



INVESTMENT GROUP

# City of San Jose Police and Fire Department Retirement Plan

First Quarter 2020

Private Markets Program  
PUBLIC

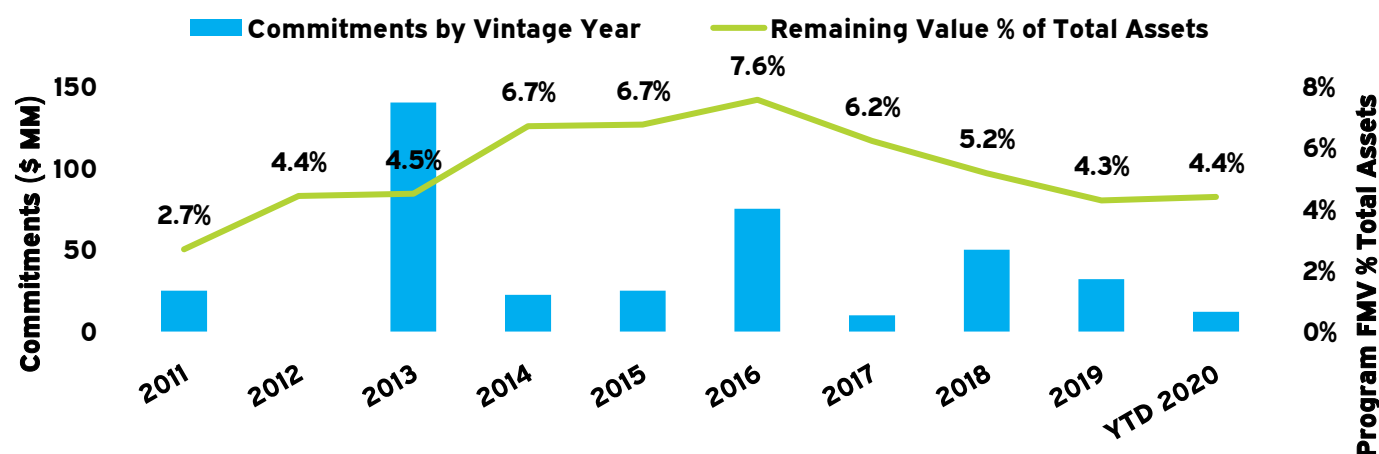
### Snapshot

#### By Account

Account Type	Inception Year	Committed (\$ MM)	Contributed (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	IRR (%)	PME IRR (%)
Legacy Private Equity	2005	361.2	319.0	312.9	171.7	1.52	9.4	6.1
NB Fund of One	2017	266.6	100.1	2.0	106.1	1.08	8.1	-13.3
Private Debt	2010	541.5	491.7	399.5	149.1	1.12	4.2	4.4
Real Estate	2007	254.6	166.0	89.5	113.7	1.22	10.8	-1.8
Real Assets	2016	59.2	39.7	7.5	34.6	1.06	3.4	-1.8
<b>Total</b>		<b>1,483.1</b>	<b>1,116.6</b>	<b>811.5</b>	<b>575.1</b>	<b>1.24</b>	<b>7.5</b>	<b>NA</b>

### Introduction

As of March 31, 2020, the San Jose Police and Fire Department Retirement Plan had committed \$541.5 million to 12 debt partnerships and 1 separately managed co-investment. The reported fair value of the aggregate Private Debt Program was \$149.1 million at March 31, 2020, which equates to 4.4% of the overall Retirement Plan, versus a 3.0% policy target.



### Program Status

No. of Investments	13
Committed (\$ MM)	541.5
Contributed (\$ MM)	491.7
Distributed (\$ MM)	399.5
Remaining Value (\$ MM)	149.1

### Performance Since Inception

	Program	Peer Universe
DPI	0.81x	0.58x
TVPI	1.12x	1.20x
IRR	4.2%	7.1%

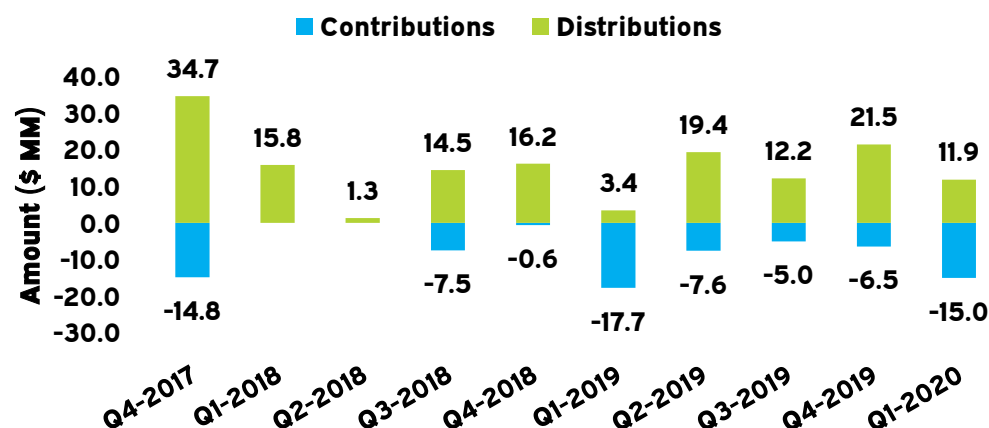
### Commitments

#### Commitments This Quarter

Fund	Strategy	Region	Amount (MM)
Arbour Lane II	Distressed	Global: All	12.00

### Cash Flows

#### Recent Quarterly Cash Flows



#### Largest Contributions This Quarter

Fund	Vintage	Region	Amount (\$MM)
Octagon CLO III	2018	North America	15.00

#### Largest Distributions This Quarter

Fund	Vintage	Region	Amount (\$MM)
Park Square II	2013	Western Europe	7.79
Cross Ocean ESS I	2013	Western Europe	1.46
Marathon Euro Credit	2011	Western Europe	1.35

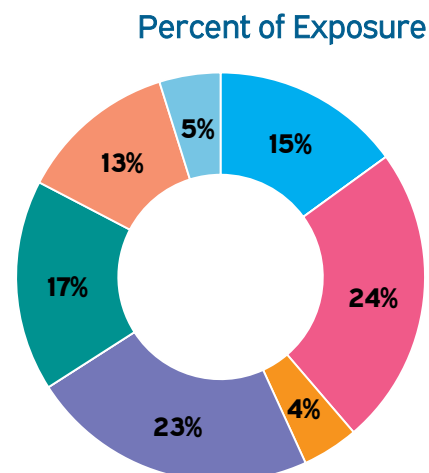
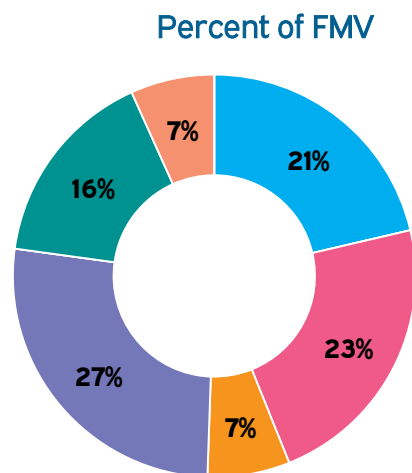
### By Vintage

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
2010	3	150.0	185.3	5.4	172.9	31.8	37.3	0.93	1.11	1.37	3.1	10.7
2011	1	25.0	25.0	0.0	31.1	0.0	0.0	1.24	1.24	1.29	8.6	7.3
2013	2	140.0	120.8	25.2	107.9	33.7	58.9	0.89	1.17	1.27	5.3	7.3
2014	1	22.5	22.2	1.2	15.4	9.9	11.1	0.69	1.14	1.16	4.2	6.5
2015	1	25.0	25.0	0.0	28.5	0.0	0.0	1.14	1.14	1.20	11.3	7.2
2016	1	75.0	60.0	16.8	29.7	39.7	56.5	0.49	1.16	1.09	6.6	5.9
2017	1	10.0	10.0	0.0	12.2	0.0	0.0	1.22	1.22	1.08	12.9	7.1
2018	1	50.0	32.5	17.5	1.8	24.0	41.5	0.05	0.79	1.05	NM	NM
2019	1	32.0	11.0	21.0	0.0	10.0	31.1	0.00	0.92	0.96	NM	NM
2020	1	12.0	0.0	12.0	0.0	0.0	12.0	0.00	NM	NM	NM	NM
<b>Total</b>	<b>13</b>	<b>541.5</b>	<b>491.7</b>	<b>99.1</b>	<b>399.5</b>	<b>149.1</b>	<b>248.2</b>	<b>0.81</b>	<b>1.12</b>	<b>1.20</b>	<b>4.2</b>	<b>7.1</b>

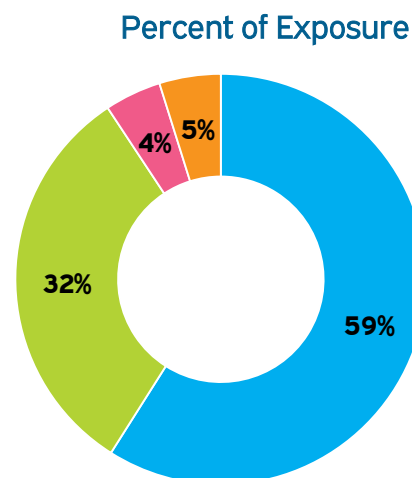
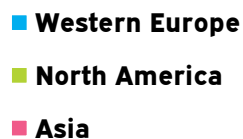
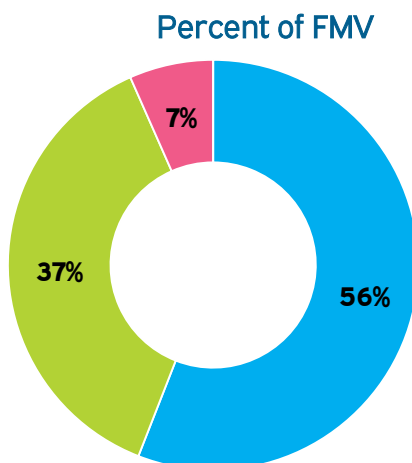
### Fund Performance: Sorted By Vintage And Strategy

By Investment	Vintage	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
GSO Direct Lending	2010	50.0	44.6	5.4	46.5	4.2	1.14	1.37	4.7	10.7
Medley II	2010	50.0	55.3	0.0	47.1	15.9	1.14	1.37	2.9	10.7
White Oak DL	2010	50.0	85.4	0.0	79.3	11.7	1.07	1.37	2.5	10.7
Marathon Euro Credit	2011	25.0	25.0	0.0	31.1	0.0	1.24	1.29	8.6	7.3
Park Square II	2013	50.0	44.8	11.2	22.8	28.0	1.13	1.27	3.2	7.3
Cross Ocean ESS I	2013	90.0	76.0	14.0	85.1	5.7	1.20	1.27	6.9	7.3
Shoreline China III	2014	22.5	22.2	1.2	15.4	9.9	1.14	1.16	4.2	6.5
Octagon CLO II	2015	25.0	25.0	0.0	28.5	0.0	1.14	1.20	11.3	7.2
Cross Ocean ESS II	2016	75.0	60.0	16.8	29.7	39.7	1.16	1.09	6.6	5.9
ArrowMark Sep Acct	2017	10.0	10.0	0.0	12.2	0.0	1.22	1.08	12.9	7.1
Octagon CLO III	2018	50.0	32.5	17.5	1.8	24.0	0.79	1.05	NM	NM
Cross Ocean ESS III	2019	32.0	11.0	21.0	0.0	10.0	0.92	0.96	NM	NM
Arbour Lane II	2020	12.0	0.0	12.0	0.0	0.0	NM	NM	NM	NM
<b>Total</b>		<b>541.5</b>	<b>491.7</b>	<b>99.1</b>	<b>399.5</b>	<b>149.1</b>	<b>1.12</b>	<b>1.20</b>	<b>4.2</b>	<b>7.1</b>

#### By Vintage

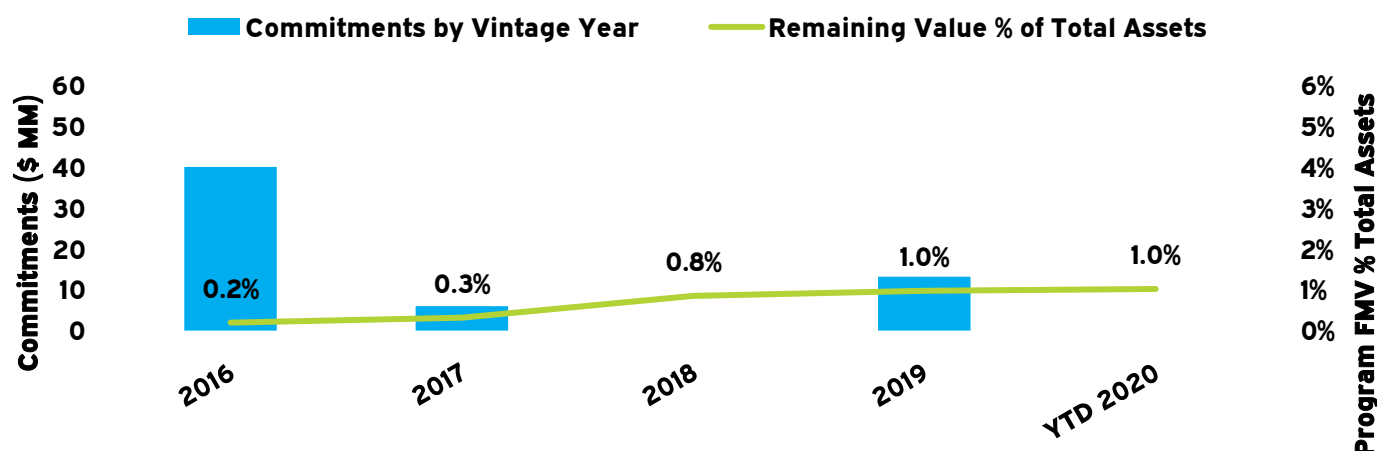


#### By Geographic Focus



### Introduction

As of March 31, 2020, the Plan had committed \$59.2 million to five real assets funds. The total reported fair value of real assets investments was \$34.6 million at March 31, 2020, which equates to 1.0% of the overall Retirement Plan, versus a 3.0% policy target.



### Program Status

No. of Investments	5
Committed (\$ MM)	59.2
Contributed (\$ MM)	39.7
Distributed (\$ MM)	7.5
Remaining Value (\$ MM)	34.6

### Performance Since Inception

	Program	Peer Universe
DPI	0.19x	0.10x
TVPI	1.06x	1.02x
IRR	3.4%	1.3%



### Commitments

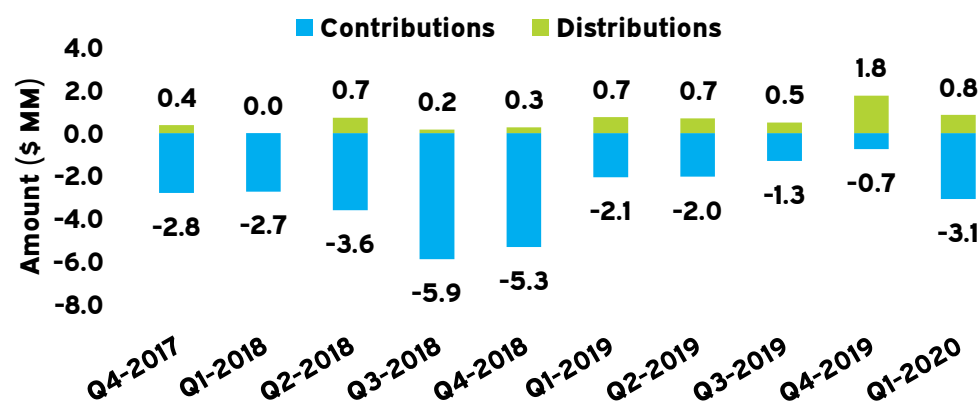
#### Commitments This Quarter

Fund	Strategy	Region	Amount (MM)
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None to report.

### Cash Flows

#### Recent Quarterly Cash Flows



#### Largest Contributions This Quarter

Fund	Vintage	Region	Amount (\$MM)
Kimmeridge Energy V	2019	North America	1.51
BIF III	2016	Global: Developed	1.22
Lime Rock VIII	2017	North America	0.17

#### Largest Distributions This Quarter

Fund	Vintage	Region	Amount (\$MM)
BIF III	2016	Global: Developed	0.83

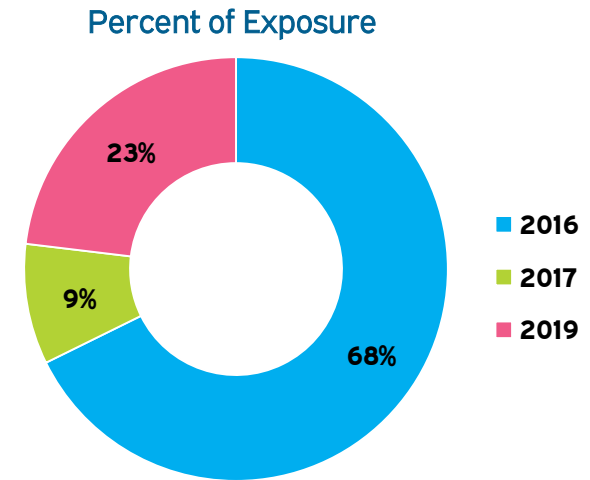
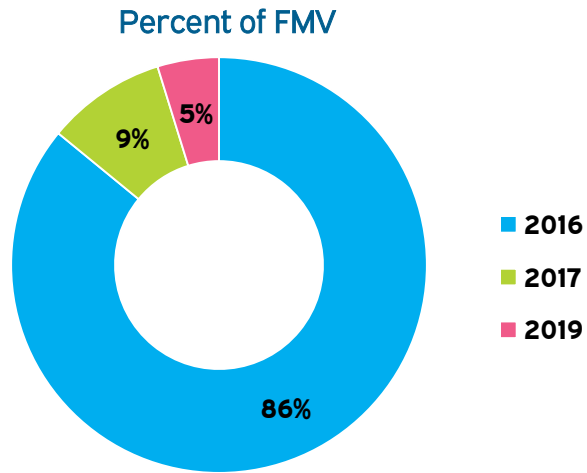
### By Vintage

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
2016	2	40.0	33.2	7.2	7.5	29.7	36.9	0.23	1.12	1.06	6.2	2.5
2017	1	6.0	4.3	1.8	0.0	3.2	5.0	0.00	0.74	0.89	NM	NM
2019	2	13.2	2.2	10.9	0.0	1.7	12.6	0.00	0.74	0.74	NM	NM
<b>Total</b>	<b>5</b>	<b>59.2</b>	<b>39.7</b>	<b>20.0</b>	<b>7.5</b>	<b>34.6</b>	<b>54.6</b>	<b>0.19</b>	<b>1.06</b>	<b>1.02</b>	<b>3.4</b>	<b>1.3</b>

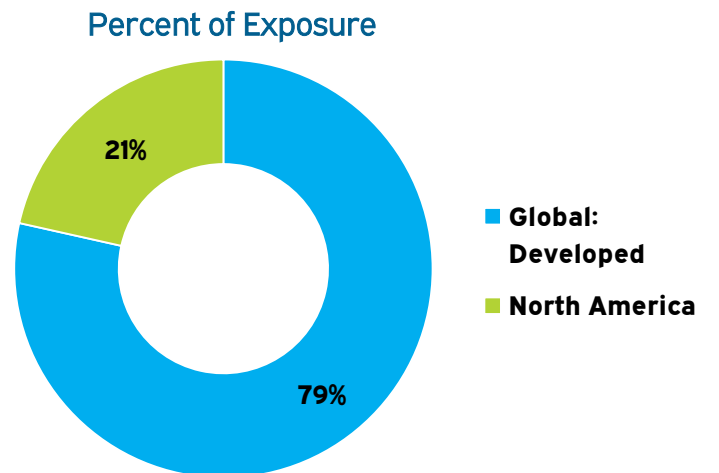
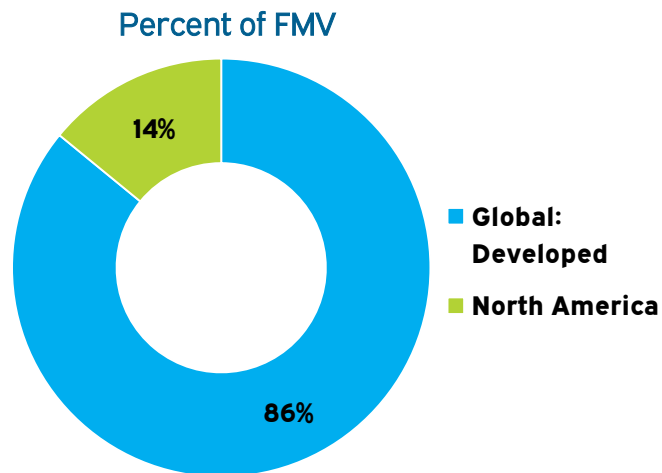
### Fund Performance: Sorted By Vintage And Strategy

By Investment	Vintage	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
BIF III	2016	20.0	16.3	3.7	4.8	15.4	1.24	1.06	12.8	2.5
GIP III	2016	20.0	16.9	3.5	2.7	14.3	1.00	1.06	0.2	2.5
Lime Rock VIII	2017	6.0	4.3	1.8	0.0	3.2	0.74	0.89	NM	NM
Kimmeridge Energy V	2019	7.2	2.1	5.1	0.0	1.7	0.78	0.93	NM	NM
GIP IV	2019	6.0	0.1	5.9	0.0	NM	NM	NM	NM	NM
<b>Total</b>		<b>59.2</b>	<b>39.7</b>	<b>20.0</b>	<b>7.5</b>	<b>34.6</b>	<b>1.06</b>	<b>1.02</b>	<b>3.4</b>	<b>1.3</b>

#### By Vintage

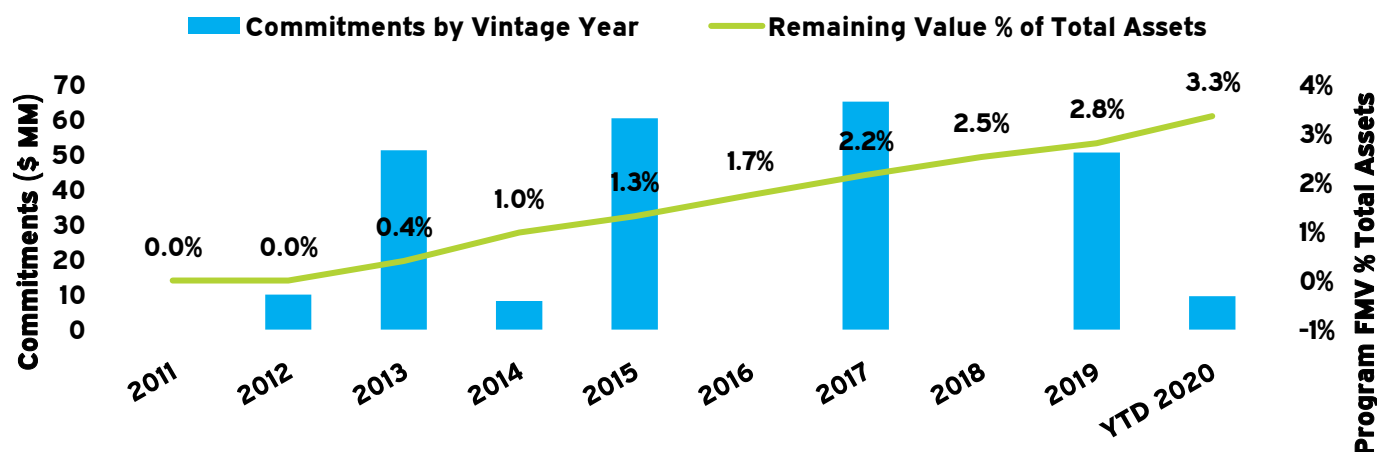


#### By Geographic Focus



### Introduction

As of March 31, 2020, the Plan had committed \$254.6 million to 16 real estate funds. The total reported fair value of the Real Estate Program's investments was \$113.7 million at March 31, 2020, which equates to 3.3% of the overall Retirement Plan, versus a 3.0% policy target.



### Program Status

No. of Investments	16
Committed (\$ MM)	254.6
Contributed (\$ MM)	166.0
Distributed (\$ MM)	89.5
Remaining Value (\$ MM)	113.7

### Performance Since Inception

	Program	Peer Universe
DPI	0.54x	0.58x
TVPI	1.22x	1.26x
IRR	10.8%	10.4%

### Commitments

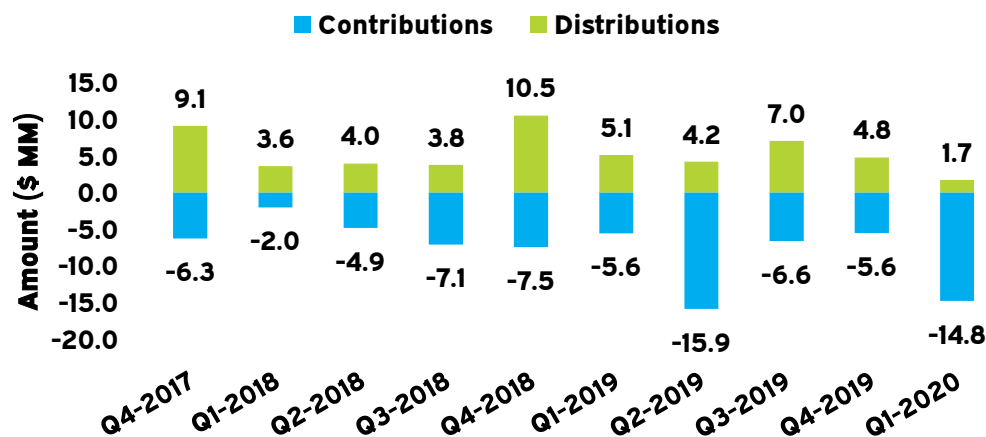
#### Commitments This Quarter

Fund	Strategy	Region	Amount (MM)
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None to report.

### Cash Flows

#### Recent Quarterly Cash Flows



#### Largest Contributions This Quarter

Fund	Vintage	Region	Amount (\$MM)
Torchlight VI	2017	North America	5.37
DRA X	2019	North America	2.78
KSL IV	2015	North America	2.43

#### Largest Distributions This Quarter

Fund	Vintage	Region	Amount (\$MM)
TA Realty X	2013	North America	0.52
DRA IX	2017	North America	0.46
Sculptor RE III	2013	North America	0.37

### By Vintage

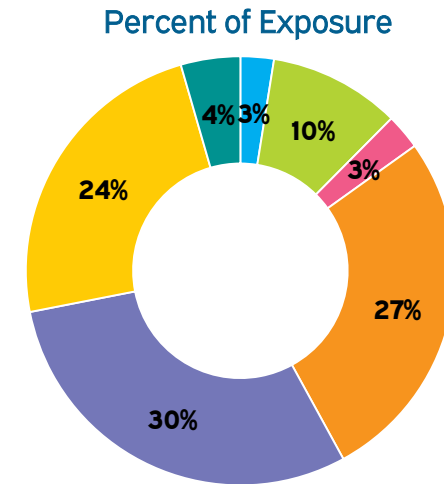
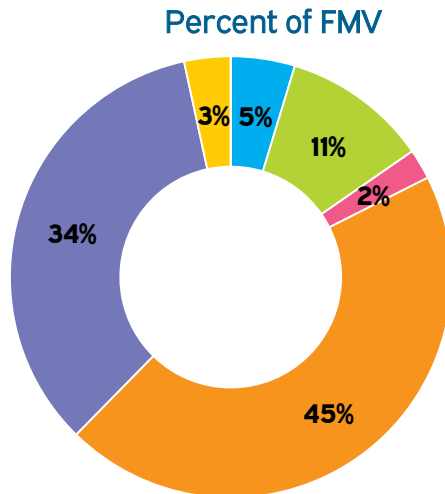
Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
2012	1	10.0	11.7	0.0	16.7	5.3	5.3	1.42	1.88	1.44	19.1	11.4
2013	4	51.2	44.3	8.9	48.6	12.1	21.0	1.10	1.37	1.34	12.6	10.1
2014	1	8.2	6.7	3.2	4.0	2.5	5.7	0.59	0.96	1.35	-1.5	11.0
2015	3	60.2	54.1	6.2	11.0	50.9	57.1	0.20	1.14	1.27	6.8	10.0
2017	3	65.0	44.9	24.4	9.3	38.9	63.4	0.21	1.08	1.10	8.1	7.8
2019	3	50.5	4.3	46.2	0.0	3.9	50.0	0.00	0.89	0.90	NM	NM
2020	1	9.5	0.0	9.5	0.0	0.0	9.5	0.00	NM	NM	NM	NM
<b>Total</b>	<b>16</b>	<b>254.6</b>	<b>166.0</b>	<b>98.3</b>	<b>89.5</b>	<b>113.7</b>	<b>212.0</b>	<b>0.54</b>	<b>1.22</b>	<b>1.26</b>	<b>10.8</b>	<b>10.4</b>

### Fund Performance: Sorted By Vintage And Strategy

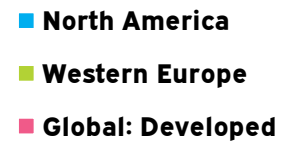
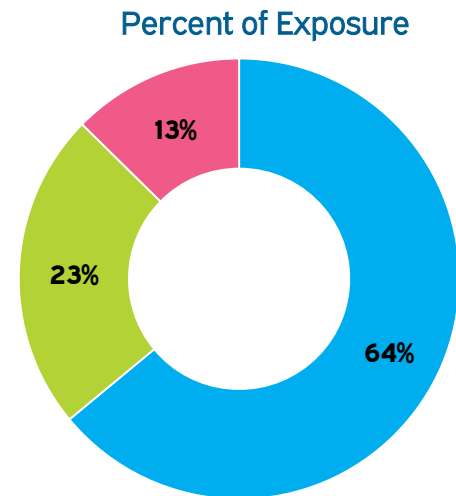
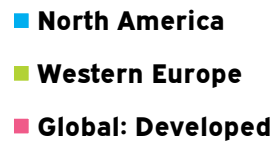
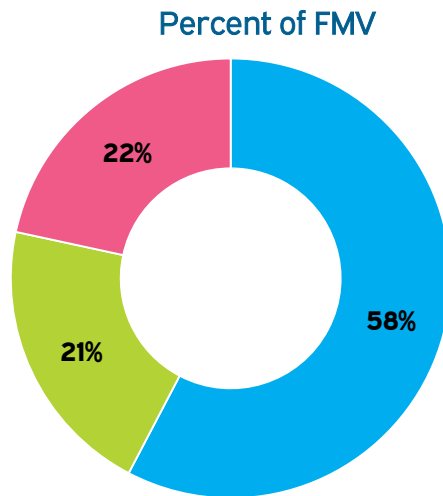
By Investment	Vintage	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Brookfield RE I	2012	10.0	11.7	0.0	16.7	5.3	1.88	1.44	19.1	11.4
Blackstone RE Debt II	2013	12.5	12.8	0.0	14.5	0.2	1.16	1.34	8.1	10.1
Sculptor RE III	2013	20.0	12.6	8.9	11.1	8.1	1.53	1.34	22.4	10.1
EPISO 3	2013	8.7	9.0	0.0	8.1	2.6	1.20	1.34	6.5	10.1
TA Realty X	2013	10.0	10.0	0.0	14.9	1.1	1.61	1.34	12.9	10.1
Orion Euro IV	2014	8.2	6.7	3.2	4.0	2.5	0.96	1.35	-1.5	11.0
Brookfield RE II	2015	20.0	17.8	2.2	4.2	19.2	1.31	1.27	11.0	10.0
KSL IV	2015	20.0	19.5	0.5	4.7	14.4	0.98	1.27	-1.4	10.0
EPISO 4	2015	20.2	16.8	3.4	2.1	17.3	1.15	1.27	6.8	10.0
Torchlight VI	2017	30.0	19.7	12.7	3.0	16.2	0.98	1.10	NM	NM
GEM VI	2017	15.0	5.2	9.8	0.9	4.2	0.99	1.10	-1.0	7.8
DRA IX	2017	20.0	20.0	1.9	5.4	18.5	1.19	1.10	13.9	7.8
Rockpoint VI	2019	11.5	0.0	11.5	0.0	NM	NM	NM	NM	NM
DRA X	2019	18.0	2.8	15.2	0.0	2.9	1.03	0.90	NM	NM
EPISO 5	2019	21.0	1.5	19.4	0.0	1.1	0.68	0.90	NM	NM
Exeter V	2020	9.5	0.0	9.5	0.0	0.0	NM	NM	NM	NM
<b>Total</b>		<b>254.6</b>	<b>166.0</b>	<b>98.3</b>	<b>89.5</b>	<b>113.7</b>	<b>1.22</b>	<b>1.26</b>	<b>10.8</b>	<b>10.4</b>



#### By Vintage



#### By Geographic Focus

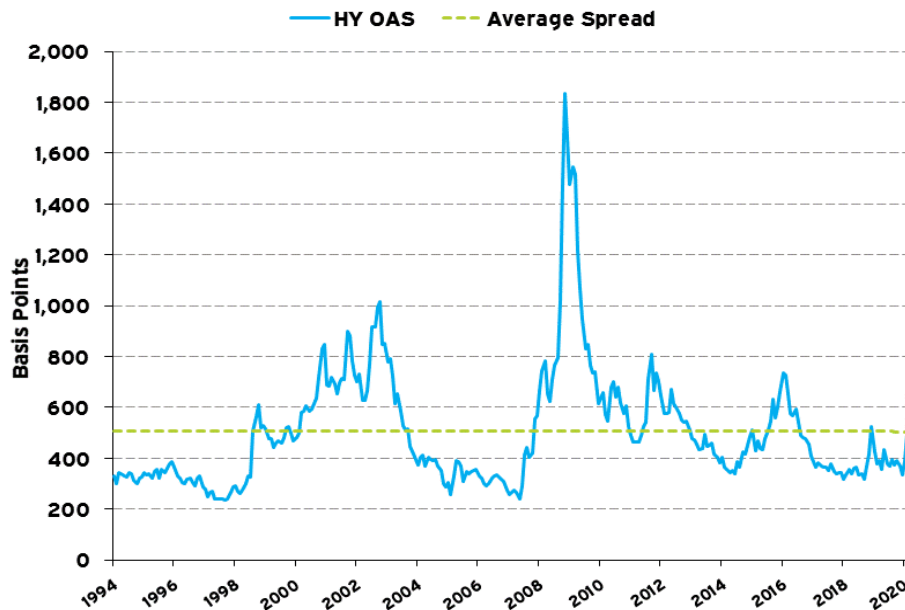


#### Private Debt

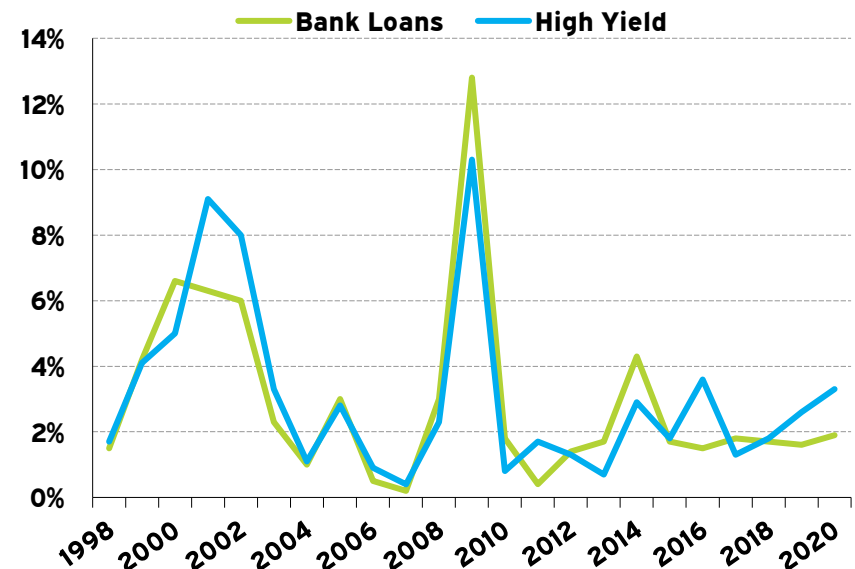
The first quarter of 2020 marked a sharp reversal from the benign credit environment of the past several years. Asset prices across all credit markets exhibited significant volatility in February and March as a result of the expanding covid-19 pandemic. Even the highest quality and most liquid segments of corporate credit and structured credit markets experienced substantial dislocations because of the sharp repricing of credit risk. These issues were exacerbated by margin calls on credit portfolios that relied on high leverage levels and mark-to-market valuation methodologies.

High yield bond spreads increased more than 500 basis points from the end of 2019 to finish the quarter at 880 basis points. This spread level is comfortably in the highest decile historically. Bank loan spreads followed a similar path, as the selloff appeared to be indiscriminate of capital structure positioning. Bond and loan default rates increased modestly to 3.3% and 1.9%, respectively, but are expected to continue to increase as a result of the sharp decrease in economic activity.

#### U.S. Corporate High Yield Spread<sup>1</sup>



#### U.S. Corporate Default Rate<sup>2</sup>



<sup>1</sup> Source: Barclays Capital

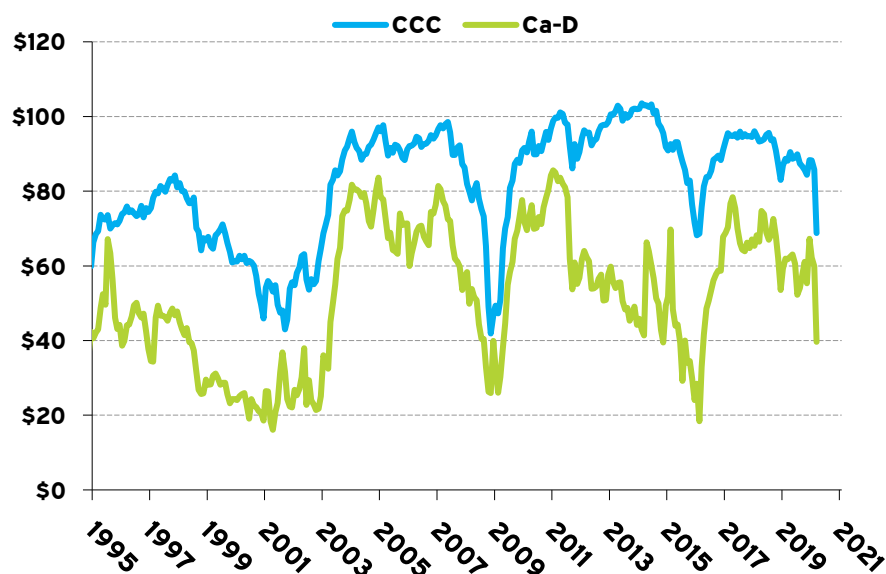
<sup>2</sup> Source: JP Morgan

### Distressed & Opportunistic Debt

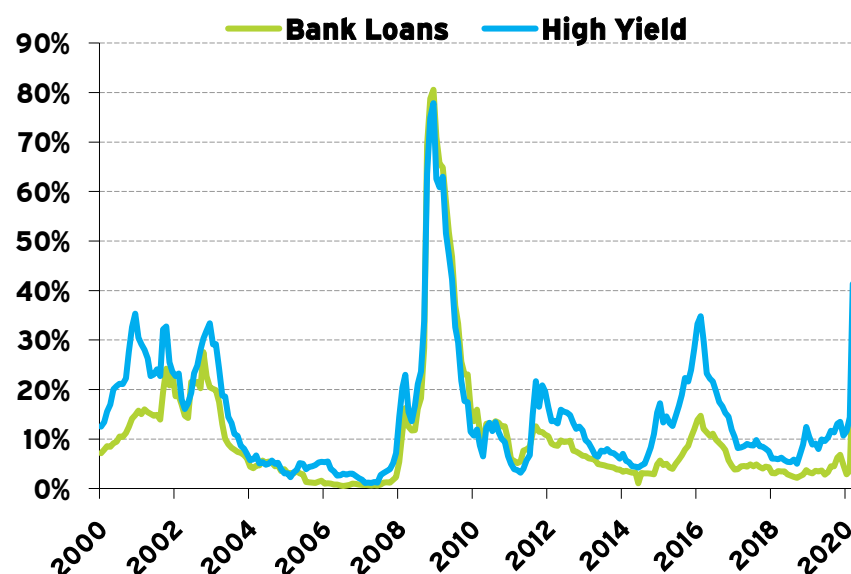
The opportunity set for distressed and opportunistic debt changed materially as a result of the credit market sell-off. Bonds rated CCC, which are 12% of the market and account for more than \$140 billion in face value, fell below \$70. The distressed ratios (defined below) in both bonds and loans increased significantly to more than 20% and 40%, respectively. In both asset classes combined, there was more than \$700 billion of debt (face value) trading at these distressed levels at the end of the quarter, a substantial increase from the approximately \$150 billion of distressed debt at the end of 2019.

Rating agencies have been quick to downgrade issuers in this market environment. There was more than \$140 billion of fallen angel<sup>1</sup> bonds downgraded in the first quarter, which alone would represent the third highest year of downgrades. In bank loans, approximately \$278 billion of debt and 219 loan issuers were downgraded. Loan downgrades can have a material impact on this market as CLOs, which are more than 60% of the bank loan market, have certain ratings constraints.

#### Lower Rated Debt Pricing<sup>2</sup>



#### Distressed Ratio<sup>3</sup>



<sup>1</sup> Bond ratings lowered from investment grade to below investment grade, or high yield

<sup>2</sup> Source: Barclays Capital

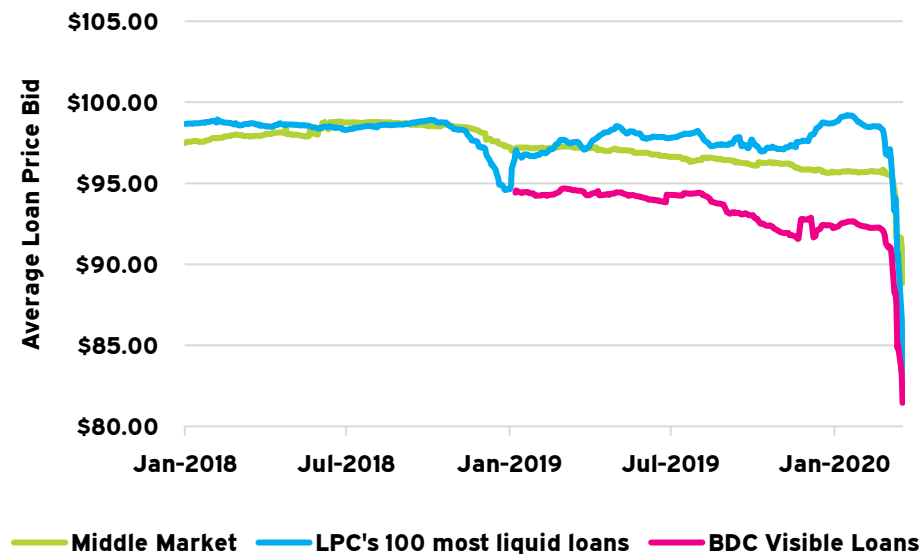
<sup>3</sup> Source: Bank Loans trading below \$80, Credit Suisse; High Yield trading at spread of more than 1,000bps, Deutsche Bank.

#### Private Senior & Subordinated Debt

The pandemic has had a material impact on new issuance in corporate private credit markets. During the first quarter, issuance was a fraction of the average quarterly levels for the prior five years. Market participants expect a prolonged period of slower issuance as M&A, the primary use of proceeds in middle market lending, is expected to slow. New issuance is likely to shift to capital structure recapitalizations, as well as liquidity injections or rescue financing. Due to the nature of these transactions, the new issuance yields are expected to increase beyond just the increase in market credit spreads.

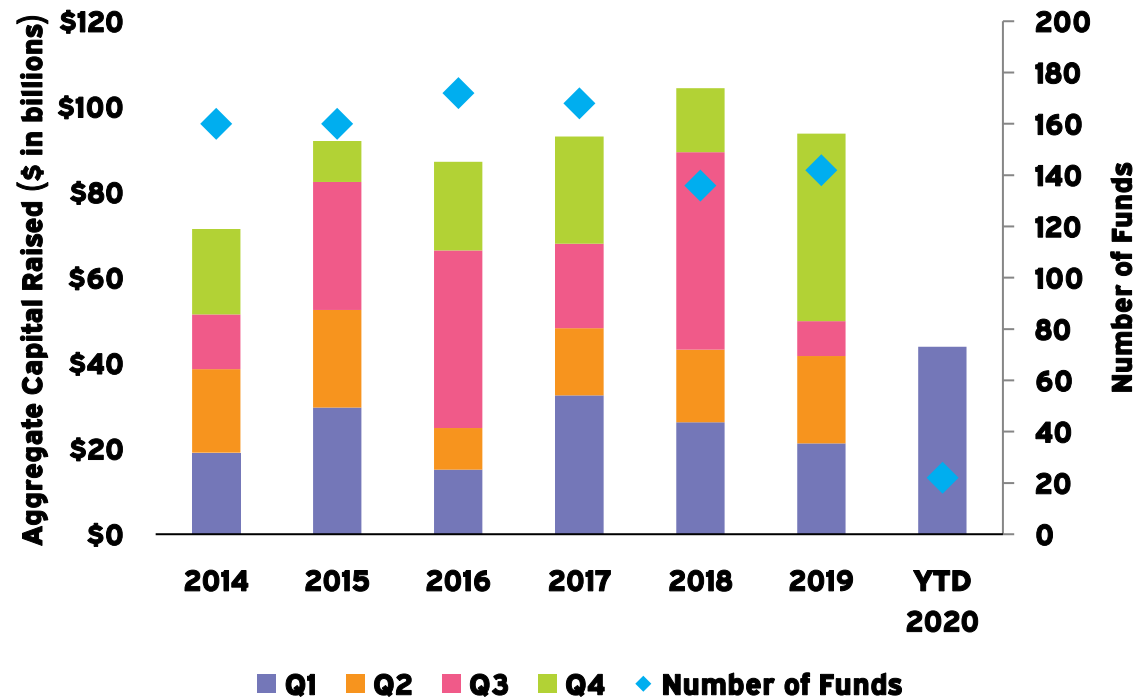
Private middle market loan performance began to diverge from the larger syndicated market in 2019. The large cap market traded down to similar levels as the middle market in the first quarter of 2020 as investors sold loans believed to be most liquid first. Middle market defaults started to increase during the quarter as evidenced by the non-accrual rate for BDCs increasing from 3.4% at the end of 2019 to nearly 6% at the end of March.

#### Senior Loan Secondary Market Pricing<sup>1</sup>



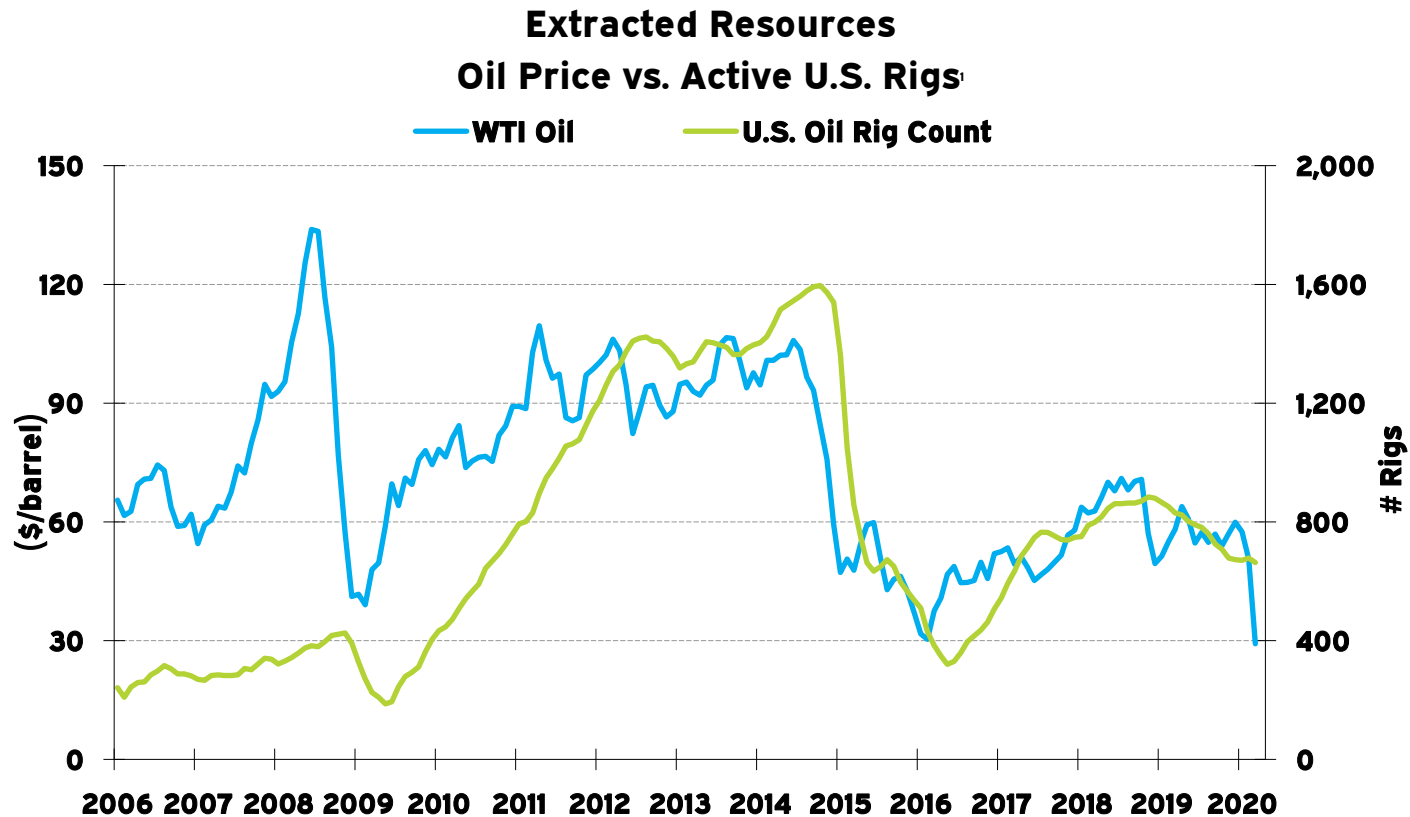
<sup>1</sup> Source: Refinitiv LPC

#### Global Quarterly Unlisted Natural Resource Fundraising<sup>1</sup>



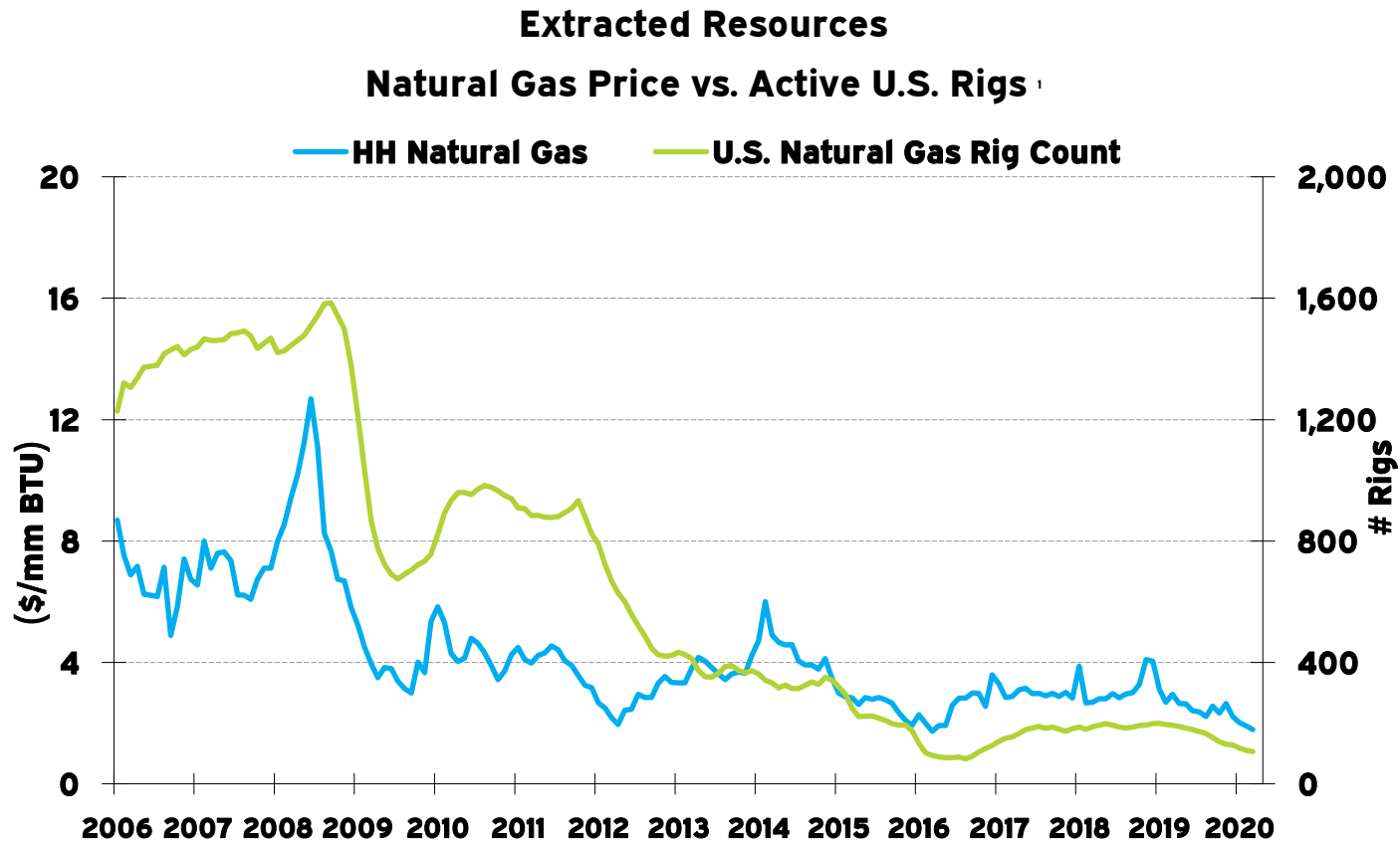
Fundraising momentum continued into the first quarter of 2020, exceeding the first half of 2019 with over \$40 billion in commitments. The number of funds decreased from the average per quarter in 2019 with just 22 funds, but the average fund size increased from \$1 billion in 2019 to \$2 billion during the first quarter of 2020. As of March 31, 2020, Prequin reported a total of 332 unlisted natural resources funds with a combined fundraising target of approximately \$172 billion. The majority of natural resources managers fundraising during the first quarter were focused on North America, accounting for approximately 46% of cumulative targeted capitalization in the market.

<sup>1</sup> Source: Prequin Private Capital Fundraising Update, Q1 2020.



In mid-January 2020, China and the U.S. signed the Phase I trade agreement in what could result in increased trade between the two largest economies. Those prospects later faded as the global impact of the coronavirus unfolded. As schools were shut and travel restrictions were enacted, the demand for oil and refined products plummeted. At the same time, Saudi Arabia and Russia increased production after disagreeing to coordinated production cuts. West Texas Intermediate (“WTI”) and Brent oil prices fell by 51% to \$29 and 52% to \$32 per barrel, respectively, during the first quarter. While the U.S. oil rig count only fell by 10 to 663, this was only a fraction of the decline coming for the next quarter, as oil and gas companies significantly cut capital spending. U.S. gasoline prices for regular blend decreased by 10% to \$2.47 during the first quarter, representing an 8% decrease from one year prior.

<sup>1</sup> Source: EIA and Baker Hughes.



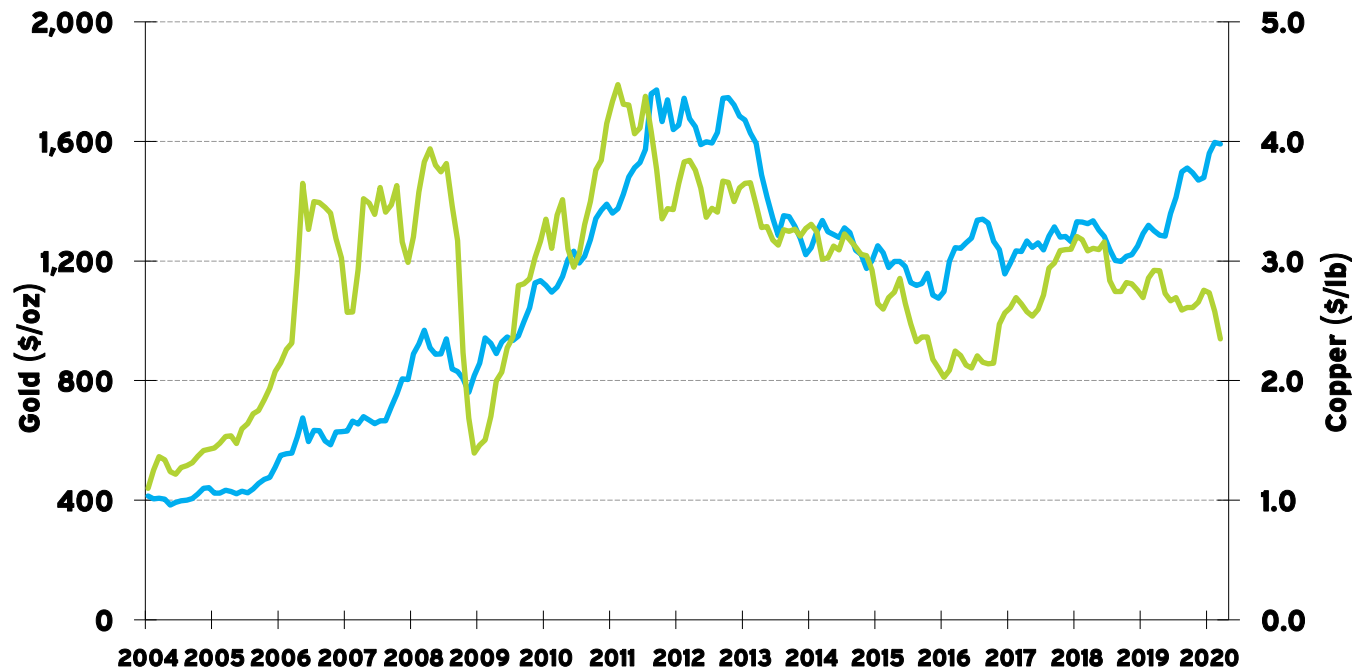
Relatively speaking, natural gas prices were more stable than oil prices during the quarter. Henry Hub natural gas spot prices ended the quarter at approximately \$1.79/MM BTU, representing a 19% decrease relative to the prior quarter and a 39% decrease from one year prior. Despite a quarterly reduction in rig count from 22 to 106, U.S. natural gas production averaged 103 billion cubic feet per day, a slight decrease from the prior quarter and an increase of 8% from the prior year.

<sup>1</sup> Source: EIA and Baker Hughes.

#### Extracted Resources

##### Metals Prices:

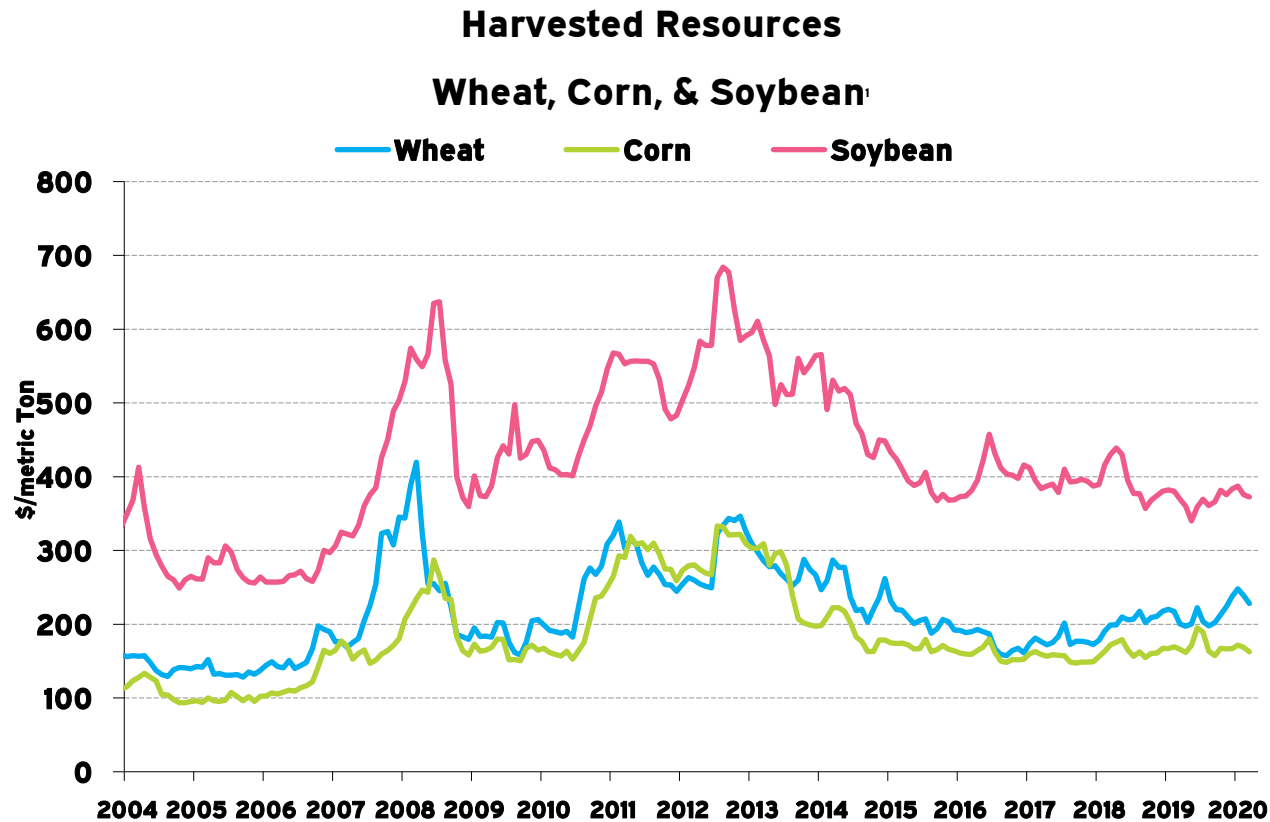
— Gold — Copper



As the world began to realize the global impacts of a pandemic, risk assets began to sell off in search of safe haven assets such as gold and precious metals. The increase in the price of gold began to accelerate at the end of March and ended the quarter at \$1,592 per ounce, representing a quarterly and yearly increase of 8% and 22%, respectively. Conversely, other metals generally fell during this timeframe. Copper prices, often associated with economic activity, ended the quarter at \$2.35 per ounce representing a quarterly decline of 15% and annual decline of 20%.

<sup>1</sup> Source: World Bank

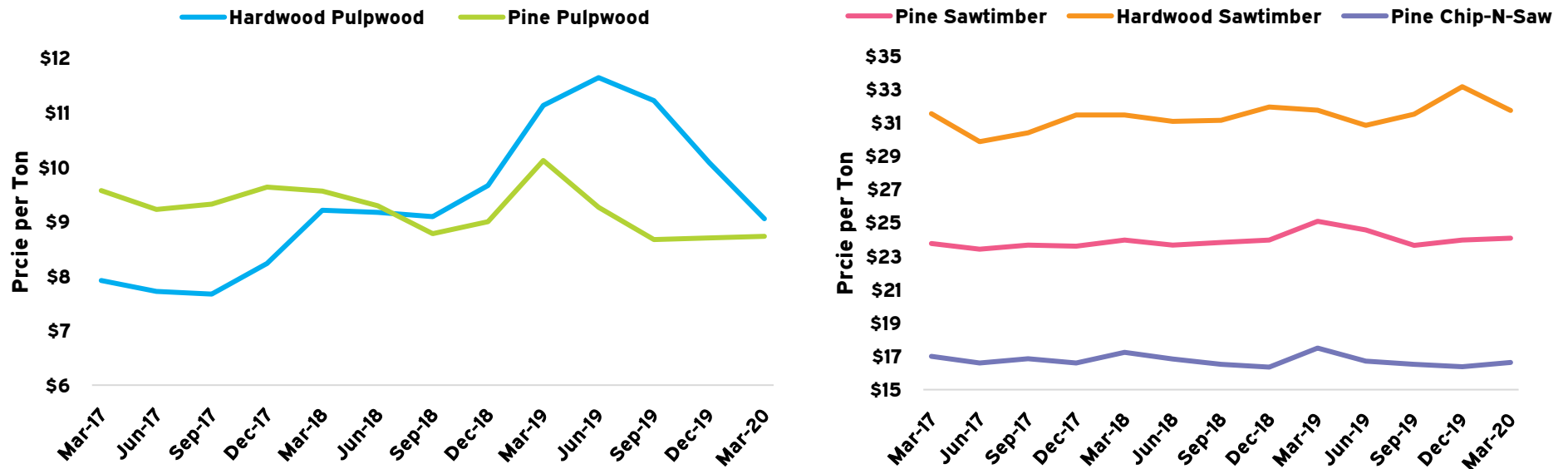




There were high hopes that the trade agreement between the U.S. and China would provide a much needed boost to U.S. agricultural products. China began to increase its purchases; however, initial transactions were much lower than the trajectory in prior years. As communities began to lockdown and enforce social distancing, demand from certain food and agriculture end markets, such as sit-down dining and schools, plummeted. During the quarter, wheat, corn, and soybean prices fell by 4%, 3%, and 3%, respectively. During the first quarter, the NCREIF Farmland index declined by 0.1% primarily driven by depreciation of 0.5%.

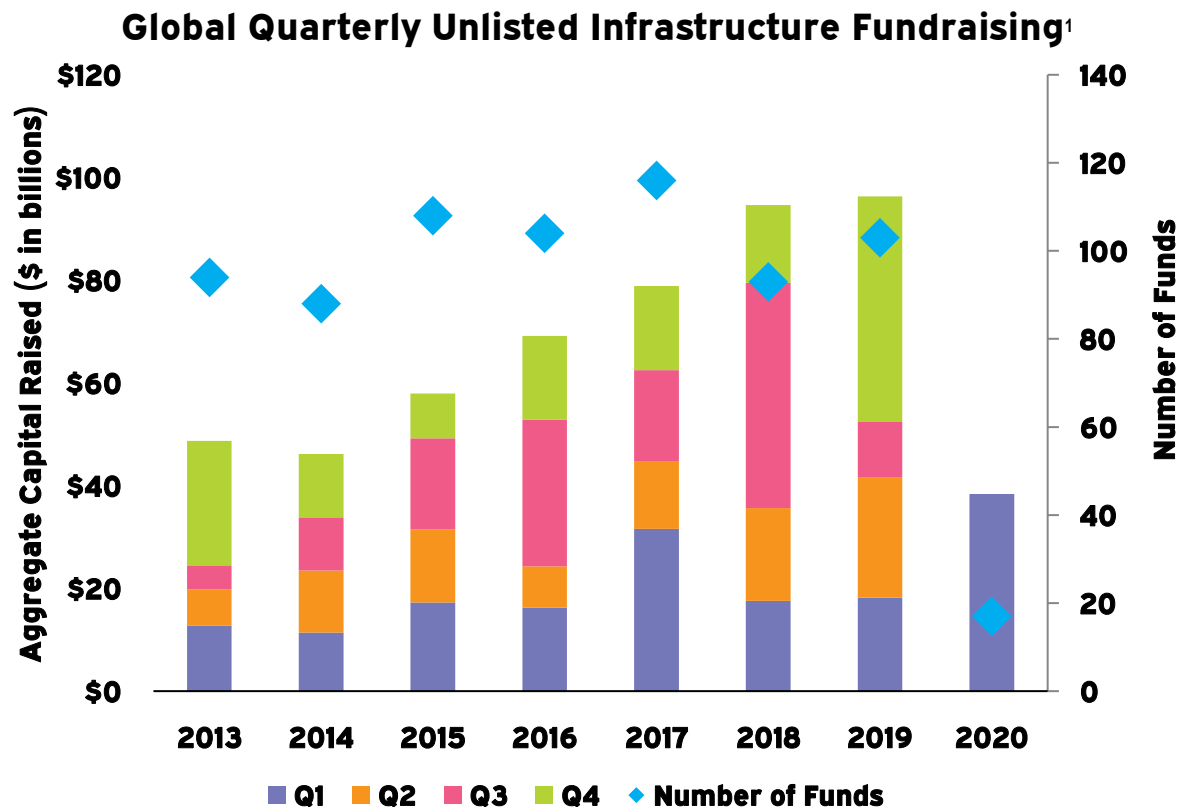
<sup>1</sup> Source: World Bank

### Harvested Resources U.S. South Timber Prices



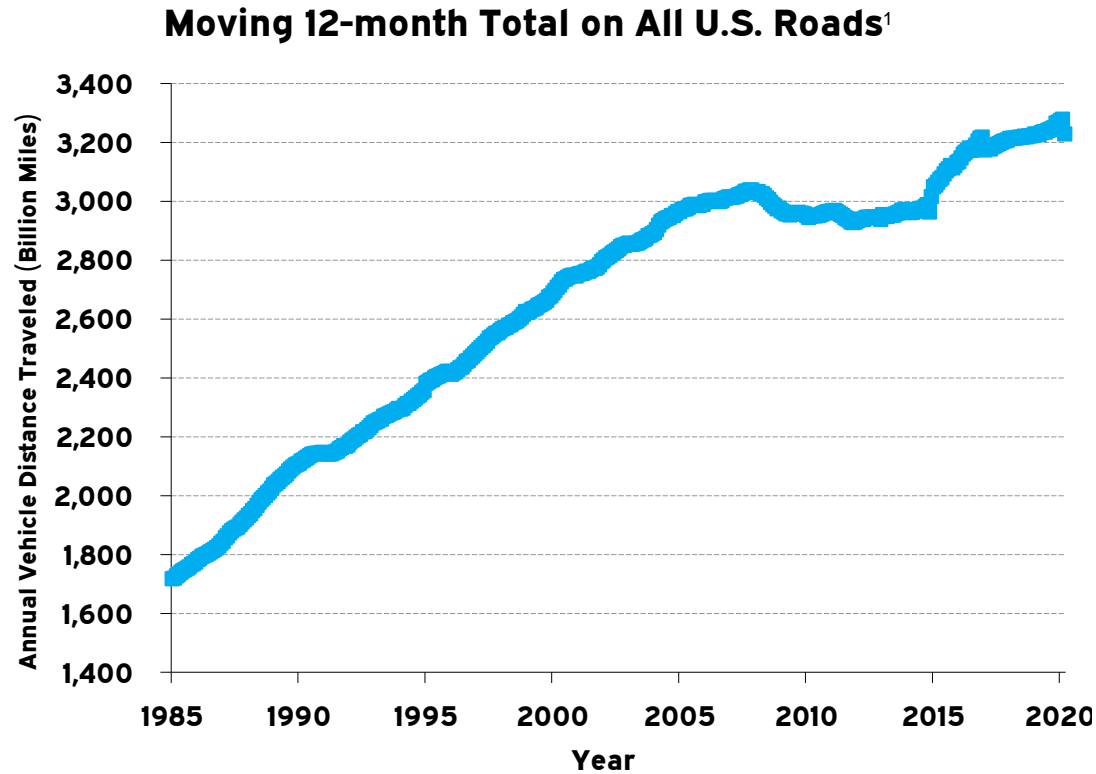
U.S. South average timber prices have remained fairly consistent over the past several years for sawtimber and chip-n-saw, while pulpwood has experienced more volatility. Pulpwood are small to medium-sized trees chipped into small fibers primarily for conversion into paper products. Hardwood pulpwood experienced the largest decline in the first quarter decreasing by 10.2%. Over the past 12 months pine and hardwood pulpwood have decrease 13.7% and 18.7% respectively. Sawtimber, a more valuable product, is often used for furniture veneers or used as wood-based posts for electrical or telecommunications wires. Hardwood sawtimber experienced a 4.3% decrease in average prices during the first quarter. The NCREIF Timberland index had a slight increase of 0.1% during the quarter driven by income returns of 0.7%.

<sup>1</sup> Source: Bloomberg



Capital raised in the first quarter of 2020 was the largest first quarter fundraise before 2013. In the first quarter, the average fund size was over \$2.2 billion above the 2019 average of \$1.0 billion. As of March 31, 2020, a total of 248 unlisted infrastructure funds were in market, according to Preqin, with a combined fundraising target of approximately \$174 billion.

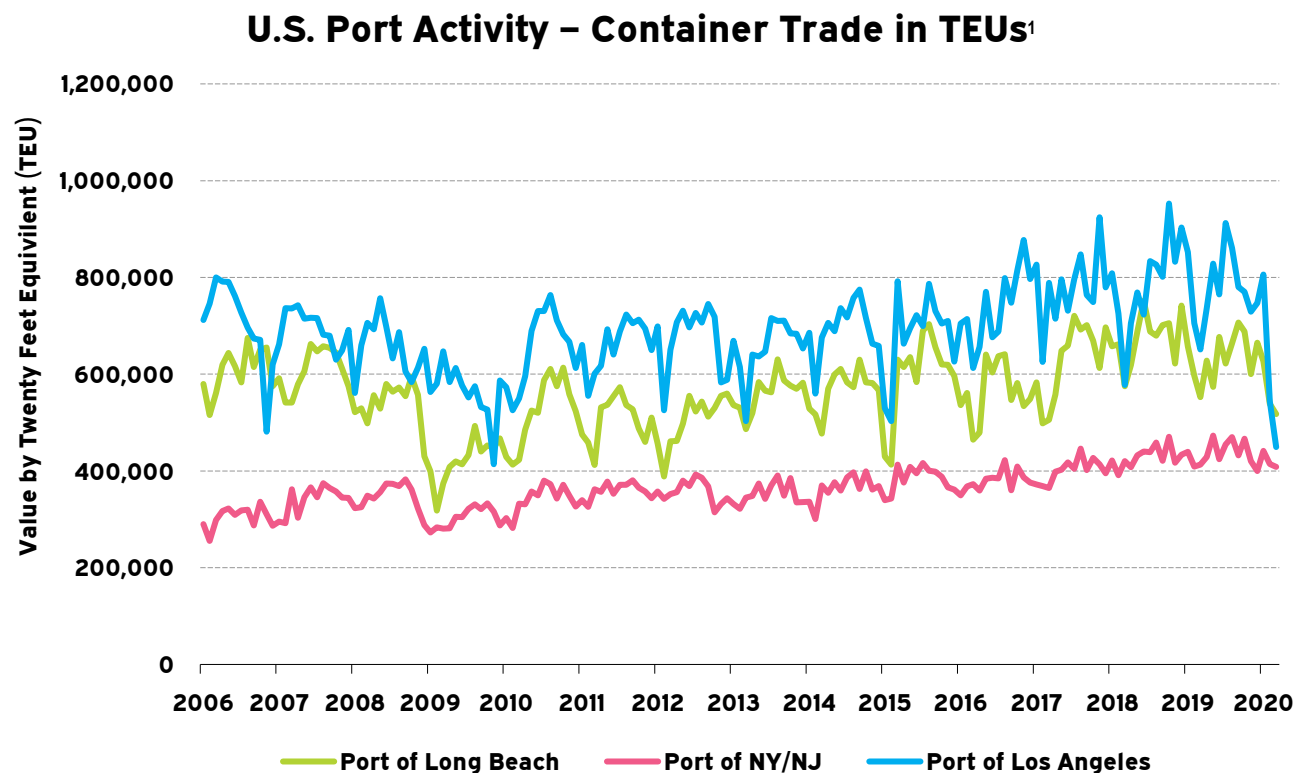
<sup>1</sup> Source: Preqin 2020 Global Infrastructure Report.



Through March 2020, the first quarter was below pace for travel on U.S. roads totaling approximately 706 billion miles. This represented a decrease of 5.3% over the same period in 2019.

Up to this point in 2020, the average U.S. price of a gallon of gas went down to a monthly average of \$2.50 per gallon, with a peak of \$2.64. This compared to \$2.69 and \$2.95 seen in 2019.

<sup>1</sup> Source: U.S. Department of Transportation, Federal Highway Administration: Office of Highway Policy Information.

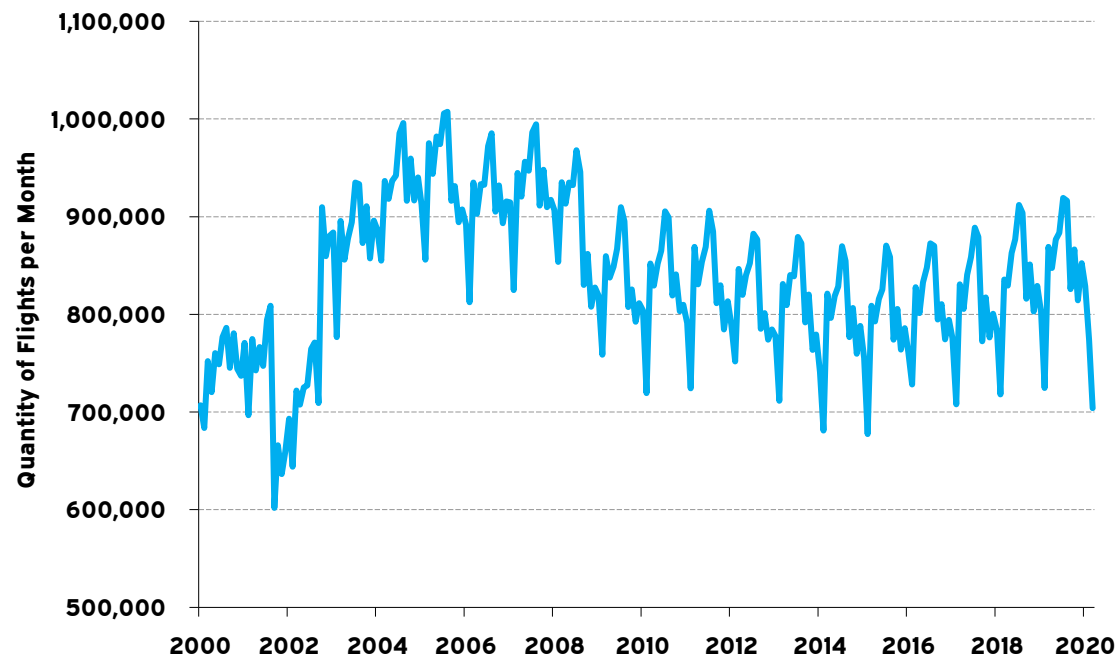


The chart represents the top three U.S. ports by container volume, as measured by twenty-foot equivalent units (TEU). Activity at the three ports provides a high-level representation of the volume of imports received into the U.S. more broadly.

During the first quarter of 2020, volumes at the three ports decreased by 530,196 units relative to the same period in 2019. On a year-over-year basis, the combined port volumes decreased by 1,067,974 TEU, or 4.7%, over the prior 12-month period. The Port of Long Beach recorded a decrease of 6.2% (494,639 TEU), the Port of NY/NJ reported an increase of 1.0% (53,840 TEU) and the Port of Los Angeles recorded a decrease of 6.6% (627,175 TEU) from the prior 12 months.

<sup>1</sup> Source: [www.polb.com](http://www.polb.com), [www.panynj.gov](http://www.panynj.gov), and [www.portoflosangeles.org](http://www.portoflosangeles.org)

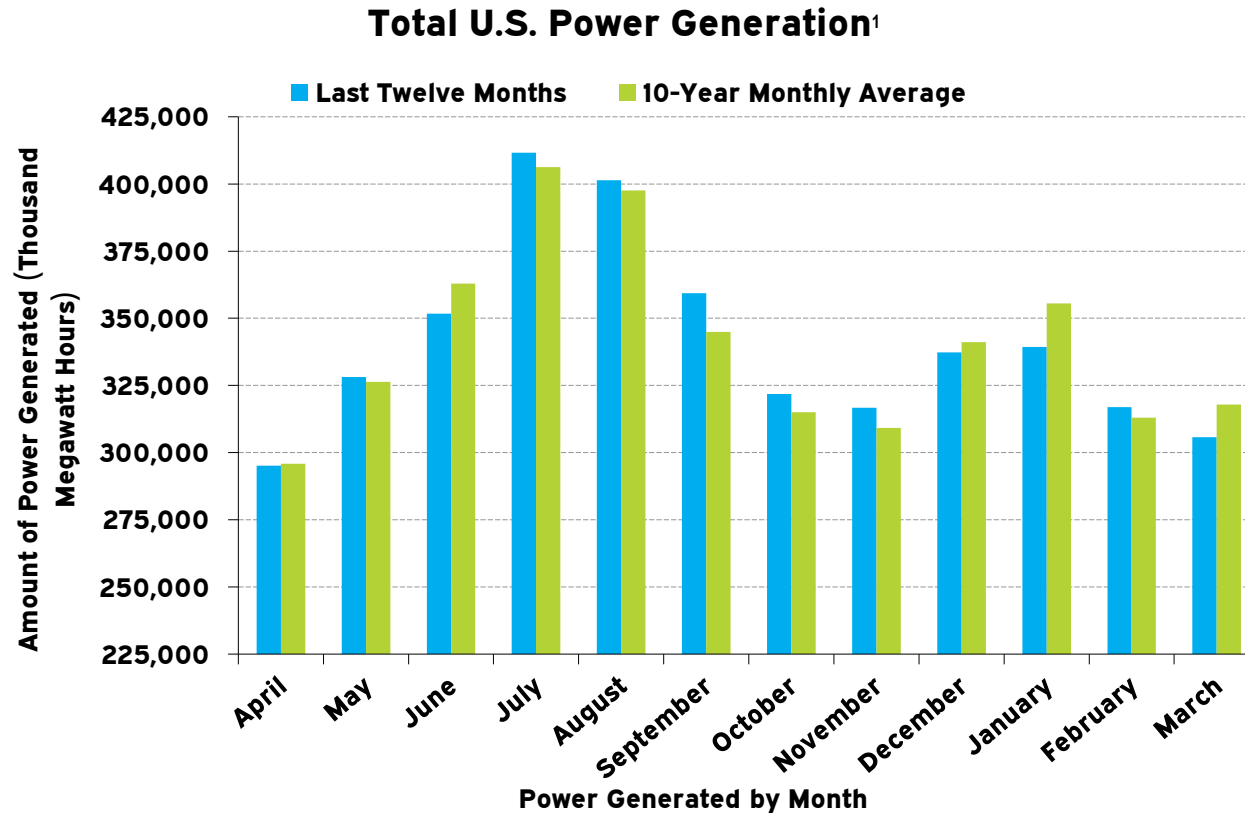
### Total U.S. Domestic and International Flights<sup>1</sup>



The chart above represents all U.S. domestic and international flights, excluding foreign point-to-point flights by month. Air traffic is cyclical with peaks in the summer months and declines in the winter months.

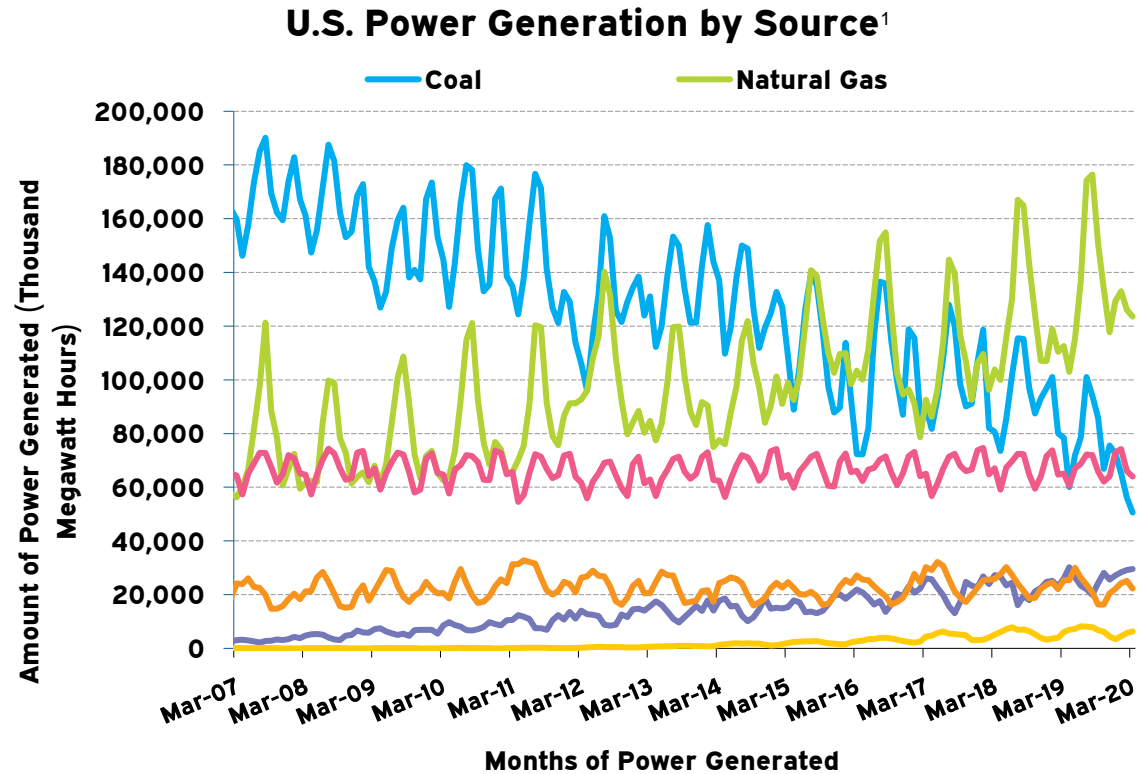
There were nearly 90,000 less flights during the first quarter of 2020, representing a 3.7% decrease compared to the same period in 2019. Much of this loss was in February and March as air travel became unavailable and less recommended. Air traffic activity remained nearly even at 0.3% change over the 12 months ending March 31, 2020 over the previous period. In addition to the number of flights during the first quarter decreasing year-over-year, the total number of passengers travelling on U.S. and international airlines decreased by 1.0% from 2019 to 2020 with the lowest international travelers since 2003.

<sup>1</sup> Source: Bureau of Transportation Statistics: Flights, All U.S., and Foreign Carriers.



The graph above represents the total net generation for the past 12 months compared to the 10-year average for each month. Over the past year, power generation exceeded the 10-year average in 6 out of the 12 months. Net energy generation in the U.S. decreased by 3.2% during the first quarter, compared to the same period in 2019. For the 12 months ended March 31, 2020, net energy generation decreased by 2.1% over the previous 12 months.

<sup>1</sup> Source: U.S. Energy Information Administration: Electric Power Monthly, March 2020.



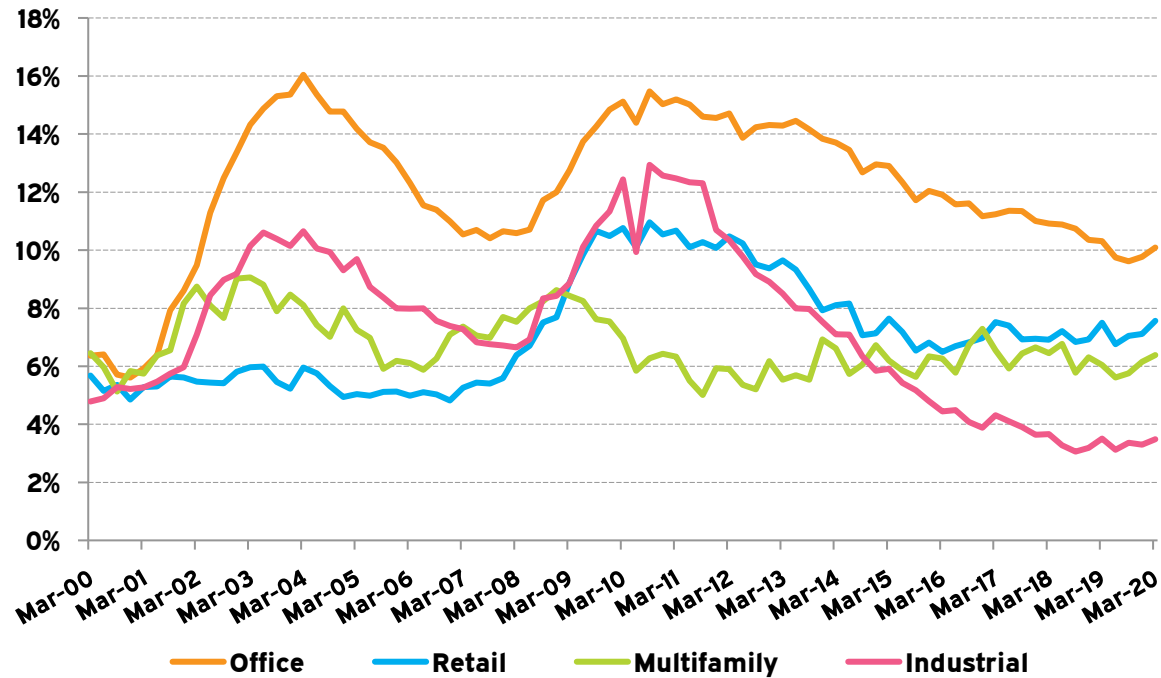
As power generation sources in the U.S., natural gas, nuclear, wind, and solar increased 11.9%, 0.3%, 17.3%, and 21.6%, respectively in the first quarter of 2020 (versus the same period in the previous year). Generation from coal and hydroelectric conventional dropped by 33.8% and 0.5%, respectively, during the same period. Wind and utility scale solar continue to make up a small portion of total net energy generation in the U.S., accounting for only 9.1% and 1.7% of energy generation in the first quarter, while coal, natural gas, and nuclear accounted for 17.9%, 39.8%, and 21.2%, respectively. However, the growth of wind and solar as sources of energy generation continues to increase at a faster rate than coal and natural gas, especially over the last couple of years.

<sup>1</sup> Source: U.S. Energy Information Administration: Electric Power Monthly, March 2020.



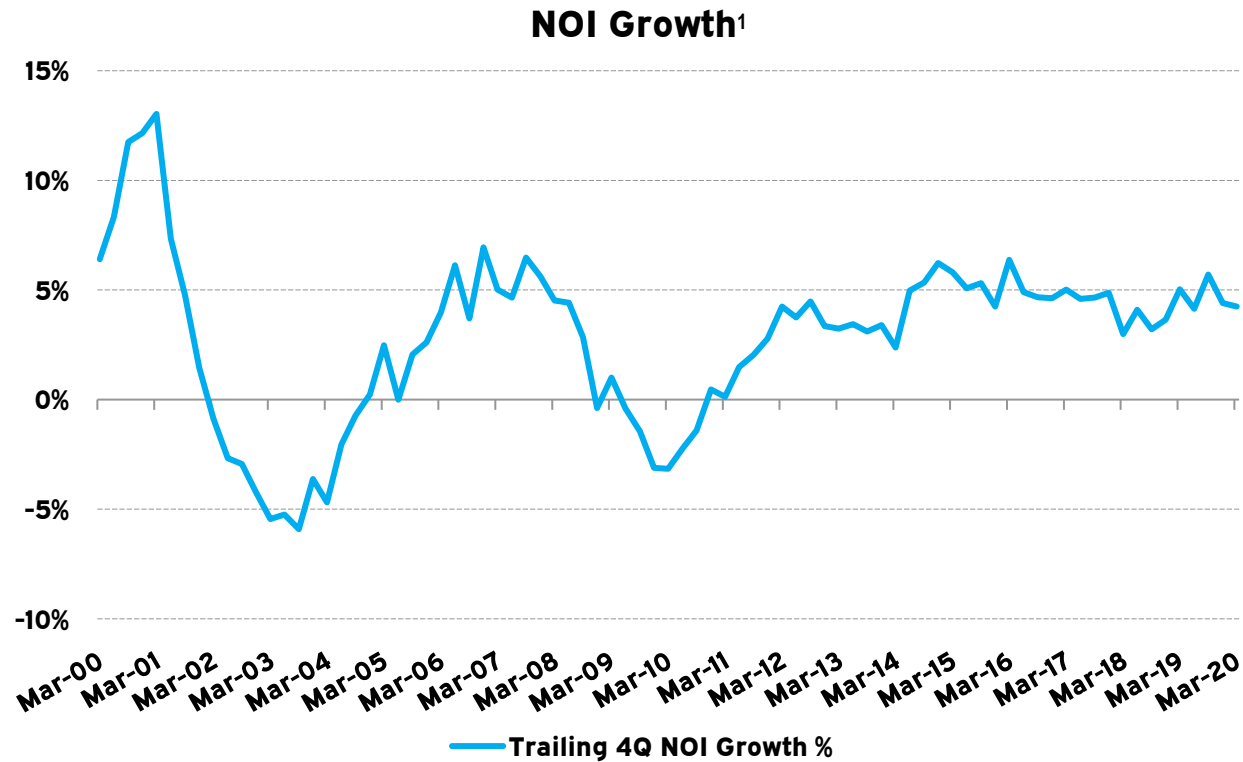
## Real Estate Fundamentals

### Vacancy by Property Type<sup>1</sup>



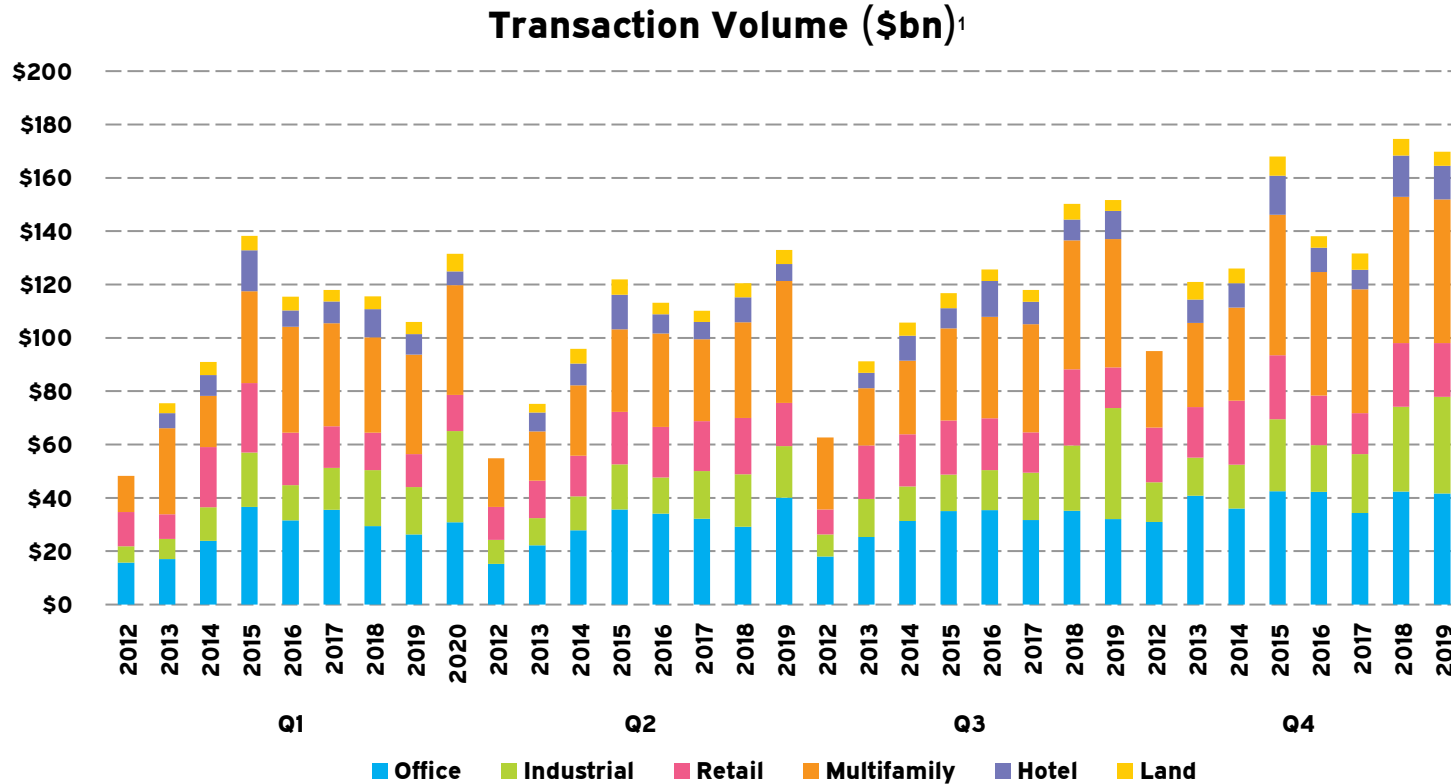
In the first quarter of 2020, vacancy rates increased slightly for all property types. Multifamily vacancies have fluctuated around 6.0% since 2009. Retail vacancies have flattened over the last three years, while office vacancies continued on a downward trend. Industrial vacancies appear to have bottomed out just above 3.0%, at all-time lows for the sector. Compared to one year ago, vacancy rates in multifamily increased 35 basis points, office decreased 22 basis points, industrial decreased 2 basis points, and retail increased 6 basis points. Overall, the vacancy rate across all properties increased 2 basis points from Q1 2019.

<sup>1</sup> Source: NCREIF



The trailing twelve-month rate of NOI decreased slightly to 4.3% in the first quarter of 2020. Continued growth of the U.S. economy coupled with only moderate new construction has allowed property owners to increase rents and lease vacant space. The strongest NOI growth continues to be within the industrial sector, trending upwards to 8.3% for the trailing year ending Q1 2020. Office NOI growth trended down slightly to 5.8% year-over-year, and Apartment NOI moved down to 4.5%. Retail NOI growth for the trailing four quarters decreased to -1.5%. NOI was not meaningfully impaired in Q1 2020 but future cash flow impairment is expected in Q2 2020 following the global pandemic.

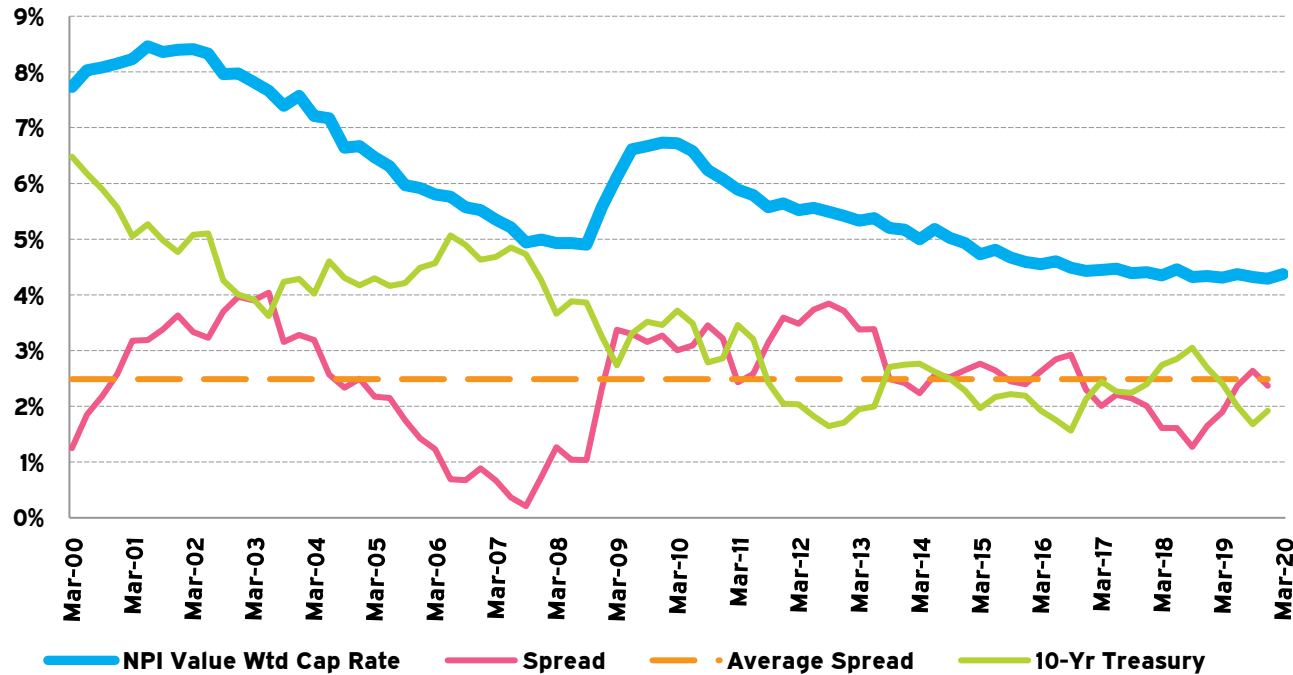
<sup>1</sup> Source: NCREIF



Private real estate transaction volume for properties valued over \$2.5 million for Q1 2020 was down slightly from Q4 2019 to \$132 billion. Compared to a year ago, industrial (+94.9%), multifamily (+7.9%), office (+6.2%), and retail (+8.8%) saw an increase to transaction volume, while hotel (-32.5%) saw a decrease. Multifamily and industrial properties made up the largest percentages of total transaction volume during the quarter, at 31% and 26%, respectively.

<sup>1</sup> Source: PREA

#### Real Estate Capital Markets Cap Rates vs. 10-Year Treasury<sup>1</sup>



The NPI Value Weighted Cap Rate continued to hover around 4.4%. The 10-year Treasury yield peaked above 3.0% in Q3 2018 and had been on a downward trend and dropped significantly in Q1 2020 down to 0.7%. The spread between cap rates and treasury yields increased dramatically in Q1 2020 to 367 basis points, which is now 118 basis points above the long-term average spread.

<sup>1</sup> Source: NCREIF and U.S. Department of the Treasury

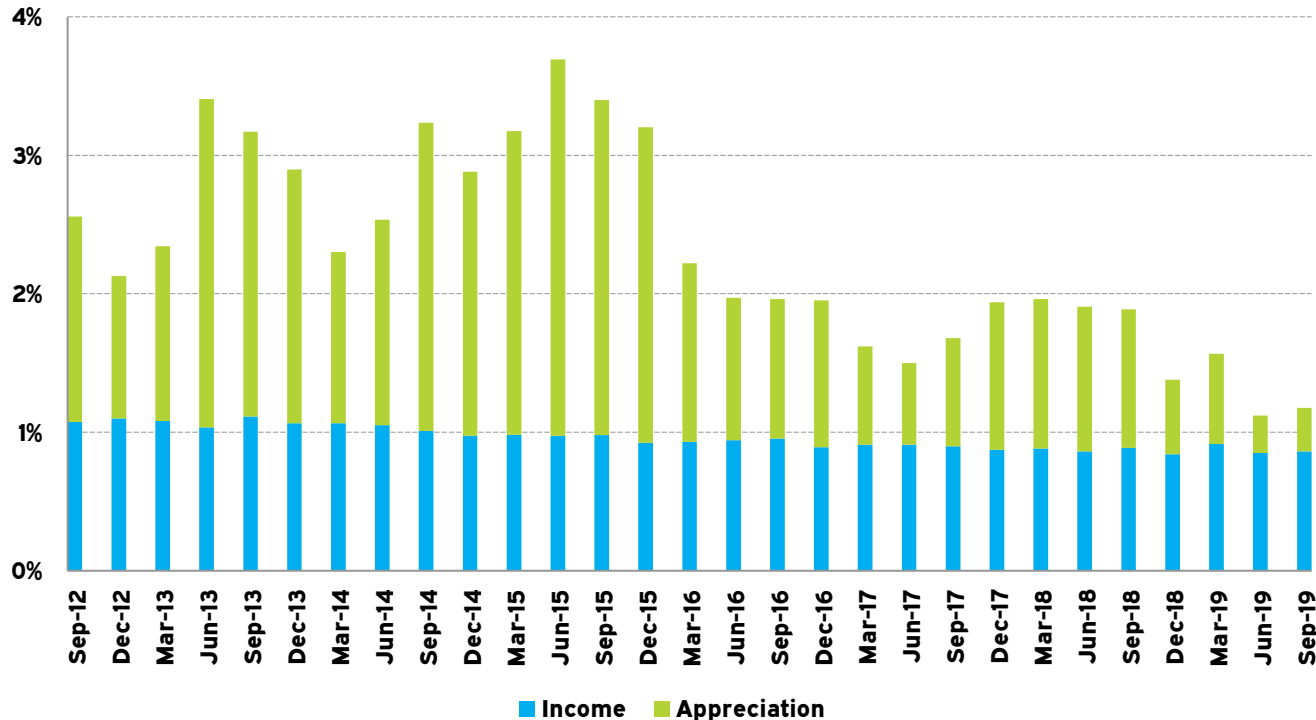
### Trailing Period Returns<sup>1</sup>

<i>As of March 31, 2020</i>	1 Year	3 Years	5 Years	10 Years
NFI-ODCE (EW, net)	4.4%	6.1%	7.8%	10.6%
NFI-ODCE (VW, net)	3.9	5.9	7.5	10.4
NCREIF Property Index	5.3	6.4	7.7	10.2
NAREIT Equity REIT Index	-15.9	-0.1	1.9	8.5

Private real estate indices have continued to post positive returns, driven by strong property-level fundamentals and a low interest rate environment. Recent public real estate performance has been volatile, posting a -23.4% in Q1 2020.

<sup>1</sup> Source: NCREIF

#### ODCE Return Components<sup>1</sup> (Equal Weight, Net)



The NFI-ODCE Equal Weight return for Q1 2020 was down from the previous quarters to 0.7%, which is 60 basis points lower than the previous quarter. The income component of the quarterly return continues to remain consistent around 0.9%, but appreciation for the quarter was -0.2% due to valuation adjustments caused by the early phases of COVID-19.

<sup>1</sup> Source: NCREIF

Below are details on specific terminology and calculation methodologies used throughout this report:

<b>Committed</b>	The original commitment amount made to a given fund. Some funds may be denominated in non-USD currencies, and such commitment amounts represent the sum of fund contributions translated to USD at their daily conversion rates plus the unfunded balance translated at the rate as of the date of this report.
<b>Contributed</b>	The amount of capital called by a fund manager against the commitment amount. Contributions may be used for new or follow-on investments, fees, and expenses, as outlined in each fund's limited partnership agreement. Some capital distributions from funds may reduce contributed capital balances. Some funds may be denominated in non-USD currencies, and such aggregate contributions represent the sum of each fund contribution translated to USD at its daily conversion rate.
<b>Distributed</b>	The amount of capital returned from a fund manager for returns of invested capital, profits, interest, and other investment related income. Some distributions may be subject to re-investment, as outlined in each fund's limited partnership agreement. Some funds may be denominated in non-USD currencies, and such aggregate distributions represent the sum of each fund distribution translated to USD at its daily conversion rate.
<b>DPI</b>	Acronym for "Distributed-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculation equals Distributed divided by Contributed. DPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa. Program-level DPIs are net of both fund fees and expenses and fees paid to Meketa attributable to the Program.
<b>Exposure</b>	Represents the sum of the investor's Unfunded and Remaining Value.
<b>IRR</b>	Acronym for "Internal Rate of Return", which is a performance measurement for Private Market investments. IRRs are calculated by Meketa based on daily cash flows and Remaining Values as of the date of this report. IRRs for funds and groupings of funds are net of all fund fees and expenses as reported by fund managers to Meketa. Program-level IRRs are net of both fund fees and expenses and fees paid to Meketa attributable to the Program.
<b>NCV</b>	Acronym for "Net Change in Value", which is a performance measurement for Private Market investments. The performance calculation equals the appreciation or depreciation over a time period neutralized for the impact of cash flows that occurred during the time period.

<b>NM</b>	<p>Acronym for “Not Meaningful”, which indicates that a performance calculation is based on data over too short a timeframe to yet be meaningful or not yet possible due to inadequate data. Meketa begins reporting IRR calculations for investments once they have reached more than two years since first capital call. NM is also used within this report in uncommon cases where the manager has reported a negative Remaining Value for an investment.</p>
<b>Peer Universe</b>	<p>The performance for a set of comparable private market funds. The peer returns used in this report are provided by Thomson ONE, based on data from Cambridge Associates as of the date of this report. Program-level peer universe performance represents the pooled return for a set of funds of corresponding vintages and strategies across all regions globally. Fund-level peer performance represents the median return for a set of funds of the same vintage and the program’s set of corresponding strategies across all regions globally. Data sets that include less than five funds display performance as “NM”. Meketa utilizes the following Thomson ONE strategies for peer universes:</p> <p>Infrastructure: Infrastructure</p> <p>Natural Resources: Private Equity Energy, Upstream Energy &amp; Royalties, and Timber</p> <p>Private Debt: Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed</p> <p>Private Equity: Venture Capital, Growth Equity, Buyout, Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed</p> <p>Real Assets (excluding Real Estate): Infrastructure, Private Equity Energy, Upstream Energy &amp; Royalties, and Timber</p> <p>Real Assets (including Real Estate): Infrastructure, Private Equity Energy, Upstream Energy &amp; Royalties, Timber, and Real Estate</p> <p>Real Estate: Real Estate</p>
<b>Public Market Equivalent (“PME”)</b>	<p>A calculation methodology that seeks to compare the performance of a portfolio of private market investments with public market indices. The figures presented in this report are based on the PME+ framework, which represents a net IRR value based on the actual timing and size of the private market program’s daily cash flows and the daily appreciation or depreciation of an equivalent public market index. Meketa utilizes the following indices for private market program PME+ calculations:</p> <p>Infrastructure: Dow Jones Brookfield Global Infrastructure Index</p> <p>Natural Resources: S&amp;P Global Natural Resources Index</p> <p>Private Debt: Barclays Capital U.S. Corporate High Yield Bond Index</p> <p>Private Equity: MSCI ACWI Investable Market Index</p>



Remaining Value	Real Assets (excluding Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index and S&P Global Natural Resources Index
	Real Assets (including Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index, S&P Global Natural Resources Index, and Dow Jones U.S. Select Real Estate Securities Index
	Real Estate: Dow Jones U.S. Select Real Estate Securities Index
TVPI	The investor's value as reported by a fund manager on the investor's capital account statement. All investor values in this report are as of the date of this report, unless otherwise noted. Some funds may be denominated in non-USD currencies, and such remaining values represent the fund's local currency value translated to USD at the rate as of the date of this report.
Unfunded	Acronym for "Total Value-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculations represents Distributed plus Remaining Value, then divided by Contributed. TVPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa. Program-level TVPIs are net of both fund fees and expenses and fees paid to Meketa attributable to the Program.
	The remaining balance of capital that a fund manager has yet to call against a commitment amount. Meketa updates unfunded balances for funds to reflect all information provided by fund managers provided in their cash flow notices. Some funds may be denominated in non-USD currencies, and such unfunded balances represent the fund's local currency unfunded balance translated to USD at the rate as of the date of this report.

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Meketa Investment Group has prepared this report on the basis of sources believed to be reliable. The data are based on matters as they are known as of the date of preparation of the report, and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available.

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In general, the valuation numbers presented in this report are prepared by the custodian bank for listed securities, and by the fund manager or appropriate General Partner in the case of unlisted securities. The data used in the market comparison sections of this report are sourced from various databases. These data are continuously updated and are subject to change.

This report does not contain all the information necessary to fully evaluate the potential risks of any of the investments described herein. Because of inherent uncertainties involved in the valuations of investments that are not publicly traded, any estimated fair values shown in this report may differ significantly from the values that would have been used had a ready market for the underlying securities existed, and the differences could be material.

This document may contain certain forward-looking statements, forecasts, estimates, projections, and opinions ("Forward Statements"). No representation is made or will be made that any Forward Statements will be achieved or will prove to be correct. A number of factors, in addition to any risk factors stated in this material, could cause actual future results to vary materially from the Forward Statements. No representation is given that the assumptions disclosed in this document upon which Forward Statements may be based are reasonable. There can be no assurance that the investment strategy or objective of any fund or investment will be achieved, or that the client will receive a return of the amount invested.

In some cases Meketa Investment Group assists the client in handling capital calls or asset transfers among investment managers. In these cases we do not make any representations as to the managers' use of the funds, but do confirm that the capital called or transferred is within the amounts authorized by the client.

Because there is no readily accessible market for private markets assets (companies and partnerships), the values placed on private markets assets are calculated by General Partners using conservative and industry standard pricing procedures. Annually, an independent auditor reviews the pricing procedures employed by the General Partner of each partnership.

The values of companies and partnerships are audited at year-end, and are not audited at other quarter-end periods. While financial information may be audited, there is some discretion as to the method employed to price private companies and, therefore, private markets partnerships. At all times, Meketa Investment Group expects General Partners to utilize conservative and industry standard pricing procedures, and requires the General Partners to disclose those procedures in their reports. However, because of the inherent uncertainty of valuation, these estimated values may differ from the values that would be used if a ready market for the investments existed, and the differences could be significant.