Overview

In this paper we are trying to assess the impact of coronavirus (COVID-19) to U.S. Commercial Real Estate (CRE) and CMBS market including both agency CMBS and non-agency CMBS. While we can’t predict how soon the virus will be contained or give a projection of economic scenario, we provide some analysis on how each CRE sector might be affected by the pandemic with focus on hotel and retail sectors, which may see delinquencies rising sharply and put pressure on non-agency CMBS deals. Multifamily may not experience significant impact in the short term, and the agency CMBS market is directly supported by TALF 2.0 and GSE forbearance.

Impact to Commercial Real Estate Sectors

To slow down the transmission and spread of the coronavirus, state and local government authorities have undertaken significant measures including shelter-in-place and lockdowns, with half of U.S. population already ordered to stay at home and most non-essential businesses closed. While the depth and breadth of the overall economic impact are still unknown, there could be dramatic impact to commercial real estate and we offer some preliminary observations on each property type.

Hotel

The hotel sector has taken the immediate and severe hit. Due to short term booking nature, hotels could see a drastic decline in occupancy and revenue, due to the sharply reduced personal and business travel and cancelled conventions. To help clients gauge the magnitude of the impact, we will look into some detailed performance metrics data from Smith Travel Research in a session below.

Retail

Hotel and retail are taking most direct and severe hit.
Retail business is also directly impacted with most malls, stores, restaurants, and movie theaters closing and foot traffic disappearing. Only some essential supply stores are still allowed to open including supermarkets, grocery stores, pharmacies, etc.

Meanwhile, following the trend in recent years, online shopping could continue to increase at the further expense of brick-and-mortar retail and become long-term consumer shopping patterns, adding heightened pressure to many retail properties which have been struggling.

So the retail sector, already critically challenged, is now suffering from both short term closures and long term consumer behavior shift. Furthermore, with an extended economic downturn, consumer demand and spending can pull back further, even if the order to stay home is lifted eventually.

Within retail, the grocery stores, mass merchants, and club retailers may continue to perform in near term, as consumers still buy household essentials. And shopping centers and strip malls anchored by these stores would do better than large regional malls. Discretionary retails are most vulnerable. Retailers which have embraced e-commerce with a functioning infrastructure will likely have better chance to survive than those pure brick-and-mortar ones.

**Office**

The office sector probably doesn’t feel immediate and direct impact, but historically it has been volatile amid economic downturns. The steep fall in oil and gas prices will place pressure on many CMBS loans that have exposure to energy tenants. Office tenants from other heavily impacted industries such as travel, entertainment, and services, may also experience financial hardships. With increased percentage of workforce telecommuting and working from home, there could be reduced demand for office space in the future, especially if the pandemic is prolonged and businesses adapt to decentralized operation.

**Industrial**

The industrial sector can also be relatively unaffected, at least in the short term. But it may still suffer due to supply chain disruption and trade reduction. On the other hand, increased online shopping can potentially boost demand for warehouses and distribution facilities.

**Multifamily**

The multifamily sector may see less volatility compared to other sectors. But it’s not immune to the pandemic, and can also become problematic if unemployment rates jump and we enter a prolonged recession. Within the multifamily sector, senior housing and student housing may face headwinds in the current situation as many senior housings became virus hotspots and college students went back home for distance learning.
Hotel Sector in Focus

Based on the most recent data from Smith Travel Research (STR), the week of 3/15/2020 - 3/21/2020 saw steep year-over-year declines in the three key performance metrics for the whole U.S. hotel industry, with occupancy down 56.4% to 30.3%, and revenue per available room (RevPAR) down 69.5% to $28.32. The RevPAR decline is even more severe than that during 9/11 and the financial crisis.

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<tbody>
<tr>
<td>Occupancy</td>
<td>30.30%</td>
<td>26.20%</td>
<td>16.60%</td>
<td>16.80%</td>
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<tr>
<td>Average Daily Rate (ADR)</td>
<td>$93.41</td>
<td>$105.40</td>
<td>$151.25</td>
<td>$160.60</td>
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<tr>
<td>Revenue per available room (RevPAR)</td>
<td>$28.32</td>
<td>$27.59</td>
<td>$25.08</td>
<td>$26.98</td>
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Source: STR

The large MSAs performed worse than the national level with the top 25 Markets showing steeper declines across the metrics.

Not surprisingly, San Francisco/San Mateo and New York are the two worst performing MSAs, with the former occupancy down 80.7% (YOY) to 16.6% and RevPAR down 89.3% (YOY) to $25.08, and the latter occupancy down 80.5% to 16.8% and RevPAR down 86.5% to $26.98, respectively.

Weekly U.S. hotel performance since end of February 2020

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<tbody>
<tr>
<td>Occupancy</td>
<td>64.10%</td>
<td>61.80%</td>
<td>53.00%</td>
<td>30.30%</td>
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<tr>
<td>Average Daily Rate (ADR)</td>
<td>$129.67</td>
<td>$126.01</td>
<td>$120.30</td>
<td>$93.41</td>
</tr>
<tr>
<td>Revenue per available room (RevPAR)</td>
<td>$83.16</td>
<td>$77.82</td>
<td>$63.74</td>
<td>$28.32</td>
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Source: STR

Looking at the weekly trend of the metrics since the last week of February when things were relatively calm, we see the first week of March started to show

Only three out of ten hotel rooms are occupied nationwide. Large MSAs like San Francisco and New York perform even worse.
noticeable weakening, which intensified in the second week. Then in the third week of March, occupancy and RevPAR just fell off a cliff.

Taking a cue from recent hotel performance in China and Europe, U.S. hotels likely haven’t reached the bottom yet. Occupancy is expected to continue dropping in the near future with more hotel closures and decimated vacation, business, and convention travel.

Across hotel locations, the performance declines were more pronounced in large MSAs which have more confirmed coronavirus cases and cater to business meetings and conventions. However, full service hotels are expected to withstand the downturn better than extended stay/limited service hotels, due to stronger sponsors.

**Fiscal Stimulus**

On the fiscal policy front, the $2.2 trillion coronavirus relief bill that the congress passed on 3/27/2020 aims to mitigate the economic impact from the coronavirus outbreak, with the following major measures:

- Direct payment to each household (up to $1,200 for individual, $2,400 for a couple, and $500 for each child). Checks are expected to arrive within three weeks.

- Expanded unemployment benefits that boost the weekly benefit by $600 for four months, with eligibility extended to independent contractors and the self-employed.

- $350 billion in loans for small businesses to cover two and a half months’ payroll.

- Tax credit for retaining employees, worth up to 50% of wages paid during the crisis.

- Delayed payroll tax for employers until 2021 and 2022

If implemented swiftly and effectively, these measures will go a long way to aid small businesses and distressed industries, and reduce the financial burden of property tenants across all property types, providing much needed support to CRE fundamentals.

The unprecedented relief package has the potential to reduce financial burden of commercial property tenants and mitigate the impact to CRE fundamentals.
TALF 2.0, GSE Forbearance, and Agency CMBS

On 3/23/2020, Federal Reserve announced unlimited purchase of Treasury and mortgage backed securities (including agency CMBS backed by multifamily loans) by reinstituting the Term Asset-Backed Loan Facility (TALF) program from 2008. This is the first time in history that Fed’s quantitative easing program covers agency CMBS securities guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae. A few notes:

- In contrast to the original TALF program (TALF 1.0) from the previous financial crisis, the current TALF term sheet (TALF 2.0) does not include private label CMBS. It’s unclear why the non-agency CMBS sector is left out, though Fed has indicated that they may still consider adding other asset classes in the future.

- To be eligible, the agency CMBS securities must be new issue after March 23, 2020, and they have to be rated the highest investment grade by two rating agencies.

- It has been reported that BlackRock will purchase agency CMBS secured by multifamily mortgages on behalf of New York Federal Reserve. BlackRock will execute the trades for bonds chosen by Fed.

- Fed purchased $1 billion of FN DUS pools in the first week, and planned to add $3 billion of FN DUS, Freddie K, and GNMA Project Loans in the second week.

The Fed’s purchase of agency CMBS securities is expected to provide immediate support to the liquidity of agency CMBS market and ensure the smooth functioning of multifamily financing activities, mitigating the risk posed by the coronavirus pandemic.

Separately, Federal Housing Finance Agency (FHFA) announced that Fannie and Freddie will begin offering mortgage forbearance to multifamily property owners on the condition that they suspend all evictions for renters whose financial conditions are impacted by coronavirus. According to the GSEs, property owners can delay their mortgage payments for up to 90 days by gaining lender approval with evidence of hardship due to coronavirus. The program is expected to provide relief to millions of families in multifamily properties financed through the GSEs.

The multifamily sector maintained a strong fundamental through the last financial crisis. Based on REIS data, from peak (September 2008) to trough (December 2009) effective rent declined by a modest 3.2%, while occupancy rate only dropped from 94.4% (September 2007) to 91.9% (December 2009).

Agency CMBS multifamily loans also performed well over the years with limited delinquency and credit loss, thanks to strong credit underwriting. For example, FN DUS multifamily loans had only 0.56% serious delinquency rate in 2010 at the height of the financial crisis. And the cumulative credit loss for the worst vintage 2007 is only 1.2%.

Agency multifamily loans and the agency CMBS market may weather the storm again through this pandemic crisis and recession, especially given the strong support from the Fed and GSEs.

Agency multifamily loans have strong credit underwriting and stellar performance through last financial crisis. The agency CMBS market may again weather the storm with strong monetary policy and GSE support.
Non-Agency CMBS

Significant cash flow reduction to hotel and retail properties will hurt non-agency CMBS deals with high exposure to these two property types, especially the single-asset/single-borrower (SASB) deals which have 100% concentration. Fitch has recently put negative watch on 15 SASB hotel deals and some conduit deals with hotel exposure over 25%.

The CMBS market has responded to COVID-19 with violent pricing actions. For example, according to Markit, CMBX6, which has nearly 40% retail exposure, saw its BBB- and BB index prices dropping more than 20 points and 40 points, respectively, from the end of February to 3/23/2020.

Market price volatility and credit curve steepening may persist in near term, with BBB- and BB tranches underperforming higher rated tranches as investors continue to evaluate the impact of the coronavirus.

On the servicing side, payment deferrals and loan modifications are likely to increase in the next few months for those impacted properties, with delinquency rate rising quickly.

### CMBS loans 30 day+ delinquency rates (Feb 2020 vs. July 2012)

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<thead>
<tr>
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<th>Industrial</th>
<th>Multifamily</th>
<th>Office</th>
<th>Retail</th>
<th>Hotel</th>
<th>Overall</th>
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<tbody>
<tr>
<td>Feb 2020</td>
<td>1.45%</td>
<td>1.79%</td>
<td>1.72%</td>
<td>3.62%</td>
<td>1.60%</td>
<td>2.04%</td>
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<tr>
<td>July 2012</td>
<td>11.72%</td>
<td>15.69%</td>
<td>10.69%</td>
<td>8.03%</td>
<td>13.06%</td>
<td>10.34%</td>
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Source: Trepp

Last month CMBS delinquency rates across all sectors reached lows post financial crisis, but those of hotel and retail will spike in the next few months, even exceeding their historical highs in July 2012. However, we are unsure about the eventual default and loss of these delinquencies given the uncertainty surrounding the duration of the pandemic. Regardless, we think two factors can help mitigate the damage:

1. Most of loans entering this pandemic have decent credit qualities to begin with, while loans originated right before the last financial crisis were underwritten to a lower standard such as pro forma underwriting.

2. We shouldn't underestimate the effect of the series of monetary and fiscal stimulus measures which are far quicker and stronger than last time. We also think it’s likely that Fed will include non-agency CMBS in TALF 2.0 in the coming months.

Overall CMBS credit loss levels could reach those experienced in financial crisis if we enter a prolonged and deep recession with all CRE sectors underperforming, whereas the results will be less severe for a relatively brief recession followed by a swift recovery.
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