Wilshire

Quarterly Newsletter

Private Markets

Q3 | 2021

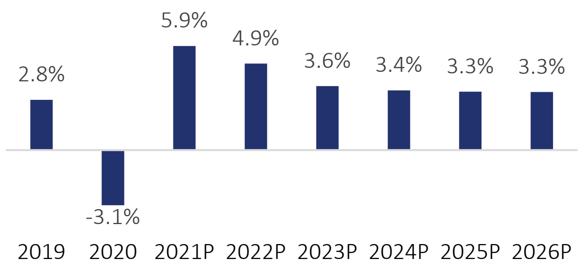
Market Overview

By Mark Perry, Managing Director

As the world adapts to COVID, we emerge into a market landscape dominated by slowing (albeit still above-trend) global growth, higher inflation, and supply chain havoc. Deal activity remains strong across the capital lifecycle from formation through deployment and exit. This year will end with key risks that echo the end of 2019 – namely, high valuations and historically high levels of debt throughout the system.

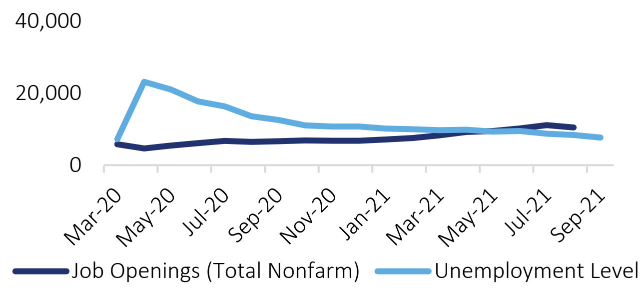
The 2021 spike in growth, fueled by the COVID recovery, will taper as economies normalize and stimulus effects abate. Consumer wealth, particularly at the higher end of the income spectrum, remains very strong which, combined with the lower debt expense burden that accompanies historically low rates, should fuel sustained spending going forward. Risks to the generally positive economic outlook include the extremely tight labor market in the U.S., where the number of job openings now exceeds the number of unemployed, and global supply chain problems - both of which continue to drive inflation expectations higher. While most of the current inflation is expected to be transitory, it's reasonable to assume that some of these higher prices will be longer lasting. Higher wages and higher rents, as two examples, are difficult to reverse once increased, and may suggest a world of sustainably higher input costs for consumers and corporations alike.

World GDP Growth



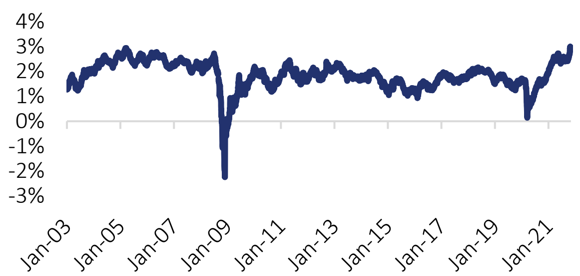
Source: IMF

Job Openings & Unemployment Level (Thousands of Persons, Seasonally Adjusted)



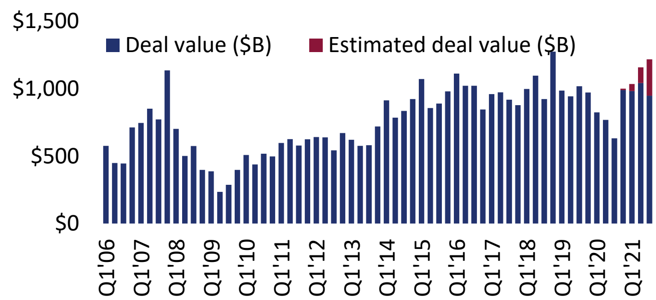
Source: Federal Reserve Bank of St. Louis

5-Year Breakeven Inflation Rate, Percent, Daily, Not Seasonally Adjusted



Source: Federal Reserve Bank of St. Louis

Global deal flow by quarter (with estimation)



Source: PitchBook

Against this backdrop, deal activity remains vibrant. Top tier managers are raising successively larger funds in successively shorter fundraising periods and deploying capital at a historically high pace. According to data from PitchBook, each of the three quarters year-to-date have seen $1+ trillion of global M&A deal value ranking each in the top 10 most active quarters since 2006. Coupled with an accommodative IPO market and looming tax changes, the outlook remains strong for continued deal making over the near term. This exuberance has brought with it, however, a return to high prices and aggressive leverage, suggesting that valuation and financial risk remain elevated.

Regional Activity

North American Markets

By Mark Perry, Managing Director

Fundraising

Fundraising in North America declined during Q3 2021. During this period, 358 North America-focused private equity funds secured a total of $61.5 billion, compared to 364 funds raising $156.9 billion in Q2 2021. During this period, North America closed on 36 buyout funds ($22.5 billion), 42 growth funds ($12.9 billion), and 233 venture funds ($16.5 billion). The largest North American private equity funds to close during the quarter include K5 Private Investors ($4.5 billion) and Providence Strategic Growth V ($4.5 billion) (Preqin).

The number of private equity funds in market has continued to remain strong, as 2,844 North American buyout, growth, and venture capital funds are currently fundraising within the market and are targeting $437 billion (Preqin). The largest North American private equity fund in market is Thoma Bravo XV (buyout) targeting $22.0 billion. During Q3 2021, North American managers also closed on 24 private debt funds ($27.2 billion), 60 real estate funds ($28.2 billion), 8 infrastructure funds ($9.9 billion), and 14 natural resources funds ($12.0 billion) (Preqin).

Investment Activity

North American buyout aggregate deal value decreased by 23.7% to $108.9 billion from $142.8 billion from Q2 2021 to Q3 2021. The deal value in the third quarter was driven by numerous deals including the $8.5 billion buyout of PAREXEL International Corporation led by Goldman Sachs AIMS Group and EQT, and the $7.5 billion buyout of Lumen Technologies' ILEC Business led by Apollo Global Management. LBO valuations through Q3 2021 were 14.6x EV/EBITDA (PitchBook).

North American venture capital deals accounted for 31% of venture deals globally in Q3 2021. These 1,755 North American deals were valued at $86.4 billion, which represented 47% of aggregate global venture deal value during the quarter (Preqin). In the U.S., valuations rose across angel/seed and early-stage, but slightly declined across late-stage financing rounds during Q3 2021. Median Series A, B, C, and D+ pre-money valuations remain near or have set record highs at $38 million, $120 million, $300 million, and $925 million, respectively, during the third quarter (Pitchbook). The largest North American venture capital deals in Q3 2021 were the $3.0 billion investment (merger) in Headspace Health, the $2.5 billion investment (pre-IPO round) in Rivian LLC, and the $1.6 billion investment (Series H) in Databricks Inc. (Preqin).

Realizations

North America saw 370 private-equity buyout-backed exits valued at $114.8 billion in Q3 2021, accounting for 56% and 60% of global exit volume and value, respectively (Preqin). Q3 2021 saw 22 private equity-backed IPOs in the U.S., representing $10.9 billion in exit value (Preqin). The largest North American private equity-backed exits in Q3 2021 were the $8.5 billion sale of PAREXEL International Corporation to Goldman Sachs AIMS Group and EQT, and the $5.3 billion sale of Solenis LLC to Platinum Equity (Preqin).

North America saw 244 venture-backed exits valued at $60.3 billion in Q3 2021, accounting for 50% and 70% of global exit volume and value, respectively (Preqin). The largest North American venture capital exits in Q3 2021 were the $11.5 billion trade sale of Acceleron Pharma, Inc. and the $3.2 billion trade sale of Translate Bio, Inc. (Preqin).

European Markets

By Björn Waltmans, Managing Director

Fundraising

Over Q3 2021, European private equity funds raised €30.4 billion, which represents a decrease of 22% relative to the €38.8 billion raised in Q2 2021. 67% of the European capital raised in Q3 2021 was raised in the buyout space (vs. 85% of capital raised in Q2 2021). Venture capital fundraising represents 13% of capital raised in Q3 2021 (vs. 9% of capital raised in Q2 2021). Growth equity fundraising represents 20% of all capital raised, compared to 5% in Q2 2021. A total of 45 private equity funds were closed in Q3 2021, compared to 70 in Q2 2021. Most funds were closed in the venture space (23 funds in Q3 2021 versus 36 funds in Q2 2021). Over the course of Q3 2021, 13 buyout funds were also closed, compared to 23 in Q2 2021 (Preqin).

Examples of successful fund closings over Q3 2021 include Elvaston Capital, a buyout-focused private equity firm based in Berlin, which closed its fifth fund at €480 million. The fund will make mid-cap buyout investments in leading software and cloud IT companies in the DACH region. Index Ventures, a UK-based VC firm, had two successful closings. Index Ventures Growth VI recently closed at €2.0 billion and will invest in tech companies at a growth stage. Additionally, Index Ventures XI had its final close at €900 million and will focus on early-stage investments in Europe and the U.S. (Preqin).

Investment Activity

Q3 2021 buyout activity in Europe consisted of 393 buyout deals worth a combined €41.8 billion. Large European deals included Philips Domestic Appliances, Lonza Specialty Ingredients, and UDG Healthcare. Hillhouse Capital Group completed the purchase of Philips Domestic Appliances, a retailer of household appliances such as coffee machines based in Amsterdam, through an estimated €4.4 billion LBO. Lonza Specialty Ingredients, a Swiss producer of healthcare ingredients, was acquired by Bain Capital and Cinven through an estimated €3.9 billion LBO. Clayton and Dubilier & Rice acquired UDG Healthcare, a healthcare services provider in North America in Europe, in a public-to-private LBO deal worth €3.3 billion (Pitchbook).

1,759 venture deals worth approximately €24.0 billion were completed in Q3 2021. Notable deals include Gorillas, Revolut, and Sorare. Gorillas, a German operator of a grocery delivery platform, raised €805 million in its Series C round from a consortium of investors including Delivery Hero, Tencent Holdings, and Atlantic Food Labs. Revolut, a UK-based neo-bank, raised €672 million in its Series E round from Tiger Global Management and SoftBank, amongst other investors. Sorare, a developer of a blockchain-based fantasy sports platform, raised €625 million in the largest Series B round in European history.

The deal was led by SoftBank, with other new investors such as Atomico, Bessemer, Eurazeo, and Felix Capital also participating in the round (Pitchbook).

Realizations

In Q3 2021, 430 buyout exits took place in Europe, representing a total value of €71.9 billion. A notable exit was Nets, a Denmark-based payment services provider across the Nordics. Nets was sold by Advent International and Bain Capital, amongst others, to Nexi, an Italian bank focusing on payment systems, in a trade sale for €7.6 billion. Atotech Deutschland, a German provider of electroplating solutions, was sold by The Carlyle Group to Mks Instruments, a global provider of measurement systems, in a deal estimated to be worth €4.2 billion. Primonial, a French provider of asset management and real estate services, was acquired by Altarea Cogedim, a French property developer, for approximately €2.3 billion. It was sold by Bridgepoint Advisers, Latour Capital, and Sogecap (Pitchbook).

In Q3 2021, 518 venture capital deals were exited for a total value of €23.2 billion. Notable European deals include the exits of Wise, Flaschenpost, and HomeToGo. Wise, a UK-based company providing money transfer services, completed its direct listing on the London Stock Exchange, valuing the company at €10.2 billion. Flaschenpost, a German developer of an online beverage delivery platform, was acquired by Dr August Oetker Nahrungsmittel in a deal worth €1.0 billion. Sellers include 3L Capital, Cascade Investment Fund, and Cherry Ventures, amongst others. HomeToGo, a vacation property rental company, acquired Lakestar SPAC I through a reverse merger, resulting in the combined entity trading on the Frankfurt Stock Exchange. The deal amounted to €853 million, and generated liquidity for its consortium of investors, including Acton Capital, DN Capital, Insight Partners, and Lakestar, amongst others (Pitchbook).

Asia-Pacific Markets

By Gary Hui, CFA, Vice President

Fundraising

In Q3 2021, 51 Asia-Pacific private equity funds raised $16.9 billion, representing a 49% decrease relative to the $33.1 billion raised in Q2 2021, which was largely attributable to KKR Asia Growth Fund IV ($15 billion). Four Asia-Pacific focused buyout funds, eight growth funds, and 39 venture capital funds closed in Q3 2021, raising $1.2 billion, $9.7 billion, and $5.9 billion, respectively (Preqin).

Noteworthy successful fund closings over Q3 2021 include Boyu Capital Fund V, Sequoia China Growth Fund VI and AGIC Fund II, which raised a total capital of $9.0 billion, representing 53% of the total capital raised in Asia Pacific during Q3 2021 (Preqin).

Investment Activity

Aggregate value of Asia-Pacific buyout and growth equity deals in Q3 2021 was moderately lower than in Q2 2021. 98 private equity-backed deals were announced in Q3 2021, representing an aggregate value of $8.2 billion (Preqin).

The largest deal announced in Asia Pacific was Hinduja Global Solutions Limited Healthcare Outsourcing Division, a BPO IT services company in India, led by Baring Asia Private Equity with a deal size of $1.2 billion, accounting for 15% of the total buyout deal value in Q3 2021 (Preqin).

With respect to venture market, 2,872 venture capital deals were announced in Q3 2021, representing an aggregate value of $59.8 billion, moderately higher than that of $52.1 billion in Q2 2021 (Preqin).

The largest financing round during Q3 2021 was the new financing round for Flipkart Internet Private Limited, India's largest ecommerce company, led by GIC, CPPIB, Softbank Vision Fund II, Tiger Global, and others, with a deal size of $3.6 billion, accounting for 7% of the total venture deal value in Q3 2021 (Preqin). Other notable deals in the region include ByteDance's $770 million acquisition of Pico Technology, an AR/VR equipment company in China.

Realizations

There were 63 Asia-Pacific private equity-backed exits in Q3 2021 totaling $26.2 billion, representing 10% and 14% of total global volume and value exited, respectively (Preqin).

There were 131 Asia-Pacific venture capital-backed exits totaling $19.5 billion in Q2 2021, representing 27% and 22% of total global volume and value exited, respectively (Preqin).

Feature Article: Energy Markets & Conventional Energy Investing Update

By Evan Tarzian, CFA, Associate & Marc Friedberg, CFA, Managing Director

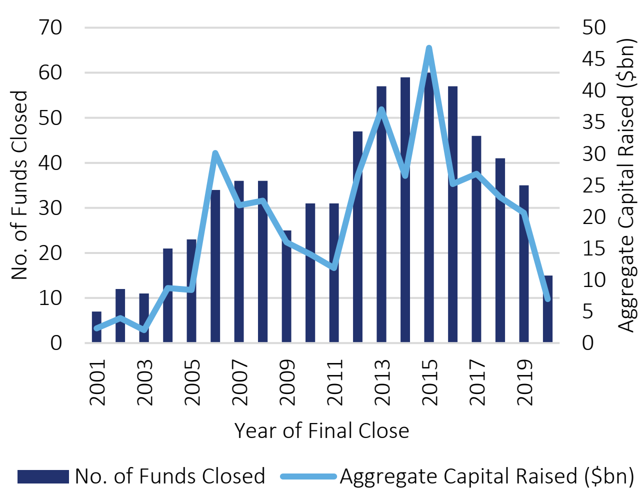
Introduction

Traditional energy markets have been characterized by volatility in recent years, leading to inconsistent historical returns that have plagued conventional energy funds. The magnitude of this volatility was illustrated last year, as West Texas Intermediate (WTI) dipped negative for the first time ever. This article is meant to help identify where energy markets stand today, how other investors are viewing conventional energy funds, potential future risks, whether to invest in traditional energy investments, and if so, which part of the energy transition value chain may be the most attractive.

Capital Supply

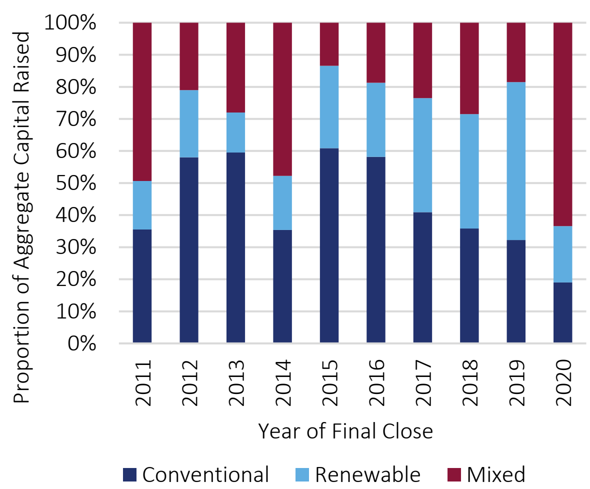
Fundraising within oil & gas private equity funds peaked in 2015 and has steadily declined every year since. Capital commitments have fallen by approximately 75% since 2015. This decline in capital fundraising is largely due to a combination of the importance of ESG considerations to investors and the inconsistency of realized returns over the past decade across conventional private equity energy funds. Today, hydrocarbon investments appear less attractive in the long term, as the focus on decarbonization becomes more prevalent. Investors also have questions as to whether the global community has reached "peak oil". With new climate change challenges, concerns remain that global production has reached a max point. However, according to the IEA's World Energy Outlook for 2021, "the era of growth in global oil demand comes to an end within ten years [but] in the absence of a larger shift in policies, it is still too early to foresee a rapid decline in oil demand." These concerns have led to historic fundraising efforts in renewable and energy transition funds over the past several years, as seen in Exhibit 1 below. In 2020, 63% of capital raised employed a mixed strategy of conventional and renewable energy. Interestingly, conventional energy managers have begun raising energy transition or even renewable energy funds alongside their traditional conventional energy funds, signaling the shift in current investor appetite. A real time example within Wilshire's energy forward calendar is Quantum Energy Partners VIII, which is dedicating nearly 50% of its upcoming fund to zero and low-carbon investments.

Exhibit 1 – Global Unlisted Oil & Gas Focused Fundraising (2001-2020)



Source: 2021 Preqin Global Natural Resources Report. Data as of February 2021.

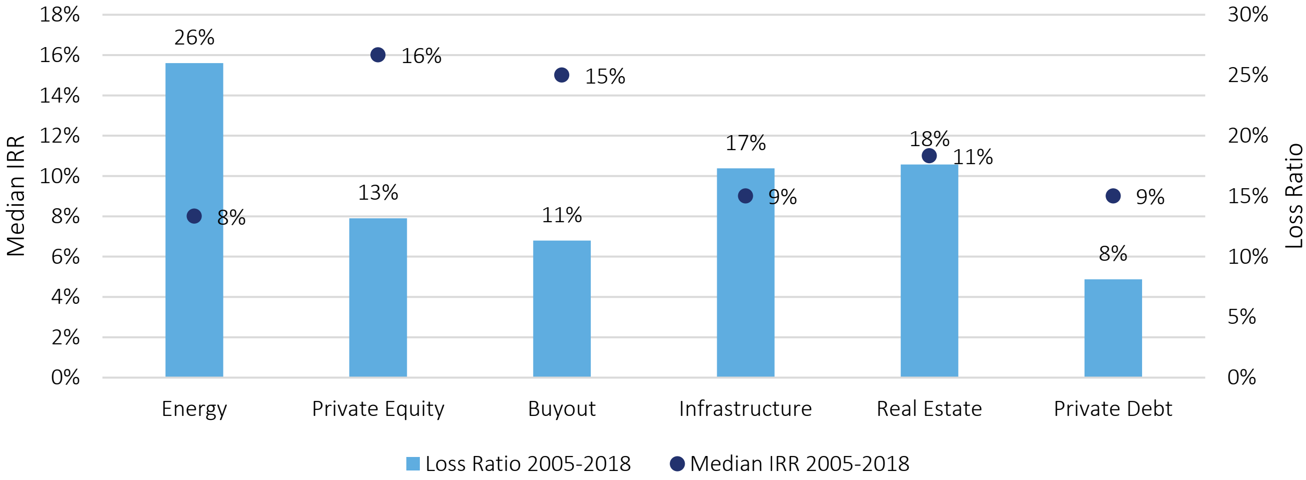
Exhibit 2 – Aggregate Capital Raised by Unlisted Energy Funds Closed by Type (2011 – 2020)



Source: 2021 Preqin Global Natural Resources Report. Data as of February 2021.

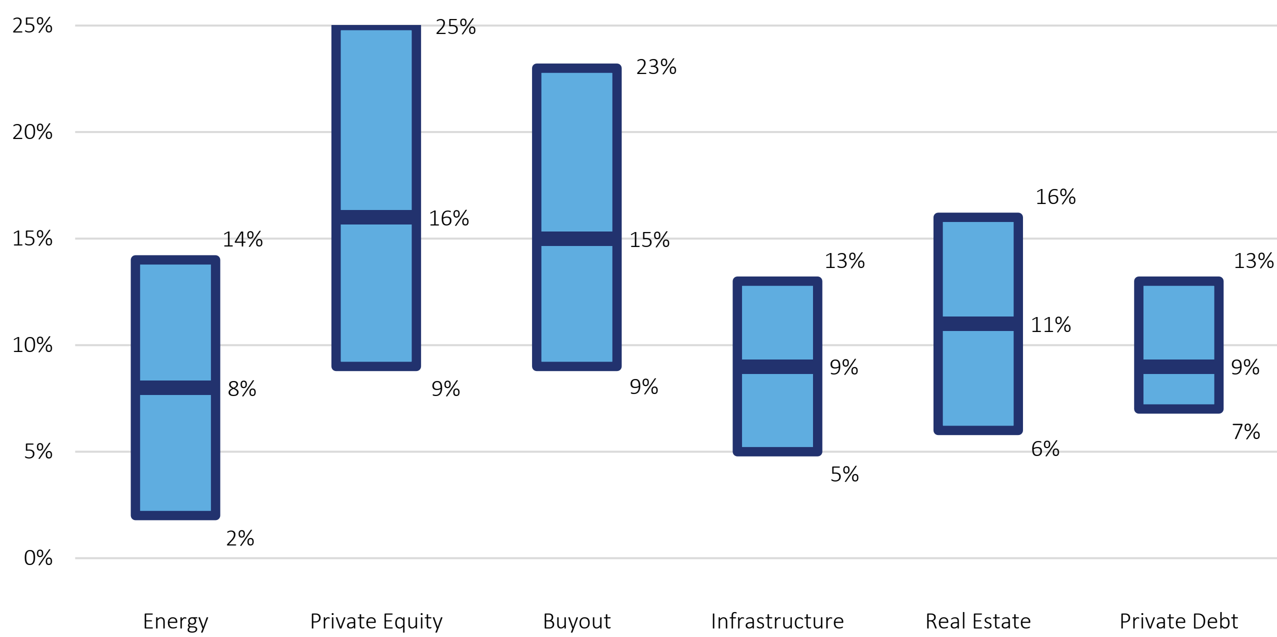
Additionally, inconsistent historical returns have led to investors shying away from conventional energy funds. Fund impairment ratios have been high, relative to other asset classes, and median returns have been underwhelming. While median returns for energy funds were strong on an absolute basis in the early 2000s, they have since been modest and have hovered near mid-to-high single digit net IRRs. Further, loss ratios have been elevated across vintages for conventional energy funds. Relative to other private asset classes, traditional energy funds have experienced the highest impairment ratio. Energy funds have a 9% higher impairment ratio compared to the asset class with the next highest loss ratio - growth & venture funds. Conventional energy funds' loss ratio from 2005 to 2015, which should only include funds that are well out of the J-curve, is 30%.

Exhibit 3 – Fund IRRs & Loss Ratios across Private Asset Classes (2005 to 2018)



Source: Preqin as of November 2021. Wilshire analysis.

Exhibit 4 – Fund IRR Quartile Boundaries across Private Asset Classes (2005 to 2018)



Source: Preqin as of November 2021. Wilshire analysis.

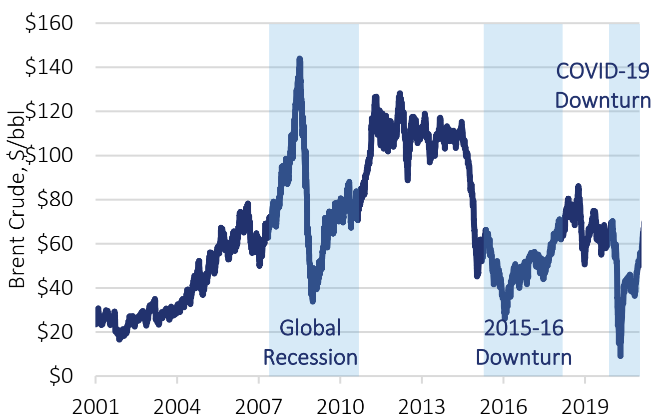
Banks have also made a concerted effort to reduce their energy exposure since the last downturn as a result of significant losses, the uncertain prospect of future capital market fees, and ESG considerations. Since the end of 2014, energy funded loans as a percent of total loans decreased for large-cap and mid-cap/regional banks. Further, the largest lenders in energy have aggressively reduced their energy exposure, with significant reduction in aggregate exposure from Q1 2020 to Q1 2021.

Energy Outlook

Crude oil and natural gas prices have seen significant volatility over the past several years. Prior to 2020, leading drivers of crude oil price volatility were Middle East tensions arising from attacks on Saudi facilities in September 2019 and conflict between the U.S. and Iran (supply risk), along with the ongoing trade war between the U.S. and China (demand risk). Then in the Spring of 2020, COVID-19 demand destruction negatively impacted oil with prices going negative for the first time in history. Material uncertainty remained throughout most of 2020 before firming up into 2021 with the rollout of vaccines and re-openings. Oil consumption still remains integral to society, as the world currently consumes approximately 100 million barrels of oil per day[1]. However, ongoing virus outbreaks and global spare capacity continue to cause market unease.

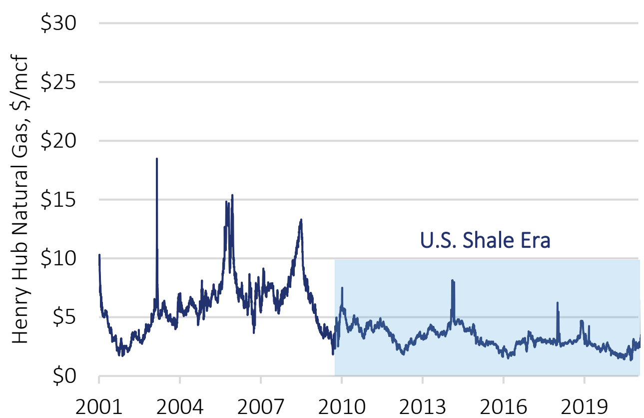
Regarding natural gas prices, 2020 prices were softer with demand down, but have largely recovered to pre-pandemic levels. Since the U.S. Shale era, Henry Hub pricing has traded largely between $2.00 to $3.50/mcf. However, natural gas demand forecasts are encouraging as lockdowns subside and society looks to a lower carbon future. There is a strong consensus across numerous entities and agencies for increasing global gas demand over the coming decades. The average 5, 10, and 20-year CAGR for global gas production according to forecasts from the Energy Information Administration, Equinor, BP, and the International Energy Agency is 1.1%, 1.2%, and 1.1%, respectively.

Exhibit 5 – Historical Brent Pricing



Source: Tudor, Pickering, Holt & Co. as of January 2021.

Exhibit 6 – Historical Henry Hub Pricing



Source: Tudor, Pickering, Holt & Co. as of January 2021.

Exhibit 7 – OPEC Global Oil Demand Prediction (2019-2045)

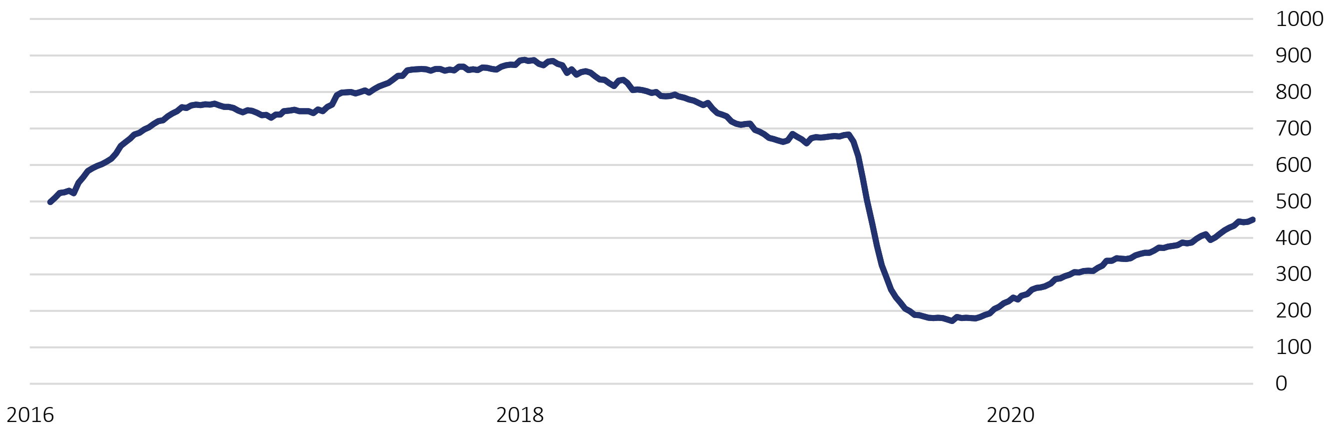
	2019	2020	2025	2030	2035	2040	2045	Growth 2019-2045
OCED	47.9	43.0	46.8	44.6	41.5	38.0	34.8	-13.1%
Non-OCED	51.8	47.8	56.9	62.6	67.4	71.2	74.3	22.5
World	99.7	90.7	103.7	107.2	108.9	109.3	109.1	9.4%

Source: 2021 Preqin Global Natural Resources Report. Data as of February 2021.

[1] *International Energy Agency March 2021 Oil Market Report. Estimated global demand of 99.2 million barrels per day in Q4 2021.*

From a production perspective, U.S. rig count is up nearly 100% from the trough following COVID-19, but still approximately 40% below pre-COVID levels. Producers are highly focused on capital discipline, free cash flow overgrowth, balance sheet improvements, and shareholder distributions. Pre-COVID, oil-focused U.S. E&P operators utilized cash on hand and asset sales to cover debt obligations. Significant cash flow from operations funded CapEx. Post-COVID, much less cash flow from operations is funding CapEx, leaving more capital to de-lever and pay dividends to shareholders.

Exhibit 8 –Crude Oil Rig Count



Source: Baker Hughes as of November 2021.

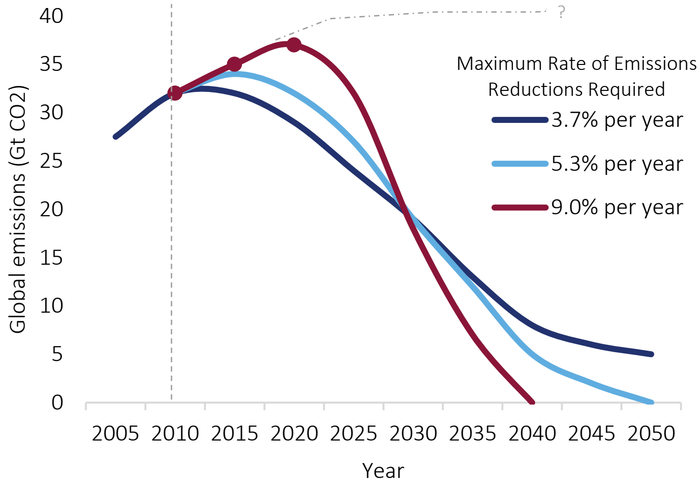
Consolidation is also a core theme at the moment within the E&P sector. Many operators have struggled to find capital for new drilling programs, as private equity capital allocated to the sector has continued to decline and banks have been conservative with lending to the space. This capital scarcity has led to operators selling "non-core" assets at attractive discounts to fund new projects. However, the question remains whether these non-core assets being sold are actually high-quality.

Further, some of the world's largest energy majors (Exxon, Chevron, etc.) have materially reduced funding for large upstream projects in order to (i) reduce carbon emissions, (ii) pay dividends to shareholders, and (iii) divert investments into renewables. Energy transition projects are a key focus for majors as well.

Decarbonization Trends

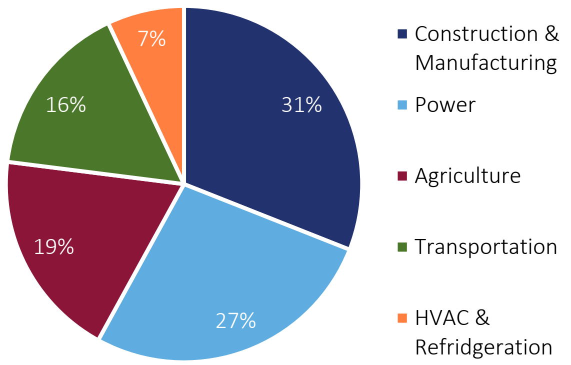
There are significant consumer pressures currently forcing oil & gas companies to focus on responsibly sourced production and, ultimately, drive towards "net-zero" from an emissions perspective. The pressures of climate change are mounting, as current trends suggest the world will warm by 3.5 degrees Celsius by 2050, well above the 2-degree Celsius target set in the 2015 Paris Agreement. The ongoing uncertainty of climate change and actions society will need to take to mitigate the worst effects of climate change presents a real risk to new fossil fuel investments. Operators will need to find a way to drill in a cleaner manner. Carbon capture technologies are expected to play an important role as well moving forward.

Exhibit 9 – Emission Reduction Rates Required to Limit Warming to 2-Degrees Celsius



Source: IPCC as of August 2021.

Exhibit 10 – Sources of Global Emissions



Source: Bill Gates, How to Avoid a Climate Disaster (2021).

Looking Ahead

Inconsistent historical returns in the private equity energy sector, commodity price volatility, and new risks associated with decarbonization and climate change, have led to a flight of capital away from the conventional energy sector. However, there may potentially be a unique opportunity at the moment within the upstream space, as little capital is being raised and non-core assets are being sold by operators at attractive discounts. Oil & gas investing as only a part of a broader energy strategy could be compelling. Manager selection is extremely important within this asset class, as return dispersion is historically wide.

Within the clean energy space, tailwinds are stronger than ever as the energy transition has formally begun. The space is crowded, but capital required for this activity is significant. Compelling investment opportunities remain, specifically outside of traditional renewable investments. Decarbonization outside of the power sector should present compelling returns for investors moving forward.

Important Information

Wilshire is a global financial services firm providing diverse services to various types of investors and intermediaries. Wilshire's products, services, investment approach and advice may differ between clients and all of Wilshire's products and services may not be available to all clients. For more information regarding Wilshire's services, please see Wilshire's ADV Part 2 available at www.wilshire.com/ADV.

Information and opinions are as of the date indicated, and are subject to change without notice. This document contains confidential and proprietary information of Wilshire, and is intended for the exclusive use of the person to whom it is provided by Wilshire. This document and any opinions on investment products it contains, may not be disclosed, reproduced, or redistributed, in whole or in part, to any other person or entity without Wilshire's prior written permission. This report may include estimates, projections and other "forward-looking statements." Forward-looking statements represent Wilshire's current beliefs and opinions in respect of potential future events. These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual events, performance and financial results to differ materially from any projections. Forward-looking statements speak only as of the date on which they are made and are subject to change without notice.

This report contains information that has been obtained from sources believed to be reliable. Wilshire gives no representations or warranties as to the accuracy of such information, and accepts no responsibility or liability (including for indirect, consequential or incidental damages) for any error, omission or inaccuracy in such information and for results obtained from its use. Information and opinions are as of the date indicated and are subject to change without notice. This report is not intended to constitute investment advice, and is not intended to be a solicitation to purchase or sell any security or fund or to invest in a particular asset class. Wilshire recognizes that conflicts of interest will arise in the provision of its services. Wilshire has implemented policies and procedures that seek to mitigate conflicts of interest through appropriate oversight, transparency and controls. It is Wilshire's policy to make evaluations, recommendations and decisions based solely upon the best interests of clients and without regard to any benefit (economic or otherwise) that Wilshire receives or might receive. Additional information regarding conflicts of interest is available in Wilshire's ADV Part 2.

Opinions on investment managers or products contained herein are not intended to convey any guarantees as to the future investment performance of these managers or products. Past performance is not indicative of future performance. The value of your investments can go down as well as up, and you may not get back the amount you have invested.

Wilshire is an investment adviser registered with the SEC in the U.S. Affiliate companies include Wilshire Associates Europe BV, registered with the AFM in Europe, Wilshire Australia Pty Limited, registered with the ASIC in Australia, and Wilshire Hong Kong Limited.

13918575 E0522

More information

For more information, please contact Sarah Woo:

T +1 412-434-5116

E swoo@wilshire.com

Wilshire

1299 Ocean Avenue, Suite 700, Santa Monica, CA 90401

wilshire.com