PitchBook

Real Assets Report

Q1 2021

Contents

PitchBook Data, Inc.

John Gabbert Founder, CEO
Nizar Tarhuni Senior Director, Institutional Research & Editorial

Institutional Research Group

Analysis

Wylie Fernyhough Senior Analyst, PE Lead
wylie.fernyhough@pitchbook.com

Rebecca Springer, Ph.D. Analyst, PE
rebecca.springer@pitchbook.com

pbinstitutionalresearch@pitchbook.com

Data

Zane Carmean, CFA Quantitative Research Analyst

Publishing

Designed by **Joey Schaffer**

Published on June 24, 2021

Click here for PitchBook's report methodologies.

Introduction

Real asset fundraising figures have lagged recently, with fundraising over the past four quarters hitting its lowest levels since late 2012. Peeking below the headline figures reflects a bifurcation in the space. Infrastructure continues to attract capital, while oil & gas fundraising remains sluggish. The ancillary strategies in the real assets space—including agriculture, metals & mining, and timber—have also seen relatively weak fundraising figures, though for different reasons. Turning to performance, the bifurcation witnessed in fundraising appears to be well-supported. Infrastructure funds continue to exhibit low return volatility: Even during the worst of the COVID-19 pandemic downturn, one-year pooled returns for infrastructure funds never dipped below zero. By contrast, the 2020 nadir in performance for oil & gas funds was even lower than it was following 2015's price crash.

Infrastructure has seen consistent fundraising levels for the past few years, and we expect several significant fundraises will take place in the coming quarters. During the pandemic, infrastructure funds benefited from several factors, including recession-resistant business models and a quick rebound in consumer spending. Going forward, the sector will further benefit from inflationary pressure. Infrastructure firms are watching carefully to see the ways government infrastructure spending responds in the aftermath of COVID-19—particularly regarding the role public-private partnerships (PPPs) will play in large spending initiatives in the US, Canada, and Europe. In addition to continued interest in traditional transportation infrastructure areas, investors are also looking to renewable energy assets as a high-growth area with considerable regulatory tailwinds. Another red-hot substrategy has been digital infrastructure. The pandemic only heightened what was already a growing need for extensive connectivity and data infrastructure investment to underpin the growth of the digital economy.

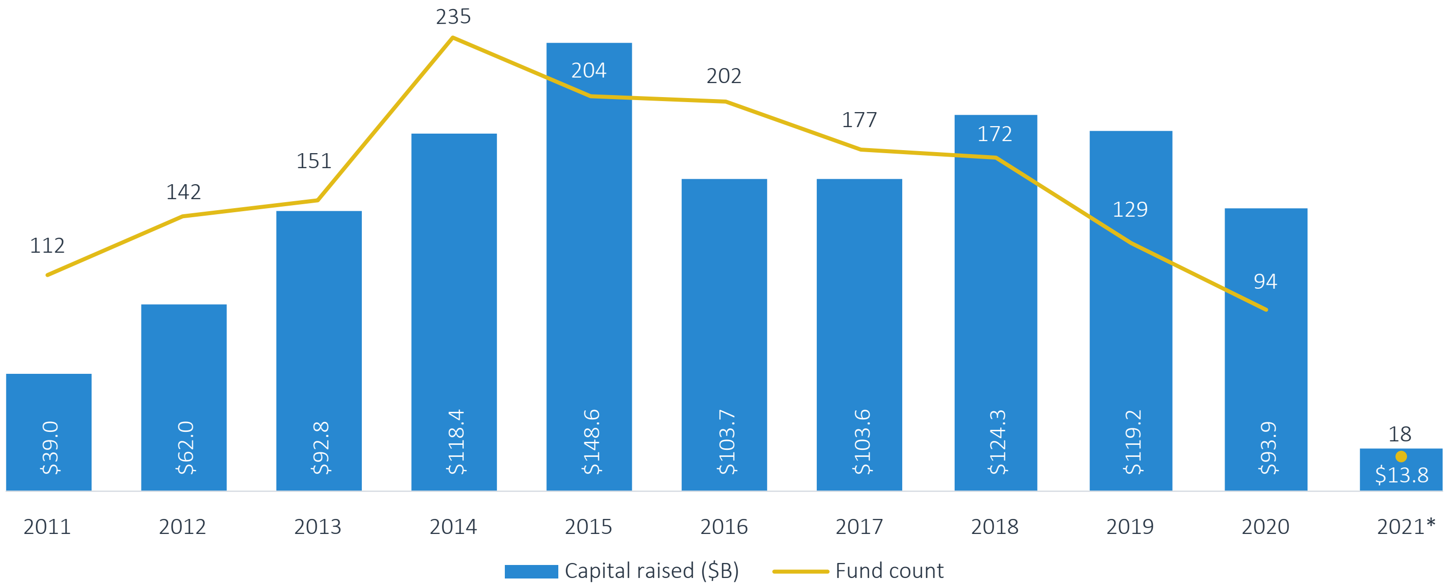
Oil & gas fundraising and deal activity have fallen off dramatically since the start of 2020. Hamstrung by low energy prices and global pressures to switch to greener energy sources, fundraising for the sector has been battered for years. After the COVID-19 lockdowns in early 2020, energy prices dropped further, and deal activity was severely depressed. Because major oil producers have underinvested in production since the 2014 price collapse, it is more difficult to quickly bring new production online. With this backdrop, it is likely an attractive time to raise and deploy private capital vehicles targeting oil & gas assets.

Wylie Fernyhough
Senior Analyst, PE Lead

Rebecca Springer, Ph.D.
Analyst, PE

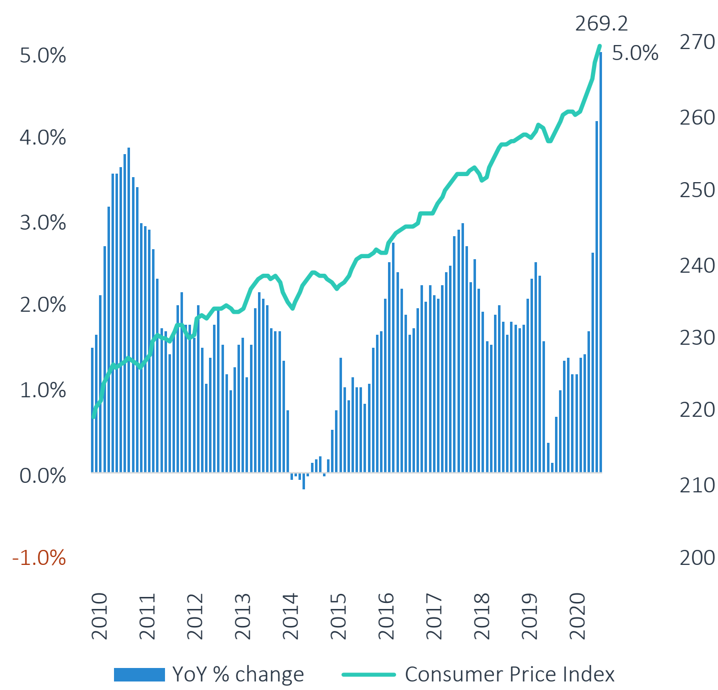
Overview

Real assets fundraising activity



Source: PitchBook | **Geography:** Global
*As of March 31, 2021

CPI level and YoY change

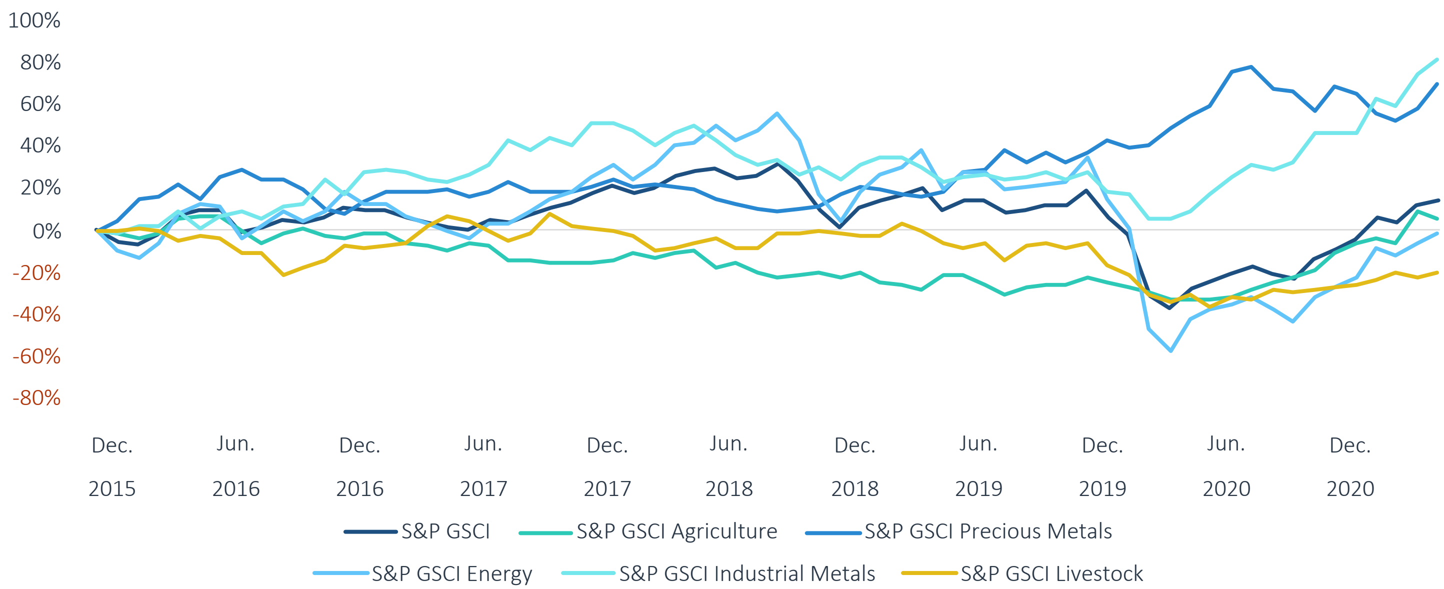


Source: Federal Reserve Bank of St. Louis | **Geography:** US
As of May 31, 2021

Real assets fundraising figures have lagged recently, with fundraising over the past four quarters hitting its lowest levels since late 2012. Between Q2 2020 and Q1 2021, just 73 funds closed, totaling $62.7 billion. Peeking below the headline figures reflects a bifurcation in the space. Infrastructure continues to attract capital, and fundraising remains healthy. Massive funds currently in the market from EQT (STO: EQT) and Copenhagen Infrastructure Partners will likely propel infrastructure's fundraising figures even higher in the coming quarters. These European managers have scaled quickly as LP demand for steady returns has risen unabated over the past decade. Oil & gas, on the other hand, has seen few funds raised as many institutional LPs allocate cash to more environmentally friendly strategies. Also, few open funds exist that are raising capital to target the strategy directly. The ancillary strategies in the real assets space—including agriculture, metals & mining, and timber—have also seen relatively weak fundraising figures, though for different reasons.

Going forward, the outlook for inflation may provide a tailwind for real assets fundraising. The US consumer price index (CPI) ticked up at the highest rate in 13 years, while China's factory gate inflation is also at a 13-year high as imported commodity prices continue to skyrocket. Real assets—whether ports, data centers, or railroads—are traditionally adept at passing along

Total return for select commodity indices



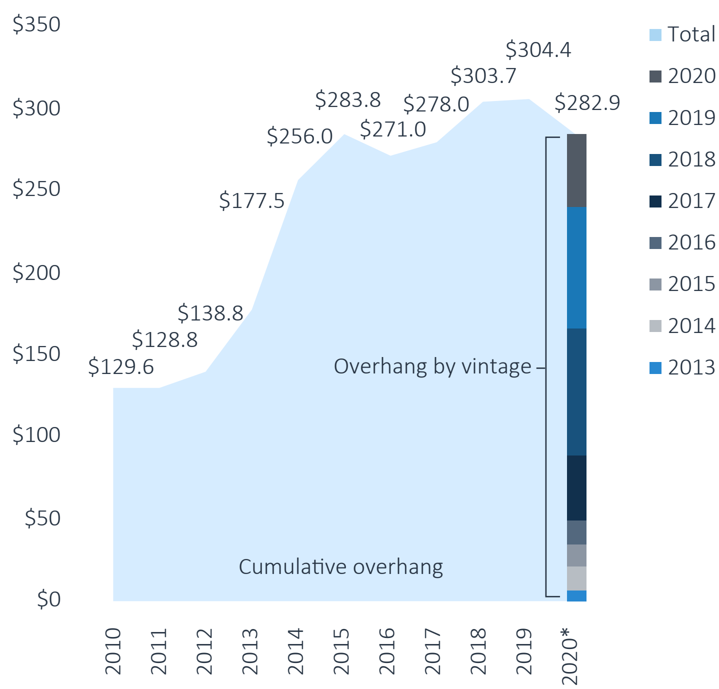
Source: Morningstar | **Geography:** Global
As of May 31, 2021

costs to consumers, thereby making these assets critical components of LP portfolios in inflationary environments. While the Fed and many others have made it clear they expect these inflationary pressures to be transitory, any sustained pickup in inflation rates could further benefit real assets fundraising.

No timber-focused funds have been raised in quite a while. This sleepy asset class, especially compared with the price volatility of other natural resources, has seen a price surge in recent months. Early in the lockdown, sawmills closed as the industry expected a reduction in demand, but the opposite happened. Housing demand surged. The ensuing supply-and-demand imbalance sent the market-clearing price soaring. The July 2021 random length lumber future price is up 4x since Q1 2020. However, prices appear to be softening and are more than 20% off their highs as of June 3, 2021. Longer term, supply reductions in Canada's annual allowable cut—due to pine beetles and forest fires diminishing the supply—may taper lumber production even as housing demand in North America remains healthy. While one or two funds may seek to address this long-term trend, most investments in timber tend to be done directly rather than through fund structures.

As global economies recover from the pandemic, metals prices have soared. China has exhibited a nearly insatiable appetite in buying metals as it invests globally with its Belt and Road Initiative. Additionally,

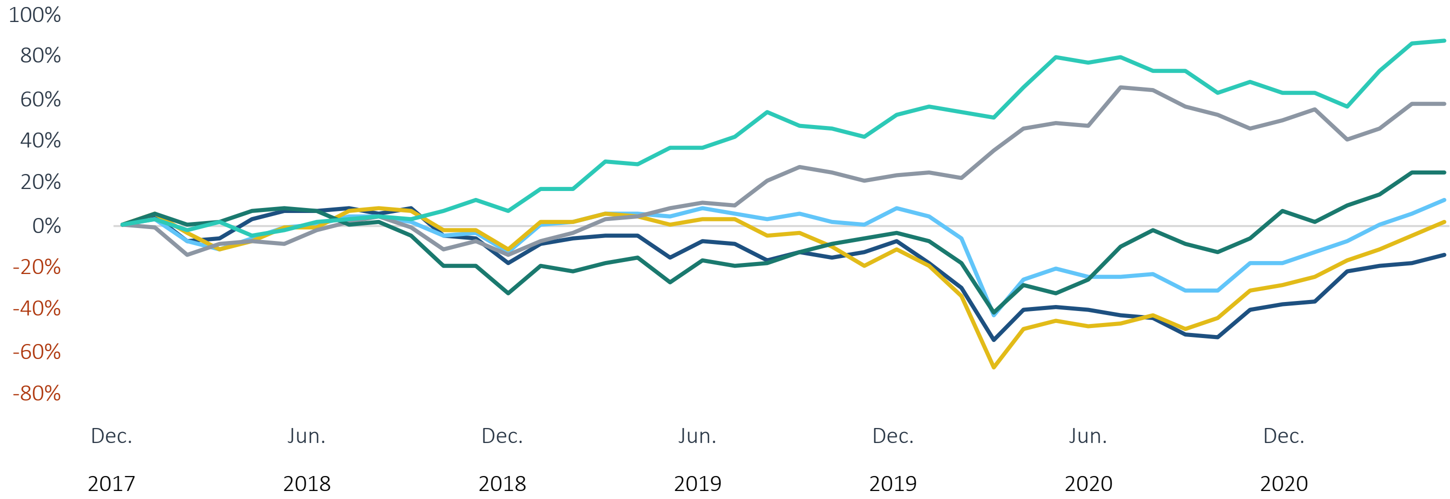
Real assets dry powder ($B) by vintage



Source: PitchBook | **Geography:** Global
*As of September 30, 2020

the continued demand for energy storage and electric car infrastructure has ramped up the demand for the "technology metals"—copper, lithium, and cobalt. According to the International Energy Agency, the world needs four times its current supply of clean energy

Total return for select indices

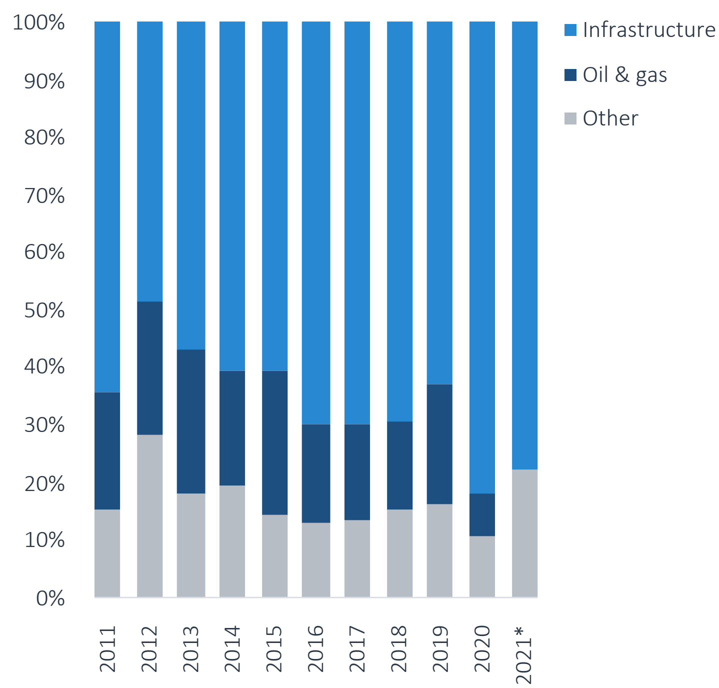


Sources: Morningstar, Nareit | **Geography**: US
As of May 31, 2021

technology minerals by 2040 to meet the goals laid out in the Paris Agreement.[1] Here, like timber, most investment activity is done outside of the closed-end fund structure: Large public companies account for the vast majority of invested dollars. Moreover, many of the mining companies targeting these high-profile metals underinvested in capital expenditure while prices were depressed and have not yet taken advantage of the price recovery to build out additional capacity. This means the supply shortage may last for years as the industry continues to exhibit extreme caution post-global financial crisis (GFC).

Turning to performance, the bifurcation witnessed in fundraising appears to be well-supported. Infrastructure funds continue to exhibit low return volatility—consistently staying in the 5% to 15% net IRR range. Even during the worst of the pandemic downturn, one-year pooled returns for infrastructure funds never dipped below zero. Oil & gas funds illustrated the link between the highly volatile commodity price and fund performance. However, the 2020 nadir in performance was even lower than following the price crash in 2015. One-year performance dipped below -30% in early 2020. Going into 2021 and beyond, performance will likely recover to some extent. Whether the positive returns are enough to make investors whole, let alone enough to commit more capital to the strategy, remains to be seen.

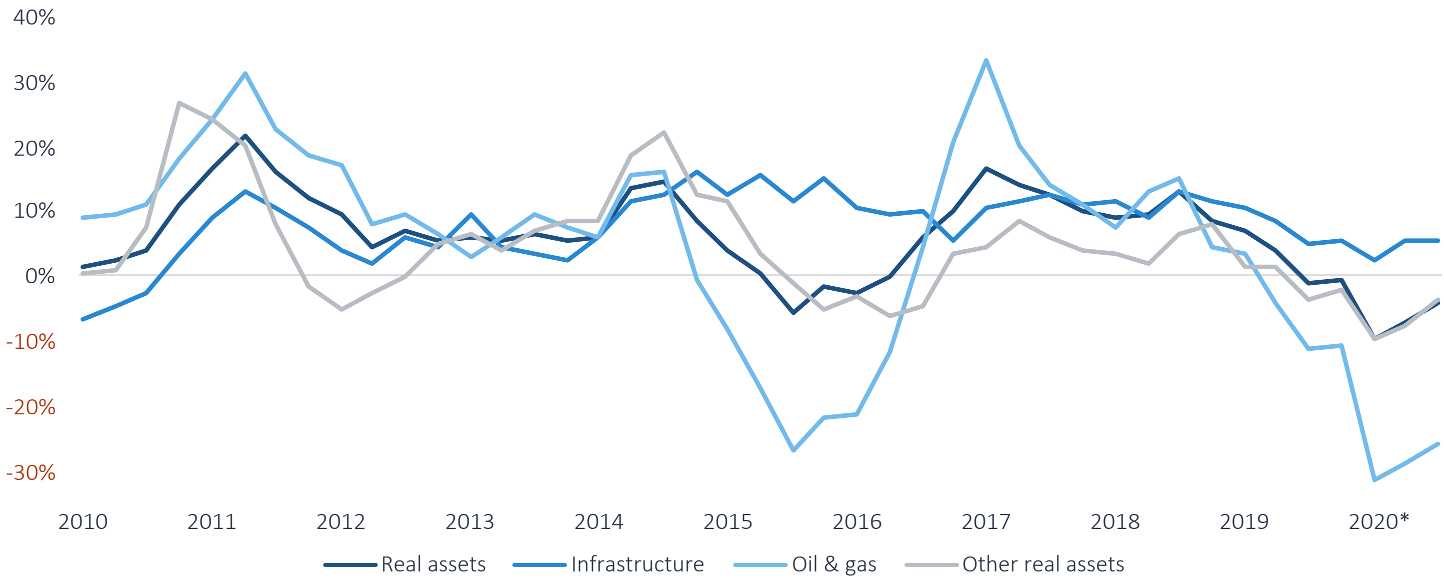
Real assets funds ($) by type



Source: PitchBook | **Geography**: Global
*As of March 31, 2021

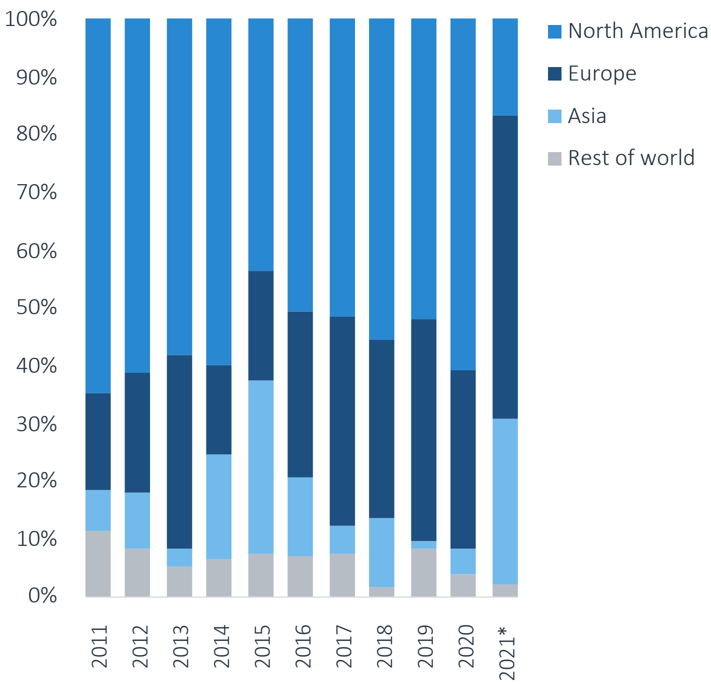
1: "The Role of Critical Minerals in Clean Energy Transitions," International Energy Agency, May 2021.

Real assets rolling one-year horizon IRR by strategy



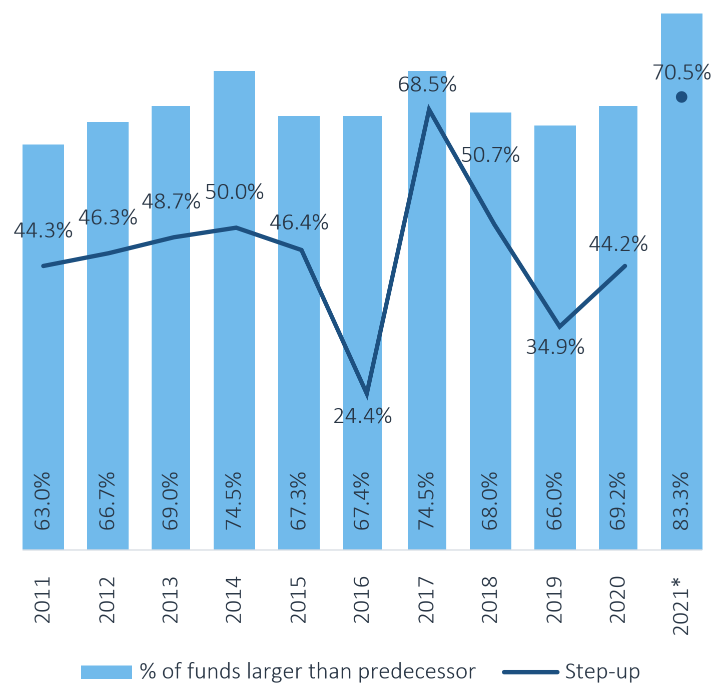
Source: PitchBook | **Geography:** Global
*As of September 30, 2020

Real assets funds ($) by region



Source: PitchBook | **Geography:** Global
*As of March 31, 2021

Real assets fund step-ups

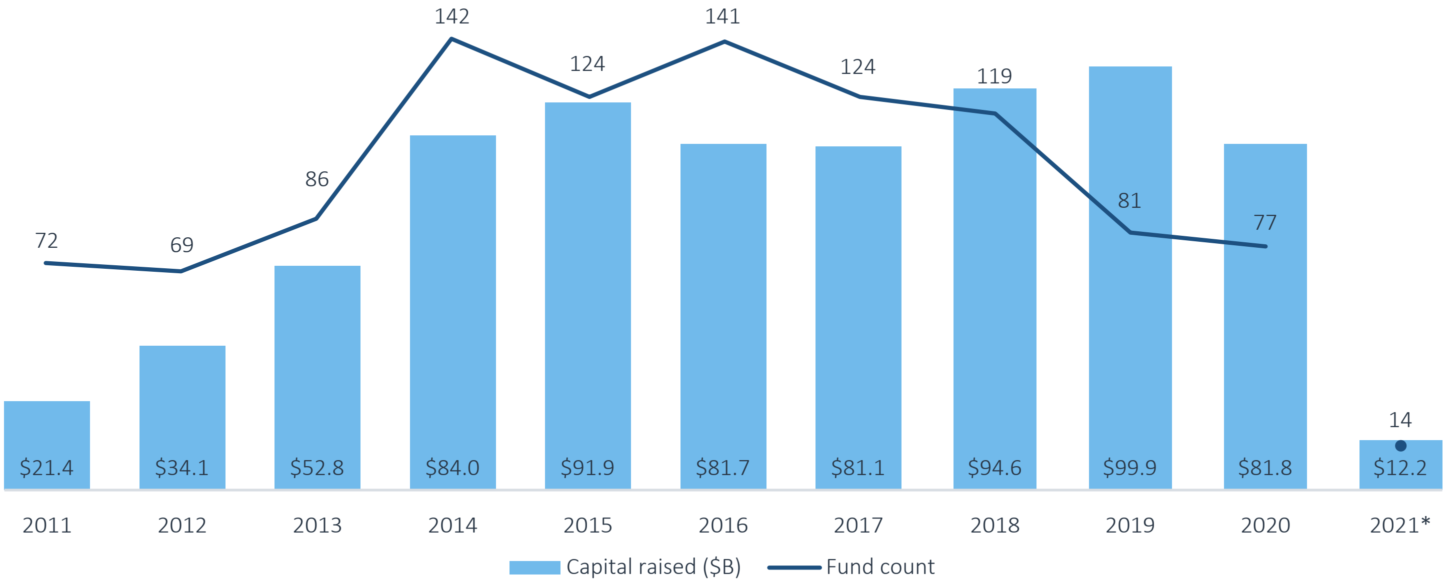


Source: PitchBook | **Geography:** Global
*As of March 31, 2021

PitchBook

Infrastructure

Infrastructure fundraising activity

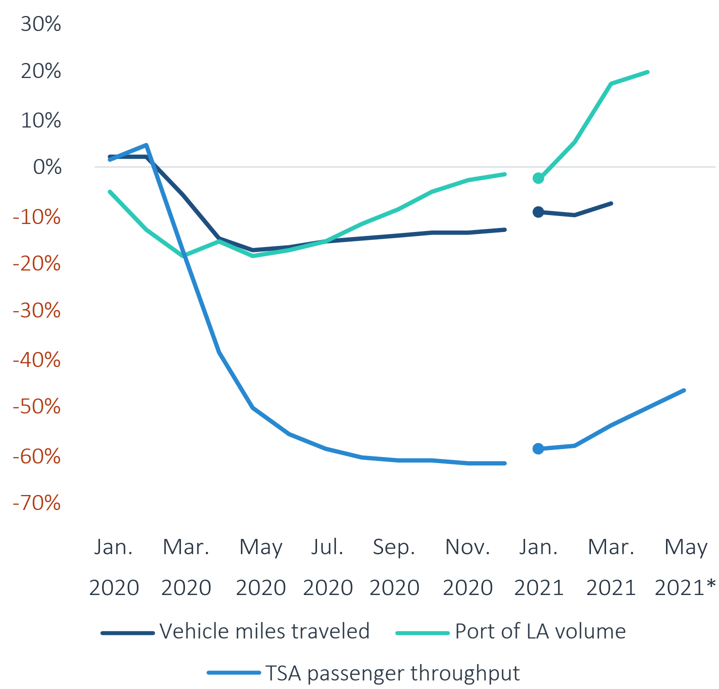


Source: PitchBook | **Geography**: Global
*As of March 31, 2021

Although infrastructure fundraising slowed over the past four quarters, the strategy has seen consistent fundraising levels for the past several years, and we expect more significant fundraises will take place in the coming quarters. The ebb of infrastructure fundraising over the past year is more attributable to the fact that the strategy is dominated by a small number of colossal funds—including Global Infrastructure Partners' $22.0 billion Fund IV and Brookfield Infrastructure Partners' (NYSE: BIP) $20.0 billion Infrastructure Fund IV, which closed in December 2019 and February 2020, respectively—than the pandemic downturn. Although COVID-19 undoubtedly dented the returns of some infrastructure assets, especially in the air and road verticals, the strategy's resilience proved the investment thesis and will likely continue to attract investors. Infrastructure funds have produced one-year horizon net IRRs around 10% since 2016 and significantly outperformed other real assets strategies in mid-2020, with quarterly IRR dropping to only -0.9% in Q1 2020 before bouncing back in Q2. In addition, inflation, whether resulting from fiscal stimulus and wage growth or local currency depreciation, can be a boon for infrastructure assets with pricing contracts tied to inflationary measures.

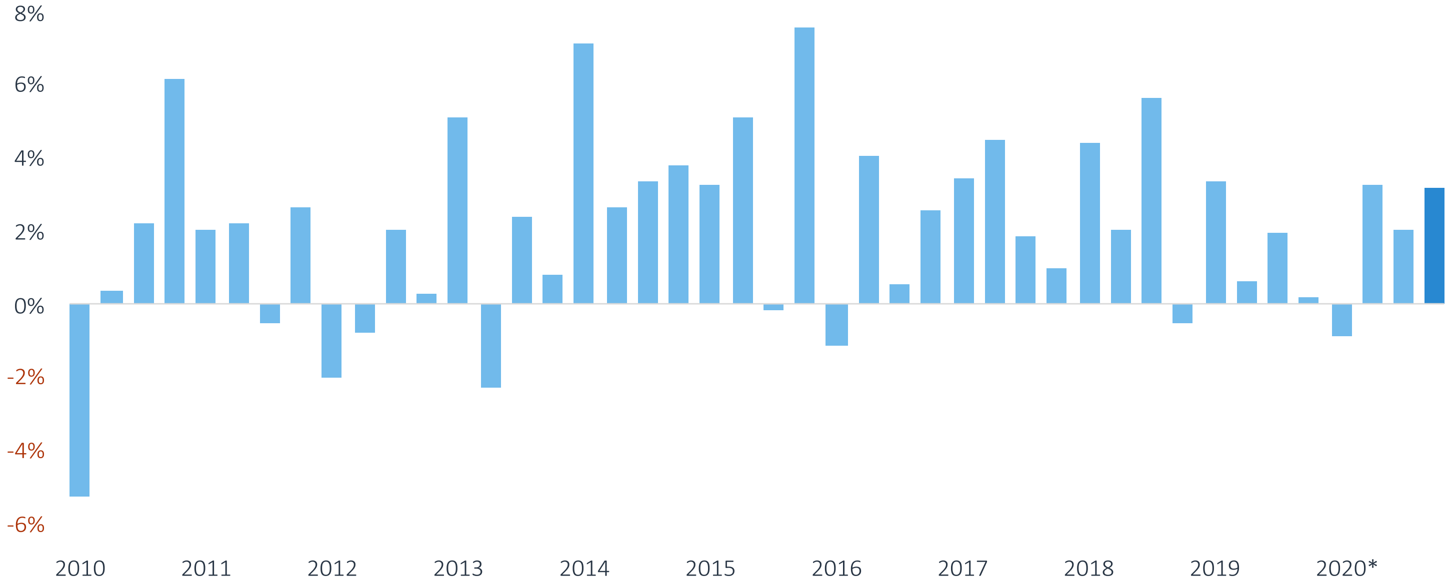
During the pandemic, infrastructure funds benefited from several factors. First, some infrastructure investment

Change in select macro data versus the same year-to-date period of 2019



Sources: Transportation Security Administration, Federal Reserve of St. Louis, Port of Los Angeles | **Geography**: US
*TSA data as of May 31, 2021, all other sources through April 30, 2021.

Infrastructure quarterly horizon IRRs



Source: PitchBook | **Geography:** Global
*As of December 31, 2020
Note: Q4 2020 data is preliminary.

areas, such as regulated utilities, are insulated from downturns because they provide essential services on long-term contracts. Second, some verticals that we expected to be severely affected surprised to the upside. Although global commerce appeared to be grinding to a halt in Q2 2020, government stimulus and the pivot toward e-commerce resulted in a rapid rebound in container shipping demand. In Q1 2021, Brookfield Infrastructure Partners reported a 20% increase in volume at its container terminals YoY, driven primarily by consumer goods.[2] Current backlogs at container ports will provide a boon to the owners of those assets for the foreseeable future. Travel restrictions, which continue in many parts of the world, have caused air and road traffic to recover more slowly, with neither yet recovering to pre-pandemic levels. However, we are beginning to see the effects of pent-up demand in the travel space as vaccination efforts progress.

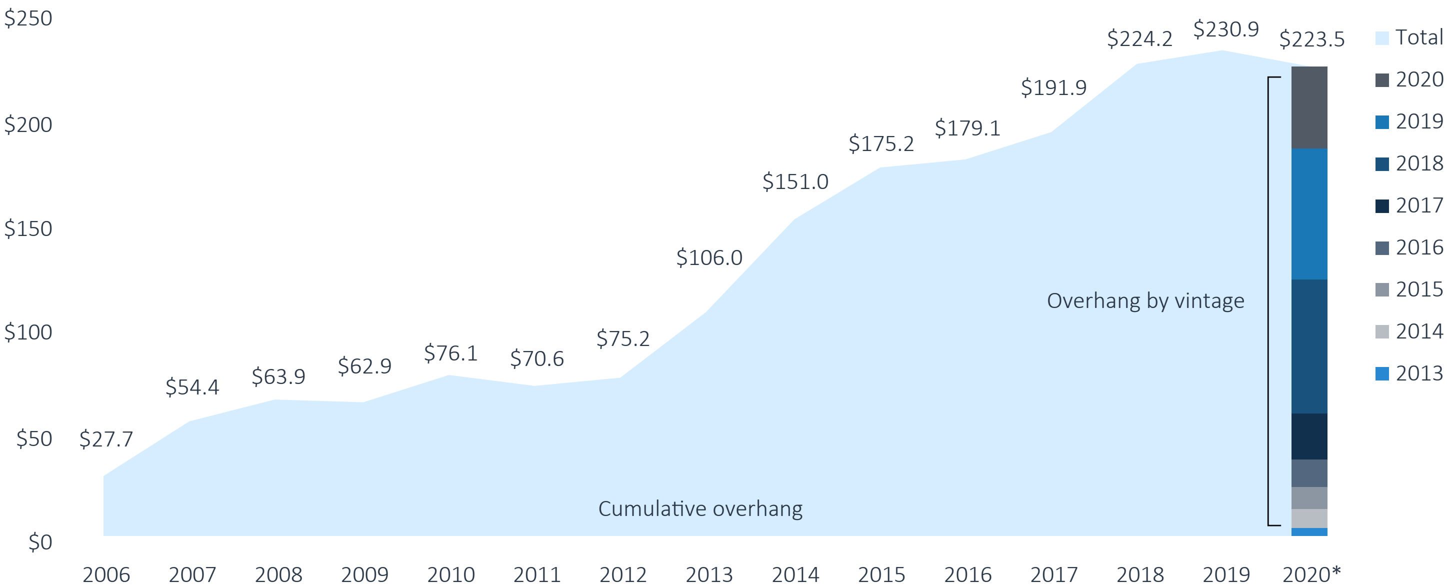
Infrastructure firms are carefully watching how government infrastructure spending responds in the aftermath of COVID-19. The pandemic dealt a severe blow to government budgets, especially at the local level, which many anticipated would increase opportunities for private infrastructure investment. Unprecedented rescue actions by many governments and a broader policy shift toward fiscal (as opposed to monetary) stimulus are partially throwing that assumption into question. Nevertheless, managers remain optimistic that the infrastructure investment gap that has been widening since the GFC—especially in North America and Europe—will continue to enable a significant role for private capital over the next five to 10 years.

In the US, bipartisan negotiations over the Biden administration's infrastructure proposal have stalled. The final shape of the package—including its size, scope, and the extent to which it utilizes PPPs—remains undetermined as of this writing. It will depend on whether a bipartisan group of senators can win broad acceptance for their yet-undisclosed proposal, or, as seems increasingly likely, President Biden's proposal is passed via budget reconciliation on a party-line vote. In theory, a compromise bill would be significantly smaller but leave substantial leeway for private fund involvement. By contrast, a purely Democratic bill would supercharge industries such as transportation and clean energy through direct government spending while potentially crowding out some private infrastructure investors.

Similar to the US, Canada has underinvested in infrastructure over the past decade or so and has traditionally leaned heavily on PPPs. With the Liberal Party committing an additional $10 billion (CAD) to the Canadian Investment Bank over the next three years—in addition to a 12-year, $188 billion plan launched in 2016—

2: Brookfield Infrastructure Partners L.P. Q1 2021 Results Conference Call & Webcast, earnings call transcript, May 6, 2021.

Infrastructure dry powder ($B) by vintage



Source: PitchBook | **Geography:** Global
*As of September 30, 2020

Canada will continue to provide fruitful infrastructure investment opportunities. Europe's InvestEU program also aims to incentivize private investment in clean energy transition infrastructure. By contrast, government infrastructure spending in the UK has shied away from PPPs in recent years.

Going forward, we expect to see continued interest in traditional transportation infrastructure areas. Signaling bullishness in international logistics, Kansas City Southern (NYSE: KSU) agreed to sell itself to Canadian National Railway (NYSE: CNI) at a $33.6 billion post-money valuation. The announcement comes after Kansas City Southern rebuffed a roughly $20 billion takeover offer from Global Infrastructure Partners and The Blackstone Group's (NYSE: BX) Blackstone Infrastructure Partners, then canceled an agreed merger with Canadian Pacific Railway (NYSE: CP) for around $25 billion. If it gains antitrust approval, the combination will connect Mexico, the United States, and Canada via a single railway for the first time.

Investors are also looking to renewable energy assets as a high-growth area with considerable regulatory tailwinds. Several of the largest infrastructure funds that closed in Q1 target renewables, including Macquarie Asset Managment's (NYSE: MIC) Green Investment Group Global Renewables Fund II, at $1.9 billion, and Excelsior Energy Capital's $503.8 million Renewable Energy Investment Fund I. In a noteworthy transaction, Norges Bank Investment Management (NBIM) agreed to buy a 50% stake in the world's second-largest operational windfarm for $1.6 billion. The deal will be NBIM's first renewable energy infrastructure investment. In addition to the potential for PPPs and tax incentives for energy transition investments, investors and creditors are increasingly conscious of the risks associated with lagging in the clean energy transition. These include an increased cost of capital, as lenders increasingly take environmental, social, and governance (ESG) factors into consideration, and regulatory intervention. This will drive further growth in renewables infrastructure.

Another red-hot substrategy has been digital infrastructure. The pandemic only heightened what was already a growing need for extensive connectivity and data infrastructure investment to underpin the growth of the digital economy. Cellular towers remain a key investment theme in Europe, while fiberoptic cable (especially so-called fiber-to-home connections) and hyperscale or enterprise-grade data centers present significant opportunities in both North America and Europe. Digital Colony, a subsidiary of Colony Capital (NYS: CLNY) that arose from a joint venture between Colony and Digital Bridge, has been one of the most active investors in the space over the past year. Investing out of a massive $4.05 billion first-time fundraise that closed in 2019, Digital Colony closed its acquisition of Boingo Wireless, an airport wifi provider, at an $854.0 million EV in early June. In addition to investing out of the Digital Colony fund, Colony has since made balance sheet investments in Digital Bridge portfolio companies DataBank, a retail data center provider, and Vantage Data Centers, which leases hyperscale data facilities to clients including Facebook (NASDAQ: FB), and has been rapidly expanding in North America and Europe.[3] In mid-May, Digital Colony also announced an agreement to acquire Landmark Dividend, another digital infrastructure firm managing data center assets, for $972.0 million.

Colony Capital's pivot and breakneck capital deployment pace underscores the combination of growth potential and resilience that many managers see in digital infrastructure. As software has increasingly penetrated every aspect of the built environment—from grid management to supply chain logistics—the line between digital services and physical assets is increasingly blurred. The importance of this integration was brought into stark relief in April 2021, when hackers used a compromised virtual private network (VPN) account to shut down operations of the US' largest fuel pipeline.[4] The space is quickly becoming more crowded: GI Partners' first Data Infrastructure Fund pulled in $1.8 billion in 2020, while Digital Alpha's Fund II closed in April at $1.0 billion. Digital Colony's Fund II is currently in the market, targeting $6.0 billion. Blackstone Infrastructure Partners has also stepped into the data game, partnering with Blackstone Real Estate Income Trust (BREIT) to take data center operator QTS Realty Trust private at a roughly $10 billion post-money valuation, including assumed debt. And in May, KKR announced the $2.8 billion acquisition of UK infrastructure investor John Laing Group, with its portfolio of transportation, social infrastructure, energy transition, and digital infrastructure assets.

In another mammoth digital infrastructure deal, Stonepeak Infrastructure Partners agreed in November 2020 to buy RCN Telecom Services (Astound Broadband) from TPG at an $8.1 billion valuation, including debt. Broadband providers have benefited from the pandemic, which caused many Americans to upgrade their internet services to accommodate working and learning from home. Finally, several digital infrastructure special purpose acquisition companies (SPACs) have gone public, including InterPrivate IV InfraTech Partners (NASDAQ: IPVI), which raised $287.5 million in its March IPO to invest in a TMT infrastructure company, and Starboard Value Acquisition (NASDAQ: SVAC), which announced a $3.4 billion merger with colocation data center operator Cyxtera in February. Although infrastructure funds, which are more focused on cash flow generation over long horizons than on exits, are unlikely to sell assets to these SPACs, their creation highlights the rush of capital flowing into the digital infrastructure space.

Total return for S&P Global Clean Energy Index

Source: Morningstar | **Geography**: Global
As of May 31, 2021

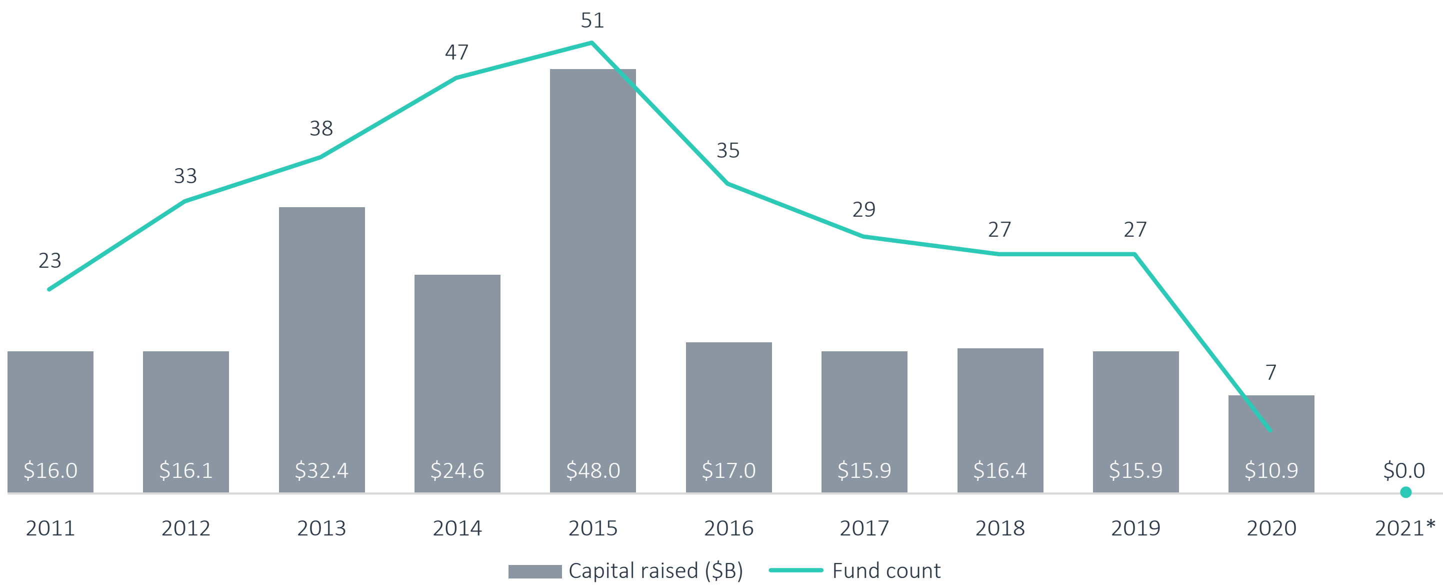
Total return for FTSE Nareit Data Centers

Source: Nareit | **Geography**: US
As of May 31, 2021

3: "Colony Leads $1.2B Equity Investment in Vantage Data Centers," DataCenter Knowledge, Yevgeniy Sverdlik, June 7, 2020.
4: "Hackers Breached Colonial Pipeline Using Compromised Password," *Bloomberg*, William Turton & Kartikay Mehrotra, June 4, 2021.

Oil & gas

Oil & gas fundraising activity



Source: PitchBook | **Geography:** Global
*As of March 31, 2021

Oil & gas fundraising and deal activity have fallen off dramatically since the start of 2020. Hamstrung by low energy prices and global pressures to adopt greener energy sources, fundraising for the sector has been battered for years. Through the first quarter of 2021, no oil & gas funds held a final close. After the COVID-19 lockdowns in early 2020, energy prices dropped further, and deal activity was severely depressed.

The adage of high prices cures high prices may not apply in the current environment. Because major oil producers have underinvested in production since the 2014 price collapse, it is more difficult to quickly bring new production online. Additionally, with environmental pressures, underinvestment will likely continue despite relatively high prices. Moreover, OPEC+ members are still likely to opportunistically lift production targets as WTI and Brent crest $70 a barrel, thus mitigating some of the upward pricing pressures from that point in the short term. For example, OPEC+ has decided to boost production and add an additional two million barrels per day by midsummer.[5] Going into 2022, however, oil futures traders are even more bullish. Traders have been buying December 2022 call options on WTI hitting $100 per barrel, which makes it the most held WTI contract on the New York Mercantile Exchange.[6]

With this backdrop, it is perhaps an attractive time to raise and deploy private capital vehicles targeting oil & gas assets. Prices for assets are relatively low despite the elevated oil price. The industry also has many forced sellers. In May, a Dutch court became the first to order an oil major to slash its carbon emissions—potentially setting a precedent for other European jurisdictions.[7] In turn, many of the oil majors—led by the European names, including Royal Dutch Shell (LON: RDSB), BP (NYSE: BP), and Total (PAR: TTE)—have led the transition toward greener energy sources. For example, BP is producing solar energy in Spain and wind energy from the Nordics as it builds out its corporate power-purchase agreement business.[8] These projects have lower returns and mean the oil majors may be competing with traditional utility businesses and power suppliers as they continue the pivot.

Beyond the pricing environment, few funds exist in the market that target traditional energy assets. Quantum Energy Partners' $4.5 billion fund is one of just a few

5: "OPEC+ To Gradually Boost Oil Production Ahead of Expected Summer Rebound In Demand," *NPR*, Camila Domonoske, April 1, 2021.
6: "Options Traders Bet on Return of $100 Oil," *The Wall Street Journal*, Joe Wallace, June 7, 2021.
7: "In a Landmark Case, a Dutch Court Orders Shell to Cut Its Carbon Emissions Faster," *NPR*, Jeff Brady, May 26, 2021.
8: "Oil Majors Look to Fill Businesses' Growing Appetite for Green Power," *The Wall Street Journal*, Sarah McFarlane, May 24, 2021.

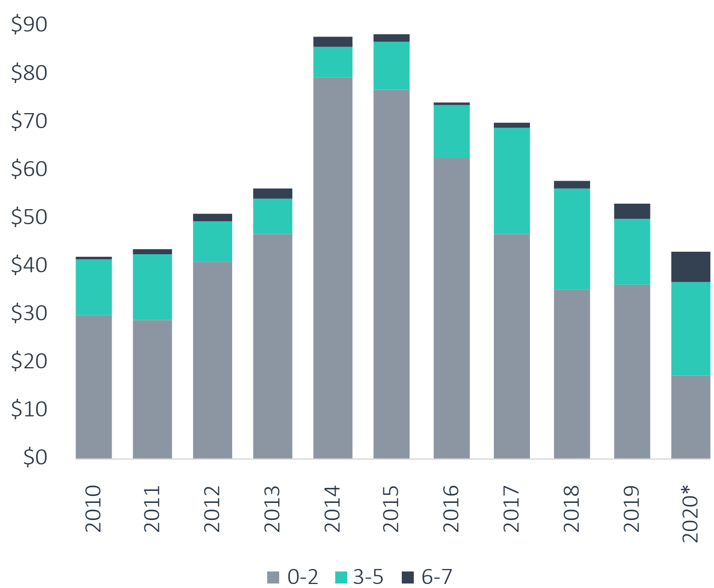
Quarterly IRRs for oil & gas funds

Source: PitchBook | **Geography:** Global
*As of December 31, 2020
Note: Q4 2020 data is preliminary.

examples in the space. Much of the attention has shifted to midstream assets, which we categorize as infrastructure in this report. The dearth of open funds targeting the strategy indicates that fundraising will remain weak for years to come. Over the longer term, the oil & gas space certainly faces challenging prospects. Electric cars could potentially reduce crude oil demand by 25 million barrels per day as internal combustion engine-powered vehicles are replaced. There is also a broad push to move away from single-use plastics. Despite these efforts, much of the world still relies on fossil fuels. Africa and much of South Asia will rely on oil & gas to fuel transportation and electrical needs for decades to come. Additionally, demand for petrochemicals will likely continue to grow. Other transportation methods—including aircraft, marine, and long-haul trucks—may prove more difficult than personal automobiles to electrify. All and all, demand for oil is not expected to change much, even as electric vehicles are rolled out globally.

Performance for oil & gas funds remains depressed. After posting returns that saw IRRs dip below -30%, the sector has not experienced the same kind of rebound as witnessed in PE, infrastructure, or other strategies. Returns for the three quarters following the dip have been flat. The current sustained upswing in oil prices ought to buoy fund returns in the coming quarters, though just how long it will take NAV to surpass its pre-pandemic peaks remains a question. Looking out even further into the future, we expect carbon taxes and higher costs of capital will have deleterious effects on oil & gas asset prices. However, demand for these resources is not expected to wane materially for years, if not decades. In the short term, an opportunity likely exists for eager oil & gas-focused PE firms to raise and deploy capital to take advantage of this situation.

Oil & gas dry powder ($B) by age (years)



Source: PitchBook | **Geography:** Global
*As of September 30, 2020