. Facilities could be exhausted quickly if the number of patients accelerates significantly. This results in the area shaded in red, or the number of patients that could potentially go untreated.

Exhibit 1: “Flattening the Curve”



^{**} We are not implying that younger people are immune. The operative condition is the body’s immune system not overproducing cytokines in response to the infection, not necessarily age.

^{***} For example, the MERS virus, which is extremely lethal, was discovered in 2012. It continues to be active and spreading but limited primarily to the Middle East. This indicates that it does not transmit very well. However, the mortality rate is 35% for individuals contracting the virus.

Essentially, the goal is to reduce and flatten the rate of infection to a preferred rate (Level A) through social distancing and quarantine. Ideally, the rate would fall below Level A, which is based on case levels that can be served with a fixed number of professionals and facilities, thus avoiding the area shaded in red.

Reasons for concern related to Exhibit 1 emanate from the increase in the number of cases being reported in the U.S. and worldwide. Statistics released from New York City on Saturday, March 21, indicate that over 6,200 new cases have been reported, up from zero on January 20, the date that the first case was reported in the U.S. (Seattle, Washington area). The success of this endeavor is largely dependent on voluntary compliance by the U.S. population as a whole. However, if the so-called “shelter in place” rules are deemed necessary, then any attempt to forecast would become even more difficult.

Economic Sectors to be Affected:

All recessions have one thing in common: the initial causes of each are different. During the past 20 years two recessions have occurred: (1) the “Y2K”-dot.com recession emanating from Silicon Valley; and (2) the “Great Recession,” which was brought on by speculation in mortgage backed securities and related bank failures (Wall Street and elsewhere). The current, or impending, recession is also unique as it is being fueled by the export of COVID-19 to the U.S. (and elsewhere), along with many attendant “ripple effects.”

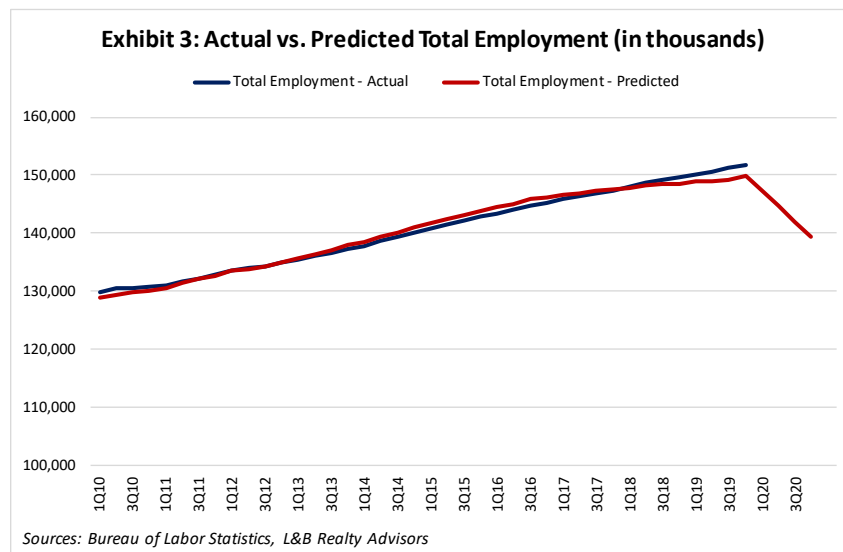
- We believe that employment growth is likely to be affected very differently than was the case in the onset of the previous recessions. We do not mean to imply that employment impacts will be isolated to only certain categories, as there will be a considerable spillover effect throughout the economy. However, we also recognize that “the first cut is the deepest” and determines the first wave of industries and employment sectors likely to be directly affected.
- Preliminary results indicate that based on announcements made regarding air travel, crowd gatherings and “social distancing,” certain employment sectors will be affected very directly. These sectors are listed in Exhibit 2 and include Transportation (e.g., airlines and other forms of transport), all types of Retail (e.g., clothing, general merchandise and others) and Leisure/Hospitality (e.g., hotels, spectator sport venues, restaurants and others). These sectors, when combined, account for about 24% of total U.S. employment (one in four jobs). During the past 10 years, employment growth in these sectors has been about 20%, in excess of the U.S. average of 17.6%.

Exhibit 2: Employment Sectors Directly at Risk: Total Employment in Thousands

	2010	2020	# Change	% Change	2020 % Share	% Share of 10yr Change
Transportation Related	3,457	4,427	970	28.1%	2.9%	4.2%
Retail Related	14,397	15,659	1,262	8.8%	10.3%	5.5%
Lesiure and Hospitality Related	12,927	16,873	3,946	30.5%	11.1%	17.3%
Subsectors Total	30,781	36,959	6,178	20.1%	24.2%	27.0%
U.S. Total Employment	129,698	152,544	22,846	17.6%	100.0%	100.0%

Source: Bureau of Labor Statistics

- We also note that two sectors (Transportation, Leisure-Hospitality) have grown far in excess of the U.S. average (28% and 31% respectively, vs. 17.6%). This means that in addition to direct job losses, losses in momentum in related activities (planning, construction, design, advertising, etc.) are likely to occur, causing spillover effects into other employment sectors.
- The sectors listed in Exhibit 2 are vastly different from employment sectors that precipitated the past two recessions (e.g., high-tech and finance). We also note that the leisure employment sector is highly dependent on discretionary spending and therefore very vulnerable to cutbacks and negative consumer sentiment. To that end, we have estimated total employment for the next year, shown in Exhibit 3. The one-year forecast is in keeping with the assumption that the transmission of the virus will be at its maximum rate during the next four quarters*.
- One area of much concern is that many jobs now being affected are in the retail and hospitality sectors, which include many unskilled, hourly workers. These individuals will be applying for unemployment benefits and will not be receiving much, if any, severance payments from lay-offs during the slow-down. We believe that many of these workers could eventually transition to entry level jobs in the medical and warehouse/distribution sectors where demand will be significantly greater.
- We should also point out that even when an “all clear” announcement is made, people will be reluctant to resume normal activities immediately because of lingering concerns. This will cause a slower rate of recovery.



* We base this on our only known baseline from the Spanish Flu epidemic, the transmission of which looks strikingly similar to COVID-19. After implementing quarantine and “shelter in place” rules, that epidemic lasted about one year. There have been many advances in medical and communication technology since the Spanish Flu epidemic, which occurred during World War I. It is possible that with these modern advances, our understanding of current protocols and procedures may allow us to better manage the current epidemic and end it sooner.

- Our estimates indicate that if we have a contraction in employment sectors (Exhibit 2) most likely to be affected by the COVID-19 virus by one half, or about 3 million jobs during the next year, this would translate into: (1) a decline in total employment in the range of about 10.5 million and (2) an increase in the unemployment rate from 3.5% currently to almost 10%. This could be moderated to some extent by some positive monetary and fiscal stimulus as well as the decline in oil prices and interest rates.

Monetary Policy Response:

On March 3, the Fed reduced its short-term discount rate to a range of 1%-1.25%. While certainly viewed as supportive, most observers believe that because rates are already very low, further cuts will have a relatively minor stimulative effect on the economy. While some benefit could occur from refinancing throughout much of the economy, and perhaps some marginal benefit from some growth in the single-family residential sector, the Fed could have a greater impact by assuring liquidity to help facilitate transaction activity, which is sure to decline in many areas in the near future.

Fiscal Policy Response:

Going forward, fiscal policy is likely to have a much greater stimulative effect on the economy. At the present time, legislation is pending in the Senate that should provide some economic support. Some details are provided in Exhibit 4. At this time, the legislation has yet to be passed.

Exhibit 4: Proposed \$1 - \$2 Trillion Economic Stimulus Package in Response to COVID-19

- 1) Payments are generally to be made to **individual taxpayers** earning less than \$75,000 and to households earning less than \$150,000 as follows:
 - \$1,200 per individual, \$2,400 married couples, \$500 for each child .
 - For individuals earning between \$75,000-\$150,000 and households earning between \$150,000-\$198,000, payments will be determined on a sliding scale.
- 2) **Businesses** – Loan Guarantees:
 - \$50 billion for passenger air carriers
 - \$8 billion for cargo air carriers
 - \$150 billion for large businesses
 - \$300 billion for small businesses
- 3) Open Issues
 - CDC and defense, \$45.8 billion
 - Modification of depreciation allowances in 2017 tax act
 - Modification of Affordable Care Act
 - Deferral of student loan payments for 3 months

Exhibit 5: CRE Sectors Most Likely to be Affected:

This also includes leasing, financing, development and service providers engaged in supporting roles.

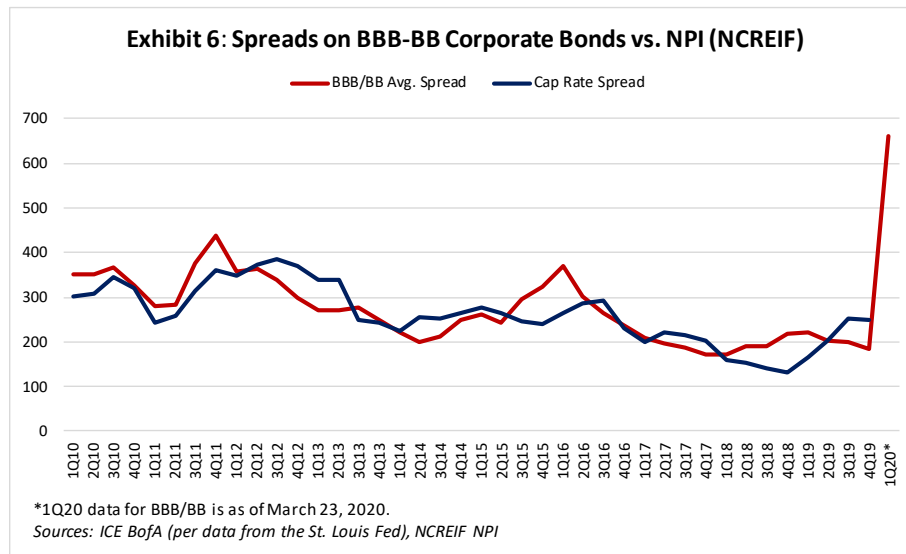
<p><u>1) Hospitality</u></p> <ul style="list-style-type: none">• Hotel occupancy is being decimated by cancellation of sporting events, conferences and other events.• Activity in this sector is also dependent on air travel. Recovery will take a considerable amount of time. <p><u>2) Retail</u></p> <ul style="list-style-type: none">• Slowdown in all types except pharmacies and grocers.• Businesses with drive-through, pick-up and delivery services will be affected to a lesser extent. <p><u>3) Multifamily</u></p> <ul style="list-style-type: none">• Primarily in those complexes leasing to tenants that are age-restricted, seniors, assisted-living.• Projects with many tenants employed in hourly occupations. <p><u>4) Office</u></p> <ul style="list-style-type: none">• General slowdown in new and renewal leasing as employers make assessments of future space requirements, now being influenced by working from home, teleconferencing, etc.• A slowdown in corporate expansions, mergers, etc. is expected. <p><u>5) Warehouse-Distribution</u></p> <ul style="list-style-type: none">• Will be positively affected as the total number of people involved in the chain of distribution to consumers will increase.• We look for advertising from firms suggesting that their employees are “virus free.”

We also look for possible increases in requests from tenants to defer rent payments (especially in retail and selected segments of multi-family) and forbearance related to covenants in leases and loan agreements. We have noted that auto dealers are already announcing sales with significant deferred lease financing plans.

Possible Impact on Cap Rates/Valuations:

The declining trend in cap rates during the past 10 years has been extraordinary. Based on our employment forecast, however, we believe that this pattern will reverse. Looking forward, during the next four quarters, we certainly do not see a material rise in operating income (NOI) in any of the four CRE sectors that we follow. We also do not see an increase in long-term interest rates (10-year Treasuries) as we believe the Fed will strive to keep those rates low in the hope of stimulating some economic growth. We do see a material increase in cap rates, however, because a significant premium for higher risk will be required by investors.

Based on an analysis of interest rates and spreads on corporate bonds being reported by the St. Louis Fed^{*}, we would not be surprised to see composite spreads on CRE^{**} increase by as much as 600 bps during the next year. This could push cap rates to a level of .07.



In Exhibit 6, we provide some evidence on spreads. Data plotted in the graph are (1) an average of spreads on the BB and BBB corporate bonds and (2) the spread based on the NPI-NCREIF for the past 10 years. The correlation between these is 0.76. This is considered very high for data taken from financial markets, which tend to be volatile. The reader should note that the final observation for the corporate bond series are averages for March 23, 2020.

Conclusion:

It goes without saying that we are in the midst of a truly epic event. There are few periods in U.S. history that we can turn to for guidance. We estimate that the leisure, transportation and retail sectors will be affected first, then spillover effects will occur throughout the economy.

Our estimates indicate that if employment in those sectors first affected was to decline by 50%, or by 3 million jobs, total U.S. employment could decline by 10-11 million jobs. We also estimate that average cap rates on CRE could reach .07 or higher for institutional quality properties. We think that CRE sectors likely to experience the most significant impact on valuation will be: (1) hospitality (2) retail, (3) multifamily, (4) office and (5) warehouse.

* At present, spreads on a variety of corporate bonds of varying quality have increased from 165 bps at the end of February to a range of 580 as of March 23, 2020. Given that 10-year Treasuries are currently yielding around 1%, and assuming a minimal acceptable spread of 580 bps, we think that this will put cap rates at a range of .0680 or about .07. The justification for using the corporate bond market as a benchmark has to do with using corporate bond spreads as a minimum or floor. In other words, if investors can get a spread of 580 bps in a diversified portfolio of marketable corporate bonds, they certainly would not be likely to take a lower spread on an investment in CRE. So in this case, the spread on corporate bonds would serve as a minimum spread for a CRE investor. The spread on CRE investments is likely to be higher than the spread on corporate bonds.

** NCREIF composite includes cap rates on institutional grade office, multifamily, retail and warehouse property values weighted as a of (4Q) 2019.