Loop Capital

Municipal Strategy Report

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Dangerous Markets Ahead: Clairvoyance Required

COVID could be with us for an extended period of time. It will certainly be with us when the new flu season arrives in the coming weeks. If COVID becomes a permanent risk factor for the planet, the impact on long-term trend growth will be considerable.

By Chris Mier, CFA | Strategist

The current state of the economy is well out of the bounds of normal prediction. We have never been "here" before. And "here" is clearly not a good place to be. Macroeconomic model predictions are only valid for the range of data used to estimate the model. Without the benefit of the data provided from any previous episodes of economic closure, a dowsing rod will guide us to water more reliably than an economist can guide us to an accurate forecast. Econometric relationships, such as those between After-tax Personal Disposable Income and Retail Spending, and between Business Sentiment and Investing activity, are not subject to the same set of behavioral responses under conditions of global pandemic relative to stable trend growth of a little less than 2%. The better forecast of where the economy will be one year from now is more likely to come from an expert in infectious diseases.

The path of the economy will mirror the path of the virus; but what twists and turns does COVID-19 have in store for us? Major uncertainties about the virus make determination of its course difficult. The herd immunity threshold is unknown. The duration of protection from the presence of anti-bodies is unclear. The virus has peculiar features that make it more dangerous to some people rather than others, beyond simple differences in age or gender. Even after COVID-19 is subdued in the developed world, the virus will continue to rage in the developing world. The U.S. will remain vulnerable to flare-ups in COVID because of the large number of local governments who set their own safe-distancing rules, often at variance to measures taken by jurisdictions next door. For example, the State of Illinois imposed a stay-at-home order on March 21st. Our neighbor next door, Iowa, has yet to issue a stay-at-home order. The influence of wide divergences in the path of infections across the fifty states will result in supply-side problems, resulting in unfulfilled demand for numerous consumer final goods as well as problems for manufacturers in obtaining all intermediate inputs.

The markets are being confronted by several key influencers separate and apart from the economic data. On the political front, the election (currently scheduled for November 3rd) will severely test the mettle of investors. Concerns about the tampering of our election by foreign powers, the claims of voter fraud in write-in ballots, and the vitriolic nature of the

Continued on Page 2

In this Issue

Dangerous Markets Ahead: Clairvoyance Required

federal government so far guarantee market excitement.

The economic impact of monetary and fiscal policy should begin to show its impact over the same time period as the election. The magnitude of all of the federal programs put in place so far suggests a commitment to do all that is necessary to keep the economy afloat. But how effective can monetary and fiscal policies be if consumers will not return to work, fly on an airplane, or attend stadium events because of a failure to develop the only thing likely to push COVID-19 out of consumers' minds—COVID-19 vaccine?

The legacy of debt created by the government will be a reminder of the cost of fighting the virus against which the impact of the stimulus efforts will be gauged. Additionally, how effective will stimulus be for those states that shut down late and reopened early? Will low borrowing rates and ample liquidity motivate investment activity in states like Florida, currently suffering for its softer handling of the virus' threat. States who suspended their openings may have an adverse impact on the states that are continuing with their reopenings. Our review of internet signals suggest that intermediate goods and many final consumer goods are in short supply. Aggregate demand is going unfilled due to supply-side issues at a time when an increase in consumption is vitally needed.

Financial markets appear to be much more enthusiastic about a possible vaccine than scientists. Recently, Vaccine Nation released a list of 10 significant infections without a licensed vaccine. They include Chagas disease (American trypanosomiasis), Chikungunya, Dengue Fever, Cytomegalovirus, HIV/AIDS, Hookworm infection, Leishmaniasis, Malaria, Respiratory Syncytial Virus, and Schistosomiasis. Have financial markets discounted the possibility that there may never be a vaccine for COVID-19?

COVID could be with us for an extended period of time. It will certainly be with us when the new flu season arrives in the coming weeks. If COVID becomes a permanent risk factor for the planet, the impact on long-term trend growth will be considerable.

The trend in global economic growth will suffer as a result of the diversion of resources from productive uses towards continual disease remediation—testing, monitoring, tracking, treating, vaccinating, and isolating populations at risk.

This deflationary impulse will meet the inflationary impulse of trillions of stimulus measures. Some inflation would be welcome, but will it be able to be contained around the Fed's symmetric 2% target or will it rise too much? Inflation without a corresponding amount of growth, however, runs the risk of 1970's style stagflation.

Clairvoyance would be useful now. Investors should heed the signals of overwhelming uncertainty and stay close to home. When Average Hourly Earnings bottom over the next few months, a durable signal of rising inflation will punish the bond market severely.

Economic and Interest Rate Forecast — August 2020

Factors Supportive of Lower Rates

U.S. Real GDP contracted 10.6% in the first half of 2020, reflecting decreases in personal consumption, exports, investments and state and local government spending, partially offset by an increase in federal government spending.

12 million+ workers currently remain unemployed.

Republican reluctance to authorize spending of hundreds of billions of dollars to shore up state and local government finances could slow down the recovery.

With global economy reeling from the pandemic, U.S. exports will remain suppressed for the foreseeable future.

Consumer confidence slumped amid resurgent coronavirus.

Factors Supportive of Higher Rates

The U.S. economy recovered 1.76 million jobs in July vs. 1.48 million forecast despite the resurgence in new coronavirus cases. About 42% of the jobs lost during the pandemic have been recovered from May through July. The unemployment rate unexpectedly declined 0.9% to 10.2% in July.

Retail sales rose 7.5% in June after jumping 18.2% in May, recovering 95% of the decline experienced during the pandemic.

ISM manufacturing index rose 1.6 points to 54.2 last month, reflecting an expansion in the sector, while ISM services index edged up 1 point to 58.1, signaling a surprisingly strong performance of the sector.

Housing sector remains resilient amid record low mortgage rates.

New vehicle sales jumped 11.3% month-over-month in July to 14.5 million (annualized).

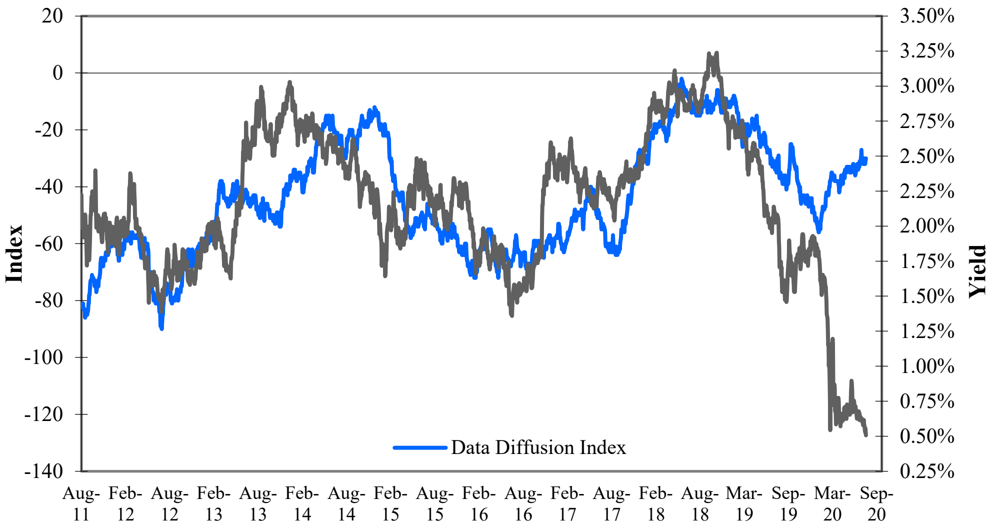
Figure 1 **Economic and Interest Rate Forecast — August 2020**

	3Q'18	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	1Q'20	2Q'20	3Q'20	4Q'20	1Q'21	2Q'21	3Q'21	4Q'21	Avg'18	Avg'19	Avg'20	Avg'21
Economic Forecasts																		
Real GDP	2.9	1.1	3.1	2.0	2.1	2.1	-5.0	-32.9	18.0	7.0	6.0	5.0	4.5	3.8	2.9	2.3	-5.3	3.8
Core PCE Deflator	2.0	1.9	1.6	1.6	1.7	1.6	1.7	0.9	1.0	0.9	0.9	1.3	1.5	1.8	1.9	1.6	1.1	1.4
Unemployment Rate*	3.8	3.8	3.9	3.6	3.6	3.5	3.8	13.0	9.7	9.0	8.4	7.8	7.2	6.6	3.9	3.7	8.9	7.5
Nonfarm Payrolls (1000s)	460	517	417	477	609	630	(908)	(13,271)	4,000	2,500	3,000	2,480	1,705	930	2,388	2,133	(7,679)	8,115
S&P 500*	2,850	2,699	2,721	2,882	2,958	3,035	3,056	2,932	3,230	3,295	3,360	3,428	3,496	3,566	2,746	2,899	3,128	3,463
Short-Term Interest Rates*																		
Fed Funds Target (%)	1.92	2.18	2.40	2.40	2.20	1.65	1.23	0.06	0.09	0.12	0.12	0.12	0.12	0.12	1.82	2.16	0.38	0.12
3-Month LIBOR (%)	2.34	2.62	2.69	2.51	2.20	1.93	1.53	0.60	0.27	0.32	0.32	0.34	0.36	0.38	2.31	2.33	0.68	0.35
7-Day SIFMA (%)	1.35	1.63	1.54	1.70	1.37	1.23	1.67	0.35	0.15	0.20	0.20	0.25	0.30	0.35	1.41	1.46	0.59	0.28
Treasury Interest Rates*																		
2-Year Treasury (%)	2.66	2.80	2.49	2.13	1.69	1.59	1.09	0.19	0.14	0.22	0.24	0.25	0.26	0.27	2.52	1.97	0.41	0.26
3-Year Treasury (%)	2.74	2.84	2.46	2.09	1.63	1.59	1.10	0.24	0.17	0.26	0.29	0.32	0.35	0.38	2.62	1.94	0.44	0.34
5-Year Treasury (%)	2.81	2.88	2.46	2.12	1.63	1.61	1.15	0.36	0.27	0.34	0.40	0.46	0.52	0.58	2.75	1.96	0.53	0.49
7-Year Treasury (%)	2.88	2.97	2.52	2.22	1.71	1.71	1.28	0.54	0.46	0.49	0.56	0.62	0.69	0.76	2.85	2.04	0.69	0.66
10-Year Treasury (%)	2.92	3.04	2.65	2.34	1.80	1.79	1.37	0.68	0.61	0.69	0.77	0.84	0.92	1.00	2.91	2.14	0.84	0.88
30-Year Treasury (%)	3.06	3.27	3.01	2.78	2.29	2.25	1.87	1.38	1.29	1.40	1.51	1.63	1.74	1.85	3.11	2.58	1.49	1.68
Municipal Interest Rates*																		
30-Year MMD (%)	3.04	3.27	2.95	2.47	2.08	2.07	1.95	1.87	1.49	1.57	1.64	1.71	1.76	1.81	3.05	2.39	1.72	1.73
Muni Yield Curve Slope (%)	1.47	1.40	1.34	1.03	0.98	0.97	0.97	1.36	1.31	1.35	1.42	1.44	1.44	1.44	1.44	1.08	1.25	1.44

P: Preliminary Data
* 3-month average
Source: Loop Capital Markets' Analytical Services Division and Short-Term Desk. Black Text: Actual Blue Text: Forecast as of August 10, 2020

Market Review *Data Diffusion | ADS Index*

Figure 2 **Data Diffusion Index vs. 10-Yr Treasury Yield**

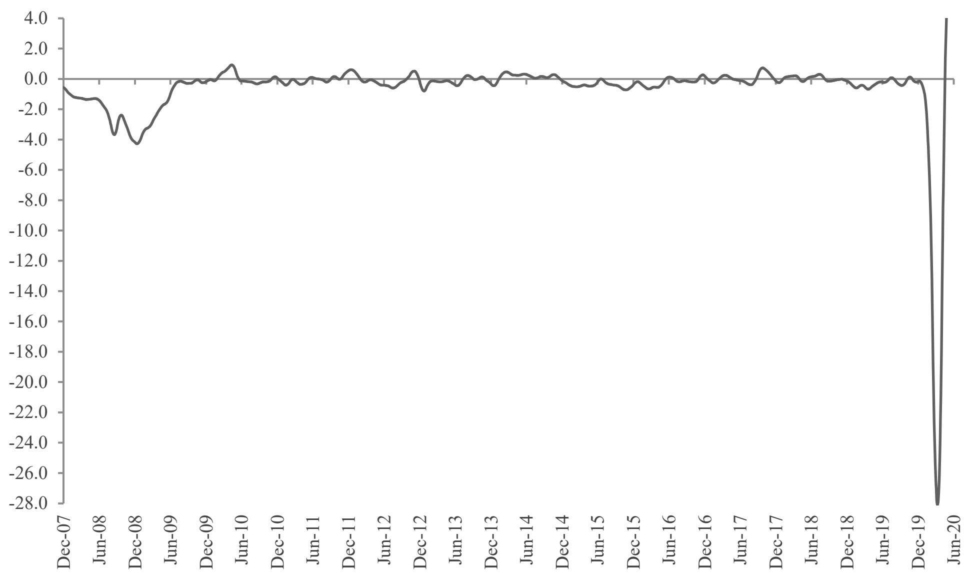


Sources: FRED, Loop Capital Markets

The Fed responded to economic dislocation caused by the Covid-19 epidemic with unprecedented intervention in financial markets, which led to decoupling between data diffusion index and 10-yr Treasury yield.

Data Diffusion Index: We calculate the Data Diffusion Index based on 30 different weekly, monthly and quarterly economic releases, such as construction spending, capacity utilization and new home sales. If the number came above the consensus estimate (which is positive for economic growth) the index would increase by one, and vice versa. The Treasury yield is expected to track the data diffusion index (the yields would increase as the economy exceeds expectations and vice versa).

Figure 3 **Aruoba-Diebold-Scotti Business Conditions Index (12/31/2007 — 08/01/2020)**



Source: Federal Reserve Bank of Philadelphia

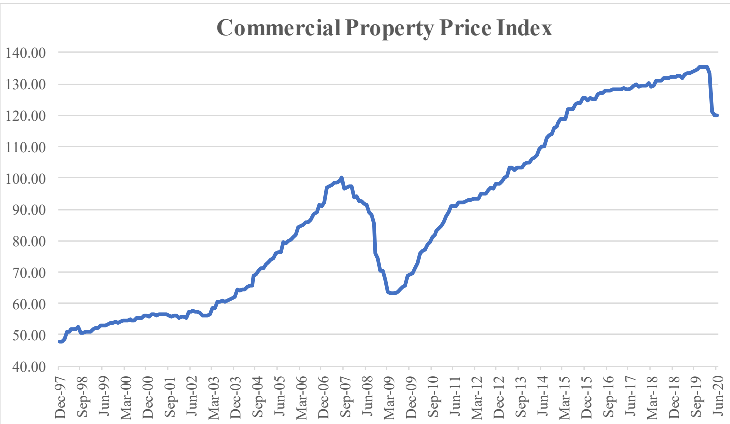
The index of business conditions experienced an unprecedented drop in March and April, but has subsequently recovered. Extreme magnitude of these movements compared to those during the Great Recession is puzzling.

Reading the ADS Index: The index is designed to track real business conditions at high frequency. Its underlying (seasonally adjusted) economic indicators (weekly initial jobless claims; monthly payroll employment, industrial production, personal income less transfer payments, manufacturing and trade sales; and quarterly real GDP) blend high and low-frequency information and stock and flow data.

Impact of Covid-19 on U.S. Commercial Real Estate

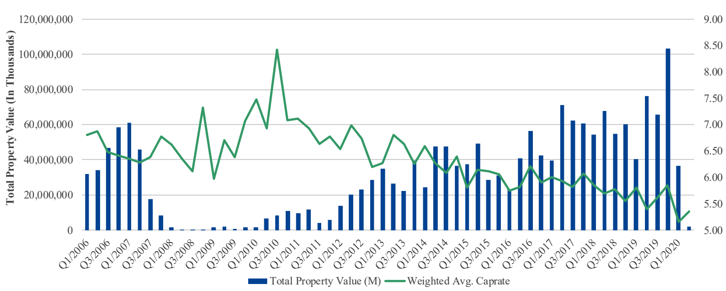
By Ivan Gulich, CFA | Senior Vice President

Commercial real estate (CRE) market was strong prior to the onset of Covid-19 pandemic, pumped up by cheap money, high leverage and aggressive bidding by yield hungry investors. CRE prices increased significantly since the financial crisis.



Source: Green Street Advisors

As a result, capitalization rates (annual rental income divided by price of property) fell to historically low levels.[1]

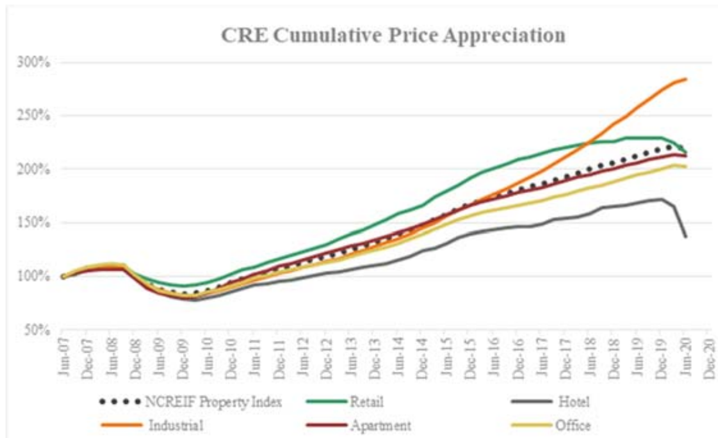


Source: Bloomberg

The spread of capitalization rate to 10-yr Treasury yield (CRE risk premium) rose during the crisis, as plunge in Treasury yields was not accompanied by the corresponding rise in CRE property values, while rents were stagnant.

In the wake of the pandemic, sales of commercial real estate properties fell by two-thirds in the second quarter of 2020 compared to the same period last year, despite record low interest rates and large amount of capital available for investments. The smallest drop in CRE transactions was for industrial properties (50%), while sales of hotels plunged 91%. Sales of apartments, offices and retail properties dropped 70%, 71% and 73%, respectively.[2]

Property prices have been holding up better than during the financial crisis, when CRE prices fell almost 40%. Industrial properties outperformed other sectors, while hotels depreciated the most.



Source: National Council of Real Estate Investment Fiduciaries (NCREIF)

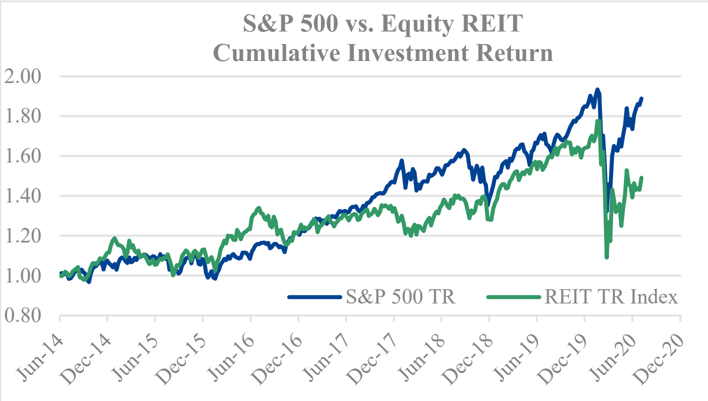
The uncertainties surrounding Covid-19 and changes in consumer behavior in response to the pandemic continue to cloud CRE market outlook. Some private equity deals fell apart, while others were reworked with price cuts. As price discovery continues, some analysts estimate a CRE price cut of 10%, on average, but with a wide range of outcomes. Prices of properties with long leases to high-quality tenants operating in industries unaffected by Covid-19 may not fall at all, while distressed properties could depreciate by 20% or more.[3]

Real Estate Investment Trusts (REITs) underperformed stocks during recent market recovery:

[1] Fed's Financial Stability Report, November 2019

[2] John Gittelsohn, Noah Buhayar: Distress mounts in commercial real estate market frozen by pandemic, Bloomberg, July 22, 2020

[3] Covid Declines Vary by Property Type, Green Street Advisors, July 7, 2020



Source: Bloomberg

Rating agencies are especially concerned about credit quality of commercial mortgage-backed security (CMBS) loans, which deteriorated in Q2'20 as leverage rose and debt service coverage declined.

Office Properties

Before the pandemic, companies competed intensely for prime office space, focusing on open-office designs that increased density and promoted collaboration. However, over the course of the pandemic firms and employees quickly adopted videoconferencing and other forms of IT-enabled collaboration. The new arrangement liberates employees from often long commutes and offers a much better work-life balance. Companies are eyeing savings from reducing real estate expenses and the ability to access pools of talent that were previously unavailable.

As working from home gradually becomes "the new normal" in the wake of the pandemic, over the next few years the demand for office space will likely drop, accompanied by declining rental income and increasing office vacancy rates. On the other hand, social distancing could result in allocation of more square footage per employee, which would alleviate the vacancy problem.

Office buildings in densely populated cities have been particularly hard hit because of challenges posed by crowded commutes and exposure to a lot of people in very large structures. Suburban offices, which are less expensive to build, will fare better in the post-Covid-19 world. Suburbs are less densely populated than cities. Office buildings are spacious and easily accessible by car, a preferred means of commuting in the age of Covid-19.

Very few workers have returned to Manhattan office buildings one month after they were allowed back into office. Cushman & Wakefield estimates that foot traffic in Manhattan office towers is about 10% of pre-epidemic levels. The number of daily visitors to the 52-story, 1.7 million square foot 7 World Trade Center in lower Manhattan is 95%+ below pre-Covid-19 levels.[4] Office rents are expected to drop 20% in 2020.[5]

Expensive San Francisco office market was previously considered highly resilient to downturns due to the chronic shortage of office space because of geographic constraints and citywide restrictions on construction of new buildings. However, as employees from technology and other firms that dominate the landscape started working remotely, occupancy rates plummeted. It is unclear when and if San Francisco office market will fully recover.

Landlords who have already lost revenue will have to improve building safety by investing in improved air filters, touchless faucets and automatic doors amid rising vacancy rates and downward pressure on rents.

Retail Properties

Retail sector was struggling even before the epidemic, as online shopping reduced demand for brick-and-mortar stores. The lockdowns and the resulting recession and loss of income, rising savings rate, as well as shoppers' reluctance to go to crowded spaces, have hit the sector hard.

Simon Property Group Inc., the largest domestic publicly traded real estate company, reports that its entire portfolio of U.S. malls was open on July 10 and that 91% of their mall tenants are opening and operating. Rent collection rose from about 51% in April and May to 73% in July. The company is struggling to collect rent from some tenants and is uncertain about business outlook.[6]

Retail REITs, on the other hand, collected 49.1% of typical rents from shopping centers in May and 69.5% in July.[7] As shops, restaurants and other retail establishments reopened, retail CMBS loan delinquency rates dropped in July almost 200 bps to about 16%.[8] Loan modifications that allow borrowers to apply reserves to keep loans currents, as well as receipt of PPP stimulus funding also contributed to the decline in delinquencies.

While prime retail properties will eventually recover, marginal properties, already struggling with current leases, may not find new tenants willing to pay the rent that is sufficient to keep these properties in the retail space.

[4] Anne Kadet: 'It Was Like the Twilight Zone': Few Return to Empty Manhattan Offices, The Wall Street Journal, August 11, 2020
[5] Shimon Shkury: The Case For Betting Long On New York City Real Estate, Forbes, July 30, 2020
[6] Craig Giammona and Natalie Wong: Simon CEO 'Confused' by What's Ahead for Mall Rent Collection, Bloomberg, August 11, 2020
[7] Nicole Funari and John Worth: REIT Industry July 2020 Rent Survey Results, NAREIT, July 20, 2020
[8] Calvin Schnure: CMBS Delinquency Rate Drops in July, NAREIT August 5, 2020

Hotels

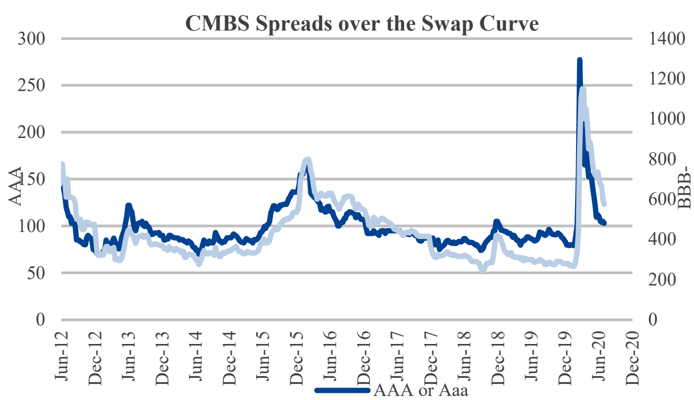
Travel restrictions and lockdowns hit the hospitality industry especially hard. In the last week of July U.S. hotel occupancy rate was 48.9%, compared to 83.4% in the comparable period last year. Average daily rate was down 25.3%, resulting in 51.1% less revenue year-over-year.[9] Hotel occupancy rate in New York City is currently 47%.[10]

Major hotel chains such as Marriott and InterContinental Hotels obtained waivers on loan covenants in their efforts to ride out the crisis.[11] Hotel chains also repaid borrowings with bond sales, taking advantage of record low interest rates and seemingly insatiable investors' appetite for corporate bonds.

However, American Hotel and Lodging Association reports that many hotels are struggling with debt service and are at risk of foreclosure, especially those with CMBS loans. Only 20% of hotels have received relief from CMBS lenders who generally impose strict contractual obligations on borrowers.

Delinquency rate for the lodging sector was 24.3% in June[12] and around 23.8% in July, with delinquency balances concentrated in metropolitan NYC, Chicago and Minneapolis-St. Paul-Bloomington, home of the Mall of America.

CMBS spreads spiked in March and April but then sharply narrowed as Fed intervened in financial markets:



Source: Bloomberg

Apartment Buildings

Luxury apartment owners have continued to collect 95%-97% of their rent during the epidemic, while owners of older, less attractive, buildings which include most affordable housing units have not. Lower and middle-class renters in Class C buildings, comprising about 35% of U.S. rental supply, paid only 54% of total rent in June, despite collecting generous unemployment benefits. Their total rent collections dropped to 37% in July. The disparity between the two sub-segments of the rental market is expected to widen.

Landlords of Class C buildings are at the biggest risk of defaulting on their mortgages. Buyers of apartment buildings that go through a foreclosure may not keep units affordable. Properties built in 1970s and 1980s during the boom in construction of multifamily units are often located on land that is targeted for redevelopment.[13] On the other hand, high construction costs represent a hurdle for the expansion of affordable housing stock.

While Covid-19 epidemic could exacerbate housing affordability crisis unless federal and state governments step in to incentivize construction of more affordable housing units, in pricey housing markets with chronic shortage of affordable homes, such as California, the market for multi-family housing remains robust.[14]

In New York City collections from rent-stabilized apartments are in the 50% to 75% range. Section 8 housing landlords continue to do very well because they are insulated from rent collection risk, as rental payments are guaranteed by the government. Land and multi-family buildings dropped in value between 10% and 20%, depending on location.[15]

Industrial Properties

Owners of industrial properties have fared well during the pandemic. These properties typically have long leases and are often distribution centers tied to e-commerce, which flourished during the pandemic. Demand for storage and supply chain logistics remains strong. Manufacturers even leased extra space to avoid supply chain disruptions.

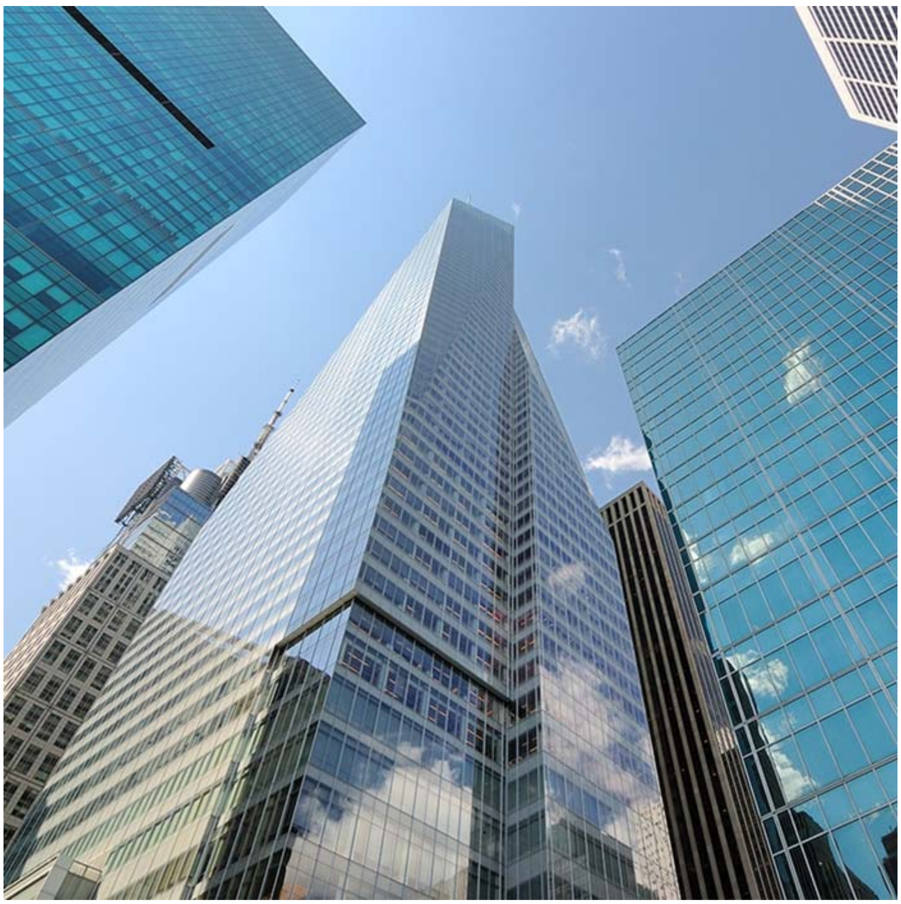
Industrial market experienced strong growth and high occupancy over the last several years. Assuming demand for warehouse space continues to increase, the trend of expanding warehouse stock will continue, but the market will be more balanced than in recent years.

[9] Hotel News Resource: U.S. Hotel Occupancy Continues Slight Upward Trend for Week Ending August 1st, August 6, 2020
[10] Shimon Shkury: The Case For Betting Long On New York City Real Estate, Forbes, July 30, 2020
[11] Jacqueline Poh: Hotels, Cruise Liners Get Loan Covenant Waivers Amid Losses, Bloomberg, August 11, 2020
[12] Jake Mooney: CMBS delinquencies near all-time high in June, S&P Global

[13] Oshrat Carmiel: Cheapest Apartments at Biggest Foreclosure Risk as Payments Fall, Bloomberg News, August 11, 2020
[14] California Commercial Real Estate Affected Negatively By Pandemic Through 2023, UCLA Anderson Forecast California CRE Survey, July 29, 2020
[15] Shimon Shkury: The Case For Betting Long On New York City Real Estate, Forbes, July 30, 2020

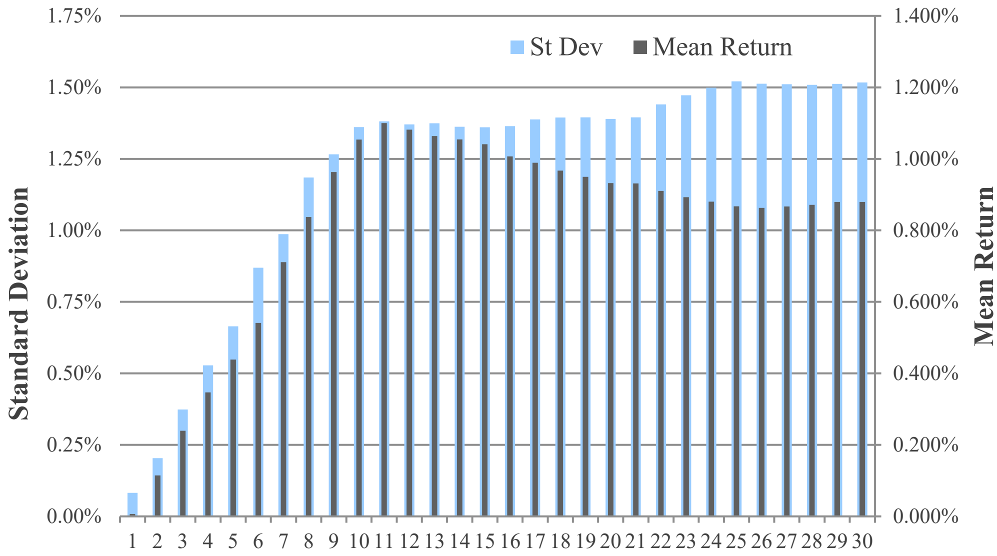
Conclusions

The impact of Covid-19 pandemic on commercial real estate market has been uneven. While industrial property market was largely unaffected, many hotel and retail properties are in distress. The crisis has negatively impacted property prices and new construction. Rents will decline amid weak demand, while real estate transaction volume will remain depressed until the market attains the new equilibrium. However, current downturn in CME market is not as nearly severe as during the financial crisis. The pace of recovery will depend on broader economic trends and the availability of Covid-19 vaccine.



Market Review *Historical Monthly Bond Price Changes*

Figure 4 **Muni Benchmark Callable Scale — Average Bond Price Changes (August)**



Sources: Loop Capital Markets, TM3

We show historical bond price changes for each point on the muni benchmark callable curve during the month of August for the last 19 years.

The returns in August were positive 75% of the time, with bond prices rising, on average, 0.80% across the curve.

Figure 5 **Muni Benchmark Callable Scale — Average Bond Price Changes (August)**

AAA MMD - MONTHLY PRICE CHANGE

Maturity	**5**	**10**	**15**	**20**	**25**	**30**
Aug-01	1.15%	1.57%	1.48%	0.85%	0.85%	0.85%
Aug-02	0.75%	1.34%	1.02%	0.93%	0.77%	0.93%
Aug-03	0.36%	0.72%	0.71%	0.47%	0.47%	0.39%
Aug-04	1.57%	2.34%	2.08%	1.74%	1.82%	1.66%
Aug-05	0.31%	1.28%	1.20%	1.27%	1.11%	1.03%
Aug-06	0.84%	1.92%	1.84%	1.91%	1.91%	1.75%
Aug-07	0.58%	0.08%	-1.10%	-1.64%	-1.95%	-1.95%
Aug-08	1.16%	1.52%	1.03%	1.11%	0.47%	0.31%
Aug-09	-0.27%	0.48%	1.28%	1.76%	1.99%	2.22%
Aug-10	1.00%	3.14%	3.61%	3.00%	2.33%	2.25%
Aug-11	1.23%	3.47%	2.68%	2.42%	3.46%	3.70%
Aug-12	-0.18%	-0.65%	-0.24%	0.16%	-0.32%	-0.40%
Aug-13	-1.12%	-2.16%	-1.74%	-2.11%	-2.19%	-1.95%
Aug-14	0.63%	1.56%	1.88%	2.12%	2.19%	2.19%
Aug-15	-0.14%	0.24%	0.08%	0.00%	0.00%	0.16%
Aug-16	-0.09%	-0.16%	-0.08%	0.00%	0.00%	0.00%
Aug-17	0.41%	0.74%	0.90%	0.57%	0.32%	0.32%
Aug-18	-0.22%	0.08%	0.08%	0.00%	-0.08%	-0.08%
Aug-19	0.36%	2.51%	3.09%	3.16%	3.32%	3.32%
Mean	0.44%	1.05%	1.04%	0.93%	0.87%	0.88%
St Dev	0.66%	1.36%	1.36%	1.39%	1.52%	1.52%

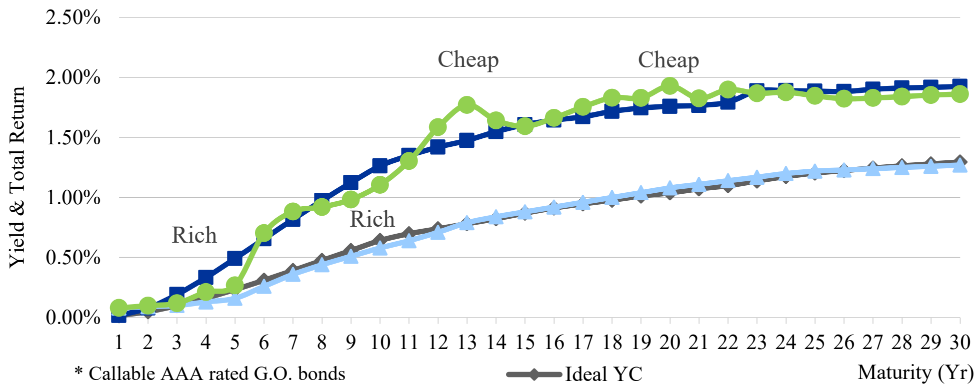
Sources: Loop Capital Markets, TM3

The 10-yr maturity has the highest expected return.

On the long end of the curve mean returns were lower and exhibited larger volatility.

Market Review *The Yield Curve*

Figure 6 **1-Year Forward Roll-down—Muni Benchmark Curve* (August 10, 2020)**

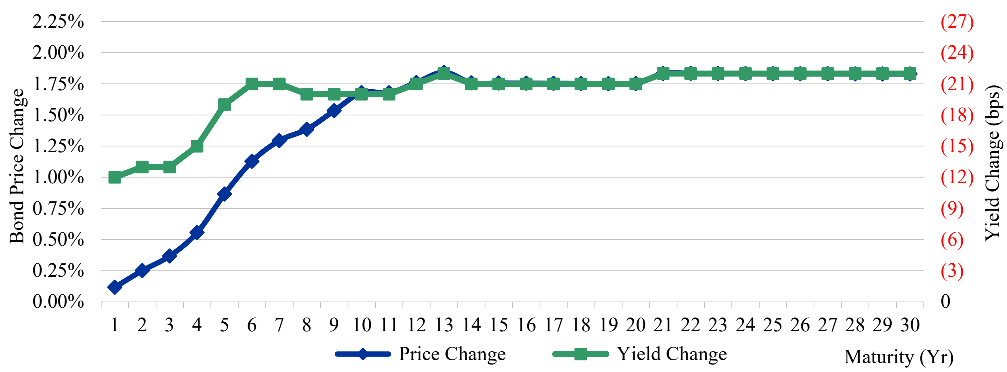


Sources: Loop Capital Markets, TM3 | *Callable AAA-rated G.O. bonds

The yield curve shows rich (3 to 5-yr, 9 to 10-yr and 26+ yr) and cheap (12 to 14-yr and 17 to 22-yr) points on AAA MMD curve, based on one year holding period returns and assuming no change in the yield curve. The 20-yr maturity offers the highest expected total return.

Actual returns will depend on the level and shape of the yield curve a year from now.

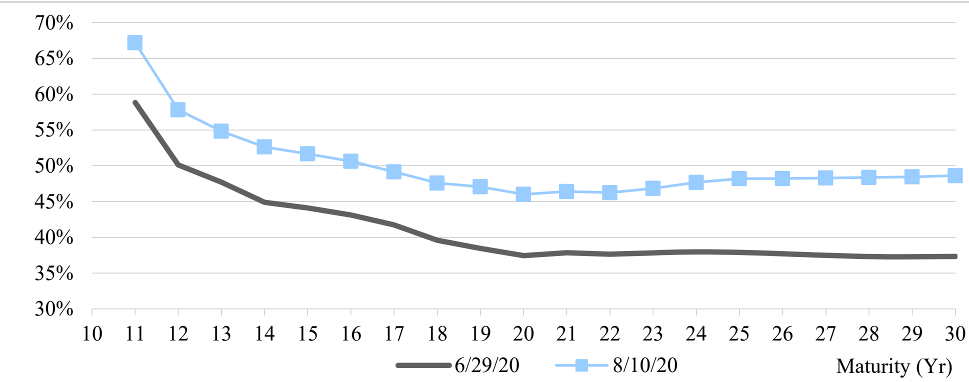
Figure 7 **Monthly Price Change — AAA GO Bonds* (7/13/20 — 8/12/20)**



Sources: Loop Capital Markets, TM3 | *Price Change Only

Yields fell across the curve over the past 30 days and between 20 and 22 bps in the 10 to 30-year range.

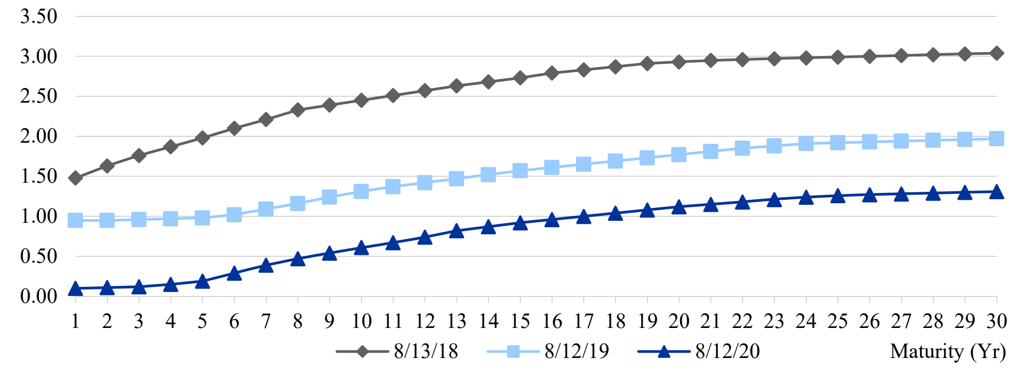
Figure 8 **Implied Municipal Volatilities**



Sources: Loop Capital Markets, TM3 | *10-year call

Implied volatilities surged in July and August as muni yields declined to multidecade lows.

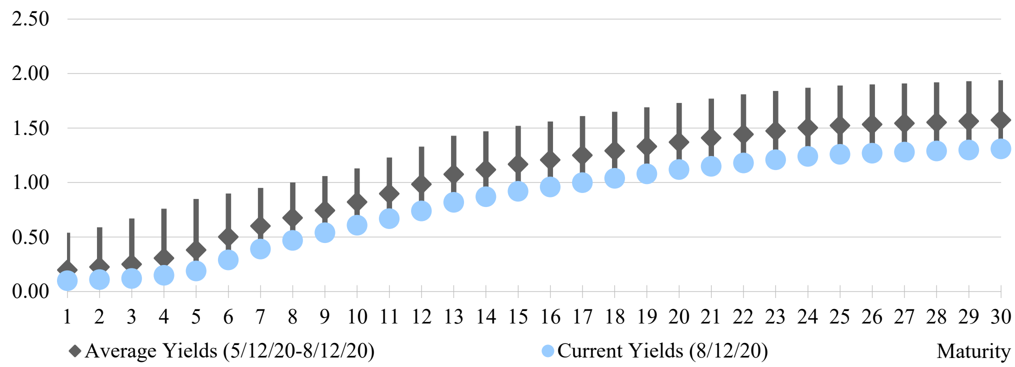
Figure 9 **Current vs. Historical Municipal Yield Curves (%)**



Source: TM3

Muni yields are about 70 bps lower today than they were 12 month ago, and about 175 bps lower than they were in August 2018.

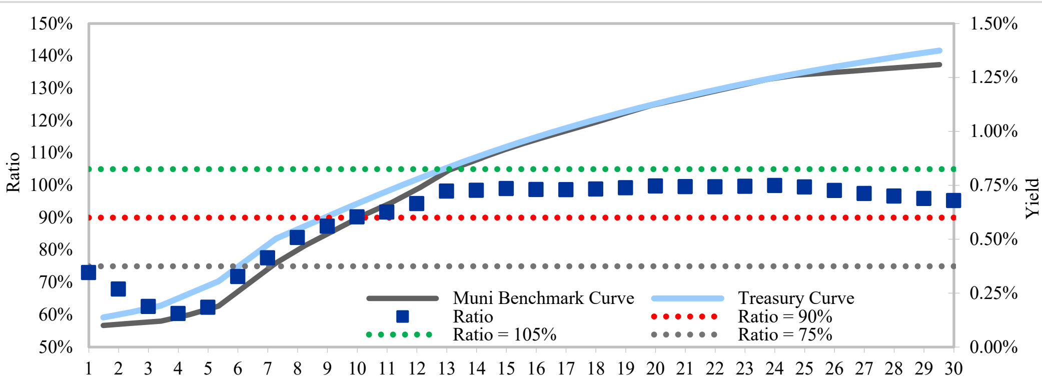
Figure 10 **3-Month Average Benchmark Muni Curve Yield**



Source: TM3

Muni yields are currently close to multidecade lows across the curve after historic bond market rally.

Figure 11 **Muni and Treasury Yield Curves and Ratios**

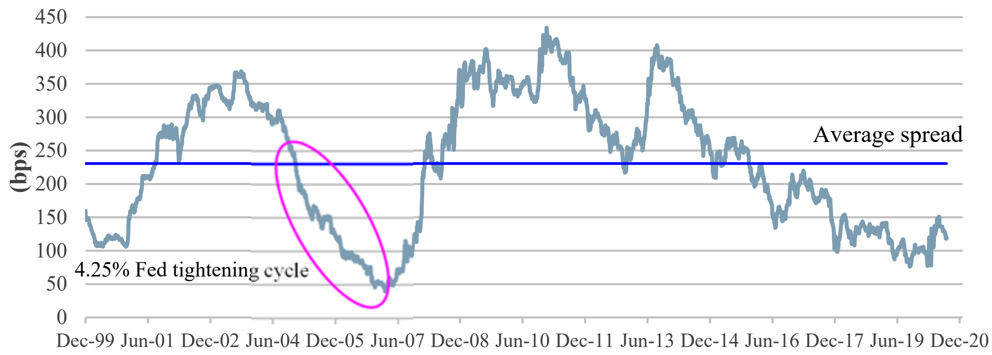


Sources: Eikon, TM3

After a period of market dislocation at the start of Covid-19 epidemic, M/T ratios have returned to normal ranges.

Market Conditions

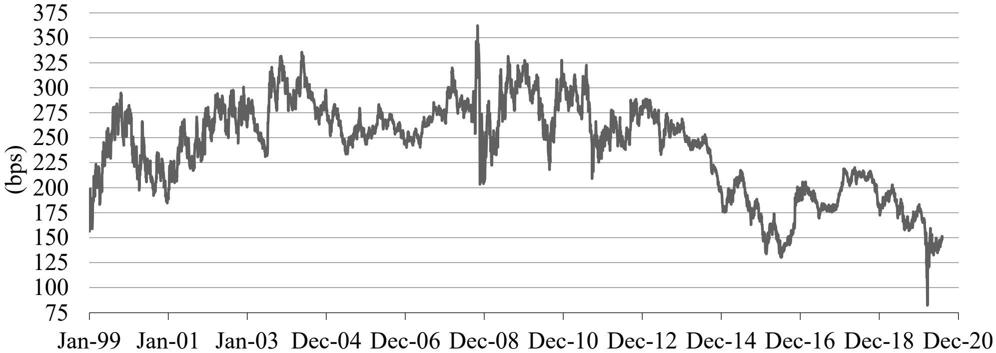
Figure 12 **2 to 30-Yr Muni Spread (bps)**



Source: TM3

The slope of the muni curve jumped 70 bps since the pandemic began, but has recently started trending down.

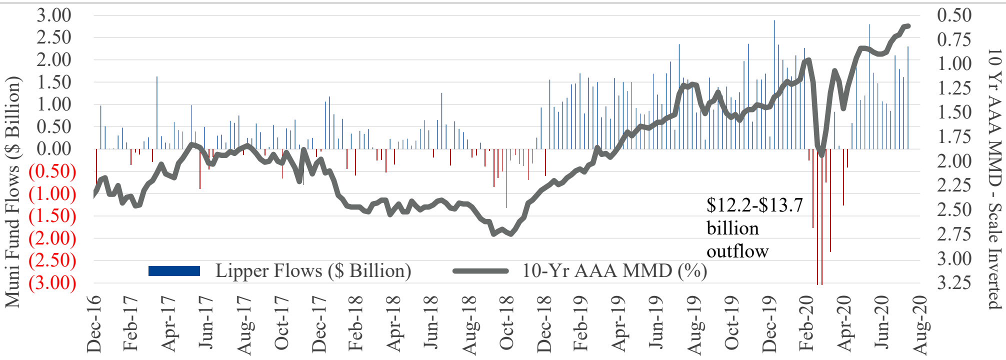
Figure 13 **Inflation Expectations**



Source: FRED

Fed's five-year forward breakeven inflation rate, derived from TIPS and regular Treasury yields, is currently 1.55%.

Figure 14 **Lipper Weekly Municipal Mutual Fund Flows ($ Billion)**



Source: Lipper

Lipper reported 14 consecutive weeks of muni fund net inflows totaling $21.5 billion. YTD net inflows were positive $6.8 billion.

Loop Capital Markets Upcoming Negotiated Calendar

Date	Par Amount ($ mil)	Issue	Loop Capital's Role
8/13/20	167.0	Los Angeles Municipal Improvement Corporation Lease Revenue Bonds	Co-Manager
8/13/20	102.3	Los Angeles Municipal Improvement Corporation Lease Revenue Ref. Bonds (Taxable)	Co-Manager
8/13/20	132.1	The Trust for Cultural Resources of the City of New York Ref. Revenue Bonds (Lincoln C.)	Co-Manager
8/13/20	72.0	Lincoln Center for the Performing Arts, Inc. (Taxable)	Co-Manager
8/19/20	100.0	City Parish of East Baton Rouge Road and Sales Tax Refunding Bonds	Senior Manager

Only the reauthorization of BABs and tax-exempt advance refunding can put State and Local governments on the path of fiscal recovery from the devastating impact of Covid-19.

Dr. Fauci's testimony before the House Select Subcommittee on the Coronavirus Crisis, July 31, 2020

Analytical Services Division

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