PRIVATE CAPITAL QUARTERLY

FIRST QUARTER 2020



A NEW WORLD?

INSIDE THIS ISSUE

Introduction	1
Executive Summary	3
Private Equity	4
Venture Capital	4
Buyouts	7
Private Debt	9
Private Real Estate	11
Natural Resources	13
Indices and Disclosures	16
Research and Portfolio Management Team	back



Living in the time of a pandemic has changed our lives in ways unimaginable just a few months ago. In the private funds industry, the travel schedule is typically packed solid this time of year, as many funds host annual meetings in the spring. Today, however, air-traffic is a mere fraction of normal volume and Buffett has sold his airline stocks at significant losses, citing an inability to envision a profitable future for these companies.¹

A NEW WORLD?

Predictions for any company are obviously precarious at this time, but private fund managers have been actively shoring up liquidity and assessing new risks and opportunities. The strength of the private investing model lies in the ability to control—or strongly influence—corporate action, with a focus on longer-term outcomes. FEG has seen companies calling down credit lines, realigning costs, and pivoting to new markets. Some fund managers have also begun requesting extensions to recycling periods and other fund provisions as they work through the impact of the current market on underlying businesses.

Access to capital is critical. As an industry, private funds have a mountain of uncalled capital commitments—estimated by Pitchbook at \$2.4 trillion.² That said, average debt levels were at decade highs going into the first quarter of 2020, many over 6x earnings.³ Companies in the eye of the "Coronastorm" are reeling and the number of bankruptcies is expected to rise. Real estate faces challenges as well, many of which are unknowable at this time. The longer-term impact on real estate properties depends on whether the crisis leads to lasting behavior changes.⁴ Energy markets were cursed with a double whammy: an unprecedented economic shutdown which was compounded by the Russian-Saudi production standoff. Finally, private credit markets have ramped up fundraising for distressed opportunities, with significant capital poised on the sidelines. In fact, private credit is estimated to be capitalized at 3x the funds available in 2010.⁵

4Q 2019	PRIVATE (LP)	PUBLIC MARKET	PUBLIC INDEX
Venture	6.0%	9.9%	Russell 2000 Index
Buyout	6.0%	9.1%	S&P 500 Index
Credit Opportunities	1.6%	2.6%	Barclays High Yield Index
PE Energy	-2.3%	5.7%	Russell 3000 Energy Sector Index
Real Estate	3.5%	0.1%	FTSE NAREIT All Equity Index

QUARTERLY RETURNS

Data source: Thomson One Horizon Summary Report; pooled average returns as of December 31, 2019

Year-end performance data is preliminary, but initial reports suggest a strong fourth quarter across most private equity sectors—although lagging relative to the sharp rise in public markets—an apt comparison for the full year period as well. Energy-related investments were the exception, portending a sharper decline to come.

PERIOD ENDING 4Q 2019	1-YEAR (LP)	PUBLIC MARKET	PRIVATE LESS PUBLIC	5-YEAR (LP)	PUBLIC MARKET	PRIVATE LESS PUBLIC	10-YEAR (LP)	PUBLIC MARKET	PRIVATE LESS PUBLIC	20-YEAR (LP)	PUBLIC MARKET	PRIVATE LESS PUBLIC
Venture	19%	26%	-7%	13%	8%	5%	15%	12%	3%	7%	8%	0%
Buyout	17%	31%	-15%	13%	12%	2%	14%	14%	1%	12%	6%	6%
Credit Opps	5%	14%	-10%	6%	6%	0%	10%	7%	2%	10%	7%	3%
PE Energy	-7%	10%	-16%	0%	-3%	4%	4%	2%	2%	7%	6%	2%
Real Estate	9%	29%	-20%	9%	8%	1%	11%	13%	-1%	7%	12%	-4%

Data sources: FEG, Thomson One Horizon Summary Report; pooled average returns as of December 31, 2019

Some figures do not add due to rounding

Public market indices: Russell 2000, S&P 500, Barclays High Yield, Russell 3000 Energy Sector, FTSE NARIET All Equity

So what will the "new" world look like? Potentially lower earnings, lower debt levels, lower purchase price multiples, and fewer transactions, on average—at least until we move past the current crisis. As in past crises, dislocation also tends to bring opportunity. Quoting Pitchbook, "The best performing vintages tend to be those which invest at the nadir of a downturn and into the early stages of recovery."⁶

Notably, due to the reporting process for private funds, the impact of Covid-19 will not materially impact private equity performance until second quarter 2020 results are reported.

EXECUTIVE SUMMARY

VENTURE CAPITAL

Activity around venture-backed companies remained robust in late 2019 and into the first quarter of 2020. Fundraising, investing, and exit activity all remained on or near recent trends. Performance in recent periods has been strongly supported by strong public markets and demand from larger, late-stage investors. The impact of COVID-19 is not fully reflected in the first quarter data due to the fact that the virus did not begin impacting the U.S. until March. FEG expects the second quarter to exhibit lower fundraising, investing, and exit activity.

BUYOUTS

Fundraising activity and deal volume fell during the first quarter of 2020 as the COVID-19 pandemic negatively impacted limited partners' ability to place new capital with private equity firms. Sudden supply and demand disruptions forced general partners to focus on managing legacy portfolio companies instead of making new investments. FEG expects private equity fundraising and deal-making activity to remain below historical averages for the coming quarters, as global economic uncertainty may negatively influence general partners' willingness to pursue initial platform investments. Add-on activity is expected to increase, however, as companies with sufficient liquidity may seek to acquire competitors who are experiencing distress. Additionally, FEG expects to see an increase in private investment in public equities (PIPEs), minority investments, and corporate carveouts.

PRIVATE DEBT

Direct lenders are being tested with a recession caused by the COVID-19 pandemic, creating a robust opportunity set for private debt managers focused on distressed investments. Fundraising for performing lending strategies—i.e., senior, mezzanine, and uni-tranche—in 2020 will likely be limited as investors seek to take advantage of the market dislocation via distressed strategies. Despite improvement in the broader high yield and bank loan market in the beginning of the second quarter, a pronounced distressed opportunity is available in the U.S. and Europe.

PRIVATE REAL ESTATE

The 10-year bull market in real estate ended in the first quarter of 2020, as global economic activity came to a halt in March in response to the COVID-19 pandemic. Except for data centers and cell towers, all major real estate property types have been impacted by the current economic downturn and are expected to experience some level of distress. While still early, indications are that private real estate funds will experience markdowns in value for the first quarter, but the effect will vary depending on property type exposure. Looking ahead, managers with experience through multiple real estate cycles may be better positioned to pursue distressed assets.

NATURAL RESOURCES

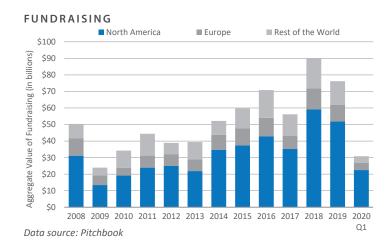
The U.S. energy sector faced a perfect storm in the first quarter of 2020. A price war within OPEC combined with massive demand destruction due to the global pandemic led to a 66% decline in oil prices for the quarter. Natural gas prices also fell in the quarter, but significantly less than oil, declining only 25%. While still early, indications are that private energy funds will experience markdowns in value for the first quarter, reflecting the declines in commodity prices and the general distress in the sector. The energy sector now faces an unprecedented set of challenges: limited storage is driving producers to shut-in production, there are expectations for a new wave of bankruptcies, and the still prevalent overhang of excessive leverage is concerning.

PRIVATE EQUITY

Venture Capital

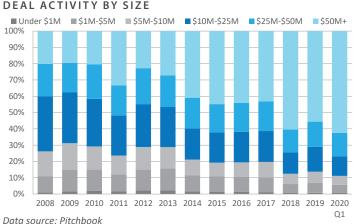
FUNDRAISING AND INVESTING

 Globally, venture funds raised just over \$30 billion in commitments in the first quarter of 2020, a strong start to the year relative to recent annual data.⁷ Much of this capital was raised prior to President Trump's proclamation of a national emergency on March 13. FEG expects fundraising to slow in future quarters as investors react to public market volatility, liquidity concerns, and travel restrictions that will hinder due diligence.



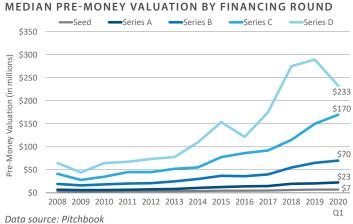
INVESTMENT ACTIVITY

 Deal sizes and valuations continued to rise in 2019, coinciding with higher amounts of fundraising. Deal sizes of over \$50 million accounted for over 60% of the capital invested in the first quarter of 2020, just shy of the all-time high.⁸

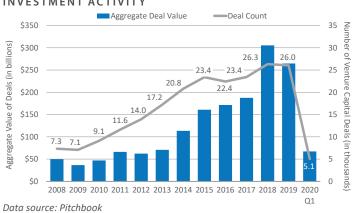


DEAL ACTIVITY BY SIZE

· Pre-money valuations of venture-backed companies remained elevated in the first quarter except in late-stage rounds. Late-stage valuations fell sharply in the quarter, suggesting a reaction to the public market declines.



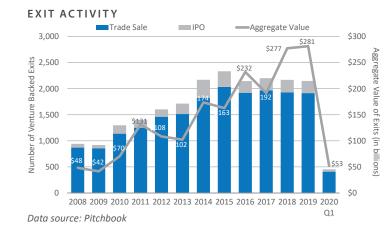
Venture-backed companies received \$67 billion in funding through March, slightly less • than in recent years.⁹ In their later stages, venture-backed companies receive funds from all types of investors, including mutual funds, hedge funds, corporate venture programs, and family offices, and amounts invested in these later-stage rounds far exceed amounts raised by venture funds. Investment activity is widely expected to slow in the future given the uncertainty surrounding COVID-19.



INVESTMENT ACTIVITY

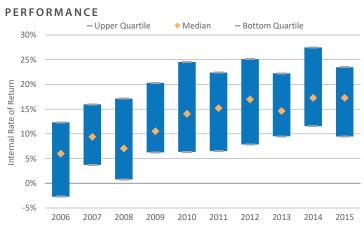
EXIT ENVIRONMENT

The exit markets have been robust for venture-backed companies in recent years with
respect to the number of exits and aggregate value. The first quarter data shows a dip
in activity, with the fewest acquisitions on an annualized basis since 2013. Similarly,
there were just 43 venture-backed initial public offerings (IPOs) in the first quarter,
well below the numbers in recent years. If public markets remain volatile, FEG expects
exits to continue to slow.



PERFORMANCE

Venture fund performance through December 31, 2019, is not yet available; however, performance through September 30, 2019, has risen steadily over the past decade. Since 2010, median returns have averaged approximately 15% while top quartile results have been consistently above 20%. More recent vintages are not shown in the venture performance capital chart, as they are not mature enough to reflect meaningful results. Much of the performance in this sector remains unrealized. For example, the median distributed to paid-in capital (DPI) for venture capital funds raised in 2013 and 2014 was 0.2x and 0.1x, respectively.¹⁰

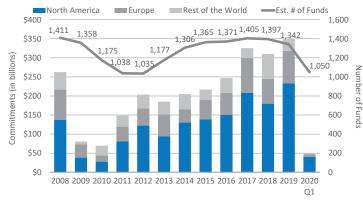


Data source: Thomson One; data as of September 30, 2019

Buyouts

FUNDRAISING AND INVESTING

- During the first quarter of 2020, global leveraged buyout funds raised roughly \$50 billion of aggregate capital commitments, representing a 40% decrease from the same period in the prior year.¹¹
- Approximately \$40 billion, or 80% of the capital, was raised by North Americanfocused buyout funds. An additional \$6 billion, or 13% of the capital, was raised by European-focused funds.¹² The rest of the world represented approximately 7% of aggregate capital commitments raised. This is not surprising, given that control equity transactions are more common in North America and Europe.¹³
- Capital remains relatively concentrated among managers. Since 2011, the average buyout fund size has grown from \$500 million to more than \$960 million.¹⁴



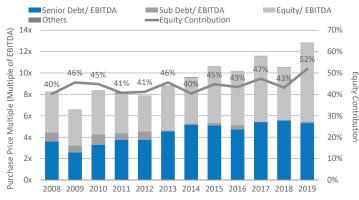
FUNDRAISING AND ESTIMATED NUMBER OF ACTIVE FUNDS

Data source: Pitchbook; data reflects the number of global buyout funds with a final closing in the current vintage year plus the prior three vintage years.

INVESTMENT ACTIVITY

- The average purchase price multiple for middle market buyout transactions in the first quarter of 2020 is not yet available. The average purchase price for large corporate transactions was 10.9x earnings before interest, taxes, depreciation, and amortization (EBITDA). Leverage ratios for large corporates remained relatively constant.¹⁵ According to S&P Capital IQ, the average debt multiple for large corporate LBOs was roughly 5.3x EBITDA.¹⁶
- Equity contributions data for middle market buyout transactions in the first quarter was not available as of the date of publication of this commentary. Equity contributions for large buyout transactions remained steady at roughly 45%.¹⁷ The peak for large market transactions was approximately 46% in 2009—a time when financing was scarce.¹⁸ The low point was in 2006, when the ratio dipped to roughly 30%.¹⁹ Contributions in middle market transactions peaked in 2017 around 47% but have since fallen to current levels.²⁰ Note: the S&P Capital IQ data only represents a sample set of leverage buyout transactions executed during a given time period.

 Partially due to the current high-multiple environment, the "buy-and-build" strategy continues to proliferate, as this strategy allows the buyer to average down the blended multiple. During the first quarter of 2020, for example, add-ons accounted for more than 73% of all U.S.-based private equity transactions.²¹

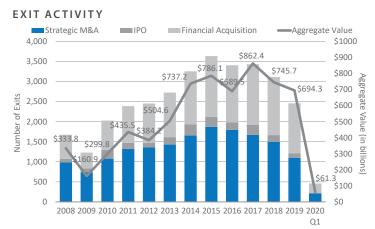


AVERAGE PURCHASE PRICE MULTIPLES AND EQUITY CONTRIBUTION

Data source: S&P Leverage Buyout Review; data as of December 31, 2019

EXIT ENVIRONMENT

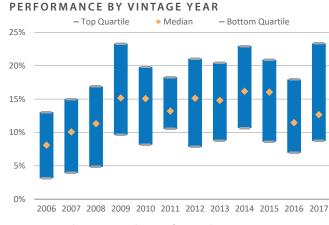
- Approximately \$61 billion was generated by 454 private equity-backed exits during the first quarter of 2020.²² Year-over-year, aggregate value fell 12% while transaction volume increased roughly 20%. This may be reflective of fewer overall platform investments, as general partners have focused mainly on add-on acquisitions.
- Trade sales to strategic or financial acquirers represented the majority of global buyoutbacked exits for the quarter, with initial public offerings (IPO) accounting for less than 5% of the aggregate number of exits.²³
- Since 2011, median hold periods of private equity investments have increased from roughly five years to six years.²⁴ Longer hold periods could be due to private equity firms' increased emphasis on add-ons and operational improvements to drive value creation.



Data source: Pitchbook; Financial Acquisition includes secondary buyout and buyout by management

PERFORMANCE

- Global buyout performance has been strong. As of September 30, 2019, the 1-, 3-, 5-, and 10-year time-weighted returns were 9.8%, 15.5%, 12.8%, and 14.5%, respectively.²⁵
- The dispersion of returns between top- and lower-guartile funds has consistently been over 775 basis points, demonstrating the importance of manager selection.²⁶



Data source: Thomson One; data as of September 30, 2019

PRIVATE DEBT

FUNDRAISING

- The COVID-19 pandemic has effectively put the performing-i.e., direct lendingprivate debt industry to test and created a robust opportunity set for private debt managers focused on distressed investments.
- Due to travel limitations and closures across the globe, the outlook for new entrants into the private debt space—both performing and distressed strategies—is significantly limited, affecting institutional ability to conduct due diligence. As such, FEG anticipates that assets will flow towards existing versus new relationships in the near to intermediate term.





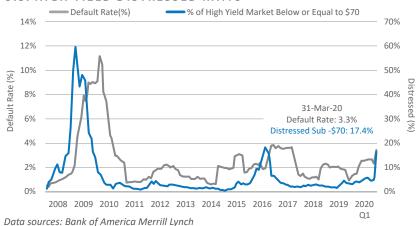
- North American-focused private debt funds amassed a record \$500 billion in assets under management as of September 2019, according to Preqin.²⁷ This represents \$332 billion in unrealized value and \$169 billion in dry powder that will need to be put to work as the U.S. moves into recession territory.
- It is FEG's view that the ability of managers to raise performing lending strategies—i.e., senior, mezzanine, and uni-tranche—in 2020 will be limited as fundraising gets pushed out while investors take advantage of the market dislocation via distressed strategies. Indeed, the number of private debt funds raised thus far in 2020 places it well below 2019 levels in terms of both size and scale.

FUNDAMENTALS AND ACTIVITY

- With the onset of COVID-19, middle-market leveraged buyout (LBO) transactions have ground to a halt. Lenders have pulled back as well, focusing on the existing challenges facing their current portfolio companies.
- It is FEG's expectation that deal volume will increase with additional clarity relating to consumer spending patterns post COVID-19. Also, structures for post COVID-19 deals may be more in favor of lender protections as their capital becomes more valuable.

DISTRESSED UPDATE

- U.S. credit markets were strong through the first two months of 2020 before collapsing in March when the pandemic took hold and investors moved out of riskier bonds and loans.
- The distressed ratio—corporate bonds trading above 1000 basis points versus Treasuries—rose materially during the quarter, with high yield bonds and loans reaching prices in the high \$70s (on par \$100).²⁸
- Energy credit and retail were already facing significant challenges pre-downturn, and those areas remain at stressed/distressed prices along with areas such as aviation, leisure, travel, and other transportation.
- Despite recent improvements in both the high yield and bank loan markets, a pronounced distressed opportunity could emerge across the U.S. and Europe.



U.S. HIGH YIELD DISTRESSED RATIO

PRIVATE REAL ESTATE

FUNDRAISING

- After falling in the fourth quarter of 2019, private real estate fundraising declined further in the first quarter of 2020. A total of 51 private real estate funds closed, raising \$18 billion in capital commitments compared to 83 funds raising \$51 billion in the first quarter of 2019.²⁹
- As of quarter-end, there were a record 939 funds in the market seeking to raise \$297 billion. The largest fund to close during the first quarter of 2020 was Westbrook Real Estate Fund XI, with \$2.5 billion in committed capital.³⁰



CLOSED-END PRIVATE REAL ESTATE FUNDS IN MARKET

MARKET OVERVIEW

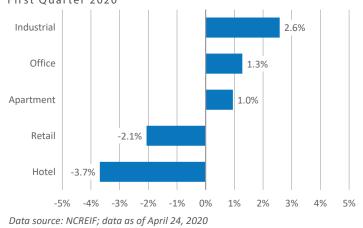
- According to Preqin, the volume of global private real estate investment deals plunged 43% year-over-year in March, as the COVID-19 pandemic began impacting the global economy. While still early, estimates for April transactions are expected to show a 60% decline from first quarter 2019.³¹ With little to no transaction activity, data on comparable sales is limited, hence a lack of price discovery. Managers are taking a "wait and see" approach for the time being, largely due to the high degree of uncertainty around basic underwriting metrics.
- Private real estate funds have benefited from strong economic growth and low interest rates over the past decade, which drove property values to record levels. The plunge in economic activity in the first quarter will lead to write-downs in value for many real estate assets; however, the full effect may not be evident until the second quarter. FEG expects that the scale of markdowns in private real estate will be a function of the following factors:
 - Property Type Exposure: Managers with more exposure to hotel and retail properties will face challenges and may see declines in value for these assets. Even before the downturn, thousands of retail stores had closed, in part due to competition from online retailers. With malls closed for the past two months, bankruptcies in retail are expected to mount. With major changes to the workplace and more people working from home due to the pandemic, the office sector will also face challenges. Alternatively, industrial and multi-family properties could be less-negatively impacted, with variability in outcomes reflective of the tenant profile.

Data source: Preqin; data as of April 2020

– Leverage: For most of the past decade, higher leverage equated to higher returns, as property values continued to increase. As is always the case, leverage magnifies both gains and losses. Debt maturities could be an issue for some managers, particularly if loans have been securitized into commercial mortgage-backed securities. Savvy managers will seek to renegotiate terms with lenders.

MARKET RETURNS

- Returns for "core" properties were marginally positive during the first quarter; however, the full impact of the economic downturn was not captured in returns, as large-scale shutdowns only began to take effect in early-to-mid March. The National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index (NPI) posted a slight gain of 0.7% during the first quarter, following a 1.5% gain in the fourth quarter of 2019. This is the lowest return since the fourth quarter of 2009, which was in the midst of the Financial Crisis. On a trailing 1-year basis, the index return was approximately 5.0% as of the end of the first quarter of 2020.³² Importantly, these returns are appraisal-based and may understate actual returns due to limited transaction activity.
- Within the NPI, the industrial sector outperformed while retail and hotels both posted negative returns. Given the lag in reporting of private real estate returns—particularly in an environment with limited transaction activity—a better indicator of the property values is the performance of publicly traded real estate securities (REITs). The public real estate market (NAREIT All-Equity Index) declined 23% in the first quarter, with wide disparities between property sectors.³³
- From a property type standpoint, regional malls and hotels were both down approximately 50%, while data centers were positive, driven by expected growth in demand for data usage. Retail continues to suffer from the impact of store closings and bankruptcies, compounded by forced closures due to the spread of COVID-19, which continued to negatively impact the sector throughout the quarter.³⁴



NCREIF NATIONAL PROPERTY INDEX SECTOR RETURNS First Quarter 2020

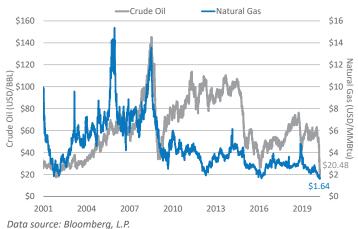
NATURAL RESOURCES

OIL PRICES

- By the end of the first quarter of 2020, oil prices were trading at \$20.48/barrel, down 67% from \$61.06/barrel at year-end 2019.³⁵ In early March, OPEC failed to reach an agreement on production cuts, with Saudi Arabia and Russia announcing a price war and vowing to ramp up production in order to gain market share. This occurred just as COVID-19 was beginning to spread globally, resulting in a drop in oil demand from falling economic activity.
- Subsequent to quarter-end, oil prices fell to -\$37/barrel on April 20, as the May contract neared expiration and concerns about limited storage forced traders to pay buyers to take physical delivery in order to close out contracts. As of mid-May, oil had rebounded and was trading in the mid-\$20/barrel range.³⁶
- According to the U.S. Energy Information Administration, average U.S. crude oil production reached a new record of approximately 13 million barrels per day in March 2020. As of mid-May, producers were actively shutting-in production as demand destruction had left storage facilities near capacity.³⁷

NATURAL GAS PRICES

- Natural gas prices fell 25% in the first quarter to close at \$1.64/MMbtu, compared to \$2.19/MMbtu at year-end.³⁸ Following a 25% decline in 2019, gas was trading at multiyear lows by quarter-end. Warmer winter weather was one factor in lower gas prices; however, in contrast to oil, natural gas is a largely domestically produced commodity and is therefore less subject to OPEC decisions and geopolitical issues.
- Sentiment around natural gas shifted during the quarter, as U.S. oil producers began to announce production cuts and shut-ins, which were expected to slow growth in U.S. "associated gas" production—natural gas produced as a result of oil drilling. Associated gas production has been a key factor weighing on prices for several years.



CRUDE OIL AND NATURAL GAS PRICES

ENERGY MARKET OVERVIEW

The headwinds facing the beleaguered energy sector intensified during the first quarter, with oil prices collapsing in early March and demand dropping precipitously as economic activity stalled. Already under pressure from mounting debt maturities and limited access to capital, publicly traded energy stocks fell to multi-decade lows. Despite a wave of over 200 bankruptcies in the upstream sector from 2015-2019, some companies failed to successfully restructure, even with an infusion of capital from credit investors.³⁹ The most notable example of this is Ultra Petroleum, which was planning to file for bankruptcy as of early May for the second time since 2016. Despite accumulating approximately \$3 billion in new equity and debt, the company has been hurt by lower natural gas prices over the past three years.⁴⁰ One of the high-profile bankruptcies in private energy during the first quarter was EnCap-backed Southland Royalty in late January. EnCap had nearly \$1 billion invested in the company across two funds, but record-low natural gas prices and an inability to service debt pushed the company to insolvency in late 2019.⁴¹

- PRIVATE ENERGY FUNDS: The plunge in oil and natural gas prices in the first quarter compounded the challenges already facing private energy funds. While first quarter valuations are still being finalized, FEG expects most funds to experience write-downs, with *preliminary estimates* sitting at 10-30% declines from fourth quarter 2019 to first quarter 2020. The degree of markdowns will be a function of the following factors:
 - Oil and Gas Mix: While falling oil prices dominated the headlines, prospects for natural gas improved somewhat in the first part of 2020, with expectations for declining supplies. More gas exposure versus oil could benefit some funds.
 - Hedge Positions: Most private energy funds use some degree of hedging to mitigate commodity price volatility. With the drop in commodity prices, managers with hedge positions have experienced gains as hedges move "into the money."
 - Leverage: Companies with reserve-based lending (RBL) debt from banks have seen loan-to-value ratios move up and may be required to put up more equity to bring leverage limits back in line with required levels. Those with minimal leverage or the ability to reduce leverage may be better positioned, while others may risk losing assets.
 - Basis Risk: The location of production and access to transportation infrastructure determines the ultimate prices paid to producers. The daily price quote for oil or natural gas is not necessarily the price received by the producer in each region; depending on location, some production will be more profitable.
- **STORAGE**: Even with forecasts for OPEC and U.S. production cuts over the next several months, the oil markets are facing a glut of supply. Global excess production may total 12 million barrels/day for the first half of 2020. These surplus barrels have been going into storage and are threatening to overwhelm the logistics of the oil industry—including ships, pipelines, and storage tanks—in the coming weeks. In the U.S., projections are that Cushing, OK, the delivery point for West Texas Intermediate (WTI), was 70% full as of mid-April, with most available space already leased. Fewer options for oil storage means well shut-ins will have to increase to slow production.⁴²
- DRILLING ACTIVITY: Companies rushed to cut capital expenditures in the first quarter, including reducing or eliminating drilling activity. As a result, the rig count declined across the board during the first part of 2020, hitting multi-year lows. According to data from Baker Hughes, the total U.S. rig count stood at 728 at quarter-end, a 9.5% decline from year-end 2019 and down 27.6% year-over-year. The U.S. natural gas rig

count ended the quarter at 102 rigs, down 18% from 125 at the end of 2019. The U.S. oil rig count stood at 624 as of March 31, 2020, a 7.8% decrease from year-end 2019. From a longer-term perspective, the U.S. oil rig count peaked at 1,600 in the third quarter of 2014.⁴³

• **MERGERS AND ACQUISITIONS**: Deal activity in the U.S. energy sector remained at multi-year lows throughout the first quarter, with capital markets shutting down in March and the sector facing distress from falling commodity prices. The available capital that drove the shale revolution from 2009-2014 had largely dried up by 2019, a situation which worsened in the first quarter, possibly setting the stage for a final reckoning for U.S. shale producers.

ENDNOTES

- 1 https://www.bing.com/videos/search?q=cnbc+warrent+buffett+interview+airlines&docid=608027176868186036&mid=C140B4AB2EA700FDB99DC140B4AB2EA700FDB99D&view=detail&FORM=VIRE
- $\label{eq:linear} 2 \quad https://pitchbook.com/news/reports/q1-2020-pitchbook-analyst-note-covid-19-the-sell-everything-trade-and-the-impact-on-private-markets.$
- 3 https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/lessons-for-private-equity-from-the-last-downturn.
- 4 https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/commercial-real-estate-must-do-more-than-merely-adapt-to-coronavirus.
- 5 https://www.ey.com/en_gl/news/2020/03/ey-report-reveals-private-equity-industry-is-well-prepared-to-endure-the-next-downturn.
- $\label{eq:constraint} 6 \quad https://pitchbook.com/news/reports/q1-2020-pitchbook-analyst-note-covid-19-the-sell-everything-trade-and-the-impact-on-private-markets.$
- 7 Pitchbook; data as of March 31, 2020.
- 8 Ibid.
- 9 Ibid.
- 10 ThomsonOne.
- 11 Pitchbook; data as of March 31, 2020.
- 12 Ibid.
- 13 Ibid.
- 14 Ibid.
- 15 S&P Leveraged Buyout Review First Quarter 2020.
- 16 Ibid.
- 17 Ibid.
- 18 Ibid.
- 19 Ibid.
- 20 Ibid.
- 21 Pitchbook; data as of March 31, 2020.
- 22 Ibid.
- 23 Ibid.
- 24 Ibid
- 25 Thomson One Horizon Summary Report as of September 30, 2019 (most recent data available as of May 14, 2020).
- 26 Thomson One; data as of December 31, 2019.
- 27 Preqin Special Report. Four Emerging Lessons from COVID-19 For North American Private Debt; data as of April 2020.
- 28 Bank of America Merrill Lynch; data as of March 31, 2020.
- 29 Preqin Real Estate Quarterly Update, First Quarter 2020.
- 30 Ibid.
- 31 Ibid.
- 32 NCREIF; data as of April 24, 2020.
- 33 Ibid.
- 34 NAREIT; data as of March 31, 2020.
- 35 www.eia.gov; data as of March 31, 2020.
- 36 www.eia.gov; data as of May 8, 2020.
- 37 Ibid.
- 38 Core Commodity Management, Firs Quarter Letter, April 2020.
- 39 Haynes & Boone Oil Patch Bankruptcy Monitor, Fourth Quarter 2019.
- 40 Dezember, Ryan "Ultra Petroleum Nears Another Bankruptcy, Showing Limits of a Popular Trade", The Wall Street Journal, May 6, 2020.
- 41 Garcia, Luis, "Energy Company Southland Royalty Nears Bankruptcy Filing", The Wall Street Journal, January 27, 2020.
- 42 Eaton, Collin, "The Glut Drowning the Oil Market", The Wall Street Journal, May 6, 2020.
- 43 All rig count data from www.bhge.com as of March 31, 2020.

INDICES

Bloomberg Barclays US Corporate High Yield Index represents the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets are excluded but, Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. The index includes the corporate sectors: Industrials, Utilities, and Finance, encompassing both US and non-US Corporations. See www.bloomberg.com for more information

The Russell Indices are constructed by Russell Investment, There are a wide range of indices created by Russell covering companies with different market capitalizations, fundamental characteristics, and style tilts. See www.russellinvestments.com for more information.

The FTSE NAREIT Composite Index (NAREIT) includes only those companies that meet minimum size, liquidity and free float criteria as set forth by FTSE and is meant as a broad representation of publicly traded REIT securities in the U.S. Relevant real estate activities are defined as the ownership, disposure, and development of income-producing real estate. See www.ftse.com/Indices for more information.

The S&P 500 Index is capitalization-weighted index of 500 stocks. The S&P 500 Index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

The NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only.

HFRI ED: Distressed/Restructuring Index

Distressed/Restructuring strategies which employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings. Managers are typically actively involved with the management of these companies, frequently involved on creditors' committees in negotiating the exchange of securities for alternative obligations, either swaps of debt, equity or hybrid securities. Managers employ fundamental credit processes focused on valuation and asset coverage of securities of distressed firms; in most cases portfolio exposures are concentrated in instruments which are publicly traded, in some cases actively and in others under reduced liquidity but in general for which a reasonable public market exists. In contrast to Special Situations, Distressed Strategies employ primarily debt (greater than 60%) but also may maintain related equity exposure.

Information on any indices mentioned can be obtained either through your consultant or by written request to information@feg.com.

DISCLOSURES

This report was prepared by Fund Evaluation Group, LLC (FEG), a federally registered investment adviser under the Investment Advisers Act of 1940, as amended, providing non-discretionary and discretionary investment advice to its clients on an individual basis. Registration as an investment adviser does not imply a certain level of skill or training. The oral and written communications of an adviser provide you with information about which you determine to hire or retain an adviser. Fund Evaluation Group, LLC, Form ADV Part 2A & 2B can be obtained by written request directly to: Fund Evaluation Group, LLC, 201 East Fifth Street, Suite 1600, Cincinnati, OH 45202, Attention: Compliance Department.

The information herein was obtained from various sources. FEG does not guarantee the accuracy or completeness of such information provided by third parties. The information in this report is given as of the date indicated and believed to be reliable. FEG assumes no obligation to update this information, or to advise on further developments relating to it. FEG, its affiliates, directors, officers, employees, employee benefit programs and client accounts may have a long position in any securities of issuers discussed in this report.

Index performance results do not represent any managed portfolio returns. An investor cannot invest directly in a presented index, as an investment vehicle replicating an index would be required. An index does not charge management fees or brokerage expenses, and no such fees or expenses were deducted from the performance shown.

Neither the information nor any opinion expressed in this report constitutes an offer, or an invitation to make an offer, to buy or sell any securities.

Any return expectations provided are not intended as, and must not be regarded as, a representation, warranty or predication that the investment will achieve any particular rate of return over any particular time period or that investors will not incur losses.

Past performance is not indicative of future results.

Investments in private funds are speculative, involve a high degree of risk, and are designed for sophisticated investors.

An investor could lose all or a substantial amount of his or her investment. Private capital funds' fees and expenses may offset private capital funds' profits. Private capital funds are not required to provide periodic pricing or valuation information to investors except as defined in the fund documents. Private capital funds may involve complex tax structures and delays in distributing important tax information. Private capital funds are not subject to the same regulatory requirements as mutual funds. Private capital funds are not liquid and require investors to commit to funding capital calls over a period of several years; any default on a capital call may result in substantial penalties and/or legal action. Private capital fund managers have total authority over the private capital funds. The use of a single advisor applying similar strategies could mean lack of diversification and, consequently, higher risk.

All data is as of March 31, 2020 unless otherwise noted.

RESEARCH AND PORTFOLIO MANAGEMENT TEAM

LILLIAN B. AMBROSIUS Research Analyst Responsive Investing

CHERYL A. BARKER Vice President *Research*

NOLAN M. BEAN, CFA, CAIA Managing Principal Head of Institutional Investments

KEITH M. BERLIN Senior Vice President *Director of Global Fixed Income and Credit*

PATRICK BONNELL Research Analyst Global Fixed Income and Credit

CHRISTIAN S. BUSKEN Senior Vice President *Director of Real Assets*

KEVIN J. CONROY, CFA, CAIA Vice President Hedged Strategies

GREGORY M. DOWLING, CFA, CAIA Managing Principal Chief Investment Officer, Head of Research

SUSAN MAHAN FASIG, CFA Managing Principal Portfolio Manager, Private Investments

ANTHONY L. FESTA, CFA Managing Principal Head of Portfolio Strategy

MICHAEL B. FRANKE, CFA, CAIA Senior Research Analyst Hedged Strategies

ANANYA HANDA Senior Research Analyst Global Fixed Income and Credit

EMILY C. HOGYA Senior Portfolio Analyst *Portfolio Management*

BRIAN A. HOOPER, CFA Senior Vice President *Global Equities* GREGORY D. HOUSER, CFA, CAIA Director Research

MARK A. KOENIG, CFA Senior Vice President Director of Quantitative Analysis

J. ALAN LENAHAN, CFA, CAIA Managing Principal Chief Investment Officer, Head of Portfolio Management

CHARLIE W. LUECKE Senior Research Analyst Private Equity

LAUREN M. MAYERNIK Senior Research Analyst *Private Equity*

SEAN P. McCHESNEY Vice President Hedged Strategies

MICHAEL J. O'CONNOR, CFA, CAIA Vice President Assistant Portfolio Manager, Public Investments

D. TAYLOR SIMPSON Senior Research Analyst *Real Assets*

BENJAMIN C. SULLIVAN Senior Research Analyst *Global Equities*

G. SCOTT TABOR, CAIA Senior Vice President *Private Capital*

STEVEN G. THIEME, CFA, CAIA Senior Research Analyst *Hedged Equity*

DANIEL I. TIRPACK, J.D. Senior Research Analyst *Real Assets*

NATHAN C. WERNER, CFA, CAIA Senior Vice President Director of Private Equity 201 East Fifth Street Suite 1600 Cincinnati, Ohio 45202

513.977.4400 information@feg.com www.feg.com

Cincinnati | Dallas | Indianapolis

Subscribe to FEG's communications at www.feg.com/subscribe.

The CFA designation is a professional certification issued by the CFA Institute to qualified financial analysts who: (i) have a bachelor's degree and four years of professional experience involving investment decision making or four years of qualified work experience[full time, but not necessarily investment related]; (ii) complete a self-study program (250 hours of study for each of the three levels); (iii) successfully complete a series of three six-hour exams; and (iv) pledge to adhere to the CFA Institute Code of Ethics and Standards of Professional Conduct.

The Chartered Alternative Investment Analyst Association[®] is an independent, not-for-profit global organization committed to education and professionalism in the field of alternative investments. Founded in 2002, the CAIA Association is the sponsoring body for the CAIA designation. Recognized globally, the designation certifies one's mastery of the concepts, tools and practices essential for understanding alternative investments and promotes adherence to high standards of professional conduct.

Research and Portfolio Management Team as of date of publication.