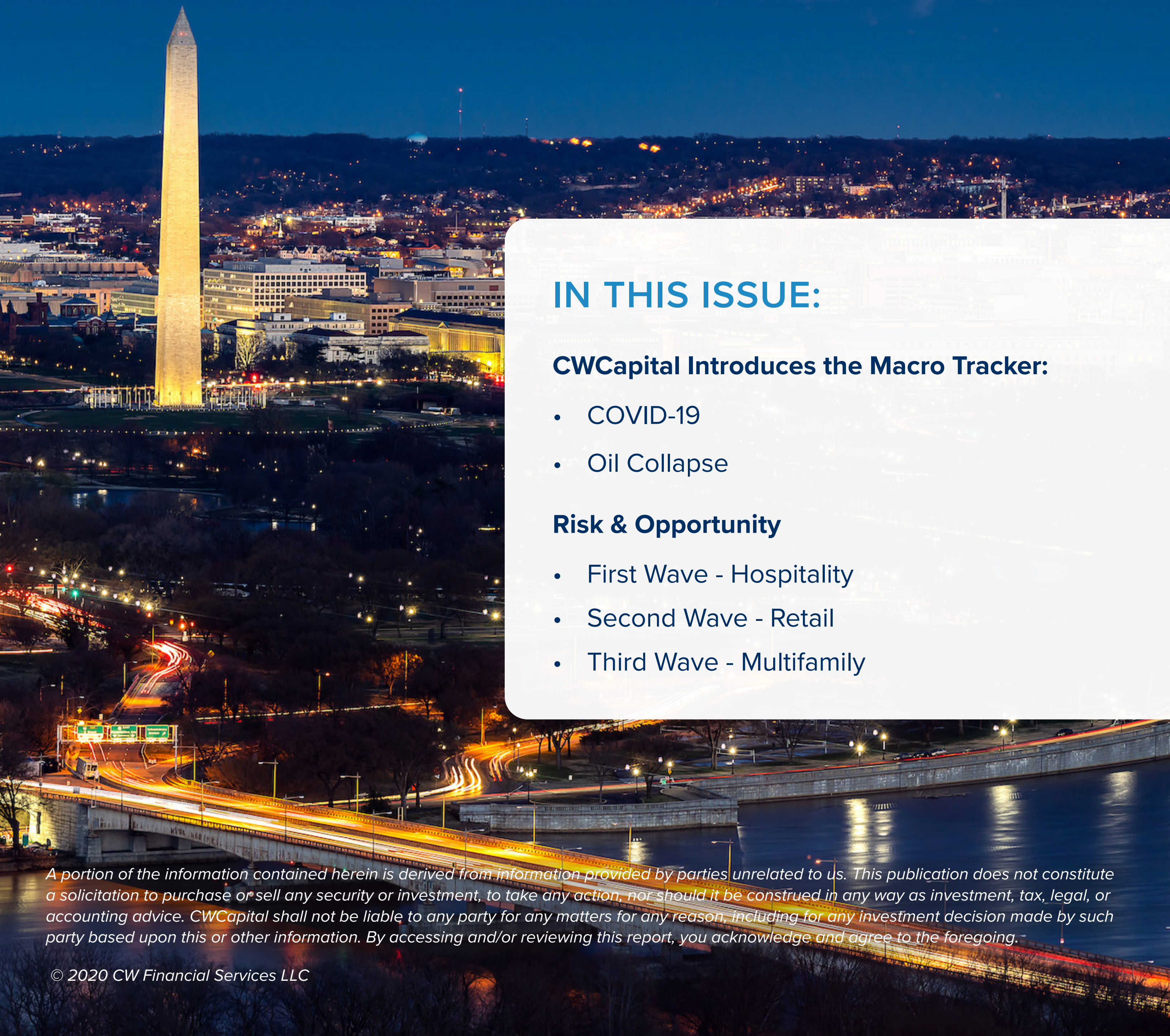
REALINSIGHT®

Markets Update

MARCH 2020 SPECIAL EDITION



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This special issue of the CWCapital Markets Update analyzes the potential ramifications of two macro events that can only be described as extreme outliers, the COVID-19 crisis and the simultaneous collapse of world oil market prices. The resulting global public health crisis, restrictions on movement, and crippling of world economies are unprecedented in our lifetimes. At this point in time, the full extent and duration of these events cannot be determined. However, we can do our best to stay on top of the developing situation to identify both risks and opportunities. Our report contains information gathered from several public sources as well as our own proprietary research.

CWCAPITAL MACRO TRACKER:

As a service to investors, we introduce the CWCapital Macro Tracker, a simple one-page summary which allows market participants to follow high level developments on over $526 billion in commercial loans collateralized by over 20,000 properties, including key data points such as loan defaults, credit spreads and primary market issuance. Via RealINSIGHT technology, we expect to continue to expand the Macro Tracker over the coming months into a comprehensive study comparing current market trends with those occurring during historic macro events such as the financial crisis of '07-'08 and the sovereign debt defaults of the 1990's. We will also use this technology to take a deeper dive via data-driven stress testing to identify risks at the transaction and asset levels.

Macro Events

COVID-19

The global pandemic began in late December 2019 and continues to spread and wreak havoc around the world.

OIL COLLAPSE

With a massive demand drop, production disagreements spark a price war and WTI declines 54%.

Impacts on the Economy

Global Supply Chain Shock – beginning with disruptions in the production of medicine, consumer goods, and other basic products, impacts and complications are felt throughout the supply chain.

Total Cessation of the US and Other Economies – from travel bans to closings of malls, bars, restaurants, and all non-essential businesses, there has been some form of lock-down in 25 states affecting 50% of the U.S. population so far.

- Job losses – St Louis Fed estimates short-term unemployment could reach 30%
- Transportation / Lodging – airlines, hotels, trains, buses and other public transit are all curtailed
- GDP – likely to decline by 25% to 50% according to Goldman Sachs and BOA forecasts
- Operations – uncertainty around rental payments, debt service, personnel and other operating expenses
- Government Intervention - $2 trillion Federal stimulus plan applied

Real Estate Markets

Voluntary Closures – whether due to demand drop off, or a desire to limit liability, multiple businesses have shuttered. In the voluntary category we find major operators such as:

- Marriott – announcing layoffs of "tens of thousands" mid-March as multiple hotels closed
- Simon Properties – closing all U.S. properties

Forced Closures:

- Multiple states such as New York, California, Maryland, Illinois have various mandatory closures of non-essential businesses, all bars, restaurants, shopping malls etc.

Resulting Uncertainties and Other Considerations:

- Uncertainty on length of closures, responsibility for lease payments
- Multifamily impacted mostly by job losses, other closures

Impact on Capital Markets

Credit market spreads widen dramatically - CMBS cash bonds widen almost 200bp at senior level, almost 600bp at BBB-, assuming that liquidity can be found.

Margin calls drive many mortgage investors toward insolvency – echoing events from the previous financial crisis.

Primary market issuance declines, loan pipelines marked to market, lending likely to slow.

Where we see risk and opportunity:

Although difficult to quantify, certain sectors of the commercial real estate industry are likely to see impacts sooner than others.

First Wave - Hospitality

With the severe drop off in travel, hotels will likely be the first and hardest hit property type. This pattern was also seen during the previous financial crisis in 2008. A logical progression could look like business contraction in:

- Resort and Destination hotels – vacation spots, international destinations, and dependencies such as hotels supporting cruise and other ports
- Airport hotels – there are thousands of hotels clustered around airports, terminals and similar travel hubs. As air travel is curtailed, these properties can expect significant loss of business
- Business Center hotels – as cancellations occur, hotels serving as conference centers, convention centers, or those in central business districts are seeing decline
- Other hotels – ranging from interchange locations, to tertiary markets, these $3mm to $5mm properties are likewise seeing business compression
- *Opportunity – Certain hotels may see repurposing as medical facilities or subsidized housing*

Second Wave - Retail

Nearly all retail asset types face risks related to voluntary and mandated closures:

- Unanchored centers – most non-essential businesses may be required to close
- Malls – generally required to close
- Specialty retail – assets such as restaurants with limited access, entertainment, department and specialty stores or other non-essential businesses required to close
- *Opportunity – Grocery anchored retail, single tenant food stores, single tenant pharmacies, and others expect to continue operations.*

Third Wave - Multifamily

Multifamily has a risk progression which is slightly slower than other asset types. However certain concentrations may materialize before others, such as:

- Senior Housing and Assisted Living – considerations include a high-risk population, extraordinary protection measures, and potential legal issues
- Student Housing – with university closures and a cultural shift to online learning, this sector could see more stress
- Other Multifamily – as job losses set in, delinquent rent could spike. State and Federal prohibitions on eviction, and potential relief could slow the issues, but underlying problems may build
- *Opportunity – FHLMC announces forbearance program – borrowers can defer up to 3 consecutive monthly payments commencing as early as April and as late as August 2020. Deferred payments to be repaid in 12 monthly installments.*

Other Property Types

- Office – with longer leases and more complex logistics, expect delayed impact
- Other – industrial, self storage, mixed use, and others likely to be less impacted

Now to the specifics...

The tables below establish a baseline as of January 2020, with comparative changes for February and March indicated in the columns. The first table includes market-wide mortgage loan balances of CMBS 2.0/3.0 Conduit and SASB transactions, where we track monthly status and cumulative defaults from baseline. We also track the impact on securitized market new issuance, credit spreads, and other broad market indicators. This simple macro tracker can provide investors a one-page summary of many aspects of what is sure to be a benchmark event.

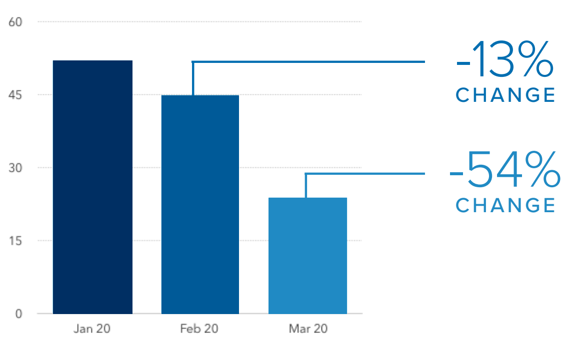
In this rapidly changing environment, we will leverage the flexibility of RealINSIGHT technology to adjust our analysis to further identify both risks and opportunities. We look forward to analyzing, tracking, and sharing macro and local level results in our future writings to help you navigate through these difficult and unprecedented times.

CWCAPITAL MACRO TRACKER:

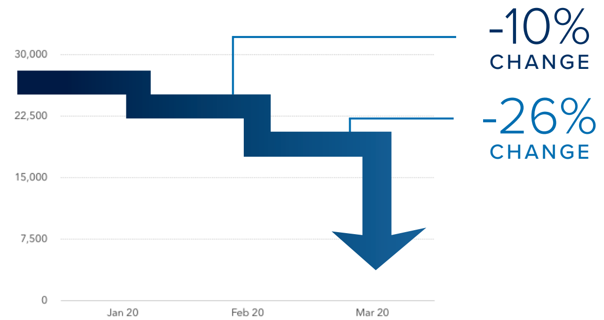
	Baseline	+1mo	+2mo	% change	% change
Risk Type	Jan-20	Feb-20	Mar-20	Feb-20	Mar-20
Hotel-Resort	21,209.4	218.6	218.6	1.0%	1.0%
Hotel-Airport	1,894.3	-	-	0.0%	0.0%
Hotel-BusCtr	7,976.6	67.9	67.9	0.9%	0.9%
Hotel-Other	54,735.7	34.5	70.7	0.1%	0.1%
Multi-Senior	2,444.4	-	-	0.0%	0.0%
Multi-Student	3,588.2	13.2	13.2	0.4%	0.4%
Multi-Other	47,229.7	-	9.0	0.0%	0.0%
Retail-Groc Anch	1,091.0	-	-	0.0%	0.0%
Retail-Pharmacy	3,191.4	-	3.0	0.0%	0.1%
Retail-Other	122,260.5	957.8	1,198.3	0.8%	1.0%
Office	143,930.9	46.0	242.0	0.0%	0.2%
Other	88,967.2	-	-	0.0%	0.0%
Defeased	21,260.6	-	-	0.0%	0.0%
SpecSvc-Prev	5,903.1	5,890.7	5,785.9	-	-
Total	525,683.1	7,228.8	7,608.7	1.4%	1.4%
Cumltv Default				**0.3%**	**0.4%**

				Change	Change
	Jan-20	Feb-20	Mar-20	Feb-20	Mar-20
Issuance Priced ($mm)					
Conduit	4,944.2	3,814.0	2,972.4	-22.9%	-39.9%
SASB	5,638.6	4,151.6	815.6	-26.4%	-85.5%
FHLMC	2,396.0	4,630.5	4,020.2	93.3%	67.8%
Cash Market Spreads					
AAA-Super	80	91	277	11	197
AAA-Jr	101	115	350	14	249
AA	125	138	525	13	400
A	167	185	600	18	433
BBB-	270	300	855	30	585
CMBX9 - 2015					
AAA	31	39	101	8	70
AA	94	108	376	14	282
A	150	168	n/a	18	n/a
BBB-	316	363	790	47	474
BB	591	625	623	34	32
CMBX6 - 2012					
AAA	19	25	125	6	106
AA	68	81	n/a	13	n/a
A	163	194	1,121	31	958
BBB-	563	659	1,798	96	1,235
BB	1,131	1,255	4,577	124	3,446
Other Markets					
WTI	52	45	24	-13%	-54%
Gold	1,589	1,586	1,629	0%	3%
UST10	1.51	1.15	0.82	(0.36)	(0.69)
SOFR	1.60	1.60	0.02	-	(1.58)
S&P 500	3,226	2,954	2,396	-8%	-26%
DJIA	28,256	25,409	21,026	-10%	-26%

WTI MARKET



DJIA AVERAGE



SOURCES

The third-party Information set forth herein may be derived from any of the following sources:

- Bloomberg
- CBRE Capital Markets
- Citibank Research
- Commercial Mortgage Alert
- CoStar
- CRE Direct
- FHLMC
- International Council of Shopping Centers
- Intex Solutions
- Morningstar Research
- Moody's / RCA CPPI
- National Real Estate Investor
- Real Capital Analytics
- REIS
- Trepp Information Systems
- US Bureau of Economic Analysis
- US Bureau of Labor Statistics
- US Census Bureau
- US Federal Reserve
- US Treasury
- Wells Fargo Research

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