

The Financial Impact of COVID-19

Real Estate Rumblings and Ripple Effects

Lecturer Paul Griesmer, CRE, FRICS



STEPHEN D. CUTLER
CENTER FOR INVESTMENTS
AND FINANCE

20TH ANNIVERSARY / 2000-2020

COVID 19'S IS AFFECTING REAL ESTATE STARTING W/ THE ECONOMIC FOUNDATION FOR REAL ESTATE

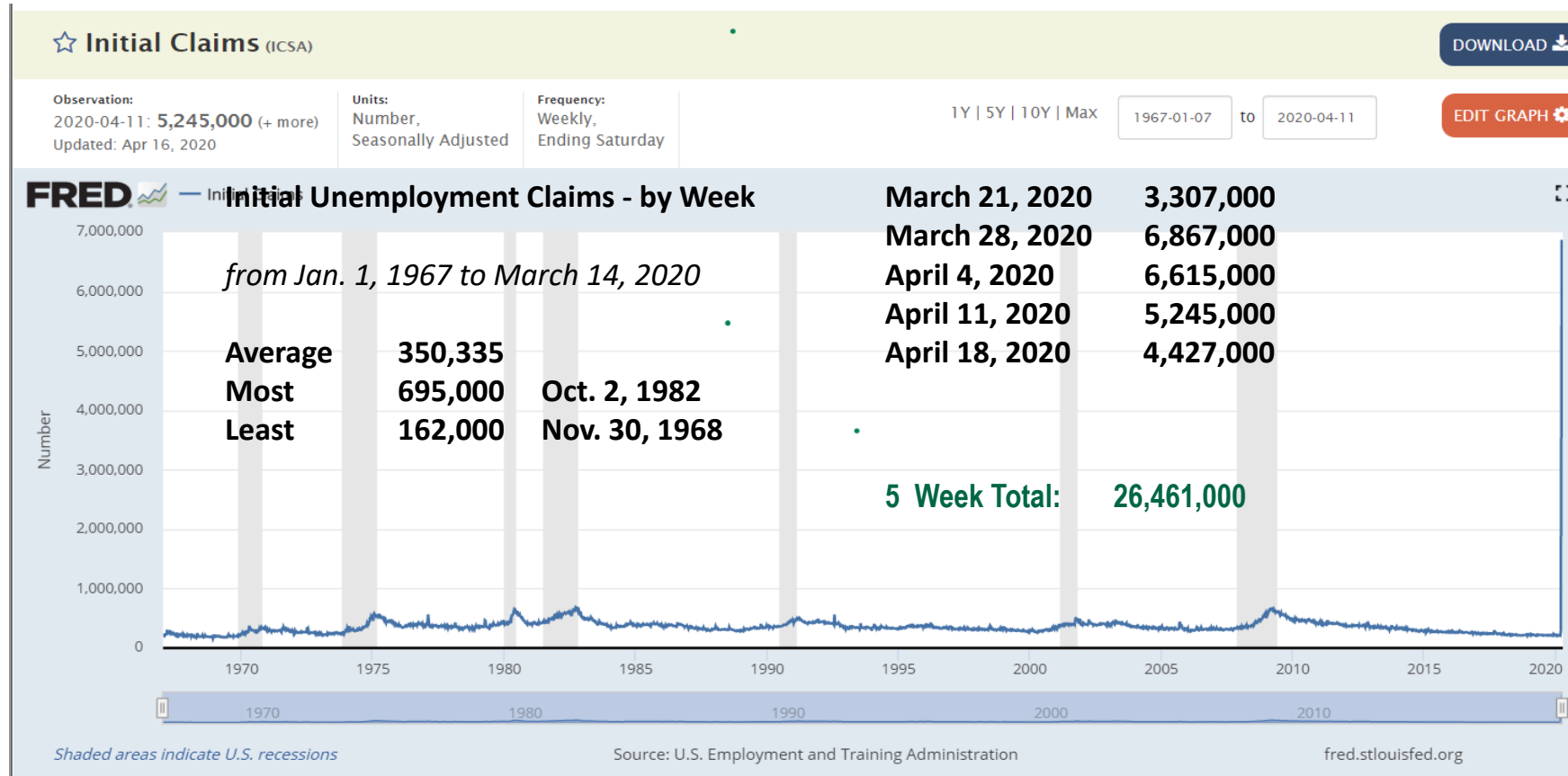
Employment, Retail Sales, Lodging and Travel Are in Deep Distress from C9 Precautions

Virtually Every Area of Real Estate Is Being Affected to Some Degree

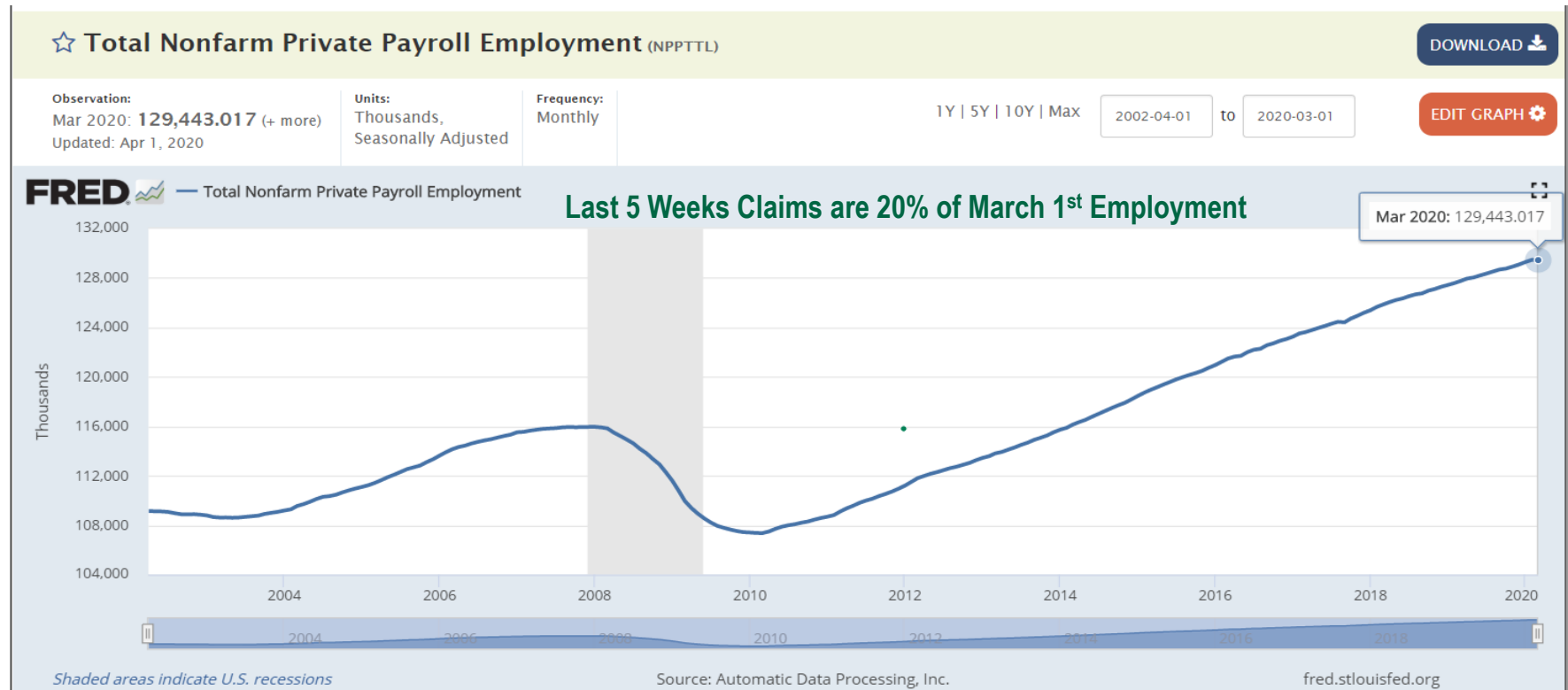
How Much & For How Long Depends on

- Employment & Income
- Trade
- Sales

INITIAL UNEMPLOYMENT CLAIMS FAR EXCEED PREVIOUS RECESSIONS



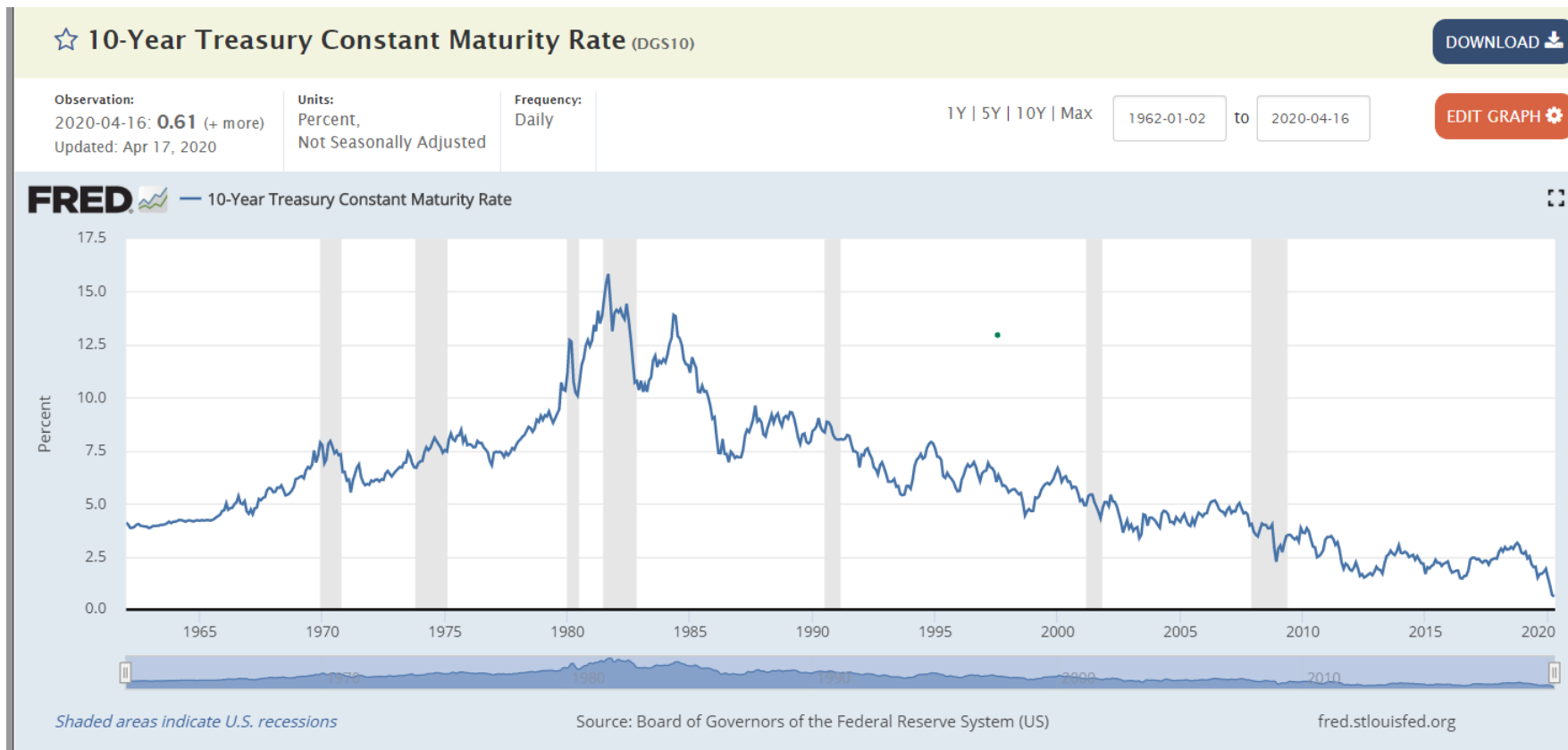
NON FARM EMPLOYMENT WAS 129,443,017 ON MARCH 1, 2020



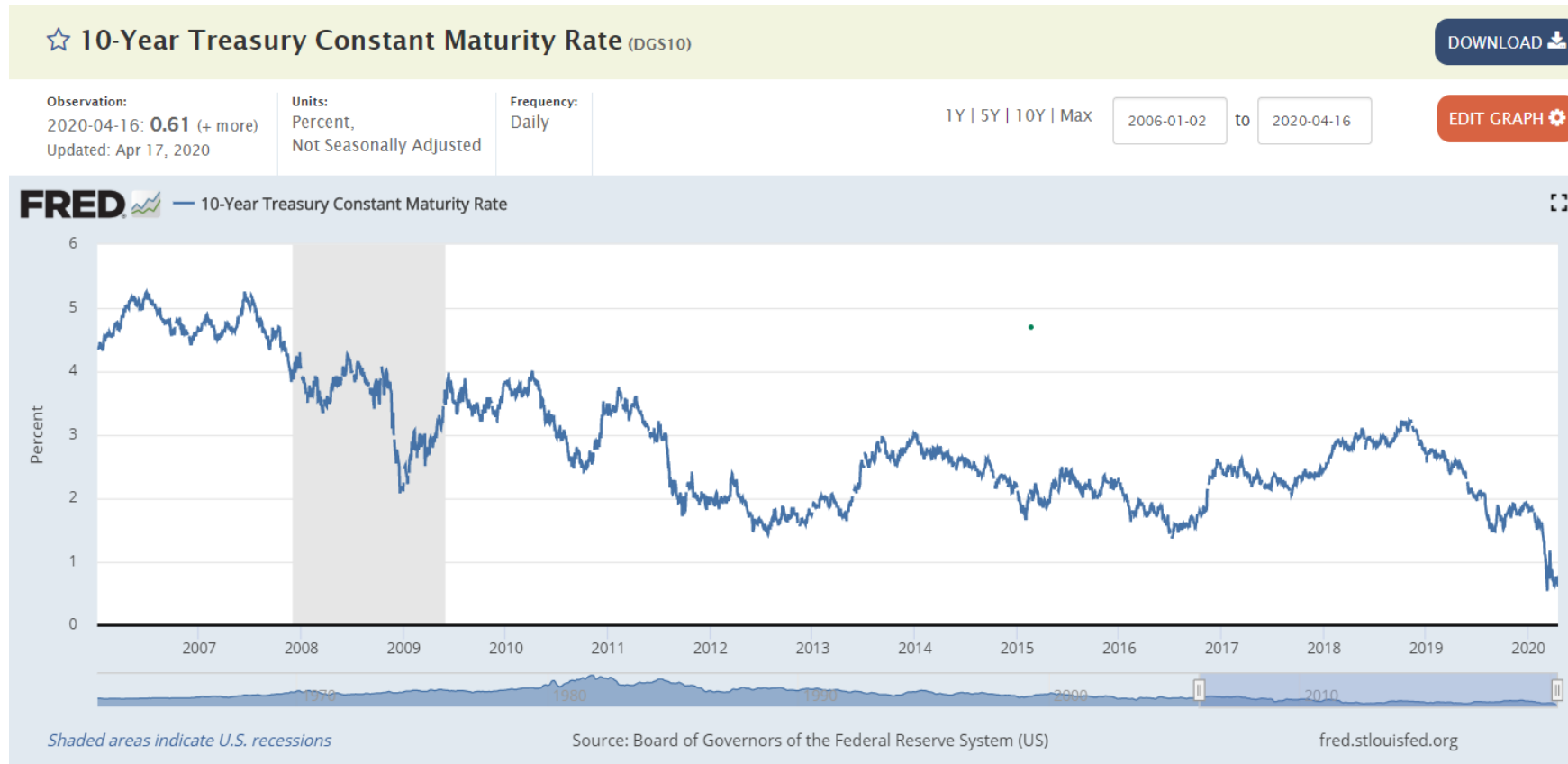
RECENT CLAIMS ARE NOT YET REFLECTED IN THE UNEMPLOYMENT RATE AS OF MARCH 1ST



10 YEAR TREASURIES AT ALL TIME LOW



WELL BELOW 2008-2009 LEVELS



EXCLUDING FOOD, RETAIL SALES DOWN \$30 BILLION

☆ Advance Retail Sales: Retail (Excluding Food Services) (RSXFS)

DOWNLOAD

Observation:
Mar 2020: **434,507** (+ more)
Updated: Apr 15, 2020

Units:
Millions of Dollars,
Seasonally Adjusted

Frequency:
Monthly

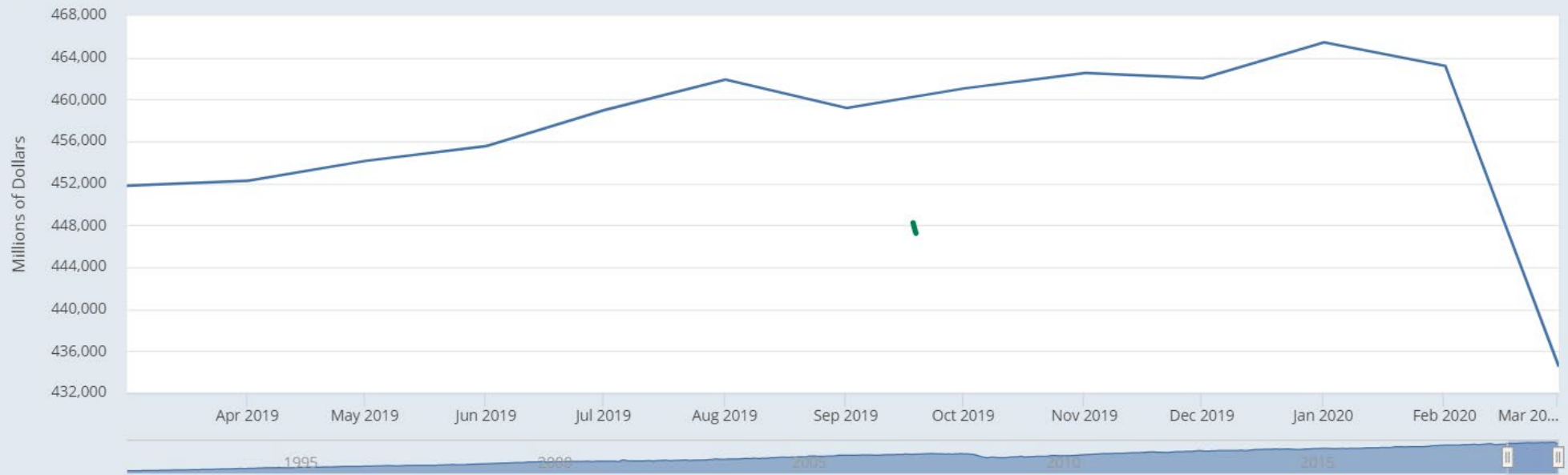
1Y | 5Y | 10Y | Max

2019-03-01 to 2020-03-01

EDIT GRAPH

FRED

— Advance Retail Sales: Retail (Excluding Food Services)



Shaded areas indicate U.S. recessions

Source: U.S. Census Bureau

fred.stlouisfed.org

CLOTHING SALES IN VERTICAL DIVE

☆ Advance Retail Sales: Clothing and Clothing Accessory Stores (RSCCAS)

DOWNLOAD

Observation:
Mar 2020: **11,088** (+ more)
Updated: Apr 15, 2020

Units:
Millions of Dollars,
Seasonally Adjusted

Frequency:
Monthly

1Y | 5Y | 10Y | Max

1992-01-01

to

2020-03-01

EDIT GRAPH

FRED

— Advance Retail Sales: Clothing and Clothing Accessory Stores



Shaded areas indicate U.S. recessions

Source: U.S. Census Bureau

fred.stlouisfed.org

ALONG WITH FURNITURE SALES

★ Advance Retail Sales: Furniture and Home Furnishings Stores (RSFHFS)

DOWNLOAD 

Observation:
Mar 2020: **7,337** (+ more)
Updated: Apr 15, 2020

Units:
Millions of Dollars,
Seasonally Adjusted

Frequency:
Monthly

1Y | 5Y | 10Y | Max

1992-01-01 to 2020-03-01

EDIT GRAPH 



VEHICLE SALES IN FREE FALL

☆ Total Vehicle Sales (TOTALSA)

DOWNLOAD 

Observation:
Mar 2020: **11.663** (+ more)
Updated: Apr 3, 2020

Units:
Millions of Units,
Seasonally Adjusted Annual Rate

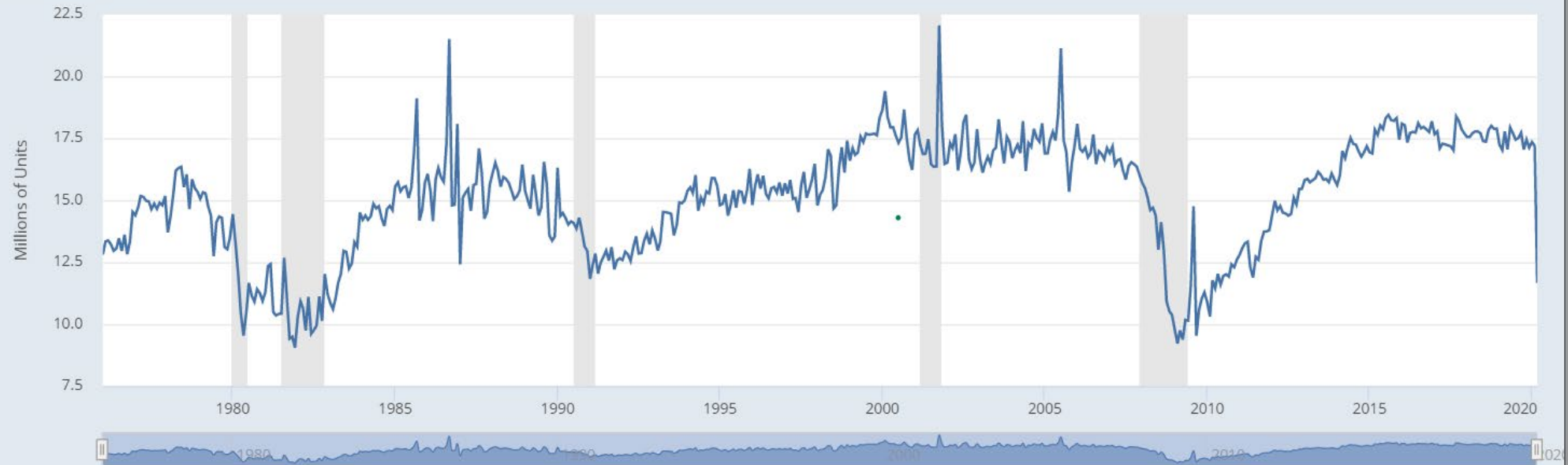
Frequency:
Monthly

1Y | 5Y | 10Y | Max

1976-01-01 to 2020-03-01

EDIT GRAPH 

FRED — Total Vehicle Sales



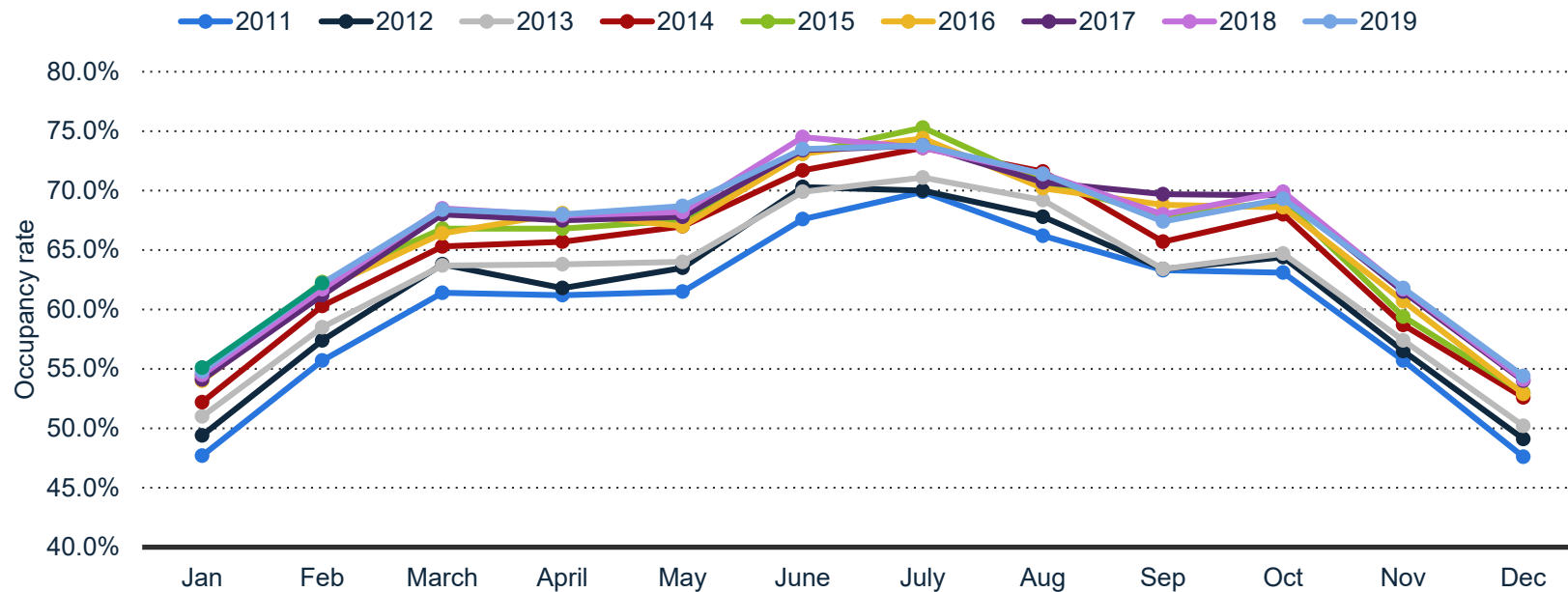
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

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HOTELS ARE SET TO MISS THEIR PEAK MONTHS – MARCH TO OCTOBER

Monthly occupancy rate of hotels in the U.S. 2011-2019



Note: United States; January 2011 to February 2020
Further information regarding this statistic can be found on [page 8](#).
Source(s): STR Global; hotelnewsnow.com; [ID 209546](#)

Revenue Per Available Room (RevPar) Down 80+% Year over Year

MORTGAGE APPLICATIONS DOWN SHARPLY

	<u>10-Jan</u>	<u>17-Jan</u>	<u>24-Jan</u>	<u>31-Jan</u>	<u>7-Feb</u>	<u>14-Feb</u>	<u>21-Feb</u>	<u>28-Feb</u>	<u>6-Mar</u>	<u>13-Mar</u>	<u>20-Mar</u>	<u>27-Mar</u>	<u>3-Apr</u>	<u>10-Apr</u>
Mortgage Applications Percent Change from Jan. 5th	7%	5%	11%	0%	-6%	-9%	-4%	-6%	-1%	-2%	-16%	-25%	-34%	-36%
Public Transportation Year Over Year Change (New York, Chicago, Los Angeles)	0%	1%	1%	3%	3%	3%	4%	5%	4%	-1%	-36%	-62%	-68%	-72%
Restaurant Bookings Year over Year Change							-1%	1%	-6%	-36%	-99%	-100%	-100%	-100%
Steel Production Percent Change from Jan. 5th	1%	1%	0%	0%	-1%	0%	0%	1%	0%	-2%	-3%	-13%	-20%	-34%

Source: Bloomberg

Restaurant Bookings Are Non Existent

U.S. BANKING SYSTEM HAS SIGNIFICANT REAL ESTATE RELATED ASSETS AS OF APRIL 8, 2020 (IN BILLIONS)

Securities in bank credit (incl. Mort. Backed Secur. of \$2,207.3)	\$3,987.4
Commercial and industrial loans	\$2,876.3
Residential real estate loans	\$2,306.4
Commercial real estate loans	\$2,368.5
Real estate loans	\$4,675.0
Consumer Loans	\$1,551.8
All other loans and leases	\$1,617.1
Sub Total Bank credit	\$14,707.6
LESS: Allowance for loan and lease losses	-\$141.4
Other assets including trading assets	\$2,367.5
Cash	\$2,795.3
Total Assets	\$19,729.1

Liabilities	
Large time deposits	\$1,787.4
Other deposits	\$12,616.8
Borrowings	\$2,276.7
Net due to related foreign offices	\$234.9
Other liabilities including trading liabilities	\$796.0
Total Liabilities	\$17,711.8
Residual (Assets Less Liabilities)	\$2,017.4
Total Assets and Residual	\$19,729.1

Source: St Louis Federal Reserve

Real Estate Loans & MBS Total \$6,882.2 or 35% of Bank Assets and 3.4 Times Equity

POLICY RESPONSE – REAL ESTATE

- CARES Act
- State Moratoriums on Evictions and Foreclosures
- Federal Housing Finance Agency “Relief” for Mortgage Servicers
- Term Asset Loan Facility (“TALF”) Program

CARES Act:

Small Business Relief

\$350 Billion; \$310 Billion More

Payroll Protection Plan Loans Have
Some Good News For Real Estate
..... While the Money Lasts

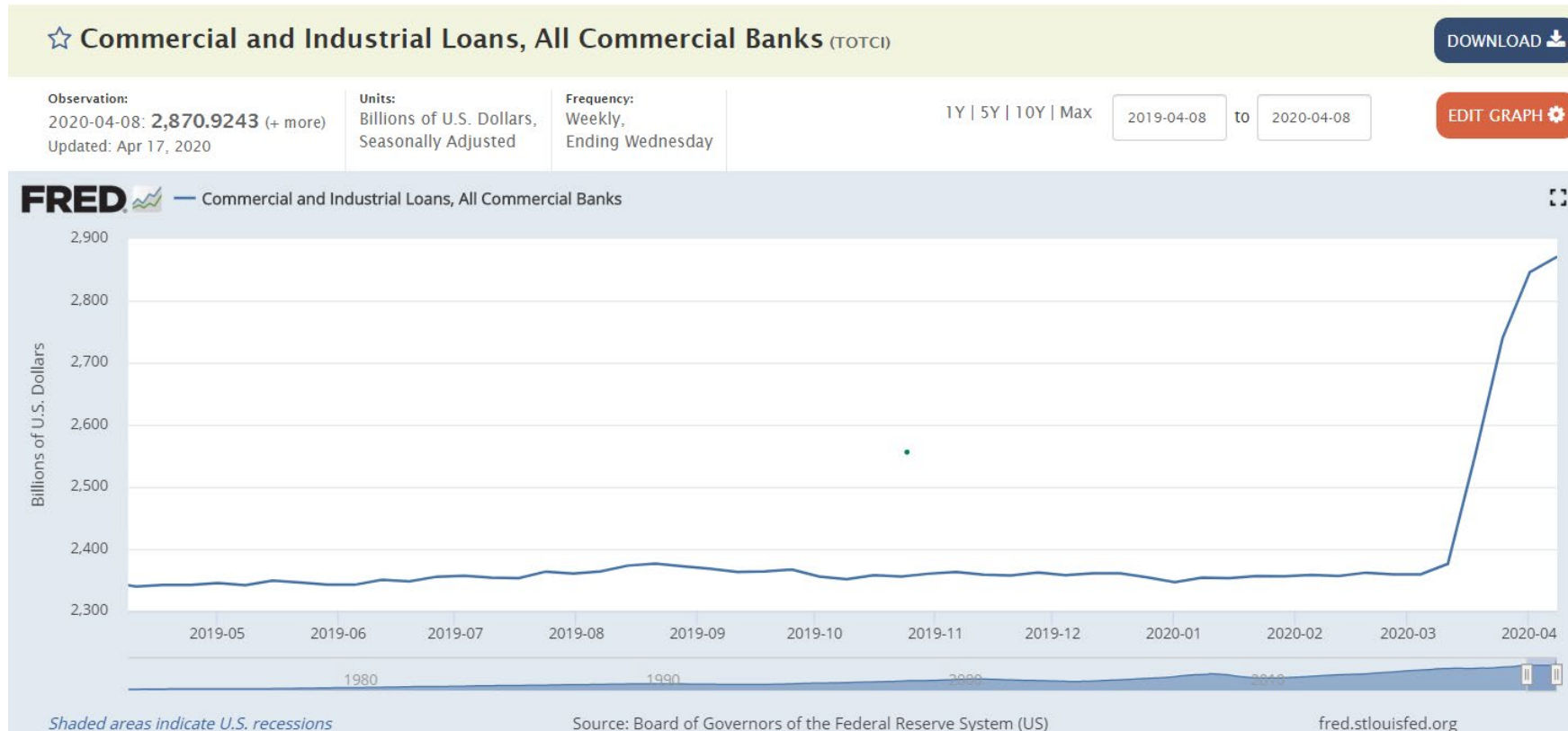
SBA PAYROLL PROTECTION LOANS

- Any business w/ 500 or fewer employees can apply
- Eligible for loan equal 2.5 X's average monthly payroll
- Max loan is \$10 million
- Payroll very broadly defined but excludes any comp over \$100K/yr.
- Loan \$ must be spent w/in 8 weeks of loan funding for
 - Payroll
 - Utilities
 - Rent
 - Interest (not Principal) on business mortgage
- Loans have No Collateral, No Guarantees, No Recourse
- Loans Are Forgiven if 75% or more is used for payroll
- Forgiveness is formula based but is not subject to Federal Income Tax

SBA PAYROLL PROTECTION LOANS: SPECIAL RULES FOR HOTELS & RESTAURANTS (NAIC CODE 72 ETC.)

- Any business w/ NAIC code starting w/ “72” has special rules
- 500 employees are measured by location
- Affiliation Rules Are Waived
- Affiliated business entities can file separately
- Locations in Separate Subsidiaries Appear Able to Apply up to \$10 million

C&I LOANS HAVE SPIKED SINCE CARES ACT SMALL BUSINESS LOAN PROVISIONS



CARES Act:

Foreclosure & Evictions Moratoriumsfor
Homeowners & Renters;

Forbearance Rights for Borrowers.....

In Homes or Apartments Financed By **Federally
Backed Loans**

(Many States Have Similar Eviction and Foreclosure
Moratoriums; Not Forbearance)

CARES ACT EVICTION MORATORIUM

120 TO 150 DAYS, THEN WHAT?

- Eviction moratorium for tenants of most single- and multi-family properties that have federally backed loans
- For 120 days after the CARES Act, residential landlords may not:
 - (1) make, or cause to be made, any filing with the court of jurisdiction to initiate a legal action to recover possession of the covered dwelling from the tenant for nonpayment of rent or other fees or charges; or
 - (2) charge fees, penalties, or other charges to the tenant related to such nonpayment of rent.
- Landlord cannot issue a notice to vacate until after the expiration of the 120 Moratorium Period.
- Landlord cannot require the tenant to vacate until 30 after notice to vacate

CARES ACT: FOR FEDERALLY BACKED LOANS

Foreclosure Moratorium

- Servicers of federally backed mortgage loans may not
 - Initiate any judicial or non-judicial foreclosure process,
 - Move for a foreclosure judgment or order of sale, or
 - Execute a foreclosure-related eviction or foreclosure sale.
- Moratorium for at least 60 days from March 18, 2020
- Does not apply to vacant or abandoned properties

CARES ACT: FOR FEDERALLY BACKED LOANS

Mortgage Forbearance

- Grants forbearance rights and protection against foreclosure to borrowers with a “federally backed mortgage loan” (Section 4022 for 1-4 family, Section 4023 for more than 4 family)
- Borrower must have financial hardship due, directly or indirectly, to the COVID-19 emergency, to request forbearance on their loan
- Borrower submits a request to their servicer affirming the financial hardship
- No proof or additional documentation is required
- Once a request is received, a servicer must provide forbearance for up to 180 days
- No fees, penalties, or additional (i.e. default rate) interest may be charged
- Forbearance period may be extended for up to an additional 180 days, at the borrower’s request

HOWEVER, LOAN FORBEARANCE IS NOT LOAN FORGIVENESS

- Loans Continue to Accrue Interest but Not at Default Rate
- Real Estate Taxes and Insurance Isn't Forgiven
- Loan Servicers Must Make Advances for
 - Real Estate Taxes
 - Property Insurance and
 - Principal and Interest for RMBS Bondholders
- CARES Act ***Does Not Address Type*** of Forbearance

3 BASIC FORBEARANCE OPTIONS: THEN WHAT?

1. Require Payment to Cure Loan Completely Upon Expiration of Forbearance
2. Require Additional Payments for a Period of Time to Cure Accumulated “Forbeared” Amounts or
3. Extend the Loan Term

Strategies Are Determined by Servicers and Controlling Security

(Loan documents typically have provisions that specify the interest rate for adding unpaid P&I, R.E. Tax and Insurance to loan balance)

CARES Act May Be Great, Even Necessary, Short Term Policy Move But Real Question Is:
Who Can Afford It Longer Term?

A Basic Loan Example:

Loan to Value	80.00%
Loan	-\$250,000.00
Interest Rate	4.00%
Term in Years	30
Amortization in Years	30
Monthly Interest Rate	0.00333333
Monthly Payment P&I	\$1,193.54

Value	312,500
Real Estate Taxes at	1.50%
Real Estate Taxes at	\$4,687.50
Monthly Tax Escrow	\$390.63
Insurance	\$1,200.00
Insurance per month	\$100.00
Monthly Escrow	\$490.63

Monthly Payment P&I	\$1,193.54
Monthly Escrow	\$490.63
Total Payment	\$1,684.16
As % of Orig. Loan	0.6737%

MORTGAGE FORBEARANCE: ON \$250,000 LOAN

ONE CURE PAYMENT

6 Months Forbearance: \$10,223.53

Month 6 Ending Balance	\$258,010.25
Month 6 Ending Balance if Paid at Terms	\$247,820.68
Increased Balance	\$10,189.57
Plus: Interest on Increased Balance	\$33.97
Cure Payment Needed	\$10,223.53
To Come Back to Mo. 7 Balance per Terms of	\$248,551.96

12 Months Forbearance: \$20,653.24

Month 12 Ending Balance	\$266,182.04
Month 12 Ending Balance if Paid at Terms	\$245,597.41
Increased Balance	\$20,584.63
Plus: Interest on Increased Balance	\$68.62
Cure Payment Needed	\$20,653.24
To Come Back to Mo. 13 Balance per Terms of	\$245,222.53

Total Payment in Month 7 is 7.1 X's Regular Month

Reg. Monthly P&I	\$1,193.54	
Escrow	\$490.63	
Cure	\$10,223.53	
Total	\$11,907.70	7.1
Total Regular Payment	\$1,684.16	
Balance at Month 360	\$0.00	

Total Payment in Month 13 is 13.3 X's Regular Month

Reg. Monthly P&I	\$1,193.54	
Escrow	\$490.63	
Cure	\$20,653.24	
Total	\$22,337.41	13.3
Total Regular Payment	\$1,684.16	
Balance at Month 360	\$0.00	

No Borrower in Forbearance Could Afford A One Time Cure Payment

MORTGAGE FORBEARANCE ON \$250,000 LOAN: CURE BY ADDITIONAL PAYMENTS FOR 12 MONTHS

6 Months: \$867.64 Extra Per Month

Month 6 Ending Balance	\$258,010.25
Month 6 Ending Balance if Paid at Terms	\$247,820.68
Increased Balance	\$10,189.57
Cure Amount to Amortize	\$10,189.57
Monthly Pmt Incr. 1 Yr	\$867.64
to Come Back to Mo. 18 Balance per Terms of	\$243,329.30

12 Months: \$1,752.78 Extra Per Month

Month 12 Ending Balance	\$266,182.04
Month 12 Ending Balance if Paid at Terms	\$245,597.41
Increased Balance	\$20,584.63
Cure Payment Needed	\$20,584.63
Monthly Pmt Incr. 1 Yr	\$1,752.78
to Come Back to Mo. 24 Balance per Terms of	\$241,015.45

Payment to Cure Forbearance w/in 12 Months After Forbearance

Reg. Monthly P&I	\$1,193.54	
Escrow	\$490.63	
Cure	\$867.64	
Total	\$2,551.80	151.5%
Total Regular Payment	\$1,684.16	
Balance at Month 360	\$0.00	

Total Payment to Cure Forbearance w/in 12 Months

Reg. Monthly P&I	\$1,193.54	
Escrow	\$490.63	
Cure	\$1,752.78	
Total	\$3,436.94	204.1%
Total Regular Payment	\$1,684.16	
Balance at Month 360	\$0.00	

Additional Payment Would Likely Need To Be Required for 5 Plus Years to Be Affordable for Borrowers

MORTGAGE FORBEARANCE: ON \$250,000 LOAN TERM EXTENSION

6 Months: Add 30 Months

Month 6 Ending Balance	\$258,010.25
Month 6 Ending Balance if Paid at Terms	\$247,820.68
Increased Balance	\$10,189.57
Plus: Interest on Increased Balance	\$33.97
Cure Payment Needed But Not Made	\$10,223.53
To Come Back to Mo. 7 Balance per Terms of	\$248,551.96

<u>Total Loan Term is</u>	<u>30</u>	<u>Months Longer</u>
Added Balance at Month 6		\$10,223.53
Leaves:		
Balance at Month	360	\$33,095.66
Balance at Month	389	\$171.39
Payoff is Month	390	

12 Months: Add 61 Months

Month 12 Ending Balance	\$266,182.04
Month 12 Ending Balance if Paid at Terms	\$245,597.41
Increased Balance	\$20,584.63
Plus: Interest on Increased Balance	\$68.62
Cure Payment Needed But Not Made	\$20,653.24
To Come Back to Mo. 13 Balance per Terms of	\$245,222.53

<u>Total Loan Term is</u>	<u>61</u>	<u>Months Longer</u>
Added Balance at Month 12		\$20,653.24
Leaves:		
Balance at Month	360	\$65,537.04
Balance at Month	420	\$890.14
Payoff in Month	421	

*Term Extensions Might Not Work for Mortgage Servicers and Controlling
B Piece Security Position in RMBS's*

MORTGAGE BACKED SECURITY SERVICER RIGHTS & OBLIGATIONS - GENERALLY

- Collect Payments from Borrowers
 - Principal, Interest, RE Tax, Insurance
- Make Payments to
 - Bondholders in Order of Priority
 - Generally Payments all interest first then principal to most senior tranche
 - Local Governments & Property Insurers
- ***If borrowers don't pay, servicer must advance payments to bondholders etc. if amounts are recoverable***
- Servicer works out or forecloses against borrower and is repaid as a priority from cash flow - At the expense of the most junior tranche
- Servicers are rated for non systemic levels of non payment
- None Are Believed to Have Capacity for Widespread 12 month Forbearance or Widespread Defaults

FEDERAL HOUSING FINANCE ADMINISTRATION ACTIONS

- Risk of Funding 12 Months under Widespread Forbearance Had Caused Much Residential Lending to Freeze Up
- FHFA Announced (on April 21st) that servicer liabilities for advances would be limited to four months of payments on each loan
- As of April 12th, 6% of home mortgages were in arrears up from 3.75% on April 5th
- Whether Servicers Have Enough Funds for 4 Months Depends on How Widespread Forbearance Requests & Defaults Become
- FHFA is also weighing whether to allow FNMA and Freddie to buy loans that have entered forbearance
- FNMA & Freddie Operate under Conservatorship overseen by FHFA

RESIDENTIAL MORTGAGE BACKED SECURITIES AAA INDEX SIGNALS PROBLEMS IN RESIDENTIAL MORTGAGE MARKET

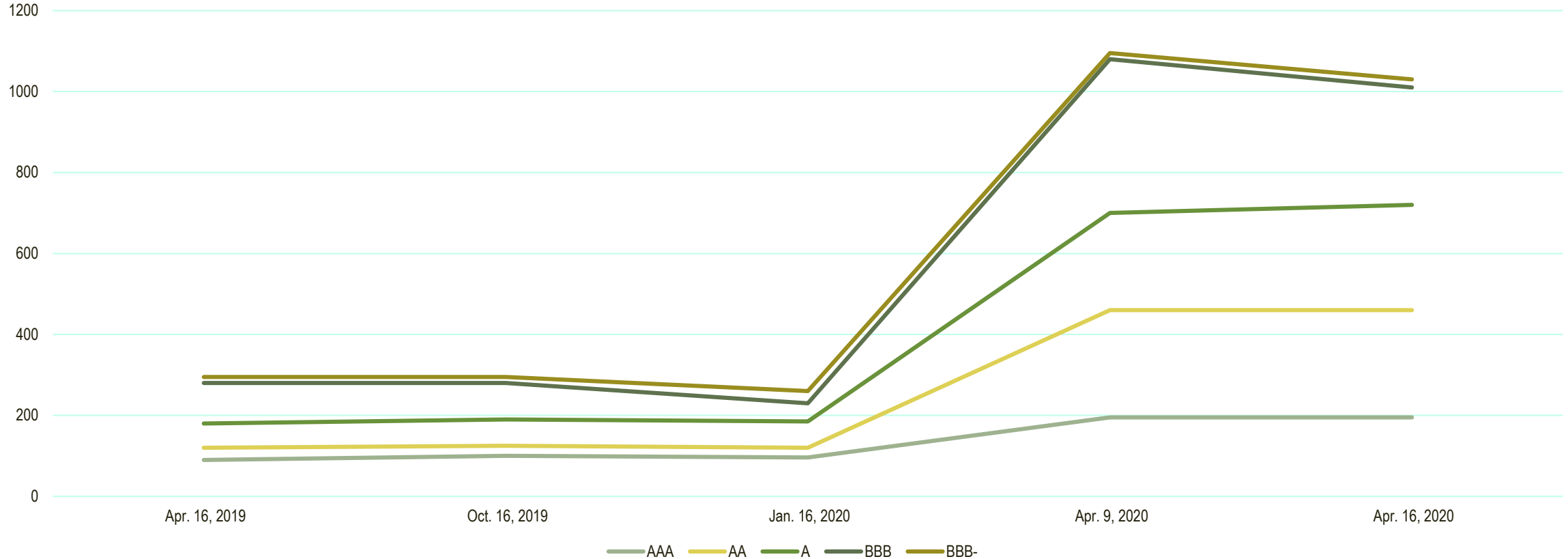


INDEX FOR AAA COMMERCIAL MORTGAGE BACKED SECURITIES DECLINED SHARPLY BUT REBOUNDED SOMEWHAT



HOWEVER, COMMERCIAL MORTGAGE BACKED SECURITY SPREADS WIDEN GREATLY FOR AA AND BELOW

CMBS Spreads



Source: Bloomberg

*Widening Spreads Indicate Expected Losses for Lower Traunches;
& More Difficult Financing for Commercial Properties*

REAL ESTATE INVESTMENT TRUSTS (REIT'S): MORTGAGE REIT'S DOWN MORE THAN EQUITY REIT'S



Both Fell Sharply With Equity REIT's Recovering Half of Lost Value

RETAIL, LODGING & MORTGAGE REIT'S: SIGNIFICANTLY IMPACTED

	December 31, 2019 Index	March 31, 2020 Index	Percent Change
Dow Jones	28,538.44	21,917.16	-23.2%
NASDAQ	8,972.60	7,700.10	-14.2%
S&P 500	3,230.78	2,584.59	-20.0%
Russell 2000	1,668.47	1,153.10	-30.9%
REIT's:	Market Cap	Market Cap	Change
FTSE Nareit All Equity REITs	1,276,304,727	975,941,777	-23.5%
Industrial	122,314,594	109,064,372	-10.8%
Office	109,570,333	78,804,781	-28.1%
Retail	179,407,664	90,461,245	-49.6%
Shopping Centers	61,357,470	30,634,047	-50.1%
Regional Malls	62,398,838	24,780,736	-60.3%
Free Standing	55,651,357	35,046,463	-37.0%
Residential	195,747,614	146,813,142	-25.0%
Apartments	141,350,090	103,205,220	-27.0%
Manufactured Homes	28,182,004	23,149,594	-17.9%
Single Family Homes	26,215,520	20,458,328	-22.0%
Lodging/Resorts	46,200,137	22,084,804	-52.2%
Health Care	124,040,647	78,708,004	-36.5%
Self Storage	66,310,735	60,482,429	-8.8%
Timber	30,226,918	18,153,009	-39.9%
Infrastructure	190,200,870	188,296,575	-1.0%
Data Centers	92,295,228	107,475,626	16.4%
FTSE Nareit Mortgage REITs	83,327,642	36,529,702	-56.2%
Home Financing	55,112,363	23,968,355	-56.5%
Commercial Financing	28,215,278	12,561,347	-55.5%

Publicly Traded REIT's: Red, Yellow, Green vs. Broader Market

FTSE NAREIT MORTGAGE INDEX



DISTRESS AT MORTGAGE REIT'S & DEBT FUNDS

Mortgage REIT's w/ Significant Leverage Are Hard Hit on Two Sides
Their Borrowers Can't Pay Especially

- Retail
- Lodging

Repo/Warehouse Lines Used to Finance Loans Issued by Mortgage REIT's/Debt Funds

- Subject to Margin Calls Based on Collateral
- Collateral is Market to Market
- Repo Lenders Demanding Cash to Satisfy Margins

FTSE NAREIT RETAIL PROPERTY INDEX SHOWS RETAIL UNDER HEAVY STRESS



FTSE NAREIT LODGING INDEX DOWN SHARPLY



FTSE NAREIT APARTMENT INDEX SHOWS MULTI FAMILY DOWN



FTSE NAREIT INDUSTRIAL INDEX INDICATES SECTOR WEATHERING STORM



CLO'S: RATING AGENCY DOWNGRADES COMING

- Moody's Reviewing 859 Collateralized Loan Obligations for Downgrade – 1/5th of Outstandings
- CLO's began Year w/ High Number Rated B- or B3
- Most CLO's have 7.5% limit on Junk Rated Content
- B Pieces That Were Near Par Around 60 Cents on the Dollar
- CLO Market Important for Corporate Credit Access

CMBS: RATING AGENCY DOWNGRADES EXPECTED

- Moody's has put 194 classes of bonds issued by 50 US conduit commercial mortgage backed securities on review for downgrade
- Approximately \$4.4 billion of structured securities affected
- Moody's says:
 - “Stress on commercial real estate properties will be most directly stemming from declines in hotel occupancies (particularly related to conference or other group attendance) and declines in foot traffic and sales for non-essential items at retail properties.”
 - “Hotels are the commercial real estate (CRE) sector hardest hit by the immediate economic fallout from the coronavirus outbreak, given its sensitivity to consumer demand and sentiment. “

CMBS STATUS.....AND OUTLOOK

- Most Borrowers Made March 1st Payment
- Remittance Data Indicates 20% of Hotel Loans and 10% of Retail Loans Did Not Make April 1st Payment
- Loans Will Not Be “Delinquent” until 30 Grace Periods Expire
- Many Borrowers Reported to Have Made April 1st Payment w/ Request to Have Loan Transferred to Special Servicing
- “Delinquency” Rates Could Surpass 2008 – 2012 Levels
- That Crisis Centered on 2006-07 Loans Made Aggressive Bad Underwriting
- This Crisis Appears More Sector Wide

OUTLOOK?

Depends on When Recovery Occurs And Which Letter Shape It Takes

V – Sharp Rebound

U – Slow to Gradual

- How Long is the Bottom
- What's the Angle of the Upside

W – Coronavirus 2nd Wave

Recovery Likely to Vary by Property Type, Sector and Region